

2009 Pacific Northwest Loads & Resources Study

Operating Years 2010 through 2019

Technical Appendix Volume 2: Capacity Analysis

July 2009



Revised 11/30/2009



2009 PACIFIC NORTHWEST LOADS AND RESOURCES STUDY

The White Book

TECHNICAL APPENDIX

VOLUME 2

CAPACITY ANALYSIS

BONNEVILLE POWER ADMINISTRATION
July 2009

Revised 11/30/2009

Cover Picture:

Source: BPA Photo archive

Pictured is the overview of Bonneville Dam. Bonneville is one of the major dams on the Columbia River where it passes through the Cascade Mountains between Oregon and Washington. The dam, 2,690 ft (820 m) long and 197 ft (60 m) high, was built between 1933 and 1943 by the U.S. Corps of Engineers and was one of the largest hydroelectric projects undertaken under the New Deal. It is used for navigation, flood control, and power production. Locks permit ships to pass around the dam; fish ladders allow salmon to spawn upriver.

ACKNOWLEDGMENTS

Preparation of the annual Pacific Northwest loads and resources study is a complex, multidisciplinary effort. BPA wishes to acknowledge the team—BPA staff and others—whose diligence and dedication result in a reliable, high quality document.

Bonneville Power Administration

Generation Supply: Regional Coordination Group
Operational Planning Group

NW Requirements Marketing: Western Customer Services Group
Eastern Customer Services Group

Bulk Marketing and Transmission Services: Long Term Sales and
Purchasing Group

Customer Support Services: Load Forecasting and Analysis Group
Office of General Counsel

Pacific Northwest Utilities Conference Committee

Northwest Power & Conservation Council

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Loads and Resources Information System

**2009 Pacific Northwest Loads and Resources
For Operating Years 2010 Through 2019
Technical Appendix, Volume 2
Capacity Analysis**

TABLE OF CONTENTS

<i>Monthly Capacity for OY 2010 through 2019</i>	<i>Page</i>
Section 9: Monthly Federal System Loads & Resources	1
Loads & Resources 1-Hour Capacity for OY 2010 – 2019	3
Loads & Resources 120-Hour Capacity for OY 2010 – 2019	25
Section 10: Monthly Federal System 70-Water Year Surplus/Deficit	47
70-Water Year Surplus/Deficit 1-Hour Capacity for OY 2010 – 2019	49
70-Water Year Surplus/Deficit 120-Hour Capacity for OY 2010 – 2019	71
Section 11: Monthly Regional Loads & Resources	93
Loads & Resources 1-Hour Capacity for OY 2010 – 2019	95
Loads & Resources 120-Hour Capacity for OY 2010 – 2019	107
Section 12: Monthly Regional 70-Water Year Surplus/Deficit	119
70-Water Year Surplus/Deficit 1-Hour Capacity for OY 2010 – 2019	121
70-Water Year Surplus/Deficit 120-Hour Capacity for OY 2010 – 2019	143

TABLE OF CONTENTS

Section 13: Monthly A-Tables OY 2010 – 2019	165
Table A-1: Total Retail Loads	167
Table A-2: Exports	179
Table A-3: Regulated Hydro Projects	191
Table A-4: Independent Hydro Projects	213
Table A-5: Imports	235
Table A-6: Small Thermal & Miscellaneous	247
Table A-7: Combustion Turbines	259
Table A-8: Renewable Resources	271
Table A-9: Cogeneration	293
Table A-10: Large Thermal	305
Table A-15: Canadian Entitlement Return for Canada	327
Table A-16: Intra-Regional Transfers	349
Table A-17: Capacity Reserves	363
Table A-18: Wells & Chelan Allocation	405
Table A-19: Rocky Reach & Rock Island Allocation	417
Table A-20: Wanapum & Priest Rapids Allocation	429
Table A-21: Swift #1 & Swift #2 Allocation	441
Table A-22: BPA Power Sales Contracts 1-Hour	453
Table A-23: Non-Utility Generating Resources by Owner	465
Table A-24: Non-Utility Generating Resources by Project and Project Type	477
Table A-26: Dedicated Resources	519
Table A-27: Other Dedicated Resources	531

Section 9

Monthly Federal System Loads & Resources

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Monthly Federal System
Loads & Resources
1-Hour Capacity in Megawatts

For OY 2010 – 2019

Power Services

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Loads and Resources Information System

Loads and Resources - Federal System
PNW Loads and Resource Study
2009 - 2010 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	158	158	152	160	177	185	202	188	171	161	161	157	151	151
<i>USBR 2002 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2002 PSC</i>	17	17	17	17	17	17	17	17	17	17	17	17	17	17
<i>Fed. Agencies 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	372	372	373	212	194	203	219	205	213	439	439	460	427	437
Transfers Out														
<i>NGP 2002 PSC</i>	4014	4014	3857	4142	4622	5060	5217	4964	4410	4237	4237	4047	4069	4254
<i>GPU 2002 PSC</i>	2493	2493	2559	2673	3204	3425	3448	3413	3203	2795	2795	2516	2313	2474
<i>NGP 2002 Slice PSC</i>	789	590	580	850	981	1038	1051	947	917	724	687	1119	945	984
<i>GPU 2002 Slice PSC</i>	1314	983	965	1415	1634	1729	1750	1578	1528	1206	1144	1864	1575	1639
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2012 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1592	1592	1585	1539	1492	1497	1497	1496	1491	1515	1515	1581	1564	1571
<i>Regional Transfers (Out)</i>	1310	1310	1107	842	1046	1144	1146	1074	993	994	994	967	718	739
<i>Federal Diversity</i>	-474	-509	-549	-360	-333	-558	-339	-346	-389	-523	-539	-521	-510	-416
<i>Total Transfers Out</i>	11039	10473	10103	11100	12647	13335	13769	13126	12153	10949	10834	11573	10674	11245
<i>Total Firm Obligations</i>	11411	10844	10476	11312	12841	13538	13988	13331	12366	11388	11272	12034	11100	11682
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20631	20368	19914	19316	18560	18507	18832	19892	20506
<i>Independent Hydro</i>	630	642	576	636	604	413	354	405	559	609	728	855	920	690
<i>Operational Peaking Adj.</i>	-3367	-5945	-6951	-6255	-4887	-4671	-4626	-4982	-4869	-6164	-6950	-2007	-5423	-4151
<i>Non-Fed CER (Canada)</i>	236	236	236	236	236	236	236	236	236	244	244	244	244	244
<i>Total Hydro Resources</i>	17805	15231	14321	15183	16751	16609	16332	15573	15243	13249	12529	17924	15633	17288
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	25	25	25	27	29	30	32	31	30	29	29	27	26	24
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	528	528	247	119	420	398	322	321	313	312	312	15	17	16
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
<i>Non-Utility Generation</i>	34	34	17	32	41	32	32	32	32	32	32	49	32	29
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1954	1954	1660	1654	1998	2067	1994	1928	1920	1949	1949	1492	1422	1437
<i>Total Resources</i>	19760	17185	15980	16837	18749	18675	18326	17501	17163	15198	14478	19416	17055	18725
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-565	-566	-568	-572	-577	-568	-560	-550	-539	-521	-523	-535	-562	-572
<i>Contingency Reserves (Spinning)</i>	-332	-270	-266	-338	-378	-396	-401	-370	-361	-308	-296	-433	-377	-389
<i>Generation Imbalance Reserves</i>	-666	-666	-666	-666	-666	-666	-694	-748	-748	-779	-779	-779	-779	-779
<i>Load Following Reserves</i>	-251	-251	-251	-251	-251	-251	-256	-266	-266	-272	-272	-272	-272	-272
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-492	-425	-384	-411	-475	-500	-503	-458	-447	-377	-362	-524	-450	-467

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-5569	-4937	-4904	-4989	-5053	-4248	-3821	-4276	-4276	-4319	-4038	-4299	-4076	-5264
<i>Total Net Resources</i>	14190	12248	11076	11848	13696	14428	14505	13225	12887	10878	10440	15116	12979	13461
<i>Total Firm Surplus/Deficit</i>	2779	1403	600	536	855	890	516	-106	522	-510	-833	3083	1878	1779

Loads and Resources - Federal System
PNW Loads and Resource Study
2010 - 2011 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	162	162	156	164	182	191	206	191	174	163	163	159	153	153
<i>USBR 2002 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2002 PSC</i>	17	17	17	17	17	17	17	17	17	17	17	17	17	17
<i>Fed. Agencies 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	376	376	377	216	200	209	223	208	216	441	441	463	429	438
Transfers Out														
<i>NGP 2002 PSC</i>	4086	4086	3926	4216	4702	5143	5299	5045	4488	4312	4312	4119	4140	4330
<i>GPU 2002 PSC</i>	2520	2520	2586	2698	3225	3448	3472	3438	3227	2820	2820	2538	2336	2488
<i>NGP 2002 Slice PSC</i>	1008	841	766	833	980	1026	1036	926	910	704	586	1010	840	1004
<i>GPU 2002 Slice PSC</i>	1678	1401	1276	1387	1632	1709	1726	1542	1515	1172	975	1681	1399	1672
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2012 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1567	1567	1559	1514	1474	1479	1479	1478	1473	1497	1497	1556	1562	1570
<i>Regional Transfers (Out)</i>	893	893	707	842	1039	1137	1139	1074	993	994	994	967	718	739
<i>Federal Diversity</i>	-483	-520	-561	-366	-340	-568	-345	-352	-397	-532	-548	-531	-520	-422
<i>Total Transfers Out</i>	11268	10788	10259	11124	12712	13375	13806	13153	12209	10967	10636	11341	10475	11380
<i>Total Firm Obligations</i>	11644	11164	10637	11340	12912	13584	14029	13361	12424	11409	11078	11804	10904	11818
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20631	20368	19914	19316	18560	18507	18832	19892	20506
<i>Independent Hydro</i>	630	642	576	636	604	413	354	405	559	609	728	855	920	690
<i>Operational Peaking Adj.</i>	-3010	-5596	-6612	-6044	-4486	-4378	-4398	-4906	-4623	-6109	-6808	-1968	-5336	-3595
<i>Non-Fed CER (Canada)</i>	244	244	244	244	244	244	244	244	244	242	242	242	242	242
<i>Total Hydro Resources</i>	18170	15588	14668	15402	17160	16910	16568	15657	15497	13303	12670	17961	15718	17842
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	25	25	25	27	29	30	32	31	30	29	29	27	26	24
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	17	17	37	35	335	313	312	312	311	310	310	12	13	13
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	0	1150
<i>Non-Utility Generation</i>	34	34	17	32	41	32	32	32	32	32	32	49	32	29
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1444	1444	1450	1570	1913	1982	1985	1919	1918	1947	797	338	268	1434
<i>Total Resources</i>	19614	17031	16118	16972	19073	18892	18553	17575	17415	15249	13466	18299	15986	19277
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-565	-566	-568	-572	-577	-568	-560	-550	-539	-521	-483	-494	-522	-572
<i>Contingency Reserves (Spinning)</i>	-400	-348	-324	-343	-388	-403	-406	-372	-367	-309	-261	-395	-340	-403
<i>Generation Imbalance Reserves</i>	-939	-939	-939	-1013	-1013	-1031	-1031	-1031	-1031	-1031	-1031	-1031	-1031	-1031
<i>Load Following Reserves</i>	-306	-306	-306	-321	-321	-325	-325	-325	-325	-325	-325	-325	-325	-325
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-474	-406	-376	-401	-471	-492	-497	-449	-443	-369	-320	-479	-406	-474

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-5947	-5324	-5281	-5402	-5476	-4686	-4227	-4610	-4621	-4616	-4225	-4480	-4260	-5590
<i>Total Net Resources</i>	13667	11707	10836	11570	13597	14206	14326	12965	12794	10633	9242	13819	11726	13687
<i>Total Firm Surplus/Deficit</i>	2023	543	200	230	685	622	297	-396	370	-776	-1836	2015	821	1869

Loads and Resources - Federal System
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	165	165	158	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	197	197	205	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	17	17	17	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	0	0	0	166	186	195	210	194	177	166	166	162	155	155
<i>USBR 2012 PSC</i>	0	0	0	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	379	379	380	202	186	195	210	194	201	426	426	449	414	423
Transfers Out														
<i>NGP 2002 PSC</i>	4154	4154	3994	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	2541	2541	2609	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	1012	813	719	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	1686	1353	1198	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	0	0	0	4666	5213	5677	5854	5489	4942	4744	4744	4589	4594	4799
<i>GPU 2012 PSC</i>	0	0	0	1658	1970	2176	2184	1996	1879	1702	1702	1528	1476	1487
<i>NGP 2012 Slice PSC</i>	0	0	0	518	592	605	612	548	556	418	396	674	547	566
<i>GPU 2012 Slice PSC</i>	0	0	0	2115	2414	2467	2497	2234	2267	1705	1614	2750	2231	2309
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1567	1567	1560	1466	1420	1421	1419	1420	1419	1448	1448	1511	1512	1513
<i>Regional Transfers (Out)</i>	724	724	132	267	464	562	564	499	418	419	419	162	143	164
<i>Federal Diversity</i>	-494	-531	-572	-312	-287	-486	-300	-299	-335	-449	-463	-464	-462	-375
<i>Total Transfers Out</i>	11191	10621	9641	10379	11784	12422	12831	11886	11146	9986	9859	10751	10042	10463
<i>Total Firm Obligations</i>	11570	11000	10020	10581	11971	12618	13041	12080	11347	10413	10286	11200	10456	10886
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20631	20368	19914	19316	18560	18507	18832	19892	20506
<i>Independent Hydro</i>	630	642	576	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-2758	-5761	-7005	-5903	-4599	-4789	-4714	-5117	-4549	-6203	-6968	-1898	-5642	-4473
<i>Non-Fed CER (Canada)</i>	242	242	242	242	242	242	242	242	242	238	238	238	238	238
<i>Total Hydro Resources</i>	18421	15421	14272	15534	17035	16484	16241	15433	15555	13188	12489	18005	15385	16940
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	25	25	25	27	29	30	32	31	30	29	29	27	26	24
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	14	14	35	28	328	305	305	305	305	305	305	4.5	4.5	4.5
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
<i>Non-Utility Generation</i>	34	34	17	32	41	32	19	3	3	3	3	3	3	3
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1441	1441	1447	1562	1905	1973	1964	1882	1882	1912	1912	1435	1380	1400
<i>Total Resources</i>	19861	16862	15720	17096	18940	18457	18205	17315	17437	15100	14401	19441	16765	18340
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-565	-566	-568	-572	-577	-568	-560	-549	-538	-520	-522	-533	-561	-571
<i>Contingency Reserves (Spinning)</i>	-406	-344	-314	-348	-387	-394	-399	-367	-369	-307	-296	-435	-372	-381
<i>Generation Imbalance Reserves</i>	-1089	-1089	-1089	-1148	-1148	-1148	-1201	-1201	-1201	-1201	-1201	-1201	-1201	-1201
<i>Load Following Reserves</i>	-341	-341	-341	-356	-356	-356	-370	-370	-370	-370	-370	-370	-370	-370
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-476	-394	-356	-399	-461	-473	-478	-434	-437	-356	-342	-507	-423	-437

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6141	-5494	-5438	-5575	-5635	-4806	-4416	-4804	-4831	-4817	-4536	-4803	-4562	-5745
<i>Total Net Resources</i>	13721	11367	10282	11521	13306	13651	13789	12510	12607	10283	9865	14638	12202	12595
<i>Total Firm Surplus/Deficit</i>	2151	367	261	940	1335	1034	748	430	1259	-129	-421	3438	1746	1709

Loads and Resources - Federal System
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	168	168	160	169	189	198	212	197	178	168	168	164	156	157
<i>USBR 2012 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	365	365	364	205	190	198	212	197	203	429	429	450	415	425
Transfers Out														
<i>NGP 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	4645	4645	4451	4757	5306	5773	5950	5634	5031	4831	4831	4661	4681	4894
<i>GPU 2012 PSC</i>	1492	1492	1482	1679	1989	2194	2203	2078	1898	1722	1722	1549	1497	1508
<i>NGP 2012 Slice PSC</i>	602	479	429	515	594	608	609	544	551	423	380	611	470	604
<i>GPU 2012 Slice PSC</i>	2457	1953	1751	2100	2424	2481	2485	2219	2248	1727	1552	2495	1919	2463
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1514	1514	1512	1466	1420	1421	1419	1420	1419	1448	1448	1511	1512	1513
<i>Regional Transfers (Out)</i>	130	130	132	267	464	562	564	499	418	419	419	162	143	164
<i>Federal Diversity</i>	-432	-465	-498	-316	-291	-491	-303	-304	-338	-454	-468	-467	-466	-380
<i>Total Transfers Out</i>	10407	9748	9259	10468	11906	12548	12927	12090	11227	10116	9885	10522	9756	10766
<i>Total Firm Obligations</i>	10772	10113	9624	10672	12096	12746	13139	12287	11429	10545	10313	10972	10171	11191
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20631	20368	19914	19316	18560	18507	18832	19892	20506
<i>Independent Hydro</i>	615	627	566	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-3140	-6107	-7203	-5831	-4393	-4577	-4500	-4930	-4386	-5836	-7012	-1790	-5813	-3464
<i>Non-Fed CER (Canada)</i>	238	238	238	238	238	238	238	238	238	234	234	234	234	234
<i>Total Hydro Resources</i>	18019	15055	14060	15603	17237	16692	16450	15616	15715	13550	12441	18109	15210	17945
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	25	25	25	27	29	30	32	31	30	29	29	27	26	24
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	4.5	4.5	28	28	328	305	305	305	305	305	305	4.5	4.5	4.5
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
<i>Non-Utility Generation</i>	3	3	3	3	3	3	3	3	3	3	3	3	3	3
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1401	1401	1426	1533	1867	1944	1948	1882	1882	1912	1912	285	230	1400
<i>Total Resources</i>	19420	16456	15486	17136	19104	18636	18398	17498	17597	15462	14353	18394	15440	19345
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-564	-564	-567	-571	-576	-567	-559	-549	-538	-520	-522	-493	-521	-571
<i>Contingency Reserves (Spinning)</i>	-397	-335	-310	-349	-391	-398	-404	-372	-374	-316	-295	-399	-328	-407
<i>Generation Imbalance Reserves</i>	-1201	-1201	-1201	-1238	-1238	-1238	-1404	-1404	-1404	-1404	-1404	-1404	-1404	-1404
<i>Load Following Reserves</i>	-370	-370	-370	-378	-378	-378	-416	-416	-416	-416	-416	-416	-416	-416
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-456	-376	-344	-397	-463	-475	-476	-431	-434	-360	-332	-467	-373	-461

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6252	-5608	-5562	-5685	-5751	-4923	-4667	-5055	-5080	-5078	-4774	-4934	-4677	-6043
<i>Total Net Resources</i>	13168	10848	9924	11451	13353	13713	13731	12443	12517	10385	9579	13460	10762	13302
<i>Total Firm Surplus/Deficit</i>	2396	736	300	779	1258	967	592	156	1088	-160	-734	2488	591	2111

Loads and Resources - Federal System
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	169	169	161	171	191	200	236	216	195	182	182	179	173	169
<i>USBR 2012 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	366	366	366	207	192	200	236	217	220	443	443	466	432	438
Transfers Out														
<i>NGP 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	4736	4736	4538	4844	5397	5869	6049	5728	5117	4916	4916	4758	4765	4983
<i>GPU 2012 PSC</i>	1513	1513	1503	1704	2015	2220	2229	2104	1923	1747	1747	1574	1522	1533
<i>NGP 2012 Slice PSC</i>	593	473	433	515	595	611	609	544	551	423	381	667	528	606
<i>GPU 2012 Slice PSC</i>	2418	1930	1766	2101	2426	2495	2484	2218	2246	1727	1555	2721	2153	2473
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1514	1514	1512	1466	1420	1421	1419	1420	1420	1448	1448	1511	1512	1513
<i>Regional Transfers (Out)</i>	130	130	132	267	464	562	564	499	418	419	419	162	108	130
<i>Federal Diversity</i>	-437	-470	-503	-319	-294	-496	-307	-308	-343	-460	-474	-474	-472	-384
<i>Total Transfers Out</i>	10466	9826	9380	10579	12023	12682	13047	12205	11333	10220	9993	10919	10114	10854
<i>Total Firm Obligations</i>	10832	10192	9746	10785	12215	12883	13283	12422	11552	10664	10437	11385	10546	11291
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20615	20335	19877	19275	18536	18507	18832	19892	20506
<i>Independent Hydro</i>	615	627	566	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-3072	-5962	-6870	-5610	-4163	-4273	-4398	-4826	-4278	-5746	-6926	-1712	-5735	-3326
<i>Non-Fed CER (Canada)</i>	234	234	234	234	234	234	234	234	234	233	233	233	233	233
<i>Total Hydro Resources</i>	18083	15196	14389	15819	17463	16976	16515	15680	15777	13616	12525	18187	15287	18081
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	25	25	25	27	29	30	32	31	30	29	29	27	26	24
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	4.5	4.5	28	28	278	255	255	255	255	255	255	4.5	4.5	4.5
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
<i>Non-Utility Generation</i>	3	3	3	3	3	3	3	3	3	3	3	3	3	3
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1401	1401	1426	1533	1817	1894	1898	1832	1832	1862	1862	1435	1380	1400
<i>Total Resources</i>	19484	16597	15815	17352	19281	18870	18413	17512	17609	15478	14387	19622	16667	19481
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-564	-564	-567	-571	-576	-567	-558	-548	-537	-520	-522	-533	-561	-571
<i>Contingency Reserves (Spinning)</i>	-398	-339	-318	-354	-397	-406	-406	-373	-375	-318	-297	-439	-369	-410
<i>Generation Imbalance Reserves</i>	-1404	-1404	-1404	-1404	-1411	-1411	-1471	-1471	-1471	-1471	-1471	-1471	-1471	-1527
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-450	-372	-346	-397	-462	-476	-474	-429	-432	-358	-331	-503	-409	-461

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6496	-5856	-5821	-5894	-5966	-5141	-4733	-5121	-5146	-5144	-4842	-5119	-4862	-6169
<i>Total Net Resources</i>	12988	10741	9994	11458	13315	13729	13680	12391	12463	10334	9546	14503	11805	13312
<i>Total Firm Surplus/Deficit</i>	2156	549	248	672	1100	846	397	-31	911	-330	-891	3119	1259	2021

Loads and Resources - Federal System
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	187	187	177	188	211	222	242	222	200	187	187	183	178	173
<i>USBR 2012 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	383	383	381	223	212	223	243	222	225	448	448	470	437	441
Transfers Out														
<i>NGP 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	4825	4825	4623	4929	5485	5962	6143	5817	5198	4998	4998	4842	4849	5071
<i>GPU 2012 PSC</i>	1538	1538	1528	1727	2039	2245	2253	2128	1947	1770	1770	1597	1545	1556
<i>NGP 2012 Slice PSC</i>	593	474	432	514	593	624	607	541	550	423	381	613	473	607
<i>GPU 2012 Slice PSC</i>	2420	1932	1762	2095	2420	2545	2475	2205	2246	1726	1555	2499	1930	2475
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1514	1514	1512	1466	1420	1421	1419	1420	1420	1448	1448	1496	1496	1498
<i>Regional Transfers (Out)</i>	130	130	132	267	464	562	564	499	418	419	419	162	108	130
<i>Federal Diversity</i>	-443	-477	-510	-323	-298	-503	-310	-311	-346	-464	-478	-479	-477	-389
<i>Total Transfers Out</i>	10577	9936	9479	10675	12124	12855	13151	12299	11433	10320	10093	10729	9925	10948
<i>Total Firm Obligations</i>	10960	10320	9860	10898	12335	13078	13393	12521	11657	10768	10541	11199	10361	11389
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20557	20212	19743	19120	18449	18507	18832	19892	20506
<i>Independent Hydro</i>	615	627	566	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-2933	-5823	-6738	-5488	-4004	-3806	-4222	-4657	-4028	-5563	-6828	-1613	-5596	-3243
<i>Non-Fed CER (Canada)</i>	233	233	233	233	233	233	233	233	233	231	231	231	231	231
<i>Total Hydro Resources</i>	18221	15335	14520	15940	17621	17384	16568	15714	15870	13710	12622	18283	15424	18163
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	25	25	25	27	29	30	32	31	30	29	29	27	26	24
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
<i>Non-Utility Generation</i>	3	3	3	3	3	3	3	3	3	3	3	3	3	3
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1401	1401	1403	1510	1544	1644	1648	1582	1582	1612	1612	285	230	1400
<i>Total Resources</i>	19622	16735	15922	17450	19166	19028	18216	17296	17453	15322	14234	18568	15654	19563
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-564	-564	-567	-571	-576	-565	-555	-545	-533	-517	-522	-493	-521	-571
<i>Contingency Reserves (Spinning)</i>	-402	-342	-322	-357	-401	-416	-407	-374	-378	-320	-300	-403	-334	-412
<i>Generation Imbalance Reserves</i>	-1527	-1527	-1527	-1527	-1570	-1570	-1570	-1570	-1570	-1570	-1570	-1570	-1610	-1610
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-451	-373	-346	-396	-452	-476	-464	-419	-423	-350	-322	-467	-373	-461

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6622	-5982	-5946	-6019	-6119	-5309	-4820	-5207	-5235	-5234	-4934	-5104	-4889	-6254
<i>Total Net Resources</i>	12999	10753	9976	11432	13046	13720	13396	12090	12218	10088	9300	13464	10765	13308
<i>Total Firm Surplus/Deficit</i>	2039	433	116	533	711	642	3.0	-432	561	-680	-1241	2265	404	1919

Loads and Resources - Federal System
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	191	191	181	192	217	228	245	223	203	189	189	185	180	175
<i>USBR 2012 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	388	388	385	228	217	229	245	224	227	450	450	472	439	443
Transfers Out														
<i>NGP 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	4910	4910	4706	5016	5576	6057	6240	5856	5289	5083	5083	4928	4935	5161
<i>GPU 2012 PSC</i>	1562	1562	1551	1781	2095	2302	2311	2122	2002	1825	1825	1650	1598	1609
<i>NGP 2012 Slice PSC</i>	594	474	433	516	595	613	611	546	553	424	382	671	532	611
<i>GPU 2012 Slice PSC</i>	2422	1935	1765	2104	2429	2503	2492	2227	2255	1728	1557	2739	2171	2494
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1498	1498	1496	1466	1420	1421	1419	1420	1420	1448	1448	1434	1435	1425
<i>Regional Transfers (Out)</i>	130	130	132	267	464	562	564	499	418	419	419	162	108	130
<i>Federal Diversity</i>	-448	-482	-515	-328	-302	-510	-315	-313	-351	-471	-485	-486	-484	-394
<i>Total Transfers Out</i>	10669	10028	9567	10822	12278	12948	13323	12356	11585	10456	10229	11099	10295	11037
<i>Total Firm Obligations</i>	11057	10416	9953	11050	12495	13177	13568	12580	11812	10906	10679	11571	10734	11480
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20615	20335	19877	19275	18536	18507	18832	19892	20506
<i>Independent Hydro</i>	615	627	566	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-2850	-5740	-6655	-5405	-3933	-4044	-4229	-4656	-4108	-5577	-6757	-1542	-5529	-3176
<i>Non-Fed CER (Canada)</i>	231	231	231	231	231	231	231	231	231	225	225	225	225	225
<i>Total Hydro Resources</i>	18302	15416	14601	16022	17690	17203	16682	15846	15943	13777	12687	18348	15485	18224
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	25	25	25	27	29	30	32	31	30	0	0	0	0	0
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
<i>Non-Utility Generation</i>	3	3	3	53	53	53	53	53	53	53	53	53	53	53
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1401	1401	1403	1560	1594	1694	1698	1632	1632	1633	1633	1458	1404	1426
<i>Total Resources</i>	19703	16816	16004	17582	19285	18897	18379	17478	17576	15410	14319	19806	16889	19650
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-564	-564	-567	-572	-577	-568	-560	-549	-538	-520	-522	-534	-562	-571
<i>Contingency Reserves (Spinning)</i>	-404	-344	-324	-360	-402	-411	-410	-378	-379	-321	-301	-443	-374	-413
<i>Generation Imbalance Reserves</i>	-1610	-1610	-1610	-1610	-1641	-1641	-1641	-1641	-1641	-1641	-1641	-1641	-1677	-1677
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-450	-373	-346	-398	-454	-469	-467	-422	-425	-350	-323	-503	-410	-462

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6708	-6068	-6032	-6107	-6195	-5371	-4901	-5289	-5314	-5309	-5007	-5292	-5073	-6324
<i>Total Net Resources</i>	12995	10749	9972	11475	13089	13526	13478	12189	12262	10101	9312	14513	11816	13326
<i>Total Firm Surplus/Deficit</i>	1939	333	19	424	594	349	-90	-391	450	-806	-1366	2943	1082	1846

Loads and Resources - Federal System
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	194	194	183	194	220	231	327	291	259	237	237	237	235	216
<i>USBR 2012 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	391	391	388	230	220	232	327	292	284	498	498	524	494	485
Transfers Out														
<i>NGP 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	4999	4999	4791	5103	5666	6151	6338	6004	5375	5168	5168	5015	5021	5250
<i>GPU 2012 PSC</i>	1615	1615	1604	1818	2131	2337	2346	2221	2038	1861	1861	1687	1635	1647
<i>NGP 2012 Slice PSC</i>	598	479	437	518	595	626	608	542	552	425	383	617	477	611
<i>GPU 2012 Slice PSC</i>	2441	1954	1783	2112	2428	2552	2481	2212	2252	1732	1561	2516	1948	2493
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1425	1425	1425	1395	1395	1395	1395	1395	1395	1425	1425	1425	1425	1425
<i>Regional Transfers (Out)</i>	130	130	132	267	464	562	564	499	418	419	419	162	108	130
<i>Federal Diversity</i>	-455	-489	-523	-333	-306	-518	-323	-324	-360	-481	-496	-498	-497	-403
<i>Total Transfers Out</i>	10754	10113	9649	10880	12372	13106	13409	12549	11671	10549	10321	10923	10118	11154
<i>Total Firm Obligations</i>	11145	10503	10037	11110	12593	13337	13736	12841	11954	11047	10819	11447	10613	11638
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20557	20212	19743	19120	18449	18507	18832	19892	20506
<i>Independent Hydro</i>	615	627	566	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-2783	-5673	-6588	-5337	-3875	-3678	-4093	-4528	-3900	-5434	-6700	-1451	-5475	-3121
<i>Non-Fed CER (Canada)</i>	225	225	225	225	225	225	225	225	225	223	223	223	223	223
<i>Total Hydro Resources</i>	18363	15477	14662	16083	17742	17505	16689	15835	15991	13830	12742	18437	15538	18276
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
<i>Non-Utility Generation</i>	53	53	53	53	53	53	53	53	53	53	53	53	53	53
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1426	1426	1428	1533	1566	1664	1666	1601	1602	1633	1633	308	254	1426
<i>Total Resources</i>	19789	16903	16090	17616	19307	19168	18354	17435	17593	15463	14375	18745	15791	19702
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-565	-565	-568	-572	-577	-566	-556	-545	-534	-518	-522	-493	-521	-571
<i>Contingency Reserves (Spinning)</i>	-405	-345	-325	-361	-403	-418	-410	-377	-380	-323	-302	-406	-336	-415
<i>Generation Imbalance Reserves</i>	-1677	-1677	-1677	-1677	-1698	-1698	-1698	-1698	-1698	-1698	-1698	-1732	-1732	-1732
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-451	-373	-346	-397	-453	-476	-465	-419	-424	-350	-323	-467	-374	-462

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6777	-6137	-6101	-6173	-6251	-5440	-4951	-5338	-5366	-5366	-5066	-5271	-5014	-6380
<i>Total Net Resources</i>	13012	10766	9989	11442	13056	13728	13403	12097	12226	10097	9309	13474	10778	13323
<i>Total Firm Surplus/Deficit</i>	1868	262	-48	333	463	391	-333	-744	272	-950	-1510	2027	165	1684

Loads and Resources - Federal System
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	254	254	233	249	288	306	330	294	261	240	240	239	237	218
<i>USBR 2012 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	451	451	437	285	289	306	330	294	286	501	501	526	496	487
Transfers Out														
<i>NGP 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	5087	5087	4876	5188	5757	6245	6437	6099	5464	5256	5256	5101	5109	5342
<i>GPU 2012 PSC</i>	1653	1653	1642	1865	2178	2384	2393	2268	2085	1908	1908	1734	1681	1693
<i>NGP 2012 Slice PSC</i>	598	479	437	518	599	617	614	549	554	427	385	672	532	611
<i>GPU 2012 Slice PSC</i>	2441	1953	1782	2112	2445	2518	2507	2241	2261	1741	1570	2740	2172	2493
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1425	1425	1425	1395	1395	1395	1395	1395	1350	1350	1350	1350	1350	1350
<i>Regional Transfers (Out)</i>	130	130	132	267	382	480	482	417	377	378	378	162	108	130
<i>Federal Diversity</i>	-467	-502	-536	-342	-314	-531	-328	-328	-365	-488	-503	-505	-504	-409
<i>Total Transfers Out</i>	10866	10224	9758	11003	12441	13108	13500	12641	11725	10571	10343	11254	10450	11211
<i>Total Firm Obligations</i>	11318	10676	10195	11287	12730	13414	13830	12935	12011	11072	10844	11779	10946	11697
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20615	20335	19877	19275	18536	18507	18832	19892	20506
<i>Independent Hydro</i>	615	627	566	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-2728	-5618	-6533	-5283	-3829	-3940	-4125	-4553	-4004	-5473	-6653	-1425	-5449	-3096
<i>Non-Fed CER (Canada)</i>	223	223	223	223	223	223	223	223	223	221	221	221	221	221
<i>Total Hydro Resources</i>	18416	15529	14715	16135	17786	17299	16777	15942	16039	13877	12786	18461	15561	18300
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Imports</i>	206	206	208	313	346	444	446	381	337	338	338	163	109	131
<i>Regional Transfers (In)</i>	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
<i>Non-Utility Generation</i>	53	53	53	53	53	53	53	53	53	53	53	53	53	53
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1426	1426	1428	1533	1566	1664	1666	1601	1557	1558	1558	1383	1329	1351
<i>Total Resources</i>	19842	16955	16142	17668	19352	18962	18443	17543	17596	15435	14344	19843	16890	19651
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-565	-565	-568	-572	-577	-567	-559	-549	-537	-520	-522	-534	-562	-571
<i>Contingency Reserves (Spinning)</i>	-406	-347	-326	-362	-404	-413	-412	-379	-381	-324	-303	-446	-376	-415
<i>Generation Imbalance Reserves</i>	-1732	-1732	-1732	-1732	-1745	-1745	-1745	-1745	-1745	-1745	-1745	-1757	-1757	-1757
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-451	-373	-346	-396	-452	-467	-466	-421	-422	-347	-320	-500	-407	-459

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6833	-6193	-6157	-6229	-6299	-5475	-5005	-5393	-5416	-5413	-5111	-5409	-5152	-6403
<i>Total Net Resources</i>	13009	10762	9986	11439	13053	13488	13439	12150	12180	10022	9234	14434	11738	13248
<i>Total Firm Surplus/Deficit</i>	1691	87	-209	152	323	74	-391	-785	168	-1050	-1610	2655	792	1550

Loads and Resources - Federal System
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	256	256	234	252	291	308	333	298	264	243	243	242	239	221
<i>USBR 2012 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	453	453	439	287	291	309	333	298	289	504	504	529	498	490
Transfers Out														
<i>NGP 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	5177	5177	4963	5279	5852	6344	6539	6193	5555	5345	5345	5192	5201	5438
<i>GPU 2012 PSC</i>	1699	1699	1688	1910	2224	2430	2439	2313	2130	1953	1953	1779	1727	1739
<i>NGP 2012 Slice PSC</i>	598	479	437	518	599	630	612	546	554	427	385	617	477	611
<i>GPU 2012 Slice PSC</i>	2441	1953	1782	2112	2444	2569	2498	2229	2260	1741	1569	2515	1947	2493
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
<i>Regional Transfers (Out)</i>	130	130	132	267	382	480	482	417	377	378	378	162	108	130
<i>Federal Diversity</i>	-474	-510	-544	-347	-319	-538	-332	-333	-371	-495	-510	-512	-511	-415
<i>Total Transfers Out</i>	10921	10278	9808	11088	12532	13264	13588	12716	11856	10699	10471	11102	10299	11345
<i>Total Firm Obligations</i>	11374	10731	10247	11376	12823	13573	13921	13014	12145	11203	10974	11630	10797	11835
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20557	20212	19743	19120	18449	18507	18832	19892	20506
<i>Independent Hydro</i>	615	627	566	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-2703	-5593	-6508	-5257	-3804	-3606	-4022	-4456	-3828	-5363	-6628	-1407	-5430	-3077
<i>Non-Fed CER (Canada)</i>	221	221	221	221	221	221	221	221	221	219	219	219	219	219
<i>Total Hydro Resources</i>	18440	15553	14738	16159	17809	17572	16756	15902	16059	13898	12810	18477	15578	18317
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Imports</i>	131	131	133	268	301	399	401	336	337	338	338	163	109	131
<i>Regional Transfers (In)</i>	4.5	4.5	4.5	4.5	4.5	4.5	4.5	0	0	0	0	0	0	0
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
<i>Non-Utility Generation</i>	53	53	53	53	53	53	53	53	53	53	53	53	53	53
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1351	1351	1353	1488	1521	1619	1621	1551	1552	1553	1553	228	174	1346
<i>Total Resources</i>	19790	16904	16091	17647	19330	19191	18377	17454	17611	15451	14363	18706	15752	19663
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-565	-565	-568	-572	-577	-566	-556	-545	-534	-518	-522	-493	-521	-571
<i>Contingency Reserves (Spinning)</i>	-407	-347	-327	-363	-405	-420	-412	-379	-382	-325	-304	-408	-337	-416
<i>Generation Imbalance Reserves</i>	-1757	-1757	-1757	-1757	-1770	-1770	-1770	-1770	-1770	-1770	-1770	-1776	-1776	-1776
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-448	-370	-344	-395	-451	-474	-463	-417	-422	-347	-320	-464	-371	-459

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6856	-6216	-6180	-6254	-6323	-5512	-5023	-5410	-5438	-5437	-5136	-5313	-5056	-6422
<i>Total Net Resources</i>	12934	10687	9911	11393	13007	13679	13354	12044	12173	10015	9227	13392	10696	13241
<i>Total Firm Surplus/Deficit</i>	1560	-44	-336	17	184	106	-567	-970	28	-1188	-1748	1762	-102	1406

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Monthly Federal System
Loads & Resources
120-Hour Capacity in Megawatts

For OY 2010 – 2019

Power Services

Reports Powered by:



Loads and Resources Information System

Loads and Resources - Federal System
PNW Loads and Resource Study
2009 - 2010 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	158	158	152	160	177	185	202	188	171	161	161	157	151	151
<i>USBR 2002 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2002 PSC</i>	17	17	17	17	17	17	17	17	17	17	17	17	17	17
<i>Fed. Agencies 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	372	372	373	212	194	203	219	205	213	439	439	460	427	437
Transfers Out														
<i>NGP 2002 PSC</i>	4014	4014	3857	4142	4622	5060	5217	4964	4410	4237	4237	4047	4069	4254
<i>GPU 2002 PSC</i>	2493	2493	2559	2673	3204	3425	3448	3413	3203	2795	2795	2516	2313	2474
<i>NGP 2002 Slice PSC</i>	789	590	580	719	844	840	840	760	740	520	487	887	759	787
<i>GPU 2002 Slice PSC</i>	1314	983	965	1198	1405	1399	1398	1265	1232	865	811	1477	1264	1311
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2012 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1592	1592	1585	1539	1492	1497	1497	1496	1491	1515	1515	1581	1564	1571
<i>Regional Transfers (Out)</i>	1310	1310	1107	842	1046	1144	1146	1074	993	994	994	967	718	739
<i>Federal Diversity</i>	-761	-823	-905	-1277	-1277	-1146	-1328	-1285	-1130	-1142	-1225	-1103	-918	-831
<i>Total Transfers Out</i>	10752	10159	9747	9835	11336	12220	12218	11686	10939	9784	9613	10372	9769	10305
<i>Total Firm Obligations</i>	11123	10530	10121	10047	11530	12422	12437	11891	11152	10223	10052	10832	10195	10742
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20631	20368	19914	19316	18560	18507	18832	19892	20506
<i>Independent Hydro</i>	630	642	576	636	604	413	354	405	559	609	728	855	920	690
<i>Operational Peaking Adj.</i>	-5797	-8677	-8833	-7884	-6607	-7146	-7263	-7329	-7089	-8722	-9454	-4914	-7756	-6614
<i>Non-Fed CER (Canada)</i>	236	236	236	236	236	236	236	236	236	244	244	244	244	244
<i>Total Hydro Resources</i>	15375	12498	12438	13554	15031	14134	13696	13225	13023	10691	10025	15017	13300	14825
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	25	25	25	27	29	30	32	31	30	29	29	27	26	24
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	528	528	247	119	420	398	322	321	313	312	312	15	17	16
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
<i>Non-Utility Generation</i>	34	34	17	32	41	32	32	32	32	32	32	49	32	29
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1954	1954	1660	1654	1998	2067	1994	1928	1920	1949	1949	1492	1422	1437
<i>Total Resources</i>	17330	14453	14098	15208	17029	16201	15690	15154	14943	12640	11974	16508	14722	16262
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-565	-566	-568	-572	-577	-568	-560	-550	-539	-521	-523	-535	-562	-572
<i>Contingency Reserves (Spinning)</i>	-475	-488	-489	-298	-336	-335	-336	-313	-307	-245	-235	-362	-320	-328
<i>Generation Imbalance Reserves</i>	-666	-666	-666	-666	-666	-666	-694	-748	-748	-779	-779	-779	-779	-779
<i>Load Following Reserves</i>	-251	-251	-251	-251	-251	-251	-256	-266	-266	-272	-272	-272	-272	-272
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-406	-326	-313	-357	-419	-419	-417	-382	-374	-293	-280	-429	-374	-386

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-5626	-5057	-5057	-4896	-4954	-4106	-3671	-4142	-4149	-4173	-3895	-4133	-3943	-5122
<i>Total Net Resources</i>	11703	9396	9041	10312	12074	12095	12019	11012	10794	8467	8079	12375	10779	11140
<i>Total Firm Surplus/Deficit</i>	580	-1134	-1080	265	545	-328	-418	-880	-358	-1756	-1973	1543	584	398

Loads and Resources - Federal System
PNW Loads and Resource Study
2010 - 2011 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	162	162	156	164	182	191	206	191	174	163	163	159	153	153
<i>USBR 2002 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2002 PSC</i>	17	17	17	17	17	17	17	17	17	17	17	17	17	17
<i>Fed. Agencies 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	376	376	377	216	200	209	223	208	216	441	441	463	429	438
Transfers Out														
<i>NGP 2002 PSC</i>	4086	4086	3926	4216	4702	5143	5299	5045	4488	4312	4312	4119	4140	4330
<i>GPU 2002 PSC</i>	2520	2520	2586	2698	3225	3448	3472	3438	3227	2820	2820	2538	2336	2488
<i>NGP 2002 Slice PSC</i>	813	623	616	705	834	832	837	755	731	503	385	789	651	771
<i>GPU 2002 Slice PSC</i>	1354	1037	1026	1174	1389	1386	1394	1258	1218	838	642	1315	1084	1284
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2012 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1567	1567	1559	1514	1474	1479	1479	1478	1473	1497	1497	1556	1562	1570
<i>Regional Transfers (Out)</i>	893	893	707	842	1039	1137	1139	1074	993	994	994	967	718	739
<i>Federal Diversity</i>	-777	-840	-923	-1299	-1304	-1166	-1351	-1308	-1151	-1163	-1247	-1123	-935	-843
<i>Total Transfers Out</i>	10457	9886	9497	9849	11358	12259	12269	11741	10978	9802	9404	10162	9557	10340
<i>Total Firm Obligations</i>	10833	10262	9874	10065	11558	12468	12492	11949	11194	10243	9845	10625	9986	10778
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20631	20368	19914	19316	18560	18507	18832	19892	20506
<i>Independent Hydro</i>	630	642	576	636	604	413	354	405	559	609	728	855	920	690
<i>Operational Peaking Adj.</i>	-5440	-8325	-8487	-7647	-6311	-6805	-6891	-7044	-6855	-8616	-9310	-4720	-7693	-6503
<i>Non-Fed CER (Canada)</i>	244	244	244	244	244	244	244	244	244	242	242	242	242	242
<i>Total Hydro Resources</i>	15740	12859	12793	13799	15335	14482	14075	13519	13264	10795	10167	15209	13361	14935
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	25	25	25	27	29	30	32	31	30	29	29	27	26	24
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	17	17	37	35	335	313	312	312	311	310	310	12	13	13
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	0	1150
<i>Non-Utility Generation</i>	34	34	17	32	41	32	32	32	32	32	32	49	32	29
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1444	1444	1450	1570	1913	1982	1985	1919	1918	1947	797	338	268	1434
<i>Total Resources</i>	17184	14303	14242	15368	17248	16464	16060	15438	15182	12742	10964	15547	13628	16369
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-565	-566	-568	-572	-577	-568	-560	-550	-539	-521	-483	-494	-522	-572
<i>Contingency Reserves (Spinning)</i>	-341	-280	-278	-304	-344	-345	-346	-321	-313	-248	-201	-329	-283	-329
<i>Generation Imbalance Reserves</i>	-939	-939	-939	-1013	-1013	-1031	-1031	-1031	-1031	-1031	-1031	-1031	-1031	-1031
<i>Load Following Reserves</i>	-306	-306	-306	-321	-321	-325	-325	-325	-325	-325	-325	-325	-325	-325
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-394	-317	-314	-349	-412	-413	-415	-379	-370	-287	-239	-389	-329	-379

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-5808	-5167	-5173	-5310	-5372	-4548	-4085	-4490	-4493	-4473	-4083	-4324	-4125	-5421
<i>Total Net Resources</i>	11376	9135	9069	10058	11876	11916	11975	10948	10689	8269	6881	11223	9503	10948
<i>Total Firm Surplus/Deficit</i>	543	-1127	-805	-7.1	318	-552	-517	-1001	-505	-1974	-2964	598	-483	170

Loads and Resources - Federal System
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	165	165	158	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	197	197	205	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	17	17	17	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	0	0	0	166	186	195	210	194	177	166	166	162	155	155
<i>USBR 2012 PSC</i>	0	0	0	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	379	379	380	202	186	195	210	194	201	426	426	449	414	423
Transfers Out														
<i>NGP 2002 PSC</i>	4154	4154	3994	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	2541	2541	2609	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	813	617	607	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	1354	1028	1010	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	0	0	0	4666	5213	5677	5854	5489	4942	4744	4744	4589	4594	4799
<i>GPU 2012 PSC</i>	0	0	0	1658	1970	2176	2184	1996	1879	1702	1702	1528	1476	1487
<i>NGP 2012 Slice PSC</i>	0	0	0	435	503	499	499	455	446	307	382	543	451	466
<i>GPU 2012 Slice PSC</i>	0	0	0	1777	2054	2035	2037	1856	1818	1252	1557	2217	1841	1903
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1567	1567	1560	1466	1420	1421	1419	1420	1419	1448	1448	1511	1512	1513
<i>Regional Transfers (Out)</i>	724	724	132	267	464	562	564	499	418	419	419	162	143	164
<i>Federal Diversity</i>	-794	-858	-941	-1107	-1102	-997	-1173	-1111	-972	-982	-1054	-980	-830	-749
<i>Total Transfers Out</i>	10360	9774	8971	9163	10521	11372	11385	10604	9950	8890	9198	9570	9188	9583
<i>Total Firm Obligations</i>	10739	10153	9351	9364	10708	11567	11595	10798	10152	9316	9625	10019	9602	10006
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20631	20368	19914	19316	18560	18507	18832	19892	20506
<i>Independent Hydro</i>	630	642	576	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-5248	-8200	-8411	-7557	-6359	-6905	-6964	-6965	-6743	-8415	-7246	-4506	-7549	-6461
<i>Non-Fed CER (Canada)</i>	242	242	242	242	242	242	242	242	242	238	238	238	238	238
<i>Total Hydro Resources</i>	15931	12981	12867	13881	15275	14368	13991	13585	13361	10975	12211	15397	13478	14951
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	25	25	25	27	29	30	32	31	30	29	29	27	26	24
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	14	14	35	28	328	305	305	305	305	305	305	4.5	4.5	4.5
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
<i>Non-Utility Generation</i>	34	34	17	32	41	32	19	3	3	3	3	3	3	3
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1441	1441	1447	1562	1905	1973	1964	1882	1882	1912	1912	1435	1380	1400
<i>Total Resources</i>	17371	14422	14314	15443	17180	16341	15955	15467	15244	12887	14123	16832	14858	16351
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-565	-566	-568	-572	-577	-568	-560	-549	-538	-520	-522	-533	-561	-571
<i>Contingency Reserves (Spinning)</i>	-346	-283	-280	-307	-345	-344	-346	-324	-317	-254	-250	-374	-325	-329
<i>Generation Imbalance Reserves</i>	-1089	-1089	-1089	-1148	-1148	-1148	-1201	-1201	-1201	-1201	-1201	-1201	-1201	-1201
<i>Load Following Reserves</i>	-341	-341	-341	-356	-356	-356	-370	-370	-370	-370	-370	-370	-370	-370
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-394	-314	-310	-345	-404	-404	-404	-373	-365	-284	-334	-422	-361	-372

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-5999	-5354	-5358	-5481	-5536	-4687	-4289	-4701	-4707	-4692	-4483	-4656	-4454	-5628
<i>Total Net Resources</i>	11372	9068	8956	9962	11644	11655	11666	10766	10537	8196	9641	12176	10404	10724
<i>Total Firm Surplus/Deficit</i>	633	-1085	-395	598	937	87	71	-32	385	-1120	16	2157	802	718

Loads and Resources - Federal System
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	168	168	160	169	189	198	212	197	178	168	168	164	156	157
<i>USBR 2012 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	365	365	364	205	190	198	212	197	203	429	429	450	415	425
Transfers Out														
<i>NGP 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	4645	4645	4451	4757	5306	5773	5950	5634	5031	4831	4831	4661	4681	4894
<i>GPU 2012 PSC</i>	1492	1492	1482	1679	1989	2194	2203	2078	1898	1722	1722	1549	1497	1508
<i>NGP 2012 Slice PSC</i>	496	377	372	432	502	498	498	452	443	308	297	488	382	456
<i>GPU 2012 Slice PSC</i>	2023	1539	1518	1762	2047	2031	2031	1844	1807	1258	1210	1990	1558	1860
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1514	1514	1512	1466	1420	1421	1419	1420	1419	1448	1448	1511	1512	1513
<i>Regional Transfers (Out)</i>	130	130	132	267	464	562	564	499	418	419	419	162	143	164
<i>Federal Diversity</i>	-695	-751	-820	-1120	-1114	-1008	-1185	-1130	-982	-993	-1065	-987	-839	-758
<i>Total Transfers Out</i>	9605	8945	8647	9242	10613	11471	11480	10796	10035	8994	8862	9373	8934	9637
<i>Total Firm Obligations</i>	9969	9310	9012	9447	10802	11669	11692	10993	10237	9423	9291	9823	9349	10062
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20631	20368	19914	19316	18560	18507	18832	19892	20506
<i>Independent Hydro</i>	615	627	566	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-5261	-8134	-8342	-7482	-6237	-6775	-6718	-6765	-6537	-8129	-8685	-4258	-7579	-6411
<i>Non-Fed CER (Canada)</i>	238	238	238	238	238	238	238	238	238	234	234	234	234	234
<i>Total Hydro Resources</i>	15899	13028	12921	13951	15393	14494	14232	13781	13563	11258	10768	15641	13445	14998
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	25	25	25	27	29	30	32	31	30	29	29	27	26	24
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	4.5	4.5	28	28	328	305	305	305	305	305	305	4.5	4.5	4.5
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
<i>Non-Utility Generation</i>	3	3	3	3	3	3	3	3	3	3	3	3	3	3
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1401	1401	1426	1533	1867	1944	1948	1882	1882	1912	1912	285	230	1400
<i>Total Resources</i>	17299	14429	14346	15484	17260	16438	16180	15663	15445	13170	12680	15926	13674	16398
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-564	-564	-567	-571	-576	-567	-559	-549	-538	-520	-522	-493	-521	-571
<i>Contingency Reserves (Spinning)</i>	-346	-285	-282	-308	-348	-347	-352	-329	-323	-264	-258	-341	-285	-329
<i>Generation Imbalance Reserves</i>	-1201	-1201	-1201	-1238	-1238	-1238	-1404	-1404	-1404	-1404	-1404	-1404	-1404	-1404
<i>Load Following Reserves</i>	-370	-370	-370	-378	-378	-378	-416	-416	-416	-416	-416	-416	-416	-416
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-387	-310	-307	-343	-403	-403	-403	-371	-363	-285	-277	-386	-315	-365

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6132	-5491	-5497	-5590	-5647	-4800	-4542	-4953	-4959	-4951	-4681	-4796	-4576	-5869
<i>Total Net Resources</i>	11168	8938	8850	9894	11613	11639	11638	10710	10486	8219	7998	11131	9098	10528
<i>Total Firm Surplus/Deficit</i>	1198	-372	-162	447	811	-31	-54	-283	249	-1204	-1293	1308	-252	466

Loads and Resources - Federal System
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	169	169	161	171	191	200	236	216	195	182	182	179	173	169
<i>USBR 2012 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	366	366	366	207	192	200	236	217	220	443	443	466	432	438
Transfers Out														
<i>NGP 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	4736	4736	4538	4844	5397	5869	6049	5728	5117	4916	4916	4758	4765	4983
<i>GPU 2012 PSC</i>	1513	1513	1503	1704	2015	2220	2229	2104	1923	1747	1747	1574	1522	1533
<i>NGP 2012 Slice PSC</i>	495	370	364	432	502	503	498	452	443	308	297	543	439	459
<i>GPU 2012 Slice PSC</i>	2020	1509	1484	1762	2048	2050	2030	1843	1806	1258	1212	2216	1792	1871
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1514	1514	1512	1466	1420	1421	1419	1420	1420	1448	1448	1511	1512	1513
<i>Regional Transfers (Out)</i>	130	130	132	267	464	562	564	499	418	419	419	162	108	130
<i>Federal Diversity</i>	-703	-760	-829	-1132	-1126	-1019	-1202	-1146	-995	-1005	-1078	-1003	-849	-767
<i>Total Transfers Out</i>	9705	9012	8704	9344	10720	11607	11587	10900	10132	9092	8961	9763	9288	9721
<i>Total Firm Obligations</i>	10071	9378	9070	9551	10911	11807	11823	11117	10352	9535	9405	10228	9720	10159
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20615	20335	19877	19275	18536	18507	18832	19892	20506
<i>Independent Hydro</i>	615	627	566	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-5016	-8021	-8248	-7265	-6012	-6445	-6616	-6661	-6430	-8039	-8608	-4178	-7500	-6269
<i>Non-Fed CER (Canada)</i>	234	234	234	234	234	234	234	234	234	233	233	233	233	233
<i>Total Hydro Resources</i>	16139	13138	13011	14164	15614	14804	14297	13844	13625	11323	10844	15721	13523	15139
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	25	25	25	27	29	30	32	31	30	29	29	27	26	24
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	4.5	4.5	28	28	278	255	255	255	255	255	255	4.5	4.5	4.5
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
<i>Non-Utility Generation</i>	3	3	3	3	3	3	3	3	3	3	3	3	3	3
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1401	1401	1426	1533	1817	1894	1898	1832	1832	1862	1862	1435	1380	1400
<i>Total Resources</i>	17540	14538	14437	15697	17432	16698	16195	15677	15457	13185	12706	17156	14902	16539
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-564	-564	-567	-571	-576	-567	-558	-548	-537	-520	-522	-533	-561	-571
<i>Contingency Reserves (Spinning)</i>	-350	-286	-284	-314	-354	-355	-354	-331	-325	-266	-260	-382	-326	-333
<i>Generation Imbalance Reserves</i>	-1404	-1404	-1404	-1404	-1411	-1411	-1471	-1471	-1471	-1471	-1471	-1471	-1471	-1527
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-387	-305	-301	-343	-401	-405	-402	-369	-362	-283	-276	-422	-352	-365

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6384	-5736	-5742	-5800	-5863	-5020	-4609	-5019	-5025	-5017	-4749	-4980	-4761	-5996
<i>Total Net Resources</i>	11156	8802	8694	9897	11569	11678	11587	10658	10432	8168	7957	12176	10141	10543
<i>Total Firm Surplus/Deficit</i>	1085	-576	-375	346	657	-129	-236	-459	80	-1367	-1448	1948	422	384

Loads and Resources - Federal System
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	187	187	177	188	211	222	242	222	200	187	187	183	178	173
<i>USBR 2012 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	383	383	381	223	212	223	243	222	225	448	448	470	437	441
Transfers Out														
<i>NGP 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	4825	4825	4623	4929	5485	5962	6143	5817	5198	4998	4998	4842	4849	5071
<i>GPU 2012 PSC</i>	1538	1538	1528	1727	2039	2245	2253	2128	1947	1770	1770	1597	1545	1556
<i>NGP 2012 Slice PSC</i>	496	370	363	431	501	519	495	449	443	308	297	489	385	459
<i>GPU 2012 Slice PSC</i>	2023	1511	1481	1757	2042	2118	2020	1832	1806	1257	1211	1994	1569	1873
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1514	1514	1512	1466	1420	1421	1419	1420	1420	1448	1448	1496	1496	1498
<i>Regional Transfers (Out)</i>	130	130	132	267	464	562	564	499	418	419	419	162	108	130
<i>Federal Diversity</i>	-713	-771	-840	-1147	-1141	-1033	-1215	-1157	-1005	-1014	-1088	-1013	-858	-776
<i>Total Transfers Out</i>	9813	9118	8799	9430	10809	11793	11679	10988	10226	9186	9055	9567	9094	9811
<i>Total Firm Obligations</i>	10196	9501	9180	9653	11021	12016	11922	11210	10451	9634	9503	10037	9531	10253
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20557	20212	19743	19120	18449	18507	18832	19892	20506
<i>Independent Hydro</i>	615	627	566	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-4876	-7882	-8114	-7143	-5853	-5896	-6447	-6481	-6180	-7855	-8509	-4079	-7361	-6185
<i>Non-Fed CER (Canada)</i>	233	233	233	233	233	233	233	233	233	231	231	231	231	231
<i>Total Hydro Resources</i>	16279	13276	13144	14286	15772	15294	14343	13890	13719	11417	10940	15817	13659	15220
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	25	25	25	27	29	30	32	31	30	29	29	27	26	24
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
<i>Non-Utility Generation</i>	3	3	3	3	3	3	3	3	3	3	3	3	3	3
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1401	1401	1403	1510	1544	1644	1648	1582	1582	1612	1612	285	230	1400
<i>Total Resources</i>	17679	14676	14546	15796	17316	16938	15991	15472	15301	13029	12552	16102	13889	16620
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-564	-564	-567	-571	-576	-565	-555	-545	-533	-517	-522	-493	-521	-571
<i>Contingency Reserves (Spinning)</i>	-354	-290	-288	-318	-359	-368	-356	-333	-328	-269	-263	-346	-292	-336
<i>Generation Imbalance Reserves</i>	-1527	-1527	-1527	-1527	-1570	-1570	-1570	-1570	-1570	-1570	-1570	-1570	-1610	-1610
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-387	-305	-301	-342	-392	-407	-392	-359	-353	-275	-267	-386	-315	-365

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6511	-5863	-5868	-5925	-6017	-5193	-4696	-5106	-5114	-5108	-4842	-4966	-4789	-6082
<i>Total Net Resources</i>	11168	8813	8679	9870	11299	11746	11296	10366	10187	7921	7710	11136	9100	10538
<i>Total Firm Surplus/Deficit</i>	972	-688	-502	218	279	-270	-626	-844	-264	-1712	-1792	1099	-431	285

Loads and Resources - Federal System
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	191	191	181	192	217	228	245	223	203	189	189	185	180	175
<i>USBR 2012 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	388	388	385	228	217	229	245	224	227	450	450	472	439	443
Transfers Out														
<i>NGP 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	4910	4910	4706	5016	5576	6057	6240	5856	5289	5083	5083	4928	4935	5161
<i>GPU 2012 PSC</i>	1562	1562	1551	1781	2095	2302	2311	2122	2002	1825	1825	1650	1598	1609
<i>NGP 2012 Slice PSC</i>	496	371	364	433	503	505	500	454	445	309	297	548	444	464
<i>GPU 2012 Slice PSC</i>	2025	1514	1483	1766	2051	2058	2039	1851	1815	1259	1213	2235	1810	1892
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1498	1498	1496	1466	1420	1421	1419	1420	1420	1448	1448	1434	1435	1425
<i>Regional Transfers (Out)</i>	130	130	132	267	464	562	564	499	418	419	419	162	108	130
<i>Federal Diversity</i>	-721	-779	-849	-1165	-1159	-1048	-1232	-1165	-1020	-1028	-1103	-1028	-871	-787
<i>Total Transfers Out</i>	9901	9206	8883	9564	10951	11857	11841	11037	10368	9314	9182	9929	9459	9895
<i>Total Firm Obligations</i>	10290	9594	9269	9792	11168	12086	12086	11261	10595	9764	9632	10401	9897	10338
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20615	20335	19877	19275	18536	18507	18832	19892	20506
<i>Independent Hydro</i>	615	627	566	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-4792	-7799	-8031	-7059	-5782	-6216	-6447	-6492	-6260	-7869	-8438	-4008	-7294	-6118
<i>Non-Fed CER (Canada)</i>	231	231	231	231	231	231	231	231	231	225	225	225	225	225
<i>Total Hydro Resources</i>	16360	13357	13225	14367	15841	15031	14464	14011	13791	11484	11005	15882	13721	15281
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	25	25	25	27	29	30	32	31	30	0	0	0	0	0
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
<i>Non-Utility Generation</i>	3	3	3	53	53	53	53	53	53	53	53	53	53	53
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1401	1401	1403	1560	1594	1694	1698	1632	1632	1633	1633	1458	1404	1426
<i>Total Resources</i>	17761	14757	14628	15927	17435	16725	16162	15643	15424	13117	12638	17340	15124	16707
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-564	-564	-567	-572	-577	-568	-560	-549	-538	-520	-522	-534	-562	-571
<i>Contingency Reserves (Spinning)</i>	-356	-293	-291	-321	-361	-362	-359	-336	-330	-271	-264	-386	-332	-337
<i>Generation Imbalance Reserves</i>	-1610	-1610	-1610	-1610	-1641	-1641	-1641	-1641	-1641	-1641	-1641	-1641	-1677	-1677
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-387	-305	-301	-344	-393	-398	-395	-362	-355	-275	-268	-422	-352	-366

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6596	-5949	-5954	-6014	-6093	-5251	-4777	-5188	-5194	-5183	-4915	-5155	-4973	-6152
<i>Total Net Resources</i>	11164	8808	8674	9913	11342	11474	11384	10455	10230	7934	7723	12185	10151	10556
<i>Total Firm Surplus/Deficit</i>	874	-786	-595	121	175	-612	-701	-805	-365	-1830	-1909	1784	254	218

Loads and Resources - Federal System
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	194	194	183	194	220	231	327	291	259	237	237	237	235	216
<i>USBR 2012 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	391	391	388	230	220	232	327	292	284	498	498	524	494	485
Transfers Out														
<i>NGP 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	4999	4999	4791	5103	5666	6151	6338	6004	5375	5168	5168	5015	5021	5250
<i>GPU 2012 PSC</i>	1615	1615	1604	1818	2131	2337	2346	2221	2038	1861	1861	1687	1635	1647
<i>NGP 2012 Slice PSC</i>	501	376	368	435	502	521	497	451	444	310	298	493	389	464
<i>GPU 2012 Slice PSC</i>	2044	1533	1502	1774	2049	2125	2026	1839	1812	1263	1217	2011	1587	1891
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1425	1425	1425	1395	1395	1395	1395	1395	1395	1425	1425	1425	1425	1425
<i>Regional Transfers (Out)</i>	130	130	132	267	464	562	564	499	418	419	419	162	108	130
<i>Federal Diversity</i>	-732	-791	-861	-1183	-1175	-1063	-1266	-1204	-1046	-1052	-1128	-1053	-893	-805
<i>Total Transfers Out</i>	9983	9286	8960	9609	11033	12028	11899	11205	10437	9394	9260	9740	9272	10003
<i>Total Firm Obligations</i>	10373	9677	9348	9839	11253	12260	12227	11497	10721	9892	9759	10264	9767	10487
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20557	20212	19743	19120	18449	18507	18832	19892	20506
<i>Independent Hydro</i>	615	627	566	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-4725	-7732	-7964	-6992	-5725	-5768	-6318	-6353	-6052	-7727	-8381	-3917	-7239	-6064
<i>Non-Fed CER (Canada)</i>	225	225	225	225	225	225	225	225	225	223	223	223	223	223
<i>Total Hydro Resources</i>	16421	13418	13286	14428	15892	15414	14464	14010	13839	11538	11061	15971	13773	15334
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Imports</i>	206	206	208	313	346	444	446	381	382	413	413	238	184	206
<i>Regional Transfers (In)</i>	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
<i>Non-Utility Generation</i>	53	53	53	53	53	53	53	53	53	53	53	53	53	53
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1426	1426	1428	1533	1566	1664	1666	1601	1602	1633	1633	308	254	1426
<i>Total Resources</i>	17847	14844	14714	15961	17458	17078	16130	15611	15441	13171	12693	16279	14027	16760
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-565	-565	-568	-572	-577	-566	-556	-545	-534	-518	-522	-493	-521	-571
<i>Contingency Reserves (Spinning)</i>	-358	-294	-292	-322	-362	-371	-359	-336	-331	-272	-266	-350	-295	-339
<i>Generation Imbalance Reserves</i>	-1677	-1677	-1677	-1677	-1698	-1698	-1698	-1698	-1698	-1698	-1698	-1732	-1732	-1732
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-388	-306	-301	-342	-392	-407	-392	-360	-353	-275	-268	-386	-316	-366

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6666	-6019	-6023	-6081	-6149	-5325	-4828	-5238	-5246	-5240	-4974	-5133	-4914	-6208
<i>Total Net Resources</i>	11181	8825	8691	9880	11309	11753	11302	10373	10194	7930	7719	11145	9113	10552
<i>Total Firm Surplus/Deficit</i>	807	-852	-657	42	56	-507	-925	-1123	-527	-1962	-2040	881	-654	65

Loads and Resources - Federal System
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	254	254	233	249	288	306	330	294	261	240	240	239	237	218
<i>USBR 2012 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	451	451	437	285	289	306	330	294	286	501	501	526	496	487
Transfers Out														
<i>NGP 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	5087	5087	4876	5188	5757	6245	6437	6099	5464	5256	5256	5101	5109	5342
<i>GPU 2012 PSC</i>	1653	1653	1642	1865	2178	2384	2393	2268	2085	1908	1908	1734	1681	1693
<i>NGP 2012 Slice PSC</i>	501	375	368	435	507	508	503	457	446	312	301	548	444	464
<i>GPU 2012 Slice PSC</i>	2043	1532	1501	1773	2066	2074	2053	1866	1821	1272	1226	2236	1811	1891
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1425	1425	1425	1395	1395	1395	1395	1395	1350	1350	1350	1350	1350	1350
<i>Regional Transfers (Out)</i>	130	130	132	267	382	480	482	417	377	378	378	162	108	130
<i>Federal Diversity</i>	-751	-812	-883	-1213	-1206	-1090	-1283	-1220	-1061	-1067	-1144	-1068	-906	-817
<i>Total Transfers Out</i>	10088	9390	9060	9710	11078	11995	11979	11281	10482	9409	9274	10063	9598	10054
<i>Total Firm Obligations</i>	10539	9841	9498	9995	11367	12302	12309	11575	10768	9909	9774	10588	10094	10540
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20615	20335	19877	19275	18536	18507	18832	19892	20506
<i>Independent Hydro</i>	615	627	566	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-4671	-7677	-7909	-6938	-5678	-6112	-6343	-6388	-6156	-7765	-8335	-3892	-7214	-6038
<i>Non-Fed CER (Canada)</i>	223	223	223	223	223	223	223	223	223	221	221	221	221	221
<i>Total Hydro Resources</i>	16474	13470	13339	14481	15937	15127	14560	14107	13887	11584	11105	15995	13797	15358
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Imports</i>	206	206	208	313	346	444	446	381	337	338	338	163	109	131
<i>Regional Transfers (In)</i>	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
<i>Non-Utility Generation</i>	53	53	53	53	53	53	53	53	53	53	53	53	53	53
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1426	1426	1428	1533	1566	1664	1666	1601	1557	1558	1558	1383	1329	1351
<i>Total Resources</i>	17899	14896	14766	16013	17503	16790	16226	15708	15444	13142	12663	17377	15126	16708
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-565	-565	-568	-572	-577	-567	-559	-549	-537	-520	-522	-534	-562	-571
<i>Contingency Reserves (Spinning)</i>	-359	-296	-294	-324	-363	-365	-361	-339	-332	-274	-267	-390	-334	-340
<i>Generation Imbalance Reserves</i>	-1732	-1732	-1732	-1732	-1745	-1745	-1745	-1745	-1745	-1745	-1745	-1757	-1757	-1757
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-387	-306	-301	-342	-392	-396	-393	-361	-352	-272	-265	-420	-349	-363

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6722	-6075	-6079	-6137	-6197	-5355	-4881	-5292	-5297	-5288	-5019	-5272	-5053	-6232
<i>Total Net Resources</i>	11177	8822	8687	9877	11305	11435	11344	10416	10148	7855	7643	12105	10072	10477
<i>Total Firm Surplus/Deficit</i>	638	-1020	-811	-118	-62	-866	-965	-1160	-621	-2055	-2131	1517	-22	-64

Loads and Resources - Federal System
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Non-Utility Obligations														
<i>Fed. Agencies 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>USBR 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>DSI 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fed. Agencies 2012 PSC</i>	256	256	234	252	291	308	333	298	264	243	243	242	239	221
<i>USBR 2012 PSC</i>	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>DSI 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Firm Non-Utility Obligations</i>	453	453	439	287	291	309	333	298	289	504	504	529	498	490
Transfers Out														
<i>NGP 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>GPU 2002 Slice PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>IOU 2002 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>NGP 2012 PSC</i>	5177	5177	4963	5279	5852	6344	6539	6193	5555	5345	5345	5192	5201	5438
<i>GPU 2012 PSC</i>	1699	1699	1688	1910	2224	2430	2439	2313	2130	1953	1953	1779	1727	1739
<i>NGP 2012 Slice PSC</i>	501	375	368	435	506	525	501	455	446	312	300	493	389	463
<i>GPU 2012 Slice PSC</i>	2043	1532	1501	1773	2066	2142	2043	1856	1820	1272	1226	2011	1587	1891
<i>IOU 2012 PSC</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Exports</i>	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
<i>Regional Transfers (Out)</i>	130	130	132	267	382	480	482	417	377	378	378	162	108	130
<i>Federal Diversity</i>	-763	-825	-896	-1231	-1223	-1105	-1301	-1237	-1076	-1082	-1160	-1084	-919	-829
<i>Total Transfers Out</i>	10138	9439	9105	9783	11157	12165	12052	11347	10603	9528	9392	9903	9441	10182
<i>Total Firm Obligations</i>	10591	9892	9544	10070	11448	12474	12385	11645	10892	10032	9896	10431	9940	10672
Hydro Resources														
<i>Regulated Hydro</i>	20306	20297	20459	20566	20798	20557	20212	19743	19120	18449	18507	18832	19892	20506
<i>Independent Hydro</i>	615	627	566	629	594	400	345	394	546	593	712	833	897	669
<i>Operational Peaking Adj.</i>	-4645	-7652	-7884	-6912	-5653	-5696	-6246	-6281	-5980	-7655	-8309	-3873	-7195	-6019
<i>Non-Fed CER (Canada)</i>	221	221	221	221	221	221	221	221	221	219	219	219	219	219
<i>Total Hydro Resources</i>	16497	13494	13362	14504	15960	15482	14532	14078	13907	11605	11128	16011	13813	15374
Other Resources														
<i>Small Thermal & Misc.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Combustion Turbines</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Renewables</i>	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>Cogeneration</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Imports</i>	131	131	133	268	301	399	401	336	337	338	338	163	109	131
<i>Regional Transfers (In)</i>	4.5	4.5	4.5	4.5	4.5	4.5	4.5	0	0	0	0	0	0	0
<i>Large Thermal</i>	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
<i>Non-Utility Generation</i>	53	53	53	53	53	53	53	53	53	53	53	53	53	53
<i>Augmentation Purchases</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Augmentation Resources</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	1351	1351	1353	1488	1521	1619	1621	1551	1552	1553	1553	228	174	1346
<i>Total Resources</i>	17848	14845	14715	15992	17481	17101	16152	15629	15459	13159	12682	16240	13988	16721
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-565	-565	-568	-572	-577	-566	-556	-545	-534	-518	-522	-493	-521	-571
<i>Contingency Reserves (Spinning)</i>	-360	-297	-294	-324	-364	-374	-361	-338	-333	-274	-268	-351	-296	-340
<i>Generation Imbalance Reserves</i>	-1757	-1757	-1757	-1757	-1770	-1770	-1770	-1770	-1770	-1770	-1770	-1776	-1776	-1776
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Federal Hydro Maintenance</i>	-3263	-2761	-2770	-2752	-2705	-1866	-1408	-1883	-1915	-2061	-1805	-1756	-1635	-2785
<i>Federal Transmission Losses</i>	-385	-303	-298	-341	-390	-406	-390	-358	-351	-272	-265	-383	-313	-363

Continued

Loads and Resources - Federal System
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>Total Reserves, Maintenance & Losses</i>	-6746	-6099	-6103	-6161	-6222	-5397	-4900	-5310	-5318	-5311	-5045	-5176	-4957	-6251
<i>Total Net Resources</i>	11102	8746	8612	9831	11259	11704	11253	10319	10141	7847	7636	11063	9031	10470
<i>Total Firm Surplus/Deficit</i>	511	-1146	-932	-240	-189	-770	-1133	-1326	-751	-2184	-2259	632	-909	-202

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Section 10
Monthly Federal System 70-Water Year
Surplus/Deficit

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Monthly Federal System 70-Water Year
Surplus/Deficit
1-Hour Capacity in Megawatts

For OY 2010 – 2019

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	3635	1158	988	232	355	891	351	153	1596	122	2537	1538	3140	2566
1930 Federal Surplus/Deficit	1986	886	857	649	479	976	469	57	1003	513	3498	777	1771	2348
1931 Federal Surplus/Deficit	924	1031	681	340	790	1036	320	234	534	1306	-662	2299	1640	2683
1932 Federal Surplus/Deficit	2876	1418	1172	-281	59	873	-391	-131	1921	3188	4146	4364	4594	3303
1933 Federal Surplus/Deficit	2026	1757	1330	558	56	1752	3814	3088	1191	2997	3722	4116	4466	4126
1934 Federal Surplus/Deficit	4278	3657	1727	1264	3066	4314	3981	4050	4470	4182	4046	4181	4394	3313
1935 Federal Surplus/Deficit	1156	944	1008	300	7.7	1115	3440	3581	728	1805	3587	4203	3616	3847
1936 Federal Surplus/Deficit	3989	1446	699	410	286	834	-859	860	1140	1251	4022	4333	4681	2946
1937 Federal Surplus/Deficit	2779	1403	600	536	855	890	516	-106	522	-510	-833	3083	1878	1779
1938 Federal Surplus/Deficit	3014	1638	980	421	123	1579	3492	2067	3771	3887	4142	4335	4554	3648
1939 Federal Surplus/Deficit	1848	992	1420	674	290	826	558	113	2282	2283	4098	4317	3040	2529
1940 Federal Surplus/Deficit	1021	784	581	751	823	1852	341	703	4156	3798	4038	4138	3912	1437
1941 Federal Surplus/Deficit	728	802	938	469	671	1349	12	424	2995	984	2499	2857	2018	2471
1942 Federal Surplus/Deficit	2503	1617	1767	-204	699	2016	1832	2231	908	1209	3709	4070	4786	4063
1943 Federal Surplus/Deficit	4028	2497	1172	663	43	1203	2989	3629	4265	4448	4202	4302	4574	4051
1944 Federal Surplus/Deficit	3597	1221	520	309	346	846	419	322	1174	165	2721	1109	1059	1476
1945 Federal Surplus/Deficit	2358	1320	1355	-191	86	839	-66	35	535	-506	-791	4339	4130	2256
1946 Federal Surplus/Deficit	2321	1137	681	56	627	1748	2366	1318	4298	4297	4198	4335	4524	4022
1947 Federal Surplus/Deficit	3642	1668	1264	214	513	3973	3784	3562	4181	3882	4042	4327	4704	4053
1948 Federal Surplus/Deficit	3363	1325	1102	2948	3171	2640	4141	2811	3600	3097	4143	4423	4355	4255
1949 Federal Surplus/Deficit	4251	3707	1601	844	369	1528	492	2675	4446	4128	4244	4423	4655	1939
1950 Federal Surplus/Deficit	1514	599	607	359	181	1379	3143	3581	4317	4313	4158	4173	4288	4188
1951 Federal Surplus/Deficit	3906	2597	1305	1558	2266	4265	4088	4322	4693	4205	4067	4329	4558	4215
1952 Federal Surplus/Deficit	4223	1757	1061	2362	1545	2681	4103	3109	2307	4329	4273	4395	4826	3838
1953 Federal Surplus/Deficit	3570	1519	671	430	240	887	981	3792	2764	420	3640	4392	4782	4277
1954 Federal Surplus/Deficit	3753	1699	1110	842	608	2135	2991	3631	3196	3755	3972	4380	4199	4042
1955 Federal Surplus/Deficit	4241	4523	3689	872	1720	2147	889	560	1652	1033	3246	4151	4628	4094
1956 Federal Surplus/Deficit	4294	3296	880	1035	2486	4133	4166	3741	3966	3704	3716	4317	4300	4262
1957 Federal Surplus/Deficit	3847	2389	1226	1092	213	1968	1994	1854	4282	4170	4029	4339	4482	3365
1958 Federal Surplus/Deficit	2460	1005	976	447	562	1180	1785	3819	3560	3347	4083	4387	4818	3296
1959 Federal Surplus/Deficit	2468	1455	866	774	1181	3453	4142	3921	3768	4163	4043	4063	4322	3723
1960 Federal Surplus/Deficit	4022	2200	3885	3357	3493	3758	3669	2853	3957	4349	4104	4381	4808	3785
1961 Federal Surplus/Deficit	3064	1166	1166	623	235	1265	3228	3018	4387	4235	3574	4323	4562	3598
1962 Federal Surplus/Deficit	3227	2080	729	-14	501	1668	2549	2893	1877	3684	4163	4340	4873	2813
1963 Federal Surplus/Deficit	2700	1498	679	1462	1526	3260	3140	3570	1109	2251	3567	4336	4863	3920
1964 Federal Surplus/Deficit	3912	1793	1146	97	340	1622	1537	2695	1005	2559	2365	4279	4757	4211
1965 Federal Surplus/Deficit	4264	2411	2064	1700	1369	4170	4192	3990	4303	3761	4042	4035	4969	3735
1966 Federal Surplus/Deficit	4098	3263	1346	1046	333	1522	2883	1829	548	4283	3940	4280	4198	3940
1967 Federal Surplus/Deficit	3832	1536	758	253	182	1703	4045	3727	3683	2701	1500	3983	4552	4272
1968 Federal Surplus/Deficit	4200	2043	1298	766	321	1706	3465	3748	3752	512	3034	4047	4557	4242
1969 Federal Surplus/Deficit	4163	3046	2900	1781	2705	2747	4182	3844	4046	3904	3955	4395	4697	4169
1970 Federal Surplus/Deficit	3273	1037	875	892	613	1096	1038	3499	3367	2606	3297	4199	4954	3587
1971 Federal Surplus/Deficit	2361	1017	691	398	424	1485	4190	4049	4660	4285	4034	4383	4499	4235
1972 Federal Surplus/Deficit	4271	3649	1527	1047	447	1888	4195	3914	4462	4134	3927	4071	4376	4072
1973 Federal Surplus/Deficit	4272	4567	1688	843	499	2259	1798	629	1477	-621	2432	3887	2530	2488
1974 Federal Surplus/Deficit	879	661	613	314	80	3349	4115	3909	4112	3839	3749	3811	4369	4112
1975 Federal Surplus/Deficit	4232	3749	1258	-40	329	1137	2488	2789	4304	1263	3489	4310	4625	4254
1976 Federal Surplus/Deficit	3363	2448	1688	1908	2905	4520	4105	4081	4510	4174	4070	4328	4770	4184
1977 Federal Surplus/Deficit	4259	4523	4022	900	495	913	412	671	1273	-617	1335	323	437	1708
1978 Federal Surplus/Deficit	2734	1698	1149	-758	2.3	2221	2268	2246	3339	4137	3805	4137	4246	3905
1979 Federal Surplus/Deficit	3209	1787	3025	1236	662	1041	781	2519	4143	2414	3181	4345	2387	2036
1980 Federal Surplus/Deficit	672	783	580	376	597	1727	-370	1750	1386	2016	4031	4342	4756	3142
1981 Federal Surplus/Deficit	2104	1026	1123	558	767	3868	3984	3578	3554	788	3465	4188	4594	4276
1982 Federal Surplus/Deficit	4228	4259	1124	679	972	1706	3555	3736	4390	4334	4066	4229	4638	4151
1983 Federal Surplus/Deficit	4273	3221	2818	1910	1267	2225	3997	3380	4234	4229	4105	4313	4741	4299
1984 Federal Surplus/Deficit	4290	3189	1690	859	3395	1841	4167	3044	4335	4413	4183	4367	4962	4273
1985 Federal Surplus/Deficit	3977	1459	1537	666	1107	1686	2272	179	3587	4202	4071	4306	3154	1624
1986 Federal Surplus/Deficit	822	642	780	723	2176	1018	3150	3842	4424	4374	4103	4154	4435	3618
1987 Federal Surplus/Deficit	3369	1217	632	95	948	1182	416	875	2520	2849	3394	4134	3931	2528
1988 Federal Surplus/Deficit	1143	652	527	126	430	723	68	-44	724	421	3058	3637	1066	3010
1989 Federal Surplus/Deficit	2783	1452	830	-164	68	1179	-87	1226	3109	4267	4101	4285	3624	2175
1990 Federal Surplus/Deficit	814	808	699	264	681	2536	3657	3329	3166	4116	4084	4216	4634	3548
1991 Federal Surplus/Deficit	3687	2215	612	-135	2623	2813	4006	3493	2744	3764	3789	4327	4622	4151
1992 Federal Surplus/Deficit	4291	2997	804	164	107	769	603	-44	3693	1208	2685	3373	2051	2168

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	773	857	539	180	374	1010	466	283	1522	1610	2282	4354	2818	3154
<i>1994 Federal Surplus/Deficit</i>	2993	1756	511	96	918	1382	343	927	1051	323	3901	3702	2445	2576
<i>1995 Federal Surplus/Deficit</i>	819	797	567	36	106	1221	1206	3491	4153	3656	3030	4299	4373	3844
<i>1996 Federal Surplus/Deficit</i>	2863	1492	1042	1267	3515	4433	4053	3902	4061	3996	4118	4295	4866	4258
<i>1997 Federal Surplus/Deficit</i>	4291	2293	1136	642	346	2621	4116	3572	3832	3634	3795	4028	4498	4200
<i>1998 Federal Surplus/Deficit</i>	4264	3079	2934	3351	2062	1610	3269	3164	3714	2828	3474	4283	4746	3857

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2010 - 2011 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	2884	263	627	-55	177	634	143	-88	1410	-149	1424	492	2056	2643
1930 Federal Surplus/Deficit	1235	-55	485	337	309	712	253	-205	831	239	2426	-263	714	2432
1931 Federal Surplus/Deficit	190	119	292	35	621	744	112	-14	378	1019	-1864	1244	585	2750
1932 Federal Surplus/Deficit	2120	561	826	-536	-140	613	-556	-869	1731	2863	3165	3495	3850	3314
1933 Federal Surplus/Deficit	1274	932	983	250	-182	1415	3563	2749	1014	2675	2663	3020	3764	3971
1934 Federal Surplus/Deficit	3592	2900	1375	940	2748	4137	3890	3704	4139	3875	3142	3077	3256	3304
1935 Federal Surplus/Deficit	418	17	650	-4.2	-251	834	3190	3235	566	1507	2521	3082	2520	3726
1936 Federal Surplus/Deficit	3262	600	332	108	110	577	-572	573	964	965	2991	3225	3768	2998
1937 Federal Surplus/Deficit	2023	543	200	230	685	622	297	-396	370	-776	-1836	2015	821	1869
1938 Federal Surplus/Deficit	2257	797	621	120	-84	1254	3242	1731	3617	3562	3034	3239	3436	3597
1939 Federal Surplus/Deficit	1099	78	1074	361	107	604	342	-123	2093	1979	3062	3216	1960	2607
1940 Federal Surplus/Deficit	285	-178	164	432	652	1509	132	430	4020	3473	3003	3021	2808	1821
1941 Federal Surplus/Deficit	-76	-151	581	159	502	1034	-125	84	2821	702	1387	1791	955	2548
1942 Federal Surplus/Deficit	1748	776	1412	-464	530	1670	1583	1892	737	924	2652	2952	3665	3866
1943 Federal Surplus/Deficit	3300	1711	824	349	-199	913	2733	3283	4038	4142	3302	3253	3786	3881
1944 Federal Surplus/Deficit	2844	334	16	18	166	604	207	70	997	-107	1615	67	8.9	1818
1945 Federal Surplus/Deficit	1604	447	1008	-449	-110	584	-248	-702	383	-772	-1795	3220	3019	2343
1946 Federal Surplus/Deficit	1567	241	298	-214	458	1415	2114	1008	3967	3990	3177	3320	3406	3860
1947 Federal Surplus/Deficit	2891	827	916	-69	340	3632	3536	3217	3850	3555	3002	3236	3792	3862
1948 Federal Surplus/Deficit	2608	451	750	2585	2866	2284	3812	1773	3442	2773	3121	3506	3669	4016
1949 Federal Surplus/Deficit	3551	2950	1251	526	191	1208	276	2332	4115	3809	3299	3425	3717	2030
1950 Federal Surplus/Deficit	770	-333	103	62	-16	1065	2889	3235	3918	3933	3050	3077	3625	3986
1951 Federal Surplus/Deficit	3163	1811	957	1232	2037	3927	4022	3976	4361	3897	2959	3269	3440	3980
1952 Federal Surplus/Deficit	3512	925	705	2024	1355	2326	3738	2758	2119	4023	3285	3479	3916	3742
1953 Federal Surplus/Deficit	2817	662	276	130	56	630	753	3447	2580	146	2575	3295	4000	4032
1954 Federal Surplus/Deficit	3005	863	757	524	438	1787	2735	3285	3024	3426	2923	3334	3530	3910
1955 Federal Surplus/Deficit	3606	3894	3278	553	1522	1797	662	293	1468	751	2161	3040	3891	3951
1956 Federal Surplus/Deficit	3608	2531	511	713	2239	3790	3986	3308	3635	3398	2608	3221	3637	4022
1957 Federal Surplus/Deficit	3102	1595	877	769	18	1625	1744	1527	4149	3848	2991	3455	3745	3366
1958 Federal Surplus/Deficit	1704	85	613	145	392	897	1539	3476	3402	3022	3053	3479	3973	3307
1959 Federal Surplus/Deficit	1712	596	497	457	1004	3098	3972	3323	2771	3859	2989	2967	3624	3651
1960 Federal Surplus/Deficit	3286	1398	3498	2923	3019	3414	3421	2511	3811	4264	3075	3262	3906	3695
1961 Federal Surplus/Deficit	2306	274	817	312	48	963	2976	2649	4261	3935	2506	3265	3624	3548
1962 Federal Surplus/Deficit	2471	1272	343	-279	330	1337	2298	2551	1690	3355	3281	3242	3951	2876
1963 Federal Surplus/Deficit	1943	646	296	1136	1337	2900	2889	3218	935	1946	2496	3215	3755	3782
1964 Federal Surplus/Deficit	3171	965	796	-177	161	1292	1295	2353	835	2246	1239	3166	3983	3994
1965 Federal Surplus/Deficit	3581	1619	1698	1374	1187	3836	3994	3591	3972	3426	2934	2939	3973	3663
1966 Federal Surplus/Deficit	3371	2497	998	723	157	1194	2633	1501	396	4165	2890	3160	3088	3808
1967 Federal Surplus/Deficit	3087	685	378	-44	-8.5	1371	3791	3069	2593	2313	307	2888	3547	4030
1968 Federal Surplus/Deficit	3483	1231	952	450	139	1372	3214	3405	3603	237	1937	2938	3681	3982
1969 Federal Surplus/Deficit	3440	2274	2498	1455	2442	2392	3996	3309	3649	3597	2848	3412	3764	3942
1970 Federal Surplus/Deficit	2517	142	515	573	444	821	807	3148	3201	2295	2211	3079	4071	3552
1971 Federal Surplus/Deficit	1607	100	298	94	248	1169	3831	3374	4037	3901	2927	3288	3787	4018
1972 Federal Surplus/Deficit	3612	2892	1178	725	271	1549	3889	3350	3997	3827	2820	2975	3681	3925
1973 Federal Surplus/Deficit	3637	3831	1338	525	327	1908	1551	358	1293	-887	1318	2788	1459	2568
1974 Federal Surplus/Deficit	146	-280	185	13	-179	2990	3994	3563	3781	3533	2642	2715	3693	3956
1975 Federal Surplus/Deficit	3539	2995	912	-296	149	864	2229	2446	4065	979	2414	3214	3874	4023
1976 Federal Surplus/Deficit	2606	1656	1337	1582	2625	4215	4027	3556	4042	3867	2963	3281	3846	3971
1977 Federal Surplus/Deficit	3624	3890	3722	581	324	646	199	395	1093	-883	184	-939	-119	1799
1978 Federal Surplus/Deficit	1979	865	798	-906	-253	1860	2016	1905	3174	3831	2757	3041	3132	3774
1979 Federal Surplus/Deficit	2453	967	2614	911	493	777	556	2178	4006	2107	2087	3235	1320	2127
1980 Federal Surplus/Deficit	-72	-172	166	74	428	1393	-502	1393	1204	1716	2996	3416	3635	3172
1981 Federal Surplus/Deficit	1353	116	774	248	598	3523	3513	2276	3391	442	2390	3066	3821	4026
1982 Federal Surplus/Deficit	3574	3515	775	367	800	1374	3305	3275	3905	3990	3023	3134	3620	3932
1983 Federal Surplus/Deficit	3601	2455	2419	1583	1088	1874	3699	3019	3904	3901	3072	3217	3619	4028
1984 Federal Surplus/Deficit	3608	2421	1340	541	3052	1503	3708	1823	3966	4064	3144	3246	4131	4003
1985 Federal Surplus/Deficit	3238	598	1189	354	933	1354	2021	-64	3432	3879	3040	3211	2071	1828
1986 Federal Surplus/Deficit	-85	-299	393	409	1951	750	2895	3496	4093	4067	3071	3036	3318	3572
1987 Federal Surplus/Deficit	2614	334	235	-187	777	888	210	590	2333	2532	2313	3024	2826	2606
1988 Federal Surplus/Deficit	405	-283	93	-163	260	521	-121	-271	562	148	1964	2552	20	3055
1989 Federal Surplus/Deficit	2027	597	466	-413	-159	883	-267	920	2931	3951	3086	3172	2529	2263
1990 Federal Surplus/Deficit	-93	-142	314	-28	511	2181	3409	2995	2993	3803	3063	3097	3866	3517
1991 Federal Surplus/Deficit	2938	1416	209	-384	2362	2459	3528	2951	1824	3430	2736	3246	3503	3941
1992 Federal Surplus/Deficit	3614	2226	433	-118	-92	559	383	-270	3543	923	1578	2295	991	2256

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-92	-84	48	-114	200	748	255	33	1339	1320	1153	3235	1743	3184
<i>1994 Federal Surplus/Deficit</i>	2235	925	25	-178	747	1064	138	638	877	50	2855	2612	1376	2651
<i>1995 Federal Surplus/Deficit</i>	87	-158	114	-244	-93	924	971	3134	3822	3328	1932	3178	3258	3743
<i>1996 Federal Surplus/Deficit</i>	2105	640	692	942	3041	3951	3857	3557	3730	3689	3010	3200	4032	4022
<i>1997 Federal Surplus/Deficit</i>	3602	1495	786	332	163	2266	3877	3227	3501	3327	2688	2932	3763	3986
<i>1998 Federal Surplus/Deficit</i>	3563	2308	2531	2926	1842	1281	3016	2818	3561	2511	2394	3167	3945	3747

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2011 - 2012 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	2948	62	818	599	720	1010	679	709	2043	467	2850	2015	2989	2596
1930 Federal Surplus/Deficit	1432	-285	631	1057	907	1102	687	582	1687	823	3773	1332	1650	2358
1931 Federal Surplus/Deficit	488	-94	386	755	1275	1229	530	814	1291	1557	-171	2709	1530	2750
1932 Federal Surplus/Deficit	2241	388	1081	40	321	1000	-143	408	2492	3339	4486	4813	4607	3402
1933 Federal Surplus/Deficit	1463	791	1261	966	150	2034	4041	3643	1849	3159	3996	4337	4470	4373
1934 Federal Surplus/Deficit	3595	2881	1665	1677	3395	4636	4361	4444	4767	4327	4436	4627	4296	3433
1935 Federal Surplus/Deficit	690	-205	848	715	2.9	1276	3705	4002	1459	2018	3865	4489	3489	3960
1936 Federal Surplus/Deficit	3289	438	497	811	665	957	-52	1428	1803	1500	4311	4767	4707	3022
1937 Federal Surplus/Deficit	2151	367	261	940	1335	1034	748	430	1259	-129	-421	3438	1746	1709
1938 Federal Surplus/Deficit	2369	639	816	812	342	1827	3751	2624	4215	4041	4279	4544	4471	3761
1939 Federal Surplus/Deficit	1307	-136	1347	1084	631	878	770	687	2814	2469	4374	4753	2900	2560
1940 Federal Surplus/Deficit	573	-421	177	1173	1305	2156	543	1264	4597	3957	4320	4521	3806	1267
1941 Federal Surplus/Deficit	270	-388	783	882	1137	1581	458	713	3392	1256	2818	3227	1887	2508
1942 Federal Surplus/Deficit	1901	618	1703	121	1153	2314	2114	2790	1604	1460	3984	4458	4736	4159
1943 Federal Surplus/Deficit	3327	1624	1082	1073	112	1372	3260	4043	4665	4570	4582	4716	4516	4149
1944 Federal Surplus/Deficit	2910	137	-236	680	700	934	624	892	1833	503	3028	1631	974	1359
1945 Federal Surplus/Deficit	1769	261	1270	125	357	956	85	562	1272	-125	-2196	4719	4025	2246
1946 Federal Surplus/Deficit	1737	38	413	387	1053	2010	2648	1870	4596	4427	4414	4620	4440	4124
1947 Federal Surplus/Deficit	2955	669	1169	569	909	4270	4017	3982	4490	4029	4315	4763	4675	4150
1948 Federal Surplus/Deficit	2693	266	978	3138	3499	2976	4278	2654	4049	3255	4360	4886	4361	4451
1949 Federal Surplus/Deficit	3561	2932	1537	1253	731	1766	711	3225	4738	4285	4577	4852	4676	1890
1950 Federal Surplus/Deficit	1009	-532	-150	740	445	1601	3415	3999	4552	4373	4294	4391	4297	4299
1951 Federal Surplus/Deficit	3207	1726	1216	1944	2700	4536	4423	4681	4967	4338	4208	4573	4477	4419
1952 Federal Surplus/Deficit	3527	776	911	2648	2025	3011	4205	3628	2836	4458	4516	4860	4841	3950
1953 Federal Surplus/Deficit	2888	490	353	821	569	1007	1200	4197	3255	738	3914	4824	4795	4475
1954 Federal Surplus/Deficit	3059	711	977	1254	1035	2440	3263	4046	3663	3895	4217	4683	4217	4309
1955 Federal Surplus/Deficit	3592	3905	3462	1286	2197	2462	1126	1131	2255	1300	3531	4513	4634	4351
1956 Federal Surplus/Deficit	3611	2490	670	1446	2901	4415	4389	4028	4281	3867	3876	4528	4309	4434
1957 Federal Surplus/Deficit	3151	1496	1125	1502	485	2254	2288	2406	4714	4317	4306	4768	4504	3469
1958 Federal Surplus/Deficit	1860	-133	792	841	986	1340	2056	4269	4013	3501	4372	4810	4839	3397
1959 Federal Surplus/Deficit	1869	422	656	1186	1662	3772	4373	4029	3427	4307	4303	4287	4344	3835
1960 Federal Surplus/Deficit	3324	1287	3690	3520	3616	4071	3910	3402	4399	4723	4396	4797	4741	3899
1961 Federal Surplus/Deficit	2414	75	1063	1032	549	1470	3501	3525	4830	4420	3854	4741	4424	3715
1962 Federal Surplus/Deficit	2567	1151	445	316	920	1929	2844	3443	2453	3830	4586	4775	4835	2870
1963 Federal Surplus/Deficit	2077	478	410	1860	2009	3582	3417	4081	1782	2447	3847	4745	4822	4028
1964 Federal Surplus/Deficit	3214	820	1033	438	695	1881	1800	3253	1697	2727	2680	4674	4769	4425
1965 Federal Surplus/Deficit	3583	1521	1988	2076	1850	4449	4398	4201	4488	3885	4185	4261	4947	3848
1966 Federal Surplus/Deficit	3397	2453	1256	1463	710	1784	3166	2383	1281	4630	4208	4685	4097	4048
1967 Federal Surplus/Deficit	3138	519	499	642	478	1965	4259	3844	3266	2806	1831	4212	4470	4396
1968 Federal Surplus/Deficit	3503	1107	1217	1175	659	1971	3721	4260	4203	819	3324	4407	4586	4316
1969 Federal Surplus/Deficit	3463	2219	2733	2148	3097	3083	4391	4025	4239	4056	4104	4829	4716	4255
1970 Federal Surplus/Deficit	2607	-59	707	1303	1044	1239	1265	4017	3827	2775	3576	4612	4972	3697
1971 Federal Surplus/Deficit	1773	-116	382	790	792	1704	4292	4052	4586	4343	4178	4591	4508	4448
1972 Federal Surplus/Deficit	3599	2870	1461	1450	820	2161	4345	4102	4623	4274	4078	4296	4387	4327
1973 Federal Surplus/Deficit	3624	3845	1624	1253	901	2570	2064	1188	2092	-238	2752	4237	2390	2514
1974 Federal Surplus/Deficit	448	-465	168	709	64	3663	4404	4304	4418	3994	3910	4050	4379	4359
1975 Federal Surplus/Deficit	3545	2983	1178	261	671	1271	2753	3331	4687	1513	3765	4521	4638	4464
1976 Federal Surplus/Deficit	2693	1559	1625	2265	3270	4699	4430	4267	4670	4311	4212	4585	4707	4400
1977 Federal Surplus/Deficit	3610	3902	4084	1317	912	1055	620	1242	1920	-229	1717	934	402	1645
1978 Federal Surplus/Deficit	2115	715	1027	-688	25	2510	2557	2798	3798	4276	4083	4357	4157	4013
1979 Federal Surplus/Deficit	2543	832	2822	1648	1107	1169	1002	3063	4578	2595	3462	4752	2244	2001
1980 Federal Surplus/Deficit	258	-410	187	778	1037	2001	-5.6	2031	2017	2218	4313	4773	4701	3232
1981 Federal Surplus/Deficit	1538	-96	1016	969	1229	4175	3937	2733	4006	1011	3741	4580	4617	4412
1982 Federal Surplus/Deficit	3560	3522	1013	1081	1444	1965	3810	3964	4457	4423	4337	4445	4605	4238
1983 Federal Surplus/Deficit	3599	2410	2656	2261	1743	2527	4165	3883	4515	4293	4386	4618	4672	4460
1984 Federal Surplus/Deficit	3610	2372	1627	1264	3664	2109	4173	2699	4594	4496	4382	4678	4975	4348
1985 Federal Surplus/Deficit	3277	423	1466	1067	1582	1947	2556	739	4038	4348	4319	4744	3013	1531
1986 Federal Surplus/Deficit	260	-484	492	1128	2617	1147	3413	4240	4715	4500	4387	4544	4347	3731
1987 Federal Surplus/Deficit	2698	140	304	456	1416	1370	598	1436	3031	3018	3671	4492	3826	2564
1988 Federal Surplus/Deficit	680	-490	60	512	865	742	233	534	1456	743	3351	3980	981	3092
1989 Federal Surplus/Deficit	2156	426	640	132	206	1372	56	1789	3579	4419	4335	4669	3495	2161
1990 Federal Surplus/Deficit	252	-378	419	642	1137	2880	3904	3779	3635	4289	4308	4432	4653	3659
1991 Federal Surplus/Deficit	2995	1307	261	159	3020	3160	4012	3731	2573	3919	4070	4563	4550	4370
1992 Federal Surplus/Deficit	3614	2169	584	526	367	799	827	530	4150	1466	2995	3719	1923	2161

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	254	-315	-118	569	760	1134	673	858	2145	1839	2608	4768	2664	3242
<i>1994 Federal Surplus/Deficit</i>	2346	779	-131	442	1399	1624	533	1495	1729	648	4176	4047	2307	2618
<i>1995 Federal Surplus/Deficit</i>	393	-397	45	397	363	1407	1450	3915	4465	3810	3322	4580	4280	3954
<i>1996 Federal Surplus/Deficit</i>	2228	472	925	1673	3631	4452	4316	4296	4372	4143	4257	4507	4886	4470
<i>1997 Federal Surplus/Deficit</i>	3607	1387	1022	1038	677	2933	4333	3985	4157	3802	3953	4256	4518	4415
<i>1998 Federal Surplus/Deficit</i>	3573	2254	2763	3508	2511	1868	3528	3692	4158	2995	3747	4712	4765	3968

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2012 - 2013 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	3060	382	734	443	654	948	814	412	1417	391	2259	1175	1881	2742
1930 Federal Surplus/Deficit	1733	-51	590	893	838	1038	550	331	1470	726	3140	504	505	2572
1931 Federal Surplus/Deficit	792	197	394	594	1197	1145	421	557	1115	1420	-521	1827	379	2817
1932 Federal Surplus/Deficit	2479	764	953	-75	260	937	-140	76	2196	3102	3880	3631	3914	3239
1933 Federal Surplus/Deficit	1763	1173	1106	804	92	1863	3298	3127	1614	2931	3363	3313	3919	3759
1934 Federal Surplus/Deficit	3516	2974	1480	1502	3168	3692	3708	3998	4386	3960	3832	3219	2956	3234
1935 Federal Surplus/Deficit	1010	66	769	554	-63	1201	3006	3599	1270	1855	3231	3235	2363	3479
1936 Federal Surplus/Deficit	3280	818	456	651	600	896	-49	1144	1572	1364	3707	3371	3516	3011
1937 Federal Surplus/Deficit	2396	736	300	779	1258	967	592	156	1088	-160	-734	2488	591	2111
1938 Federal Surplus/Deficit	2588	1019	738	653	282	1691	3054	2246	3732	3716	3958	3485	3261	3425
1939 Federal Surplus/Deficit	1615	157	1189	919	567	823	632	434	2479	2291	3760	3357	1796	2713
1940 Federal Surplus/Deficit	883	-238	252	1005	1226	1959	436	991	4068	3635	3708	3213	2657	1764
1941 Federal Surplus/Deficit	429	-179	702	718	1062	1466	660	421	2679	1130	2226	2278	759	2657
1942 Federal Surplus/Deficit	2172	996	1514	-27	1078	2104	1724	2394	1390	1326	3351	3146	3474	3564
1943 Federal Surplus/Deficit	3321	1935	947	908	55	1289	2653	3575	4148	4214	4022	3378	3918	3591
1944 Federal Surplus/Deficit	3031	470	-24	523	635	876	755	594	1564	395	1986	766	-247	1849
1945 Federal Surplus/Deficit	2051	615	1123	-16	295	895	65	229	1102	-157	-2354	3391	2858	2501
1946 Federal Surplus/Deficit	2020	359	402	236	981	1854	2173	1559	4311	4050	3991	3417	3234	3576
1947 Federal Surplus/Deficit	3069	1045	1031	413	840	3700	3278	3578	4205	3722	3695	3402	3555	3562
1948 Federal Surplus/Deficit	2859	616	864	2765	3266	2649	3671	2283	3580	3019	3844	3703	3859	3766
1949 Federal Surplus/Deficit	3492	3015	1359	1086	664	1640	572	2780	4453	3922	3997	3645	3526	2245
1950 Federal Surplus/Deficit	1323	-447	59	580	382	1488	2776	3596	4268	4090	3850	3367	3775	3669
1951 Federal Surplus/Deficit	3254	2026	1068	1759	2564	3764	3786	4128	4548	4054	3925	3402	3266	3733
1952 Federal Surplus/Deficit	3471	1151	813	2407	1927	2690	3546	3134	2504	4174	4019	3610	3707	3514
1953 Federal Surplus/Deficit	3018	855	374	662	506	945	1007	3793	2873	643	3279	3435	4027	3822
1954 Federal Surplus/Deficit	3143	1088	870	1087	964	2217	2660	3643	3235	3612	3611	3439	3735	3716
1955 Federal Surplus/Deficit	3518	4005	3214	1119	2091	2220	927	863	1976	1176	2906	3259	3989	3758
1956 Federal Surplus/Deficit	3529	2665	621	1276	2744	3741	3760	3522	3994	3583	3594	3487	3840	3786
1957 Federal Surplus/Deficit	3215	1825	991	1330	422	2062	1855	2059	4150	3958	3689	3585	3844	3273
1958 Federal Surplus/Deficit	2131	143	720	680	915	1262	1699	3717	3545	3251	3768	3627	3851	3232
1959 Federal Surplus/Deficit	2141	789	606	1020	1576	3293	3741	3497	3023	3992	3674	3263	3786	3452
1960 Federal Surplus/Deficit	3336	1636	3417	2739	3343	3514	3174	2941	3901	4161	3783	3399	3696	3477
1961 Federal Surplus/Deficit	2623	402	932	869	485	1374	2834	3052	4259	3976	3220	3379	3793	3377
1962 Federal Surplus/Deficit	2755	1514	444	167	850	1779	2313	2959	2151	3541	3973	3384	3698	2921
1963 Federal Surplus/Deficit	2327	850	402	1678	1912	3150	2753	3508	1556	2267	3214	3361	3560	3517
1964 Federal Surplus/Deficit	3261	1198	913	287	629	1734	1494	2803	1485	2531	2108	3310	3848	3829
1965 Federal Surplus/Deficit	3500	1847	1784	1883	1759	3742	3770	3663	4135	3554	3902	3238	3732	3463
1966 Federal Surplus/Deficit	3381	2633	1105	1289	644	1641	2581	2032	1109	4088	3579	3313	2927	3546
1967 Federal Surplus/Deficit	3208	889	480	484	416	1811	3627	3441	2873	2603	1315	3188	3736	3706
1968 Federal Surplus/Deficit	3459	1471	1068	1009	593	1812	3025	3650	3713	718	2711	3176	3485	3639
1969 Federal Surplus/Deficit	3433	2440	2508	1947	2928	2749	3763	3517	3746	3773	3821	3529	3569	3619
1970 Federal Surplus/Deficit	2783	268	632	1135	973	1168	1057	3441	3380	2582	2951	3235	3876	3400
1971 Federal Surplus/Deficit	2051	166	392	629	725	1587	3720	3649	4302	4060	3822	3556	3925	3896
1972 Federal Surplus/Deficit	3523	2966	1284	1279	751	1983	3704	3698	4339	3990	3754	3271	3758	3735
1973 Federal Surplus/Deficit	3547	3757	1436	1086	832	2325	1705	917	1824	-269	2166	3073	1282	2681
1974 Federal Surplus/Deficit	751	-430	260	549	8.0	3216	3757	3901	4134	3711	3627	3026	3866	3768
1975 Federal Surplus/Deficit	3470	3043	1031	136	607	1201	2255	2880	4194	1382	3133	3423	3953	3933
1976 Federal Surplus/Deficit	2857	1879	1438	2062	3073	3754	3787	3817	4139	4028	3865	3482	3641	3803
1977 Federal Surplus/Deficit	3534	4001	3695	1149	842	988	747	926	1631	-261	472	-408	-906	2049
1978 Federal Surplus/Deficit	2363	1092	914	-9.8	-30	2265	2082	2399	3347	3943	3455	3243	2971	3516
1979 Federal Surplus/Deficit	2723	1211	2593	1471	1034	1104	823	2646	4049	2411	2844	3379	1127	2327
1980 Federal Surplus/Deficit	550	-205	254	618	965	1839	302	1316	1760	2048	3700	3605	3447	3136
1981 Federal Surplus/Deficit	1834	203	893	806	1154	3622	3563	2507	3537	901	3109	3239	3870	3694
1982 Federal Surplus/Deficit	3489	3481	893	917	1364	1810	3102	3561	4173	4047	3719	3421	3801	3619
1983 Federal Surplus/Deficit	3513	2594	2417	2057	1655	2290	3454	3350	4231	3912	3777	3379	3426	3842
1984 Federal Surplus/Deficit	3523	2568	1440	1095	3391	1938	3738	2325	4310	4179	3876	3392	3909	3695
1985 Federal Surplus/Deficit	3305	784	1291	902	1498	1794	2083	884	3345	3935	3751	3373	1906	1981
1986 Federal Surplus/Deficit	340	-666	487	962	2487	1080	2776	3837	4430	4101	3780	3220	3148	3406
1987 Federal Surplus/Deficit	2860	479	326	301	1337	1283	682	857	2670	2801	3043	3250	2653	2709
1988 Federal Surplus/Deficit	991	-394	169	356	796	691	191	285	1268	651	2731	2904	-256	3051
1989 Federal Surplus/Deficit	2397	795	582	73	148	1283	198	1273	3166	4007	3811	3312	2370	2437
1990 Federal Surplus/Deficit	332	-163	416	485	1063	2557	3172	3326	3210	3901	3867	3242	3704	3372
1991 Federal Surplus/Deficit	3085	1654	298	106	2853	2789	3549	3328	2259	3610	3440	3383	3325	3770
1992 Federal Surplus/Deficit	3527	2401	544	373	306	744	671	404	3664	1264	2394	2695	797	2428

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	333	-79	58	412	694	1070	554	600	1889	1693	2032	3376	1555	3147
<i>1994 Federal Surplus/Deficit</i>	2561	1153	40	291	1319	1503	482	1202	1501	556	3530	2943	1197	2743
<i>1995 Federal Surplus/Deficit</i>	696	-197	178	245	302	1318	1208	3441	4181	3524	2709	3328	3088	3511
<i>1996 Federal Surplus/Deficit</i>	2461	843	812	1497	3358	3710	3751	3861	4088	3860	3973	3483	3867	3909
<i>1997 Federal Surplus/Deficit</i>	3525	1729	898	874	612	2627	3791	3582	3872	3519	3670	3232	3772	3816
<i>1998 Federal Surplus/Deficit</i>	3502	2470	2521	2746	2387	1721	2871	3167	3677	2782	3118	3311	3929	3507

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2013 - 2014 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	2811	209	696	336	493	858	517	236	1249	228	2099	1809	2548	2648
1930 Federal Surplus/Deficit	1513	-206	549	787	679	941	352	141	1291	554	2887	1140	1175	2480
1931 Federal Surplus/Deficit	613	31	347	488	1039	978	233	381	948	1257	-678	2461	1049	2724
1932 Federal Surplus/Deficit	2238	576	915	-192	98	870	-337	-113	2026	2936	3719	4254	4464	3142
1933 Federal Surplus/Deficit	1541	968	1062	697	-74	1697	3106	2947	1446	2768	3198	3890	4407	3754
1934 Federal Surplus/Deficit	3283	2721	1427	1395	3005	3518	3545	3801	4201	3791	3682	3848	3681	3111
1935 Federal Surplus/Deficit	819	-94	732	448	-235	1034	2816	3365	1102	1692	3067	3860	3031	3380
1936 Federal Surplus/Deficit	3037	624	416	544	440	872	-246	660	1404	1201	3538	3995	4207	2917
1937 Federal Surplus/Deficit	2156	549	248	672	1100	846	397	-31	911	-330	-891	3119	1259	2021
1938 Federal Surplus/Deficit	2345	823	701	546	118	1524	2864	2066	3562	3550	3780	4097	3928	3328
1939 Federal Surplus/Deficit	1399	-8.5	1147	812	406	731	746	196	1769	2128	3592	3986	2466	2620
1940 Federal Surplus/Deficit	699	-385	193	899	1068	1794	247	813	3896	3470	3540	3837	3326	1663
1941 Federal Surplus/Deficit	268	-328	665	611	902	1299	825	194	2079	968	2066	2910	1427	2564
1942 Federal Surplus/Deficit	1938	799	1456	-136	918	1938	1535	2214	1222	1163	3185	3770	4139	3465
1943 Federal Surplus/Deficit	3078	1705	908	801	-110	1121	2463	3391	3976	4044	3871	4036	4421	3491
1944 Federal Surplus/Deficit	2781	293	-142	415	474	845	791	347	1339	190	721	1403	421	1759
1945 Federal Surplus/Deficit	1822	433	1084	-129	133	728	-124	41	935	-326	-2524	4014	3524	2409
1946 Federal Surplus/Deficit	1791	187	357	129	822	1688	1983	1380	4089	3882	3853	4066	3901	3477
1947 Federal Surplus/Deficit	2820	849	992	305	678	3532	3086	3344	3983	3557	3527	4027	4242	3464
1948 Federal Surplus/Deficit	2611	435	827	2647	3102	2484	3477	2102	3411	2857	3682	4326	4338	3684
1949 Federal Surplus/Deficit	3257	2761	1310	979	503	1474	733	2206	4231	3757	3837	4275	4191	2154
1950 Federal Surplus/Deficit	1119	-588	-33	473	219	1321	2586	3361	4045	3874	3682	3944	4223	3570
1951 Federal Surplus/Deficit	3007	1795	1029	1651	2404	3590	3594	3494	4070	3838	3709	4050	3933	3651
1952 Federal Surplus/Deficit	3233	949	775	2297	1769	2525	3353	2953	2337	3959	3852	4300	4371	3416
1953 Federal Surplus/Deficit	2770	666	324	555	345	786	806	3559	2705	480	3115	4065	4575	3743
1954 Federal Surplus/Deficit	2895	888	834	980	804	2052	2470	3409	3067	3448	3444	4089	4211	3706
1955 Federal Surplus/Deficit	3288	3112	3023	1012	1934	2055	739	687	1809	1013	2743	3884	4504	3756
1956 Federal Surplus/Deficit	3298	2417	581	1169	2585	3568	3562	3223	3772	3368	3378	4081	4308	3704
1957 Federal Surplus/Deficit	2967	1599	953	1223	259	1896	1667	1880	3978	3792	3522	4208	4364	3176
1958 Federal Surplus/Deficit	1898	-20	681	573	756	1094	1511	3534	3376	3088	3599	4250	4504	3136
1959 Federal Surplus/Deficit	1909	601	566	913	1417	3126	3546	3262	2854	3808	3516	3840	4281	3354
1960 Federal Surplus/Deficit	3091	1417	3210	2621	3172	3348	2982	2761	3731	3991	3621	4023	4361	3378
1961 Federal Surplus/Deficit	2378	227	895	762	323	1207	2645	2871	4087	3809	3056	4029	4284	3280
1962 Federal Surplus/Deficit	2509	1299	398	60	690	1613	2124	2778	1983	3376	3830	4014	4383	2827
1963 Federal Surplus/Deficit	2088	659	357	1570	1754	2984	2563	3326	1388	2105	3050	3984	4225	3418
1964 Federal Surplus/Deficit	3015	994	876	179	467	1568	1306	2624	1318	2367	1948	3935	4383	3845
1965 Federal Surplus/Deficit	3269	1621	1713	1776	1601	3568	3563	3297	3912	3389	3686	3814	4396	3364
1966 Federal Surplus/Deficit	3139	2386	1066	1182	483	1475	2392	1853	939	3918	3413	3938	3596	3447
1967 Federal Surplus/Deficit	2960	697	436	377	254	1646	3442	3206	2704	2441	1160	3765	4220	3618
1968 Federal Surplus/Deficit	3220	1259	1029	902	431	1646	2835	3466	3544	556	2550	3801	4155	3548
1969 Federal Surplus/Deficit	3192	2198	2370	1840	2767	2584	3566	3266	3567	3558	3605	4197	4235	3526
1970 Federal Surplus/Deficit	2536	96	595	1028	814	1000	866	3258	3211	2419	2789	3859	4539	3303
1971 Federal Surplus/Deficit	1821	2.4	343	521	564	1420	3525	3415	4079	3844	3661	4144	4422	3883
1972 Federal Surplus/Deficit	3292	2713	1237	1172	590	1817	3510	3464	4092	3748	3579	3848	4337	3735
1973 Federal Surplus/Deficit	3316	3145	1386	979	671	2159	1515	1303	1611	-439	1948	3657	1663	2589
1974 Federal Surplus/Deficit	573	-570	195	442	-160	3051	3564	3667	3911	3495	3411	3603	4354	3773
1975 Federal Surplus/Deficit	3237	2788	990	19	446	1033	2065	2700	4022	1219	2970	4068	4477	3887
1976 Federal Surplus/Deficit	2609	1652	1388	1953	2911	3580	3600	3441	3968	3812	3697	4138	4306	3743
1977 Federal Surplus/Deficit	3304	3108	3491	1041	681	820	1013	667	1387	-430	-1348	215	-236	1961
1978 Federal Surplus/Deficit	2126	892	877	-127	-196	2098	1892	2217	3177	3775	3289	3876	3637	3417
1979 Federal Surplus/Deficit	2476	1003	2436	1365	875	936	948	2072	3879	2249	2682	4002	1796	2236
1980 Federal Surplus/Deficit	382	-355	197	512	806	1673	616	355	1592	1886	3533	4228	4112	3040
1981 Federal Surplus/Deficit	1611	36	855	699	994	3456	3378	2194	3369	738	2945	3863	4411	3619
1982 Federal Surplus/Deficit	3259	3103	857	810	1205	1644	2911	3327	3950	3880	3552	3998	4287	3520
1983 Federal Surplus/Deficit	3282	2348	2281	1948	1496	2124	3261	3168	4008	3747	3609	4003	4091	3765
1984 Federal Surplus/Deficit	3293	2322	1389	988	3219	1771	3543	2144	4087	3997	3708	4016	4573	3596
1985 Federal Surplus/Deficit	3059	595	1247	794	1338	1627	1894	1342	2743	3768	3583	3998	2575	1892
1986 Federal Surplus/Deficit	-3	-640	440	855	2329	913	2620	3578	4190	3932	3612	3843	3755	3308
1987 Federal Surplus/Deficit	2613	302	275	193	1177	1116	967	-31	2502	2640	2880	3875	3345	2616
1988 Federal Surplus/Deficit	802	-536	102	250	637	770	-36	53	1085	453	2533	3356	413	2952
1989 Federal Surplus/Deficit	2158	607	544	-45	-19	1083	518	728	2694	3840	3643	3938	3039	2346
1990 Federal Surplus/Deficit	-11	-314	370	378	903	2393	2983	3142	3041	3735	3719	3867	4403	3274
1991 Federal Surplus/Deficit	2837	1433	245	-12	2693	2624	3365	3094	2092	3446	3274	4026	3992	3717
1992 Federal Surplus/Deficit	3297	2160	503	266	143	788	449	864	2884	1023	2234	3318	1468	2338

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	67	-234	-25	305	534	902	366	423	1719	1529	1857	3999	2222	3051
<i>1994 Federal Surplus/Deficit</i>	2318	949	-43	184	1161	1337	427	1006	1319	382	3295	3571	1867	2651
<i>1995 Federal Surplus/Deficit</i>	521	-346	105	138	140	1151	1020	3258	3958	3360	2548	3951	3754	3412
<i>1996 Federal Surplus/Deficit</i>	2220	650	775	1390	3187	3536	3550	3496	3865	3643	3757	4061	4515	3863
<i>1997 Federal Surplus/Deficit</i>	3292	1509	861	767	450	2462	3596	3278	3626	3303	3454	3809	4387	3863
<i>1998 Federal Surplus/Deficit</i>	3266	2226	2380	2628	2228	1555	2681	2986	3508	2621	2955	3934	4510	3409

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	2691	93	565	197	104	612	-34	-124	900	-122	1749	956	1692	2547
1930 Federal Surplus/Deficit	1398	-324	418	648	290	736	-41	-248	912	179	2286	287	319	2378
1931 Federal Surplus/Deficit	500	-85	216	349	650	740	-153	-8.7	573	886	-1666	1607	194	2623
1932 Federal Surplus/Deficit	2121	461	786	-331	-291	493	-702	-472	1676	2586	3369	3400	3787	3041
1933 Federal Surplus/Deficit	1426	852	933	558	-463	1320	2741	2587	1096	2418	2848	2969	3848	3681
1934 Federal Surplus/Deficit	3158	2604	1298	1256	2616	3141	3178	3374	3837	3410	3332	2994	2826	3009
1935 Federal Surplus/Deficit	706	-210	601	309	-624	656	2450	2937	753	1342	2717	3006	2176	3278
1936 Federal Surplus/Deficit	2914	508	285	405	50	529	-612	226	1054	851	3188	3141	3352	2816
1937 Federal Surplus/Deficit	2039	433	116	533	711	642	3.0	-432	561	-680	-1241	2265	404	1919
1938 Federal Surplus/Deficit	2227	708	571	407	-271	1147	2498	1707	3212	3200	3363	3175	3072	3226
1939 Federal Surplus/Deficit	1285	-125	1018	673	16	354	425	-171	1358	1778	3242	3132	1611	2519
1940 Federal Surplus/Deficit	586	-502	60	760	679	1416	-118	453	3546	3120	3190	2984	2470	1561
1941 Federal Surplus/Deficit	157	-444	534	472	513	922	459	-166	1729	618	1716	2056	572	2462
1942 Federal Surplus/Deficit	1822	683	1326	-275	529	1560	1169	1855	872	812	2835	2916	3284	3363
1943 Federal Surplus/Deficit	2954	1589	778	662	-500	743	2097	2978	3627	3653	3552	3182	3815	3390
1944 Federal Surplus/Deficit	2660	176	-278	276	84	483	404	-12	989	-160	371	549	-434	1657
1945 Federal Surplus/Deficit	1706	317	954	-268	-256	350	-490	-318	585	-676	-2874	3161	2669	2307
1946 Federal Surplus/Deficit	1676	71	226	-10	432	1310	1618	1020	3671	3510	3498	3213	3046	3375
1947 Federal Surplus/Deficit	2700	733	861	166	289	3155	2720	2917	3565	3207	3177	3173	3387	3362
1948 Federal Surplus/Deficit	2492	318	696	2508	2713	2107	3111	1743	3061	2506	3332	3472	3798	3583
1949 Federal Surplus/Deficit	3131	2644	1180	840	114	1096	411	1789	3813	3406	3487	3421	3336	2053
1950 Federal Surplus/Deficit	1005	-706	-167	334	-170	944	2220	2934	3628	3456	3332	3022	3445	3468
1951 Federal Surplus/Deficit	2884	1679	898	1512	2015	3213	3229	3066	3690	3420	3291	3196	3077	3550
1952 Federal Surplus/Deficit	3108	833	644	2158	1380	2147	2987	2594	1987	3541	3502	3446	3516	3314
1953 Federal Surplus/Deficit	2650	550	192	416	-45	409	440	3132	2355	130	2765	3211	3877	3642
1954 Federal Surplus/Deficit	2773	772	703	841	415	1675	2105	2981	2717	3098	3094	3236	3657	3760
1955 Federal Surplus/Deficit	3160	2985	2893	873	1545	1678	373	327	1460	663	2393	3030	3872	3780
1956 Federal Surplus/Deficit	3171	2301	449	1030	2195	3190	3197	2796	3354	2950	2961	3160	3790	3603
1957 Federal Surplus/Deficit	2846	1483	822	1084	-130	1518	1301	1520	3629	3442	3172	3355	3737	3075
1958 Federal Surplus/Deficit	1782	-137	550	434	367	717	1145	3175	3026	2738	3249	3397	3674	3034
1959 Federal Surplus/Deficit	1792	484	434	774	1028	2749	3180	2835	2504	3391	3166	2918	3583	3252
1960 Federal Surplus/Deficit	2968	1301	3078	2482	2783	2970	2617	2402	3382	3641	3271	3170	3506	3277
1961 Federal Surplus/Deficit	2260	111	764	623	-66	830	2279	2511	3738	3459	2706	3175	3704	3178
1962 Federal Surplus/Deficit	2391	1184	266	-79	301	1236	1758	2419	1633	3026	3480	3160	3528	2725
1963 Federal Surplus/Deficit	1971	543	225	1431	1365	2607	2197	2966	1039	1755	2700	3130	3370	3316
1964 Federal Surplus/Deficit	2893	879	746	40	78	1190	940	2265	968	2017	1598	3081	3794	3743
1965 Federal Surplus/Deficit	3141	1505	1583	1637	1212	3190	3197	2870	3495	3039	3268	2893	3541	3263
1966 Federal Surplus/Deficit	3015	2269	935	1043	94	1098	2027	1494	589	3568	3063	3084	2740	3346
1967 Federal Surplus/Deficit	2839	582	305	238	-136	1268	3076	2779	2355	2091	810	2844	3549	3517
1968 Federal Surplus/Deficit	3095	1144	899	763	42	1269	2469	3107	3194	206	2200	2947	3300	3446
1969 Federal Surplus/Deficit	3068	2082	2242	1701	2378	2206	3200	2839	3217	3140	3187	3343	3380	3424
1970 Federal Surplus/Deficit	2418	-21	464	889	424	699	414	2888	2862	2069	2439	3005	3683	3201
1971 Federal Surplus/Deficit	1706	-114	210	382	175	1043	3160	2988	3662	3427	3262	3222	3846	4006
1972 Federal Surplus/Deficit	3165	2597	1107	1033	200	1440	3145	3037	3675	3330	3161	2927	3719	3757
1973 Federal Surplus/Deficit	3189	3018	1256	840	282	1782	1150	1028	1254	-789	1588	2781	808	2487
1974 Federal Surplus/Deficit	460	-688	63	303	-549	2673	3195	3239	3494	3077	2994	2682	3622	3853
1975 Federal Surplus/Deficit	3110	2671	860	-120	56	655	1700	2340	3672	869	2620	3152	3846	4024
1976 Federal Surplus/Deficit	2489	1534	1258	1814	2521	3203	3235	3013	3619	3395	3296	3216	3451	3642
1977 Federal Surplus/Deficit	3176	2980	3354	902	292	443	689	298	1029	-780	-1856	-639	-1092	1859
1978 Federal Surplus/Deficit	2010	777	747	-266	-584	1515	1526	1858	2828	3359	2939	2989	2782	3315
1979 Federal Surplus/Deficit	2357	887	2308	1226	486	660	620	1465	3529	1899	2332	3149	940	2135
1980 Federal Surplus/Deficit	269	-472	65	373	417	1296	297	-86	1242	1536	3183	3375	3257	2938
1981 Federal Surplus/Deficit	1496	-80	725	560	605	3078	2962	1834	3019	388	2595	3009	3736	3517
1982 Federal Surplus/Deficit	3131	2976	727	672	816	1267	2546	2899	3533	3507	3202	3077	3591	3418
1983 Federal Surplus/Deficit	3155	2231	2152	1809	1107	1746	2896	2808	3590	3396	3259	3150	3235	3664
1984 Federal Surplus/Deficit	3165	2205	1259	849	2830	1394	3177	1784	3669	3580	3358	3162	3717	3494
1985 Federal Surplus/Deficit	2936	478	1116	655	948	1250	1529	1065	2327	3418	3233	3144	1719	1790
1986 Federal Surplus/Deficit	-131	-768	307	716	1940	535	2255	3150	3773	3581	3262	2990	2900	3207
1987 Federal Surplus/Deficit	2494	185	142	54	788	738	644	-391	2152	2290	2530	3022	2489	2515
1988 Federal Surplus/Deficit	689	-654	-30	111	248	556	-427	-342	705	78	2156	2350	-443	2850
1989 Federal Surplus/Deficit	2032	479	403	-184	-408	705	199	362	2292	3490	3293	3084	2183	2244
1990 Federal Surplus/Deficit	-139	-432	238	239	514	2015	2618	2715	2692	3385	3369	3014	3547	3173
1991 Federal Surplus/Deficit	2716	1318	113	-151	2303	2247	2999	2666	1742	3096	2924	3172	3137	3615
1992 Federal Surplus/Deficit	3169	2045	372	127	-247	576	58	586	2210	672	1884	2465	613	2236

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-45	-350	-158	166	144	682	-25	22	1343	1158	1031	3145	1366	2949
<i>1994 Federal Surplus/Deficit</i>	2199	832	-176	45	772	960	61	646	969	32	2945	2717	1012	2549
<i>1995 Federal Surplus/Deficit</i>	408	-463	-28	-0.5	-250	774	654	2851	3541	3010	2198	3097	2898	3311
<i>1996 Federal Surplus/Deficit</i>	2102	534	645	1251	2798	3159	3182	3037	3448	3226	3340	3139	3679	3761
<i>1997 Federal Surplus/Deficit</i>	3166	1393	731	628	61	2084	3228	2832	3208	2885	3036	2887	3713	3785
<i>1998 Federal Surplus/Deficit</i>	3140	2110	2251	2489	1839	1178	2315	2627	3158	2270	2605	3080	3793	3307

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	2590	-7.6	469	88	-13	361	31	-124	788	-248	1624	1633	2371	2474
1930 Federal Surplus/Deficit	1297	-424	322	539	173	444	-135	-219	830	78	2412	964	998	2305
1931 Federal Surplus/Deficit	400	-185	119	240	533	481	-254	22	487	781	-1153	2284	873	2550
1932 Federal Surplus/Deficit	2021	361	690	-440	-408	373	-824	-472	1565	2461	3244	4077	4287	2968
1933 Federal Surplus/Deficit	1325	752	836	449	-579	1200	2620	2587	984	2293	2723	3598	4230	3580
1934 Federal Surplus/Deficit	3057	2504	1201	1147	2499	3021	3058	3325	3677	3236	3207	3672	3505	2936
1935 Federal Surplus/Deficit	605	-310	505	200	-741	537	2329	2888	641	1216	2592	3684	2855	3205
1936 Federal Surplus/Deficit	2813	408	189	296	-66	375	-733	301	943	726	3063	3819	4031	2743
1937 Federal Surplus/Deficit	1939	333	19	424	594	349	-90	-391	450	-806	-1366	2943	1082	1846
1938 Federal Surplus/Deficit	2127	607	474	298	-387	1027	2377	1707	3101	3075	3189	3804	3751	3153
1939 Federal Surplus/Deficit	1184	-226	921	564	-100	234	260	-164	1308	1653	3117	3809	2290	2446
1940 Federal Surplus/Deficit	485	-603	-36	651	562	1297	-239	453	3435	2995	3065	3661	3149	1488
1941 Federal Surplus/Deficit	56	-544	438	363	397	802	338	-166	1618	493	1591	2734	1251	2389
1942 Federal Surplus/Deficit	1721	583	1230	-384	412	1441	1048	1855	761	687	2710	3594	3963	3290
1943 Federal Surplus/Deficit	2854	1489	681	553	-616	624	1976	2929	3515	3479	3396	3860	4244	3317
1944 Federal Surplus/Deficit	2560	75	-374	167	-32	348	304	-13	878	-285	246	1227	245	1584
1945 Federal Surplus/Deficit	1606	217	858	-377	-373	231	-611	-318	474	-802	-2999	3838	3348	2234
1946 Federal Surplus/Deficit	1575	-30	129	-119	316	1191	1496	1020	3511	3336	3324	3881	3725	3302
1947 Federal Surplus/Deficit	2599	633	765	57	173	3035	2599	2868	3405	3082	3052	3850	4066	3289
1948 Federal Surplus/Deficit	2392	218	600	2399	2596	1987	2990	1743	2949	2381	3206	4150	4161	3510
1949 Federal Surplus/Deficit	3030	2544	1084	731	-3.1	977	246	1846	3653	3281	3362	4099	4015	1980
1950 Federal Surplus/Deficit	904	-806	-263	225	-286	824	2099	2885	3468	3282	3204	3651	4046	3395
1951 Federal Surplus/Deficit	2784	1578	802	1403	1899	3093	3108	3017	3530	3246	3117	3834	3756	3477
1952 Federal Surplus/Deficit	3007	733	548	2049	1263	2027	2866	2593	1875	3367	3377	4124	4195	3241
1953 Federal Surplus/Deficit	2549	450	95	307	-161	289	319	3083	2244	4.7	2639	3889	4398	3569
1954 Federal Surplus/Deficit	2673	672	607	732	299	1555	1984	2932	2606	2972	2969	3913	4035	3531
1955 Federal Surplus/Deficit	3059	2885	2797	764	1428	1558	252	327	1348	538	2268	3707	4327	3581
1956 Federal Surplus/Deficit	3070	2201	353	921	2079	3070	3076	2747	3194	2776	2787	3788	4131	3530
1957 Federal Surplus/Deficit	2745	1383	726	975	-246	1398	1180	1520	3517	3316	3046	4032	4187	3002
1958 Federal Surplus/Deficit	1682	-238	454	325	250	597	1024	3156	2915	2613	3124	4074	4327	2961
1959 Federal Surplus/Deficit	1692	384	338	665	911	2629	3059	2786	2393	3216	3041	3547	4105	3179
1960 Federal Surplus/Deficit	2867	1201	2982	2373	2666	2851	2496	2402	3270	3516	3146	3847	4185	3204
1961 Federal Surplus/Deficit	2160	10	668	514	-183	710	2158	2511	3626	3334	2581	3853	4107	3105
1962 Federal Surplus/Deficit	2290	1084	170	-188	184	1116	1637	2419	1522	2900	3354	3838	4207	2652
1963 Federal Surplus/Deficit	1870	442	129	1322	1248	2487	2076	2966	927	1629	2575	3808	4048	3243
1964 Federal Surplus/Deficit	2792	778	650	-69	-38	1071	819	2265	857	1891	1473	3759	4206	3670
1965 Federal Surplus/Deficit	3041	1405	1487	1528	1095	3071	3076	2821	3335	2914	3094	3522	4220	3190
1966 Federal Surplus/Deficit	2914	2169	839	934	-22	978	1905	1494	478	3443	2938	3761	3419	3273
1967 Federal Surplus/Deficit	2738	482	209	129	-252	1148	2955	2730	2243	1965	684	3473	4043	3444
1968 Federal Surplus/Deficit	2995	1043	803	654	-74	1149	2348	3107	3083	80	2075	3625	3979	3373
1969 Federal Surplus/Deficit	2967	1982	2145	1592	2262	2087	3079	2790	3106	2966	3013	4021	4059	3351
1970 Federal Surplus/Deficit	2317	-121	368	780	308	503	380	2899	2750	1944	2314	3683	4362	3128
1971 Federal Surplus/Deficit	1605	-215	114	273	58	923	3039	2939	3501	3252	3088	3851	4245	3708
1972 Federal Surplus/Deficit	3064	2497	1010	924	84	1320	3024	2988	3514	3156	2987	3556	4160	3560
1973 Federal Surplus/Deficit	3088	2918	1160	731	165	1662	1029	943	1150	-914	1473	3481	1486	2414
1974 Federal Surplus/Deficit	360	-788	-34	194	-665	2553	3078	3191	3334	2903	2820	3310	4178	3599
1975 Federal Surplus/Deficit	3009	2570	764	-229	-60	536	1578	2340	3561	744	2495	3781	4300	3712
1976 Federal Surplus/Deficit	2389	1434	1161	1705	2405	3083	3114	2965	3507	3220	3122	3845	4130	3569
1977 Federal Surplus/Deficit	3075	2880	3258	793	176	323	526	307	925	-906	-1823	39	-413	1786
1978 Federal Surplus/Deficit	1909	677	650	-375	-702	1601	1405	1858	2716	3185	2814	3618	3461	3242
1979 Federal Surplus/Deficit	2257	787	2211	1117	369	439	461	1713	3418	1773	2207	3826	1619	2062
1980 Federal Surplus/Deficit	169	-573	-32	264	300	1176	129	-4.9	1131	1411	3057	4052	3935	2866
1981 Federal Surplus/Deficit	1395	-180	628	451	489	2959	2792	1834	2907	263	2470	3686	4235	3444
1982 Federal Surplus/Deficit	3031	2875	630	562	699	1147	2425	2850	3373	3333	3076	3705	4110	3345
1983 Federal Surplus/Deficit	3054	2131	2056	1700	990	1627	2775	2808	3430	3271	3134	3827	3914	3591
1984 Federal Surplus/Deficit	3064	2105	1163	740	2714	1274	3025	1784	3509	3405	3233	3839	4396	3421
1985 Federal Surplus/Deficit	2835	378	1020	546	832	1130	1408	983	2282	3272	3107	3822	2398	1717
1986 Federal Surplus/Deficit	-231	-868	211	607	1823	416	2134	3101	3613	3407	3137	3667	3579	3134
1987 Federal Surplus/Deficit	2393	85	46	-55	672	618	480	-391	2041	2164	2405	3699	3168	2442
1988 Federal Surplus/Deficit	588	-754	-127	1.8	131	273	-523	-307	624	-23	2057	3179	236	2777
1989 Federal Surplus/Deficit	1931	378	307	-293	-525	586	31	368	2232	3365	3168	3761	2862	2171
1990 Federal Surplus/Deficit	-240	-532	142	130	397	1895	2496	2666	2580	3260	3218	3691	4226	3100
1991 Federal Surplus/Deficit	2615	1218	17	-260	2187	2127	2864	2617	1631	2971	2799	3823	3815	3542
1992 Federal Surplus/Deficit	3069	1945	276	18	-363	291	-37	504	2422	547	1759	3142	1291	2163

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-146	-450	-254	57	28	405	-121	63	1258	1053	1382	3823	2045	2876
<i>1994 Federal Surplus/Deficit</i>	2099	732	-272	-64	655	840	-60	646	858	-93	2820	3395	1691	2476
<i>1995 Federal Surplus/Deficit</i>	308	-563	-124	-110	-366	654	533	2802	3380	2885	2073	3775	3577	3238
<i>1996 Federal Surplus/Deficit</i>	2002	434	549	1142	2681	3039	3052	3020	3288	3051	3166	3768	4339	3688
<i>1997 Federal Surplus/Deficit</i>	3065	1293	635	519	-55	1964	3110	2801	3048	2711	2862	3516	4211	3688
<i>1998 Federal Surplus/Deficit</i>	3040	2010	2155	2380	1722	1058	2194	2627	3047	2145	2480	3758	4333	3234

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	2519	-78	401	-3.5	-144	361	-370	-437	610	-392	1480	718	1453	2312
1930 Federal Surplus/Deficit	1227	-494	254	447	43	485	-377	-560	623	-91	2017	49	81	2143
1931 Federal Surplus/Deficit	329	-256	52	148	402	489	-489	-321	284	616	-1935	1369	-45	2388
1932 Federal Surplus/Deficit	1950	291	623	-532	-539	242	-1038	-785	1387	2317	3100	3162	3549	2806
1933 Federal Surplus/Deficit	1254	681	769	357	-710	1069	2405	2275	807	2149	2579	2620	3609	3447
1934 Federal Surplus/Deficit	2986	2434	1134	1055	2369	2890	2842	2973	3459	3053	3063	2757	2587	2774
1935 Federal Surplus/Deficit	534	-381	438	108	-871	405	2114	2537	463	1072	2448	2768	1937	3044
1936 Federal Surplus/Deficit	2742	338	122	205	-197	277	-948	-86	765	581	2919	2903	3113	2581
1937 Federal Surplus/Deficit	1868	262	-48	333	463	391	-333	-744	272	-950	-1510	2027	165	1684
1938 Federal Surplus/Deficit	2056	537	407	206	-518	896	2162	1394	2923	2931	3005	2826	2834	2991
1939 Federal Surplus/Deficit	1113	-296	854	472	-231	102	89	-483	1069	1509	2973	2894	1372	2284
1940 Federal Surplus/Deficit	414	-673	-103	559	431	1165	-454	141	3257	2851	2921	2746	2232	1327
1941 Federal Surplus/Deficit	-15	-615	370	271	266	671	124	-478	1440	349	1447	1818	333	2228
1942 Federal Surplus/Deficit	1650	512	1163	-475	281	1309	833	1542	583	543	2566	2678	3045	3128
1943 Federal Surplus/Deficit	2783	1418	614	461	-747	492	1761	2578	3337	3295	3283	2944	3492	3155
1944 Federal Surplus/Deficit	2489	4.9	-442	75	-163	232	69	-325	700	-430	102	311	-673	1422
1945 Federal Surplus/Deficit	1535	146	790	-469	-504	99	-825	-631	296	-946	-3143	2923	2430	2072
1946 Federal Surplus/Deficit	1504	-100	62	-211	185	1059	1282	708	3294	3152	3141	2903	2807	3140
1947 Federal Surplus/Deficit	2528	563	698	-35	42	2904	2385	2516	3188	2938	2908	2935	3148	3127
1948 Federal Surplus/Deficit	2321	147	533	2308	2466	1855	2775	1430	2772	2237	3063	3235	3560	3348
1949 Federal Surplus/Deficit	2959	2473	1016	639	-134	845	75	1476	3436	3137	3218	3183	3097	1818
1950 Federal Surplus/Deficit	833	-877	-331	133	-417	693	1885	2533	3250	3098	3020	2673	3122	3233
1951 Federal Surplus/Deficit	2713	1508	735	1312	1768	2961	2893	2666	3313	3062	2934	2856	2839	3315
1952 Federal Surplus/Deficit	2936	663	481	1958	1132	1896	2651	2281	1698	3183	3233	3208	3277	3079
1953 Federal Surplus/Deficit	2478	379	28	215	-292	158	104	2731	2066	-139	2496	2973	3638	3407
1954 Federal Surplus/Deficit	2602	602	539	640	168	1423	1769	2581	2428	2828	2825	2965	3418	3525
1955 Federal Surplus/Deficit	2988	2814	2730	672	1297	1427	37	15	1170	394	2124	2792	3633	3546
1956 Federal Surplus/Deficit	2999	2130	286	830	1948	2939	2861	2395	2977	2592	2603	2810	3551	3368
1957 Federal Surplus/Deficit	2674	1312	658	883	-377	1267	965	1208	3339	3172	2902	3117	3499	2840
1958 Federal Surplus/Deficit	1611	-308	386	233	119	466	809	2804	2737	2469	2980	3159	3435	2799
1959 Federal Surplus/Deficit	1621	314	271	574	780	2498	2845	2434	2215	3033	2897	2569	3261	3017
1960 Federal Surplus/Deficit	2796	1130	2915	2281	2535	2719	2281	2089	3092	3371	3002	2932	3267	3042
1961 Federal Surplus/Deficit	2089	-60	601	422	-313	579	1944	2199	3448	3190	2437	2937	3466	2943
1962 Federal Surplus/Deficit	2219	1013	103	-280	54	985	1423	2106	1344	2756	3211	2922	3289	2490
1963 Federal Surplus/Deficit	1799	372	62	1230	1117	2355	1861	2654	749	1485	2431	2892	3131	3081
1964 Federal Surplus/Deficit	2721	708	583	-160	-169	939	604	1952	679	1747	1329	2843	3555	3508
1965 Federal Surplus/Deficit	2970	1335	1420	1437	964	2939	2861	2469	3117	2770	2911	2544	3302	3028
1966 Federal Surplus/Deficit	2843	2099	772	842	-153	846	1691	1181	300	3299	2794	2846	2501	3111
1967 Federal Surplus/Deficit	2667	411	141	37	-383	1017	2740	2378	2065	1821	541	2495	3226	3282
1968 Federal Surplus/Deficit	2924	973	735	563	-205	1018	2133	2794	2905	-64	1931	2710	3061	3211
1969 Federal Surplus/Deficit	2896	1911	2078	1500	2131	1955	2865	2438	2928	2782	2830	3105	3141	3189
1970 Federal Surplus/Deficit	2246	-191	301	688	177	448	78	2575	2572	1800	2170	2767	3445	2966
1971 Federal Surplus/Deficit	1534	-285	47	181	-72	792	2824	2587	3284	3069	2905	2873	3607	3771
1972 Federal Surplus/Deficit	2993	2426	943	832	-47	1189	2809	2636	3297	2972	2804	2578	3481	3522
1973 Federal Surplus/Deficit	3017	2847	1093	639	34	1531	814	715	965	-1059	1319	2543	569	2252
1974 Federal Surplus/Deficit	289	-858	-101	102	-796	2422	2859	2839	3116	2720	2636	2332	3300	3618
1975 Federal Surplus/Deficit	2938	2500	697	-321	-191	404	1364	2028	3383	600	2351	2803	3607	3789
1976 Federal Surplus/Deficit	2318	1364	1094	1614	2274	2952	2899	2613	3329	3037	2938	2867	3212	3407
1977 Federal Surplus/Deficit	3004	2809	3190	701	45	192	353	-14	740	-1050	-2125	-877	-1330	1624
1978 Federal Surplus/Deficit	1838	606	583	-467	-832	1264	1190	1545	2538	3001	2670	2640	2543	3080
1979 Federal Surplus/Deficit	2186	716	2144	1025	239	409	284	1152	3240	1629	2063	2911	702	1900
1980 Federal Surplus/Deficit	98	-643	-99	172	169	1044	-39	-399	953	1266	2913	3137	3018	2704
1981 Federal Surplus/Deficit	1324	-251	561	359	358	2827	2537	1522	2730	119	2326	2771	3497	3283
1982 Federal Surplus/Deficit	2960	2805	563	471	569	1015	2210	2499	3155	3149	2933	2727	3269	3183
1983 Federal Surplus/Deficit	2983	2060	1988	1609	859	1495	2560	2495	3213	3127	2990	2900	2997	3429
1984 Federal Surplus/Deficit	2993	2034	1095	648	2583	1143	2770	1472	3292	3222	3089	2924	3478	3260
1985 Federal Surplus/Deficit	2764	307	953	454	701	999	1193	753	2038	3088	2964	2906	1481	1556
1986 Federal Surplus/Deficit	-302	-938	143	515	1692	284	1919	2749	3396	3223	2993	2752	2661	2972
1987 Federal Surplus/Deficit	2322	15	-21	-147	541	487	308	-703	1863	2020	2261	2784	2251	2280
1988 Federal Surplus/Deficit	517	-824	-194	-90	0.3	304	-762	-655	416	-192	1887	2113	-682	2615
1989 Federal Surplus/Deficit	1860	308	240	-384	-655	454	-137	49	2003	3194	3024	2846	1945	2009
1990 Federal Surplus/Deficit	-311	-602	75	38	266	1764	2282	2314	2402	3081	3035	2714	3309	2938
1991 Federal Surplus/Deficit	2544	1147	-51	-351	2056	1996	2609	2266	1453	2826	2655	2845	2898	3380
1992 Federal Surplus/Deficit	2998	1874	208	-74	-494	324	-278	273	1921	403	1615	2227	374	2001

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-217	-521	-321	-35	-103	431	-361	-290	1054	888	762	2907	1128	2714
<i>1994 Federal Surplus/Deficit</i>	2028	661	-340	-156	525	709	-275	333	680	-237	2676	2479	773	2315
<i>1995 Federal Surplus/Deficit</i>	237	-633	-191	-201	-497	523	318	2450	3163	2741	1929	2859	2659	3076
<i>1996 Federal Surplus/Deficit</i>	1931	363	481	1050	2551	2907	2768	2636	3070	2868	2982	2790	3440	3526
<i>1997 Federal Surplus/Deficit</i>	2994	1222	567	428	-186	1833	2884	2432	2831	2528	2679	2538	3475	3550
<i>1998 Federal Surplus/Deficit</i>	2969	1939	2088	2289	1592	926	1979	2314	2869	2001	2336	2843	3555	3072

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2017 - 2018 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	2343	-253	240	-185	-284	85	-270	-518	507	-492	1380	1345	2080	2178
1930 Federal Surplus/Deficit	1050	-670	93	266	-98	168	-436	-613	549	-166	2168	676	707	2009
1931 Federal Surplus/Deficit	152	-431	-109	-33	262	206	-555	-372	205	537	-1397	1997	582	2254
1932 Federal Surplus/Deficit	1773	115	461	-713	-679	98	-1125	-866	1283	2216	3000	3789	3996	2672
1933 Federal Surplus/Deficit	1078	506	607	176	-850	925	2318	2193	703	2048	2479	3229	3940	3284
1934 Federal Surplus/Deficit	2810	2258	973	874	2229	2746	2757	2859	3324	2920	2963	3384	3214	2640
1935 Federal Surplus/Deficit	358	-556	276	-73	-1011	262	2028	2423	360	972	2348	3381	2564	2910
1936 Federal Surplus/Deficit	2566	162	-40	24	-337	99	-1034	-93	661	481	2819	3531	3740	2447
1937 Federal Surplus/Deficit	1691	87	-209	152	323	74	-391	-785	168	-1050	-1610	2655	792	1550
1938 Federal Surplus/Deficit	1879	361	245	25	-658	752	2076	1313	2819	2823	2873	3436	3460	2857
1939 Federal Surplus/Deficit	937	-472	693	291	-371	-41	-41	-558	1027	1408	2873	3522	1999	2150
1940 Federal Surplus/Deficit	238	-849	-265	378	291	1021	-541	59	3154	2750	2821	3373	2858	1193
1941 Federal Surplus/Deficit	-191	-790	209	90	126	527	37	-560	1336	248	1347	2446	960	2094
1942 Federal Surplus/Deficit	1474	337	1001	-657	141	1165	747	1461	480	443	2466	3306	3672	2994
1943 Federal Surplus/Deficit	2606	1243	453	280	-887	349	1675	2464	3228	3163	3152	3572	3953	3021
1944 Federal Surplus/Deficit	2312	-170	-603	-106	-303	73	2.9	-407	596	-530	1.7	939	-46	1288
1945 Federal Surplus/Deficit	1358	-29	629	-650	-644	-45	-912	-713	192	-1046	-3243	3550	3057	1938
1946 Federal Surplus/Deficit	1328	-276	-100	-392	45	915	1195	626	3158	3020	3009	3513	3434	3006
1947 Federal Surplus/Deficit	2352	387	536	-216	-98	2760	2298	2402	3052	2837	2808	3563	3775	2993
1948 Federal Surplus/Deficit	2144	-28	371	2127	2325	1712	2689	1349	2668	2137	2955	3862	3871	3214
1949 Federal Surplus/Deficit	2783	2298	855	458	-274	701	-55	1452	3300	3037	3118	3811	3724	1684
1950 Federal Surplus/Deficit	657	-1052	-492	-48	-557	549	1798	2420	3115	2966	2888	3283	3731	3099
1951 Federal Surplus/Deficit	2536	1332	573	1131	1628	2818	2801	2552	3177	2930	2802	3466	3466	3181
1952 Federal Surplus/Deficit	2760	487	319	1777	992	1752	2565	2199	1594	3051	3110	3836	3904	2945
1953 Federal Surplus/Deficit	2302	204	-133	34	-432	14	18	2618	1962	-240	2396	3601	4107	3273
1954 Federal Surplus/Deficit	2426	426	378	459	28	1280	1683	2467	2324	2728	2725	3575	3744	3235
1955 Federal Surplus/Deficit	2812	2639	2568	491	1157	1283	-49	-67	1067	293	2024	3420	4036	3285
1956 Federal Surplus/Deficit	2823	1955	124	649	1808	2795	2766	2282	2841	2460	2471	3420	3840	3234
1957 Federal Surplus/Deficit	2498	1137	497	702	-517	1123	879	1126	3236	3072	2802	3744	3896	2706
1958 Federal Surplus/Deficit	1434	-483	225	52	-21	322	723	2690	2633	2368	2880	3786	4036	2665
1959 Federal Surplus/Deficit	1445	138	109	392	640	2354	2758	2321	2111	2900	2797	3179	3814	2883
1960 Federal Surplus/Deficit	2620	955	2753	2100	2395	2575	2195	2008	2989	3271	2902	3559	3894	2908
1961 Federal Surplus/Deficit	1912	-236	439	241	-453	435	1857	2117	3345	3089	2337	3565	3817	2809
1962 Federal Surplus/Deficit	2043	838	-59	-461	-87	841	1336	2025	1241	2656	3110	3550	3916	2356
1963 Federal Surplus/Deficit	1623	196	-100	1049	977	2212	1775	2572	646	1385	2331	3520	3758	2948
1964 Federal Surplus/Deficit	2545	532	421	-341	-309	796	518	1871	575	1647	1229	3471	3916	3374
1965 Federal Surplus/Deficit	2793	1159	1258	1255	824	2795	2775	2355	2982	2669	2779	3154	3929	2894
1966 Federal Surplus/Deficit	2667	1923	610	661	-293	703	1604	1100	197	3198	2694	3473	3128	2977
1967 Federal Surplus/Deficit	2491	236	-20	-144	-523	873	2654	2265	1962	1721	440	3104	3752	3148
1968 Federal Surplus/Deficit	2747	797	574	382	-345	874	2047	2713	2801	-164	1831	3337	3688	3077
1969 Federal Surplus/Deficit	2720	1736	1917	1319	1991	1811	2778	2324	2825	2650	2698	3721	3768	3055
1970 Federal Surplus/Deficit	2070	-367	139	507	37	228	78	2505	2469	1699	2070	3395	4071	2832
1971 Federal Surplus/Deficit	1358	-461	-115	0.3	-213	648	2738	2473	3149	2936	2773	3483	3954	3412
1972 Federal Surplus/Deficit	2817	2251	782	651	-187	1045	2722	2522	3162	2840	2672	3188	3870	3264
1973 Federal Surplus/Deficit	2841	2672	931	458	-106	1387	727	549	869	-1159	1229	3193	1196	2118
1974 Federal Surplus/Deficit	112	-1034	-262	-79	-936	2278	2777	2725	2981	2587	2504	2942	3887	3303
1975 Federal Surplus/Deficit	2762	2325	535	-502	-331	260	1277	1946	3250	499	2251	3413	4010	3416
1976 Federal Surplus/Deficit	2141	1188	932	1432	2134	2808	2812	2499	3226	2904	2806	3477	3839	3273
1977 Federal Surplus/Deficit	2828	2634	3029	520	-95	48	225	-87	644	-1150	-2067	-249	-704	1490
1978 Federal Surplus/Deficit	1662	431	422	-648	-973	1326	1104	1464	2435	2869	2570	3250	3170	2946
1979 Federal Surplus/Deficit	2010	541	1983	844	98	164	160	1318	3137	1529	1963	3538	1328	1766
1980 Federal Surplus/Deficit	-79	-818	-260	-8.9	29	901	-172	-399	850	1166	2813	3764	3645	2570
1981 Federal Surplus/Deficit	1148	-426	400	178	218	2683	2419	1440	2626	18	2226	3399	3944	3149
1982 Federal Surplus/Deficit	2783	2630	402	290	429	872	2123	2385	3020	3017	2832	3337	3819	3049
1983 Federal Surplus/Deficit	2807	1885	1827	1428	719	1352	2474	2391	3077	3027	2890	3510	3623	3295
1984 Federal Surplus/Deficit	2817	1859	934	467	2443	999	2652	1390	3156	3090	2977	3552	4105	3126
1985 Federal Surplus/Deficit	2588	132	791	273	561	855	1106	589	2000	2956	2863	3534	2108	1422
1986 Federal Surplus/Deficit	-479	-1114	-18	334	1552	140	1833	2636	3260	3091	2893	3379	3288	2838
1987 Federal Surplus/Deficit	2146	-161	-183	-328	401	343	179	-785	1759	1920	2161	3411	2877	2146
1988 Federal Surplus/Deficit	341	-1000	-355	-271	-140	-2.5	-824	-701	343	-267	1813	2891	-55	2481
1989 Federal Surplus/Deficit	1684	132	78	-565	-796	310	-270	-26	1951	3062	2924	3474	2571	1875
1990 Federal Surplus/Deficit	-487	-778	-87	-143	126	1620	2195	2200	2299	2949	2903	3324	3935	2804
1991 Federal Surplus/Deficit	2368	972	-212	-532	1916	1852	2491	2152	1349	2726	2555	3455	3525	3246
1992 Federal Surplus/Deficit	2821	1699	47	-255	-634	15	-338	110	2141	303	1515	2854	1001	1867

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-393	-696	-483	-216	-243	130	-422	-331	976	809	1138	3535	1754	2580
<i>1994 Federal Surplus/Deficit</i>	1851	486	-501	-337	384	565	-361	252	576	-338	2576	3107	1400	2181
<i>1995 Federal Surplus/Deficit</i>	60	-809	-353	-382	-637	379	232	2336	3028	2640	1829	3472	3286	2942
<i>1996 Federal Surplus/Deficit</i>	1754	188	320	869	2410	2764	2680	2554	2935	2735	2850	3400	4048	3392
<i>1997 Federal Surplus/Deficit</i>	2818	1047	406	247	-326	1689	2782	2336	2695	2395	2547	3148	3920	3392
<i>1998 Federal Surplus/Deficit</i>	2792	1764	1926	2108	1451	783	1893	2233	2765	1901	2236	3470	4042	2938

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2018 - 2019 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	2212	-384	113	-319	-423	76	-604	-663	367	-630	1243	453	1187	2034
1930 Federal Surplus/Deficit	919	-800	-34	132	-237	200	-612	-787	379	-329	1779	-216	-186	1865
1931 Federal Surplus/Deficit	21	-562	-236	-167	122	204	-723	-547	40	378	-2173	1104	-311	2110
1932 Federal Surplus/Deficit	1642	-16	334	-847	-818	-43	-1273	-1011	1143	2079	2863	2897	3282	2527
1933 Federal Surplus/Deficit	946	375	481	42	-990	784	2170	2049	563	1911	2341	2324	3343	3168
1934 Federal Surplus/Deficit	2679	2128	846	740	2089	2605	2608	2697	3166	2765	2826	2492	2321	2496
1935 Federal Surplus/Deficit	227	-687	150	-207	-1151	121	1880	2261	220	834	2210	2476	1671	2765
1936 Federal Surplus/Deficit	2434	31	-166	-111	-477	-7.2	-1182	-313	521	343	2682	2638	2847	2302
1937 Federal Surplus/Deficit	1560	-44	-336	17	184	106	-567	-970	28	-1188	-1748	1762	-102	1406
1938 Federal Surplus/Deficit	1748	231	119	-109	-798	611	1928	1168	2679	2668	2718	2531	2567	2713
1939 Federal Surplus/Deficit	805	-602	566	157	-511	-182	-145	-709	825	1271	2736	2629	1106	2006
1940 Federal Surplus/Deficit	107	-979	-391	244	152	881	-689	-86	3013	2613	2684	2481	1965	1048
1941 Federal Surplus/Deficit	-322	-921	82	-45	-14	386	-111	-705	1196	111	1210	1553	67	1949
1942 Federal Surplus/Deficit	1343	206	874	-791	1.5	1024	599	1316	339	305	2328	2413	2779	2850
1943 Federal Surplus/Deficit	2475	1112	326	146	-1027	208	1527	2302	3070	3008	3046	2679	3195	2877
1944 Federal Surplus/Deficit	2181	-301	-730	-240	-443	-53	-166	-551	456	-668	-136	46	-939	1144
1945 Federal Surplus/Deficit	1227	-160	502	-784	-783	-186	-1060	-857	52	-1184	-3380	2658	2164	1794
1946 Federal Surplus/Deficit	1197	-406	-226	-527	-95	774	1047	481	3001	2865	2854	2607	2541	2862
1947 Federal Surplus/Deficit	2221	257	410	-350	-238	2619	2150	2240	2895	2700	2671	2670	2882	2849
1948 Federal Surplus/Deficit	2013	-159	245	1992	2186	1571	2541	1204	2528	1999	2800	2969	3293	3070
1949 Federal Surplus/Deficit	2652	2167	728	323	-414	560	-159	1250	3142	2899	2981	2918	2831	1540
1950 Federal Surplus/Deficit	525	-1183	-619	-182	-697	408	1650	2258	2957	2811	2733	2378	2825	2955
1951 Federal Surplus/Deficit	2405	1202	447	996	1488	2677	2635	2390	3020	2775	2647	2560	2572	3037
1952 Federal Surplus/Deficit	2629	357	193	1642	853	1611	2417	2055	1454	2896	2955	2943	3011	2801
1953 Federal Surplus/Deficit	2171	73	-260	-100	-572	-127	-130	2456	1822	-377	2258	2708	3372	3128
1954 Federal Surplus/Deficit	2294	295	251	325	-112	1139	1535	2305	2184	2590	2588	2670	3152	3247
1955 Federal Surplus/Deficit	2681	2508	2441	357	1018	1142	-197	-211	927	156	1887	2527	3367	3267
1956 Federal Surplus/Deficit	2691	1824	-2.4	514	1668	2654	2600	2120	2683	2305	2316	2515	3284	3089
1957 Federal Surplus/Deficit	2366	1006	370	568	-657	982	731	981	3096	2934	2665	2852	3232	2562
1958 Federal Surplus/Deficit	1303	-614	98	-82	-161	181	575	2528	2493	2231	2743	2894	3169	2521
1959 Federal Surplus/Deficit	1313	7.5	-18	258	501	2213	2606	2159	1971	2745	2660	2274	2964	2739
1960 Federal Surplus/Deficit	2489	824	2627	1966	2256	2435	2047	1863	2849	3133	2765	2667	3001	2763
1961 Federal Surplus/Deficit	1781	-366	313	107	-593	294	1709	1973	3205	2952	2200	2672	3199	2665
1962 Federal Surplus/Deficit	1912	707	-185	-595	-226	700	1188	1880	1100	2518	2973	2657	3023	2212
1963 Federal Surplus/Deficit	1492	66	-226	915	838	2071	1627	2427	505	1247	2193	2627	2865	2803
1964 Federal Surplus/Deficit	2413	402	294	-476	-449	655	370	1726	435	1509	1091	2578	3289	3230
1965 Federal Surplus/Deficit	2662	1029	1132	1121	685	2654	2618	2193	2824	2532	2624	2248	3036	2750
1966 Federal Surplus/Deficit	2535	1793	483	527	-433	562	1456	955	56	3061	2556	2581	2235	2832
1967 Federal Surplus/Deficit	2360	105	-147	-278	-663	732	2506	2103	1822	1583	303	2199	2929	3004
1968 Federal Surplus/Deficit	2616	667	447	247	-485	733	1899	2568	2661	-302	1694	2445	2795	2933
1969 Federal Surplus/Deficit	2589	1605	1790	1185	1851	1671	2614	2162	2684	2495	2543	2815	2875	2911
1970 Federal Surplus/Deficit	1939	-498	13	373	-103	163	-156	2349	2328	1562	1932	2502	3178	2688
1971 Federal Surplus/Deficit	1226	-591	-242	-134	-352	507	2590	2311	2991	2781	2618	2578	3340	3493
1972 Federal Surplus/Deficit	2685	2120	655	516	-327	904	2574	2360	3004	2685	2517	2282	3214	3244
1973 Federal Surplus/Deficit	2709	2541	805	323	-245	1246	579	489	721	-1297	1082	2278	302	1974
1974 Federal Surplus/Deficit	-19	-1165	-389	-213	-1076	2137	2624	2563	2823	2432	2349	2037	3003	3340
1975 Federal Surplus/Deficit	2631	2194	409	-636	-471	120	1129	1802	3092	362	2114	2507	3341	3511
1976 Federal Surplus/Deficit	2010	1058	806	1298	1994	2667	2655	2337	3084	2749	2652	2571	2946	3128
1977 Federal Surplus/Deficit	2697	2503	2902	386	-235	-93	118	-240	496	-1288	-2363	-1142	-1597	1346
1978 Federal Surplus/Deficit	1531	300	295	-782	-1111	980	956	1319	2295	2714	2432	2344	2277	2802
1979 Federal Surplus/Deficit	1878	410	1856	709	-41	125	50	926	2996	1391	1825	2646	435	1621
1980 Federal Surplus/Deficit	-210	-949	-387	-143	-110	760	-274	-625	709	1028	2676	2872	2752	2425
1981 Federal Surplus/Deficit	1017	-557	273	44	78	2542	2254	1295	2486	-119	2088	2506	3231	3004
1982 Federal Surplus/Deficit	2652	2499	275	155	289	731	1975	2223	2862	2862	2695	2432	2972	2905
1983 Federal Surplus/Deficit	2676	1754	1700	1293	579	1211	2326	2229	2920	2889	2753	2604	2730	3150
1984 Federal Surplus/Deficit	2686	1728	807	333	2303	858	2487	1246	2999	2934	2822	2659	3212	2981
1985 Federal Surplus/Deficit	2457	1.2	665	139	421	714	958	527	1794	2801	2726	2641	1214	1277
1986 Federal Surplus/Deficit	-610	-1244	-145	200	1412	-0.4	1685	2474	3102	2936	2755	2487	2395	2693
1987 Federal Surplus/Deficit	2014	-291	-310	-462	261	202	74	-930	1619	1782	2024	2519	1984	2002
1988 Federal Surplus/Deficit	209	-1130	-482	-405	-279	20	-997	-881	172	-430	1650	1848	-948	2337
1989 Federal Surplus/Deficit	1553	1.7	-48	-700	-935	169	-371	-177	1759	2907	2775	2581	1678	1731
1990 Federal Surplus/Deficit	-618	-908	-213	-277	-13	1479	2047	2038	2158	2794	2748	2418	3042	2660
1991 Federal Surplus/Deficit	2237	841	-339	-667	1776	1711	2326	1990	1209	2588	2418	2550	2631	3102
1992 Federal Surplus/Deficit	2690	1568	-80	-389	-774	40	-512	47	1677	165	1377	1962	107	1723

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-524	-827	-609	-350	-383	146	-596	-517	810	650	524	2642	861	2436
<i>1994 Federal Surplus/Deficit</i>	1720	355	-628	-471	245	424	-509	107	436	-475	2439	2214	507	2036
<i>1995 Federal Surplus/Deficit</i>	-71	-940	-480	-517	-777	238	84	2174	2870	2503	1691	2567	2393	2798
<i>1996 Federal Surplus/Deficit</i>	1623	57	193	735	2271	2623	2484	2360	2777	2580	2696	2495	3174	3248
<i>1997 Federal Surplus/Deficit</i>	2687	916	279	112	-466	1548	2601	2156	2538	2240	2392	2242	3208	3272
<i>1998 Federal Surplus/Deficit</i>	2661	1633	1799	1973	1312	642	1745	2088	2625	1763	2098	2578	3288	2794

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Monthly Federal System 70-Water Year
Surplus/Deficit
120-Hour Capacity in Megawatts

For OY 2010 – 2019

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	1577	-1474	-518	3.4	114	-357	-570	-608	496	-1173	197	194	2119	1306
1930 Federal Surplus/Deficit	-162	-1874	-701	354	237	-256	-461	-691	24	-820	1454	-370	493	1050
1931 Federal Surplus/Deficit	-999	-1650	-950	72	482	-110	-601	-548	-365	-122	-1973	798	346	1472
1932 Federal Surplus/Deficit	683	-1110	-281	-492	-252	-369	-1256	-1382	787	1593	3614	4407	4018	2267
1933 Federal Surplus/Deficit	-137	-675	-125	281	-438	795	3305	1992	180	1403	1903	3951	3821	3594
1934 Federal Surplus/Deficit	3009	1540	250	849	2129	3939	3559	3295	3196	3097	3515	3997	3819	2334
1935 Federal Surplus/Deficit	-832	-1780	-490	35	-597	-65	2750	3129	-196	312	1625	3604	2742	3157
1936 Federal Surplus/Deficit	2279	-1048	-836	151	47	-415	-1669	-31	135	-173	3296	4100	4153	1788
1937 Federal Surplus/Deficit	580	-1134	-1080	265	545	-328	-418	-880	-358	-1756	-1973	1543	584	398
1938 Federal Surplus/Deficit	827	-842	-521	167	-221	560	2796	1013	2293	2376	3733	4388	3972	2780
1939 Federal Surplus/Deficit	-285	-1695	-32	379	38	-515	-372	-637	1065	753	3046	4156	2009	1264
1940 Federal Surplus/Deficit	-929	-2042	-1174	418	506	936	-580	-143	2645	2281	3058	3237	3143	25
1941 Federal Surplus/Deficit	-1285	-1995	-555	186	393	286	-883	-389	1612	-416	159	1317	790	1209
1942 Federal Surplus/Deficit	306	-861	275	-415	429	1116	886	1161	-64	-207	1948	3183	4346	3562
1943 Federal Surplus/Deficit	2306	203	-280	361	-475	48	2153	2616	2751	3458	3380	4343	3983	3482
1944 Federal Surplus/Deficit	1526	-1390	-1655	75	102	-446	-506	-470	155	-1145	388	-132	-324	67
1945 Federal Surplus/Deficit	170	-1251	-96	-402	-215	-416	-953	-1425	-345	-1752	-1931	3514	3418	938
1946 Federal Surplus/Deficit	136	-1499	-920	-158	381	765	1443	362	3089	3082	3737	4276	3933	3434
1947 Federal Surplus/Deficit	1584	-813	-190	-9.5	276	3483	3258	3062	3318	2343	2788	4239	4222	3535
1948 Federal Surplus/Deficit	1220	-1249	-368	2304	2232	1882	3901	1714	2138	1501	3550	4445	3681	3920
1949 Federal Surplus/Deficit	2843	1598	135	518	128	488	-438	1583	3396	2687	3631	4429	4112	576
1950 Federal Surplus/Deficit	-555	-2272	-1568	113	-119	311	2345	3163	3656	3205	3286	4262	3584	3739
1951 Federal Surplus/Deficit	1991	307	-148	1084	1540	3847	3714	3470	3688	3124	3574	4307	3978	3850
1952 Federal Surplus/Deficit	2699	-697	-428	1725	1055	1917	3921	2010	1094	3592	3817	4418	4337	3088
1953 Federal Surplus/Deficit	1479	-1006	-985	178	-17	-361	39	3033	1449	-907	1713	4270	4265	3935
1954 Federal Surplus/Deficit	1755	-764	-366	513	362	1253	2151	3604	1796	2182	2439	4412	3506	3461
1955 Federal Surplus/Deficit	3550	3451	2028	541	1165	1291	-54	-274	548	-362	1030	3089	4041	3536
1956 Federal Surplus/Deficit	3029	1109	-662	674	1680	3685	3943	3702	3648	3303	3148	4284	3603	3910
1957 Federal Surplus/Deficit	1888	64	-231	719	-81	1044	1058	836	2769	2703	2891	4389	3902	2358
1958 Federal Surplus/Deficit	262	-1698	-543	190	319	8.3	835	2776	2098	1752	3399	4437	4342	2261
1959 Federal Surplus/Deficit	270	-1077	-677	457	804	2859	3909	3699	2282	3011	2664	4214	3679	2909
1960 Federal Surplus/Deficit	2204	-156	2388	3037	3278	3251	3122	1755	2464	3076	3478	3923	4316	3017
1961 Federal Surplus/Deficit	877	-1457	-292	335	-32	156	2471	1918	2875	2973	1577	4352	4002	2733
1962 Federal Surplus/Deficit	1062	-300	-891	-226	261	676	1655	1793	726	2117	3632	4210	4423	1613
1963 Federal Surplus/Deficit	496	-1014	-924	1002	1043	2616	2379	2498	114	717	1534	3777	4417	3274
1964 Federal Surplus/Deficit	2002	-648	-317	-119	96	625	585	1599	35	1000	46	3975	4226	3815
1965 Federal Surplus/Deficit	3028	90	528	1181	934	3731	3995	3648	3594	2209	3446	4326	4566	2924
1966 Federal Surplus/Deficit	2387	1072	-107	658	94	516	2023	803	-332	3018	2356	3639	3500	3280
1967 Federal Surplus/Deficit	1862	-972	-835	8.2	-96	716	3700	3819	2199	1122	-668	3766	4002	3948
1968 Federal Surplus/Deficit	2599	-344	-154	456	71	729	2766	2705	2267	-830	730	2923	4021	3902
1969 Federal Surplus/Deficit	2502	825	1218	1229	1842	1998	3977	3953	2537	3113	3307	4382	4153	3743
1970 Federal Surplus/Deficit	1121	-1597	-630	556	364	-102	93	2429	1937	1046	1075	3595	4539	2679
1971 Federal Surplus/Deficit	172	-1676	-954	137	186	424	3929	3894	3665	3354	3473	4344	3874	3843
1972 Federal Surplus/Deficit	3245	1522	64	688	210	942	3931	3954	3376	2764	3053	4349	3722	3520
1973 Federal Surplus/Deficit	3540	2736	221	520	262	1406	848	-212	396	-1867	93	2611	1397	1216
1974 Federal Surplus/Deficit	-1031	-2245	-1191	58	-525	2720	3800	3605	3541	3229	3285	4311	3692	3581
1975 Federal Surplus/Deficit	2893	1663	-192	-251	82	-65	1574	1693	2791	-147	1389	4384	4061	3895
1976 Federal Surplus/Deficit	1217	131	218	1351	1997	4197	3740	3795	3209	3331	3610	4348	4281	3780
1977 Federal Surplus/Deficit	3569	3475	3350	563	257	-306	-515	-189	225	-1863	-778	-1121	-1013	326
1978 Federal Surplus/Deficit	536	-760	-319	-1052	-587	1370	1346	1175	1905	3072	2291	4072	3595	3239
1979 Federal Surplus/Deficit	1055	-628	1317	813	405	-187	-159	1436	2633	869	898	4089	1201	685
1980 Federal Surplus/Deficit	-1195	-2016	-1163	117	346	756	-1225	734	328	505	3034	4388	4293	2050
1981 Federal Surplus/Deficit	-62	-1649	-337	274	489	3356	3747	2519	2090	-581	1377	3423	4066	3983
1982 Federal Surplus/Deficit	3251	2301	-339	384	643	721	2889	3957	3446	3282	2945	4374	4097	3705
1983 Federal Surplus/Deficit	3142	1027	1146	1353	866	1361	3547	2288	3608	2857	3220	4196	4246	3994
1984 Federal Surplus/Deficit	3061	983	221	531	2485	883	3882	1944	3797	3774	3872	3784	4514	3963
1985 Federal Surplus/Deficit	2111	-1074	85	378	757	699	1349	-584	2117	2873	3320	4188	2148	227
1986 Federal Surplus/Deficit	-1875	-2266	-841	419	1468	-201	2348	3129	3765	3285	3284	3315	3822	2739
1987 Federal Surplus/Deficit	1236	-1383	-1034	-128	641	43	-501	-7.3	1247	1261	1221	3039	3169	1269
1988 Federal Surplus/Deficit	-839	-2214	-1305	-107	187	-666	-828	-770	-200	-903	780	2204	-333	1875
1989 Federal Surplus/Deficit	586	-1070	-695	-375	-369	47	-970	279	1738	2928	3572	3977	2745	846
1990 Federal Surplus/Deficit	-1749	-1978	-915	28	409	1774	3059	2246	1771	2736	3522	3694	4090	2630
1991 Federal Surplus/Deficit	1681	-131	-1082	-346	1765	2103	3745	3637	1424	2230	2158	4292	4082	3739
1992 Federal Surplus/Deficit	3111	769	-749	-59	-205	-602	-331	-765	2211	-214	350	1875	818	843

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-1439	-1903	-1511	-60	137	-224	-458	-503	472	165	-24	3867	1711	2061
<i>1994 Federal Surplus/Deficit</i>	803	-688	-1520	-121	593	333	-573	27	62	-992	2434	2315	1289	1328
<i>1995 Federal Surplus/Deficit</i>	-1079	-2004	-1331	-185	-205	90	257	2410	3121	2088	724	3712	3738	3105
<i>1996 Federal Surplus/Deficit</i>	662	-1020	-424	849	3129	4171	3683	3298	3359	3038	3268	4419	4423	3917
<i>1997 Federal Surplus/Deficit</i>	2994	-53	-327	359	95	1842	3758	3695	3495	3158	3266	4263	3908	3799
<i>1998 Federal Surplus/Deficit</i>	2846	859	1251	2988	1385	612	2495	2069	2238	1244	1318	3916	4258	3141

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2010 - 2011 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	1495	-1467	-260	-279	-121	-579	-683	-712	397	-1383	-704	-783	1134	1100
1930 Federal Surplus/Deficit	-189	-1871	-437	86	5.7	-479	-564	-812	-100	-1022	554	-1368	-564	840
1931 Federal Surplus/Deficit	-1040	-1644	-679	-200	255	-341	-713	-646	-508	-307	-2949	-158	-718	1271
1932 Federal Surplus/Deficit	641	-1103	-34	-784	-492	-591	-1438	-1194	693	1456	2980	3510	3518	2071
1933 Federal Surplus/Deficit	-161	-672	117	10	-682	554	3011	1879	62	1265	998	2968	3381	3486
1934 Federal Surplus/Deficit	2784	1482	485	598	1890	4064	3599	3517	3163	3520	3164	3006	2789	2140
1935 Federal Surplus/Deficit	-869	-1773	-233	-238	-845	-293	2511	2909	-333	140	724	2630	1765	2956
1936 Federal Surplus/Deficit	2124	-1042	-574	-123	-187	-636	-1934	-107	16	-358	2362	3111	3422	1590
1937 Federal Surplus/Deficit	543	-1127	-805	-7.1	318	-552	-517	-1001	-505	-1974	-2964	598	-483	170
1938 Federal Surplus/Deficit	782	-837	-264	-108	-462	320	2558	943	2265	2269	3171	3506	2971	2583
1939 Federal Surplus/Deficit	-308	-1688	210	111	-198	-728	-476	-744	989	591	2122	3164	1026	1058
1940 Federal Surplus/Deficit	-968	-2037	-894	156	279	693	-693	-228	2625	2173	2132	2277	2163	-211
1941 Federal Surplus/Deficit	-1340	-1992	-299	-85	164	49	-970	-554	1568	-605	-742	373	-244	1003
1942 Federal Surplus/Deficit	277	-857	506	-706	199	871	788	1087	-190	-394	1042	2222	3323	3350
1943 Federal Surplus/Deficit	2154	188	-35	94	-720	-183	1973	2446	2733	3925	3258	3350	3427	3273
1944 Federal Surplus/Deficit	1447	-1382	-1355	-206	-134	-664	-615	-566	40	-1352	-510	-1120	-1461	-171
1945 Federal Surplus/Deficit	142	-1244	149	-693	-453	-637	-1105	-1020	-492	-1970	-2923	2550	2431	723
1946 Federal Surplus/Deficit	111	-1492	-652	-446	150	524	1325	293	3068	2985	3251	3429	2933	3227
1947 Federal Surplus/Deficit	1503	-806	57	-294	43	3228	2973	2858	3290	2231	1868	3243	3487	3325
1948 Federal Surplus/Deficit	1162	-1241	-116	2043	2010	1636	3840	991	2107	1366	2738	3564	3264	3770
1949 Federal Surplus/Deficit	2638	1536	372	254	-107	250	-542	1497	3363	2587	3208	3520	3349	353
1950 Federal Surplus/Deficit	-584	-2228	-1263	-164	-358	75	2147	2955	3763	3163	2351	3265	3197	3582
1951 Federal Surplus/Deficit	1877	290	98	838	1320	3584	3990	3706	3805	3714	3185	3423	2977	3685
1952 Federal Surplus/Deficit	2513	-692	-172	1482	832	1671	3589	1897	1018	3484	3225	3536	3605	2888
1953 Federal Surplus/Deficit	1406	-999	-712	-98	-254	-583	-55	2841	1391	-1111	811	3277	3708	3763
1954 Federal Surplus/Deficit	1660	-759	-113	250	131	1009	1974	3367	1754	2063	1526	3430	3112	3363
1955 Federal Surplus/Deficit	3220	3235	2213	278	944	1047	-145	-360	451	-553	132	2136	3551	3434
1956 Federal Surplus/Deficit	2803	1071	-400	416	1461	3421	4145	3211	3606	3233	2909	3453	3216	3742
1957 Federal Surplus/Deficit	1784	55	17	461	-320	800	951	769	2750	2600	1968	3464	3412	2163
1958 Federal Surplus/Deficit	236	-1691	-283	-86	88	-221	743	2604	2068	1624	2464	3503	3695	2066
1959 Federal Surplus/Deficit	244	-1069	-415	192	578	2604	3988	3451	1544	2913	1706	3185	3245	2711
1960 Federal Surplus/Deficit	2071	-159	2552	2730	3003	2997	2843	1663	2440	3592	2544	2944	3595	2819
1961 Federal Surplus/Deficit	833	-1449	-43	66	-270	-78	2256	1798	2859	2887	676	3358	3241	2536
1962 Federal Surplus/Deficit	1009	-300	-620	-516	29	436	1517	1692	638	1999	3335	3218	3669	1411
1963 Federal Surplus/Deficit	464	-1007	-655	755	820	2360	2167	2341	-7.4	556	634	2801	3413	3070
1964 Federal Surplus/Deficit	1888	-644	-67	-406	-139	385	497	1511	-92	844	-860	2988	3681	3680
1965 Federal Surplus/Deficit	2797	81	755	940	710	3476	4193	3881	3552	2086	3274	3383	3704	2726
1966 Federal Surplus/Deficit	2234	1034	139	403	-140	276	1864	737	-479	3410	1446	2668	2514	3076
1967 Federal Surplus/Deficit	1758	-966	-567	-270	-334	476	3812	3490	1385	904	-1620	2783	3148	3799
1968 Federal Surplus/Deficit	2427	-346	91	190	-166	487	2529	2532	2241	-1030	-167	1974	3340	3681
1969 Federal Surplus/Deficit	2340	793	1428	991	1622	1753	4090	3425	2285	3690	3161	3504	3396	3527
1970 Federal Surplus/Deficit	1065	-1589	-372	294	133	-329	1.2	2271	1901	892	178	2621	3830	2482
1971 Federal Surplus/Deficit	146	-1671	-683	-138	-48	187	3887	3957	3570	3098	2720	3490	3420	3706
1972 Federal Surplus/Deficit	2984	1469	303	429	-25	700	3816	3740	4045	3355	2129	3492	3291	3417
1973 Federal Surplus/Deficit	3224	2609	458	256	29	1161	755	-298	293	-2086	-808	1668	394	1009
1974 Federal Surplus/Deficit	-1074	-2200	-908	-217	-773	2464	3925	3655	4045	3524	3171	3307	3288	3473
1975 Federal Surplus/Deficit	2678	1596	51	-543	-154	-291	1441	1604	2773	-335	490	3389	3551	3751
1976 Federal Surplus/Deficit	1159	120	454	1113	1776	4233	3962	3708	2713	3717	2912	3455	3530	3645
1977 Federal Surplus/Deficit	3238	3242	3407	301	24	-531	-621	-270	116	-2082	-1701	-2131	-2236	100
1978 Federal Surplus/Deficit	500	-755	-68	-1361	-833	1113	1227	1099	1868	2964	1379	3077	2602	3035
1979 Federal Surplus/Deficit	1001	-626	1521	562	175	-411	-254	1357	2613	711	0.1	3100	184	465
1980 Federal Surplus/Deficit	-1244	-2014	-883	-157	115	515	-1392	640	220	339	2108	3466	3274	1853
1981 Federal Surplus/Deficit	-86	-1642	-88	3.9	260	3102	3895	1445	2055	-839	477	2444	3521	3828
1982 Federal Surplus/Deficit	2982	2202	-88	116	417	480	2641	3949	4008	2978	1989	3437	3226	3489
1983 Federal Surplus/Deficit	2896	991	1358	1114	641	1116	3241	2146	4088	2736	2291	3200	3230	3770
1984 Federal Surplus/Deficit	2830	950	458	267	2241	640	3978	1040	3837	3507	2932	2808	3881	3740
1985 Federal Surplus/Deficit	1987	-1069	322	108	530	458	1231	-690	2089	2755	2388	3195	1166	-5.7
1986 Federal Surplus/Deficit	-1875	-2226	-572	152	1247	-425	2151	2919	3978	3685	2353	2351	2824	2542
1987 Federal Surplus/Deficit	1172	-1376	-762	-412	413	-189	-618	-85	1182	1120	324	2088	2189	1064
1988 Federal Surplus/Deficit	-875	-2174	-1019	-387	-44	-873	-969	-884	-337	-1107	-117	1265	-1485	1678
1989 Federal Surplus/Deficit	547	-1063	-434	-668	-612	-184	-1129	211	1690	2824	2737	2991	1768	631
1990 Federal Surplus/Deficit	-1764	-1975	-646	-252	179	1529	2792	2118	1729	2642	3150	2717	3555	2434
1991 Federal Surplus/Deficit	1585	-137	-806	-640	1545	1858	3647	3363	753	2109	1246	3297	3075	3606
1992 Federal Surplus/Deficit	2870	742	-485	-343	-444	-811	-431	-882	2185	-399	-549	935	-215	629

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-1504	-1900	-1216	-339	-96	-447	-567	-601	361	-17	-932	2887	712	1864
<i>1994 Federal Surplus/Deficit</i>	759	-686	-1227	-407	366	96	-691	-46	-61	-1198	1521	1376	282	1124
<i>1995 Federal Surplus/Deficit</i>	-1124	-2002	-1041	-469	-445	-142	169	2258	3090	1970	-174	2737	2742	2904
<i>1996 Federal Surplus/Deficit</i>	626	-1013	-172	597	2869	4184	3980	3546	3886	3183	3181	3510	3785	3771
<i>1997 Federal Surplus/Deficit</i>	2772	-57	-77	89	-141	1596	3849	3810	4018	3121	3172	3399	3421	3664
<i>1998 Federal Surplus/Deficit</i>	2643	829	1460	2686	1165	372	2286	1946	2211	1100	420	2927	3671	2940

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2011 - 2012 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	1564	-1424	134	334	510	47	14	219	1097	-571	912	910	2235	1586
1930 Federal Surplus/Deficit	-97	-1824	-37	681	633	148	18	142	777	-248	2053	387	718	1345
1931 Federal Surplus/Deficit	-962	-1599	-272	418	879	324	-126	299	409	410	-145	1471	587	1752
1932 Federal Surplus/Deficit	730	-1060	349	-143	164	40	-856	-530	1513	2076	4265	4832	4176	2483
1933 Federal Surplus/Deficit	-69	-629	492	616	-7.1	1241	3554	2695	926	1897	2459	4354	3993	4014
1934 Federal Surplus/Deficit	2795	1542	854	1180	2502	4674	4264	4485	3937	4010	4324	4391	3835	2549
1935 Federal Surplus/Deficit	-786	-1727	161	380	-179	352	3073	3693	568	822	2212	4037	2834	3288
1936 Federal Surplus/Deficit	2162	-1000	-176	486	449	-6.7	-1360	795	882	356	3694	4486	4310	2042
1937 Federal Surplus/Deficit	633	-1085	-395	598	937	87	71	-32	385	-1120	16	2157	802	718
1938 Federal Surplus/Deficit	869	-794	130	496	190	996	3114	1787	3028	2866	4402	4825	4014	2951
1939 Federal Surplus/Deficit	-217	-1643	587	708	440	-139	101	205	1791	1246	3480	4537	2140	1549
1940 Federal Surplus/Deficit	-888	-1988	-479	753	899	1388	-112	684	3388	2777	3488	3704	3222	310
1941 Federal Surplus/Deficit	-1270	-1942	94	522	786	724	-187	220	2279	131	880	1947	990	1498
1942 Federal Surplus/Deficit	370	-815	872	-71	817	1555	1367	1929	696	323	2495	3652	4375	3647
1943 Federal Surplus/Deficit	2193	235	346	689	-48	461	2533	3233	3492	4390	4397	4700	4059	3576
1944 Federal Surplus/Deficit	1517	-1340	-918	405	498	-55	-37	367	906	-548	1091	609	-35	394
1945 Federal Surplus/Deficit	235	-1202	529	-63	196	-12	-530	-589	397	-1117	55	3959	3479	1234
1946 Federal Surplus/Deficit	204	-1449	-248	170	765	1201	1893	1165	3829	3531	4510	4759	3977	3536
1947 Federal Surplus/Deficit	1572	-764	439	317	663	3809	3517	3640	4052	2829	3250	4607	4293	3625
1948 Federal Surplus/Deficit	1242	-1198	272	2534	2610	2311	4333	1829	2874	1993	4043	4905	3865	4214
1949 Federal Surplus/Deficit	2657	1596	744	841	521	922	42	2320	4117	3172	4361	4851	4268	889
1950 Federal Surplus/Deficit	-496	-2176	-832	439	284	742	2709	3734	4501	3698	3691	4629	3782	3864
1951 Federal Surplus/Deficit	1932	337	478	1400	1917	4136	4565	4688	4530	4186	4327	4744	4020	4168
1952 Federal Surplus/Deficit	2539	-650	219	2012	1435	2342	4097	2691	1815	3980	4461	4879	4467	3228
1953 Federal Surplus/Deficit	1479	-957	-304	507	384	43	510	3617	2176	-328	2289	4639	4403	4237
1954 Federal Surplus/Deficit	1723	-717	276	840	749	1693	2534	4129	2529	2662	2939	4776	3711	3914
1955 Federal Surplus/Deficit	3220	3044	2557	869	1548	1732	432	561	1289	180	1676	3573	4195	3974
1956 Federal Surplus/Deficit	2814	1127	-1.7	998	2063	3988	4695	3864	4351	3762	4051	4832	3799	4168
1957 Federal Surplus/Deficit	1843	100	400	1042	322	1480	1534	1620	3504	3181	3338	4787	4071	2567
1958 Federal Surplus/Deficit	328	-1646	113	521	709	419	1314	3385	2838	2244	3787	4829	4475	2478
1959 Federal Surplus/Deficit	336	-1027	-16	785	1184	3225	4573	4065	2323	3470	3110	4521	3870	3065
1960 Federal Surplus/Deficit	2123	-115	2909	3163	3559	3596	3392	2480	3202	4081	3869	4331	4345	3164
1961 Federal Surplus/Deficit	919	-1406	341	666	372	587	2821	2600	3623	3458	2172	4709	3967	2906
1962 Federal Surplus/Deficit	1092	-256	-214	109	653	1115	2094	2508	1465	2603	4563	4587	4472	1875
1963 Federal Surplus/Deficit	554	-965	-251	1327	1426	2997	2735	3130	865	1221	2137	4194	4461	3391
1964 Federal Surplus/Deficit	1943	-602	319	212	492	1064	1071	2338	789	1484	771	4372	4367	4163
1965 Federal Surplus/Deficit	2807	127	1116	1500	1312	4032	4733	4736	4075	2668	4429	4706	4620	3079
1966 Federal Surplus/Deficit	2272	1088	519	989	494	961	2429	1587	407	3924	2867	4072	3562	3399
1967 Federal Surplus/Deficit	1820	-923	-163	342	309	1153	4310	4251	2174	1554	81	4180	4031	4106
1968 Federal Surplus/Deficit	2457	-302	471	782	466	1165	3082	3318	3011	-259	1404	3421	4183	3952
1969 Federal Surplus/Deficit	2374	845	1771	1553	2225	2424	4651	4059	3045	4157	4309	4863	4308	3813
1970 Federal Surplus/Deficit	1146	-1545	23	880	750	304	569	3066	2673	1532	1716	4027	4648	2858
1971 Federal Surplus/Deficit	239	-1626	-276	462	572	848	4373	4784	4157	3642	4027	4871	4044	4186
1972 Federal Surplus/Deficit	2986	1528	675	1004	594	1374	4308	4478	4821	3892	3488	4812	3904	3955
1973 Federal Surplus/Deficit	3221	2677	829	846	651	1841	1322	611	1138	-1229	817	3137	1560	1502
1974 Federal Surplus/Deficit	-997	-2146	-490	389	-118	3089	4425	4522	4764	4005	4307	4567	3882	4000
1975 Federal Surplus/Deficit	2693	1657	430	76	475	333	1998	2416	3527	380	2001	4741	4215	4223
1976 Federal Surplus/Deficit	1238	166	824	1667	2378	4752	4539	4336	3471	4197	4199	4801	4312	4132
1977 Federal Surplus/Deficit	3238	3040	3810	893	651	108	-44	644	980	-1221	5.5	-293	-658	654
1978 Federal Surplus/Deficit	592	-713	320	-713	-147	1779	1802	1935	2641	3512	2800	4451	3652	3359
1979 Federal Surplus/Deficit	1081	-583	1856	1143	795	217	317	2178	3370	1362	1556	4476	1377	995
1980 Federal Surplus/Deficit	-1171	-1965	-469	453	737	1199	-609	1295	1074	1008	3465	4794	4324	2283
1981 Federal Surplus/Deficit	6.5	-1598	297	608	878	3696	4473	1891	2830	-83	1986	3860	4217	4159
1982 Federal Surplus/Deficit	2982	2269	298	705	1023	1154	3196	4749	4609	3506	3360	4763	4184	3776
1983 Federal Surplus/Deficit	2902	1045	1699	1662	1240	1791	3766	2933	4809	3186	3634	4568	4271	4218
1984 Federal Surplus/Deficit	2839	1003	828	850	2832	1315	4454	1871	4565	4015	4218	4203	4628	4017
1985 Federal Surplus/Deficit	2037	-1028	697	702	1136	1135	1801	245	2857	3312	3714	4564	2269	553
1986 Federal Surplus/Deficit	-1831	-2345	-167	741	1846	200	2706	3674	4775	4164	3690	3774	3868	2913
1987 Federal Surplus/Deficit	1251	-1333	-353	207	1024	469	-53	814	1977	1758	1850	3527	3248	1554
1988 Federal Surplus/Deficit	-793	-2122	-600	235	588	-301	-392	77	566	-319	1450	2767	-40	2122
1989 Federal Surplus/Deficit	638	-1020	-37	-38	55	475	-554	1094	2465	3381	4039	4375	2837	1150
1990 Federal Surplus/Deficit	-1711	-1927	-241	359	798	2213	3345	2925	2505	3230	4298	4118	4244	2814
1991 Federal Surplus/Deficit	1649	-93	-395	-10	2151	2528	4157	4129	1572	2721	2688	4656	4121	4096
1992 Federal Surplus/Deficit	2878	795	-85	275	209	-235	151	77	2960	323	1057	2462	1023	1149

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-1440	-1853	-790	279	534	178	13	339	1205	679	712	4273	1850	2291
<i>1994 Federal Surplus/Deficit</i>	846	-645	-802	212	982	776	-117	852	814	-407	2933	2867	1461	1610
<i>1995 Federal Surplus/Deficit</i>	-1048	-1953	-618	153	205	511	741	3049	3854	2582	1401	4136	3785	3241
<i>1996 Federal Surplus/Deficit</i>	714	-971	214	1173	3428	4701	4591	4507	4682	3717	4317	4828	4543	4240
<i>1997 Federal Surplus/Deficit</i>	2785	-12	309	679	484	2253	4481	4741	4794	3657	4310	4733	4077	4149
<i>1998 Federal Surplus/Deficit</i>	2662	881	1801	3127	1764	1050	2836	2744	2973	1736	1938	4310	4392	3274

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2012 - 2013 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	1995	-715	325	180	369	-74	190	-70	598	-692	841	0.8	1210	1342
1930 Federal Surplus/Deficit	531	-1122	169	532	498	29	-111	-112	652	-382	1963	-592	-326	1106
1931 Federal Surplus/Deficit	-298	-891	-50	267	753	209	-264	48	284	265	-1236	614	-463	1499
1932 Federal Surplus/Deficit	1288	-344	543	-300	18	-80	-925	-779	1385	1967	3904	3681	3712	2169
1933 Federal Surplus/Deficit	558	64	680	465	-155	1114	3189	2486	800	1788	2355	2970	3695	3499
1934 Federal Surplus/Deficit	2929	1992	1027	1032	2349	3857	3969	4244	3688	3853	3940	3027	2519	2269
1935 Federal Surplus/Deficit	-117	-1014	362	230	-342	236	2787	3450	443	681	2117	2834	1781	2819
1936 Federal Surplus/Deficit	2448	-292	41	335	310	-127	-827	549	757	211	3471	3261	3187	1774
1937 Federal Surplus/Deficit	1198	-372	-162	447	811	-31	-54	-283	249	-1204	-1293	1308	-252	466
1938 Federal Surplus/Deficit	1408	-91	331	345	44	876	2830	1559	2881	2775	4040	3503	2859	2564
1939 Federal Surplus/Deficit	421	-930	768	558	298	-271	-29	-47	1664	1112	3304	3251	1120	1306
1940 Federal Surplus/Deficit	-222	-1294	-238	605	773	1255	-252	433	3224	2687	3302	2624	2139	14
1941 Federal Surplus/Deficit	-596	-1242	295	371	657	607	2.1	-63	1854	-12	808	1098	-40	1255
1942 Federal Surplus/Deficit	961	-114	1046	-229	685	1416	1242	1704	571	177	2385	2567	3165	3098
1943 Federal Surplus/Deficit	2483	856	536	539	-196	344	2322	3016	3311	4141	4155	3392	3709	3053
1944 Federal Surplus/Deficit	1956	-630	-667	250	357	-181	122	84	749	-696	573	-365	-1151	125
1945 Federal Surplus/Deficit	840	-489	710	-221	51	-133	-706	-838	264	-1200	-2144	2857	2374	994
1946 Federal Surplus/Deficit	809	-737	-32	14	631	1077	1745	922	3606	3389	4142	3411	2827	3022
1947 Federal Surplus/Deficit	2006	-65	622	161	524	3499	3161	3409	3801	2739	3097	3382	3266	3077
1948 Federal Surplus/Deficit	1728	-488	459	2358	2457	2132	3838	1598	2730	1887	3751	3753	3622	3546
1949 Federal Surplus/Deficit	2832	2037	918	692	380	804	-88	2095	3867	3075	4065	3698	3196	644
1950 Federal Surplus/Deficit	156	-1446	-558	286	138	625	2477	3500	4187	3551	3495	3278	3500	3285
1951 Federal Surplus/Deficit	2292	948	657	1251	1799	3788	4161	4417	3981	4062	4019	3386	2866	3500
1952 Federal Surplus/Deficit	2749	41	407	1856	1318	2165	3633	2471	1689	3793	4115	3663	3424	2787
1953 Federal Surplus/Deficit	1929	-253	-80	355	242	-77	389	3394	2046	-461	2191	3358	3866	3620
1954 Federal Surplus/Deficit	2124	-22	466	691	614	1552	2327	3855	2394	2569	2812	3432	3487	3447
1955 Federal Surplus/Deficit	3135	3337	2597	720	1433	1585	314	312	1166	36	1596	2544	3794	3504
1956 Federal Surplus/Deficit	2943	1642	203	850	1939	3657	4231	3295	4050	3585	3930	3495	3591	3566
1957 Federal Surplus/Deficit	2223	735	583	894	177	1347	1401	1385	3308	3070	3172	3636	3654	2241
1958 Federal Surplus/Deficit	920	-941	308	368	574	303	1195	3168	2695	2144	3554	3678	3635	2164
1959 Federal Surplus/Deficit	931	-319	189	635	1062	2972	4148	3430	2190	3330	2947	3122	3565	2652
1960 Federal Surplus/Deficit	2440	539	2880	2929	3217	3297	3045	2266	3050	3949	3569	3099	3414	2731
1961 Federal Surplus/Deficit	1447	-696	525	516	229	472	2568	2377	3433	3317	2080	3365	3570	2519
1962 Federal Surplus/Deficit	1600	411	3.7	-47	517	993	1927	2295	1339	2509	4132	3296	3430	1618
1963 Federal Surplus/Deficit	1124	-259	-34	1178	1308	2770	2483	2914	740	1088	2046	3023	3251	2902
1964 Federal Surplus/Deficit	2304	89	508	56	350	943	957	2123	665	1355	698	3146	3602	3638
1965 Federal Surplus/Deficit	2929	760	1281	1352	1193	3694	4276	4239	3688	2527	4071	3389	3481	2666
1966 Federal Surplus/Deficit	2550	1607	694	840	354	840	2232	1355	270	3739	2744	2911	2453	2917
1967 Federal Surplus/Deficit	2206	-221	48	190	164	1030	3752	3931	2043	1432	8.7	2992	3503	3428
1968 Federal Surplus/Deficit	2694	368	653	632	324	1041	2799	3101	2862	-395	1330	2412	3176	3280
1969 Federal Surplus/Deficit	2632	1395	1899	1403	2102	2242	4220	3471	2894	3965	3950	3567	3240	3204
1970 Federal Surplus/Deficit	1642	-828	224	731	616	187	449	2851	2535	1406	1637	2866	3677	2489
1971 Federal Surplus/Deficit	840	-919	-58	310	432	731	3880	4328	3909	3497	3732	3603	3711	3721
1972 Federal Surplus/Deficit	3044	1980	848	855	454	1245	3829	4156	4418	3693	3310	3606	3495	3484
1973 Federal Surplus/Deficit	3156	2908	994	696	513	1692	1202	360	1013	-1312	747	2182	543	1261
1974 Federal Surplus/Deficit	-332	-1385	-250	237	-267	2855	4098	4305	4350	3897	4034	3475	3622	3528
1975 Federal Surplus/Deficit	2847	2079	615	-81	333	215	1839	2200	3358	235	1915	3393	3769	3770
1976 Federal Surplus/Deficit	1723	792	993	1516	2239	3920	4141	3854	3303	3962	3889	3527	3354	3609
1977 Federal Surplus/Deficit	3151	3340	3574	744	514	-11	120	361	818	-1304	-593	-1359	-1861	405
1978 Federal Surplus/Deficit	1160	-18	509	-883	-295	1629	1655	1709	2501	3363	2672	3167	2525	2878
1979 Federal Surplus/Deficit	1582	104	1965	996	663	98	195	1958	3204	1232	1480	3253	355	753
1980 Federal Surplus/Deficit	-501	-1268	-231	302	604	1074	-436	704	949	871	3282	3656	3122	1991
1981 Federal Surplus/Deficit	627	-886	487	458	749	3399	3817	1818	2687	-223	1898	2744	3703	3430
1982 Federal Surplus/Deficit	3016	2583	488	555	898	1031	2898	4315	4246	3367	3195	3481	3571	3206
1983 Federal Surplus/Deficit	2992	1567	1817	1511	1119	1644	3380	2716	4329	3060	3437	3341	3077	3652
1984 Federal Surplus/Deficit	2956	1533	995	700	2652	1187	3942	1640	4225	3828	3895	3037	3688	3416
1985 Federal Surplus/Deficit	2375	-324	865	551	1011	1012	1656	329	2499	3180	3493	3338	1245	294
1986 Federal Surplus/Deficit	-1211	-1401	45	591	1731	82	2475	3432	4379	3928	3483	2676	2725	2531
1987 Federal Surplus/Deficit	1733	-622	-131	52	896	353	18	311	1849	1645	1768	2509	2136	1311
1988 Federal Surplus/Deficit	-131	-1408	-351	82	453	-439	-558	-176	441	-451	1372	1867	-1171	1847
1989 Federal Surplus/Deficit	1199	-313	169	-196	-93	361	-553	665	2330	3249	3760	3108	1786	911
1990 Federal Surplus/Deficit	-1040	-1228	-23	206	667	2036	3010	2717	2370	3132	3979	2851	3436	2450
1991 Federal Surplus/Deficit	2058	558	-169	-169	2028	2331	3629	3835	1447	2632	2571	3338	2950	3573
1992 Federal Surplus/Deficit	2962	1354	123	121	64	-374	25	-73	2812	115	984	1584	-4.6	911

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-769	-1151	-522	126	395	59	-123	88	1078	532	630	3086	831	2000
<i>1994 Federal Surplus/Deficit</i>	1380	44	-537	57	857	659	-209	602	684	-540	2744	1952	445	1366
<i>1995 Federal Surplus/Deficit</i>	-381	-1258	-366	-0.9	60	396	626	2832	3625	2490	1326	2971	2651	2794
<i>1996 Federal Surplus/Deficit</i>	1267	-267	407	1025	3133	3875	4165	4342	4265	3532	4119	3534	3674	3743
<i>1997 Federal Surplus/Deficit</i>	2923	635	493	528	342	2081	4147	4402	4368	3502	4101	3418	3532	3622
<i>1998 Federal Surplus/Deficit</i>	2837	1427	1913	2910	1649	928	2591	2528	2826	1621	1856	3101	3768	2816

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2013 - 2014 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	1868	-904	147	79	214	-132	-111	-237	438	-849	689	642	1881	1257
1930 Federal Surplus/Deficit	408	-1288	-22	431	344	-38	-298	-291	481	-548	1665	50	349	1022
1931 Federal Surplus/Deficit	-454	-1072	-255	167	599	50	-438	-119	124	108	-1391	1255	214	1415
1932 Federal Surplus/Deficit	1175	-549	386	-401	-137	-106	-1109	-1153	1223	1809	3774	4311	4222	2081
1933 Federal Surplus/Deficit	436	-151	531	364	-312	955	3013	2318	639	1632	2202	3660	4125	3563
1934 Federal Surplus/Deficit	2717	1806	885	931	2196	3688	4078	4126	3502	3853	3825	3717	3264	2126
1935 Federal Surplus/Deficit	-264	-1186	186	129	-506	75	2611	3280	284	524	1964	3496	2455	2729
1936 Federal Surplus/Deficit	2287	-501	-145	234	155	-96	-1012	117	597	54	3314	3895	3892	1689
1937 Federal Surplus/Deficit	1085	-576	-375	346	657	-129	-236	-459	80	-1367	-1448	1948	422	384
1938 Federal Surplus/Deficit	1294	-302	154	244	-112	716	2654	1390	2719	2619	3907	4186	3532	2475
1939 Federal Surplus/Deficit	294	-1110	617	456	143	-329	149	-266	967	955	3149	3907	1796	1222
1940 Federal Surplus/Deficit	-374	-1446	-463	504	619	1097	-426	263	3061	2530	3147	3261	2815	-83
1941 Federal Surplus/Deficit	-768	-1399	120	270	502	448	240	-273	1273	-169	656	1738	634	1170
1942 Federal Surplus/Deficit	846	-325	906	-331	530	1256	1066	1536	411	19	2230	3204	3836	3007
1943 Federal Surplus/Deficit	2322	641	379	438	-353	183	2146	2845	3148	4107	4032	4078	4156	2961
1944 Federal Surplus/Deficit	1830	-824	-953	149	201	-158	208	-143	531	-893	-485	278	-478	43
1945 Federal Surplus/Deficit	723	-689	555	-322	-104	-293	-880	-1008	105	-1363	-2306	3493	3046	908
1946 Federal Surplus/Deficit	691	-925	-232	-88	476	918	1568	752	3442	3232	4036	4092	3499	2931
1947 Federal Surplus/Deficit	1878	-275	463	59	369	3339	2984	3238	3637	2583	2943	4017	3966	2990
1948 Federal Surplus/Deficit	1608	-688	292	2259	2304	1974	3660	1429	2569	1732	3621	4384	4042	3480
1949 Federal Surplus/Deficit	2644	1851	773	591	224	645	146	1528	3703	2919	3932	4336	3867	561
1950 Federal Surplus/Deficit	21	-1630	-826	185	-18	465	2302	3329	4022	3394	3340	3960	3885	3193
1951 Federal Surplus/Deficit	2150	732	500	1150	1644	3627	4152	4190	3248	3961	3879	4069	3538	3436
1952 Federal Surplus/Deficit	2571	-173	233	1755	1164	2007	3456	2302	1529	3636	3961	4358	4094	2697
1953 Federal Surplus/Deficit	1805	-459	-289	254	87	-226	198	3224	1885	-618	2038	4014	4364	3555
1954 Federal Surplus/Deficit	1990	-235	296	590	460	1394	2152	3684	2234	2412	2657	4116	3906	3508
1955 Federal Surplus/Deficit	2772	3018	2423	619	1280	1428	139	145	1007	-121	1443	3181	4254	3568
1956 Federal Surplus/Deficit	2743	1441	16	749	1786	3496	4105	2892	3885	3429	3934	4178	3998	3500
1957 Federal Surplus/Deficit	2086	517	422	792	21	1188	1226	1217	3146	2913	3017	4266	4120	2153
1958 Federal Surplus/Deficit	805	-1118	127	267	419	142	1021	2998	2534	1988	3398	4308	4290	2076
1959 Federal Surplus/Deficit	814	-524	1.0	534	907	2814	3987	3259	2028	3174	2821	3804	4004	2562
1960 Federal Surplus/Deficit	2289	321	2695	2819	3054	3138	2868	2097	2889	3957	3447	3758	4085	2641
1961 Federal Surplus/Deficit	1332	-888	364	415	73	312	2393	2208	3270	3162	1927	4050	4004	2430
1962 Federal Surplus/Deficit	1484	194	-199	-148	362	834	1751	2126	1180	2351	4013	3956	4128	1532
1963 Federal Surplus/Deficit	1009	-467	-233	1077	1154	2612	2307	2744	580	932	1893	3658	3922	2811
1964 Federal Surplus/Deficit	2162	-126	344	-45	195	784	783	1956	507	1197	544	3790	4097	3689
1965 Federal Surplus/Deficit	2727	542	1144	1251	1039	3533	4201	3892	3524	2370	3964	4071	4151	2575
1966 Federal Surplus/Deficit	2389	1405	537	739	199	681	2056	1187	109	3584	2591	3557	3128	2827
1967 Federal Surplus/Deficit	2071	-428	-149	89	9	872	3595	3759	1882	1277	-143	3630	3929	3360
1968 Federal Surplus/Deficit	2523	151	500	531	168	882	2623	2930	2701	-551	1178	3050	3854	3211
1969 Federal Surplus/Deficit	2467	1189	1745	1302	1948	2085	4079	3241	2724	3814	3861	4254	3912	3137
1970 Federal Surplus/Deficit	1525	-1018	46	630	462	26	272	2681	2374	1250	1485	3502	4346	2400
1971 Federal Surplus/Deficit	723	-1097	-266	209	277	571	3701	4154	3744	3340	3603	4288	4150	3730
1972 Federal Surplus/Deficit	2777	1792	702	753	298	1086	3652	3983	4278	3870	3156	4291	4050	3550
1973 Federal Surplus/Deficit	2801	2761	849	595	358	1534	1026	684	809	-1476	536	2737	892	1177
1974 Federal Surplus/Deficit	-490	-1607	-482	136	-425	2696	4198	4279	4184	3937	3943	4131	4056	3595
1975 Federal Surplus/Deficit	2653	1898	461	-183	178	54	1663	2031	3196	78	1763	4074	4240	3736
1976 Federal Surplus/Deficit	1603	574	849	1414	2086	3750	4120	3225	3141	3804	3731	4213	4025	3569
1977 Federal Surplus/Deficit	2788	3013	3369	642	359	-172	474	122	581	-1467	-1748	-729	-1186	324
1978 Federal Surplus/Deficit	1048	-231	343	-993	-451	1469	1478	1539	2339	3208	2518	3834	3197	2787
1979 Federal Surplus/Deficit	1464	-112	1804	895	509	-63	385	1399	3042	1077	1326	3888	1029	670
1980 Federal Surplus/Deficit	-667	-1425	-453	202	450	916	-19	-135	789	715	3127	4286	3793	1904
1981 Federal Surplus/Deficit	506	-1068	324	357	594	3241	3681	1516	2526	-380	1745	3379	4194	3382
1982 Federal Surplus/Deficit	2744	2423	325	454	743	871	2722	4143	4080	3210	3040	4166	3998	3114
1983 Federal Surplus/Deficit	2767	1364	1660	1409	964	1486	3203	2546	4161	2904	3282	3976	3748	3589
1984 Federal Surplus/Deficit	2753	1328	851	598	2498	1028	3765	1470	4059	3671	3738	3672	4357	3324
1985 Federal Surplus/Deficit	2229	-530	716	449	856	852	1481	717	1919	3022	3337	3973	1919	212
1986 Federal Surplus/Deficit	-1440	-1803	-159	490	1577	-79	2342	3255	4210	3778	3327	3311	3325	2442
1987 Federal Surplus/Deficit	1614	-817	-343	-50	741	193	395	-612	1688	1491	1616	3146	2838	1228
1988 Federal Surplus/Deficit	-279	-1580	-587	-18	299	-261	-778	-389	266	-641	1173	2255	-498	1752
1989 Federal Surplus/Deficit	1085	-519	-13	-297	-251	156	-128	178	1876	3093	3604	3766	2460	828
1990 Federal Surplus/Deficit	-1241	-1388	-225	105	512	1879	2837	2549	2209	2977	3866	3522	4153	2361
1991 Federal Surplus/Deficit	1926	341	-384	-270	1874	2174	3472	3664	1287	2477	2418	4022	3623	3542
1992 Federal Surplus/Deficit	2747	1147	-66	20	-92	-246	-189	297	2055	-116	832	2215	672	828

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-950	-1315	-778	26	240	-102	-297	-80	915	374	463	3721	1502	1912
<i>1994 Federal Surplus/Deficit</i>	1266	-172	-793	-44	703	501	-227	417	510	-708	2411	2591	1120	1282
<i>1995 Federal Surplus/Deficit</i>	-540	-1414	-610	-101	-95	237	451	2661	3462	2334	1173	3607	3322	2703
<i>1996 Federal Surplus/Deficit</i>	1153	-475	242	924	2978	3706	4159	4263	4096	3336	4063	4218	4320	3711
<i>1997 Federal Surplus/Deficit</i>	2725	417	329	427	187	1923	4225	4115	4190	3345	4004	4099	4135	3711
<i>1998 Federal Surplus/Deficit</i>	2649	1221	1755	2810	1495	770	2414	2359	2665	1466	1703	3735	4314	2726

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	1753	-1018	20	-50	-164	-328	-685	-588	94	-1194	344	-207	1029	1159
1930 Federal Surplus/Deficit	296	-1402	-148	303	-34	-180	-687	-666	107	-916	961	-798	-503	924
1931 Federal Surplus/Deficit	-565	-1185	-381	38	221	-138	-818	-496	-246	-257	-2102	406	-638	1317
1932 Federal Surplus/Deficit	1062	-661	261	-529	-516	-477	-1465	-1504	879	1463	3429	3463	3626	1983
1933 Federal Surplus/Deficit	324	-263	405	235	-691	584	2656	1967	295	1287	1857	2812	3688	3505
1934 Federal Surplus/Deficit	2609	1695	758	803	1817	3317	3747	3775	3158	3508	3481	2868	2412	2028
1935 Federal Surplus/Deficit	-375	-1300	60	0.4	-884	-296	2255	2928	-60	178	1620	2647	1603	2631
1936 Federal Surplus/Deficit	2170	-614	-271	106	-223	-422	-1368	-297	253	-291	2970	3046	3040	1591
1937 Federal Surplus/Deficit	972	-688	-502	218	279	-270	-626	-844	-264	-1712	-1792	1099	-431	285
1938 Federal Surplus/Deficit	1181	-414	28	115	-491	345	2298	1039	2375	2273	3562	3337	2680	2377
1939 Federal Surplus/Deficit	183	-1224	491	328	-236	-700	-156	-623	561	610	2805	3059	944	1123
1940 Federal Surplus/Deficit	-486	-1561	-589	375	240	726	-783	-88	2717	2185	2803	2412	1963	-181
1941 Federal Surplus/Deficit	-878	-1512	-6.0	141	124	77	-116	-624	929	-514	311	890	-218	1072
1942 Federal Surplus/Deficit	734	-438	779	-460	152	885	709	1184	67	-326	1886	2355	2984	2909
1943 Federal Surplus/Deficit	2205	529	252	309	-731	-189	1789	2493	2804	3762	3741	3229	3687	2863
1944 Federal Surplus/Deficit	1714	-938	-1084	20	-177	-509	-173	-494	187	-1238	-829	-571	-1330	-55
1945 Federal Surplus/Deficit	612	-802	429	-451	-483	-664	-1237	-1359	-239	-1709	-2651	2644	2194	810
1946 Federal Surplus/Deficit	579	-1039	-358	-216	97	547	1212	401	3098	2887	3691	3244	2647	2833
1947 Federal Surplus/Deficit	1764	-388	336	-70	-9.7	2968	2628	2886	3293	2238	2598	3169	3114	2892
1948 Federal Surplus/Deficit	1494	-801	166	2130	1925	1603	3304	1077	2225	1387	3276	3535	3626	3382
1949 Federal Surplus/Deficit	2525	1740	646	462	-154	274	-160	1121	3359	2574	3588	3487	3015	463
1950 Federal Surplus/Deficit	-91	-1746	-953	56	-397	94	1945	2977	3678	3049	2996	3112	3541	3095
1951 Federal Surplus/Deficit	2034	621	373	1021	1266	3256	3795	3839	2904	3616	3534	3220	2686	3338
1952 Federal Surplus/Deficit	2452	-285	106	1626	785	1636	3100	1951	1186	3290	3616	3509	3242	2598
1953 Federal Surplus/Deficit	1691	-572	-416	126	-291	-597	-158	2872	1541	-964	1693	3165	3752	3457
1954 Federal Surplus/Deficit	1875	-347	170	461	81	1023	1795	3332	1890	2067	2313	3267	3464	3611
1955 Federal Surplus/Deficit	2647	2894	2299	491	901	1056	-217	-207	663	-466	1099	2332	3724	3630
1956 Federal Surplus/Deficit	2623	1331	-111	620	1407	3125	3748	2541	3541	3083	3570	3329	3607	3402
1957 Federal Surplus/Deficit	1970	406	296	664	-358	817	870	866	2802	2567	2673	3418	3604	2055
1958 Federal Surplus/Deficit	692	-1232	0.1	138	41	-229	664	2647	2190	1643	3053	3460	3474	1978
1959 Federal Surplus/Deficit	702	-637	-126	406	529	2443	3631	2908	1684	2829	2476	2956	3436	2464
1960 Federal Surplus/Deficit	2172	209	2570	2690	2675	2767	2512	1746	2545	3612	3103	2909	3233	2543
1961 Federal Surplus/Deficit	1219	-1002	238	286	-305	-59	2036	1857	2926	2817	1583	3202	3537	2332
1962 Federal Surplus/Deficit	1370	83	-325	-277	-17	463	1395	1774	836	2006	3668	3108	3276	1434
1963 Federal Surplus/Deficit	896	-580	-359	948	775	2241	1951	2393	236	587	1549	2809	3070	2713
1964 Federal Surplus/Deficit	2046	-238	218	-174	-184	413	426	1604	163	852	200	2941	3614	3591
1965 Federal Surplus/Deficit	2606	431	1017	1123	660	3162	3845	3540	3180	2025	3620	3222	3299	2477
1966 Federal Surplus/Deficit	2272	1294	410	611	-180	310	1700	836	-235	3238	2247	2708	2275	2728
1967 Federal Surplus/Deficit	1956	-540	-275	-40	-370	501	3239	3408	1538	932	-488	2781	3505	3262
1968 Federal Surplus/Deficit	2406	40	374	402	-211	511	2267	2579	2357	-897	833	2201	3002	3113
1969 Federal Surplus/Deficit	2350	1078	1619	1173	1569	1714	3723	2890	2380	3469	3516	3405	3060	3038
1970 Federal Surplus/Deficit	1411	-1131	-80	501	83	-243	-185	2316	2030	904	1140	2653	3494	2302
1971 Federal Surplus/Deficit	610	-1212	-393	80	-102	200	3345	3804	3400	2995	3259	3440	3694	3867
1972 Federal Surplus/Deficit	2652	1681	575	625	-80	715	3295	3632	3934	3688	2811	3445	3525	3607
1973 Federal Surplus/Deficit	2676	2647	722	466	-21	1163	670	408	457	-1821	182	1848	40	1079
1974 Federal Surplus/Deficit	-601	-1722	-609	7.4	-804	2325	3867	3936	3840	3593	3603	3216	3550	3712
1975 Federal Surplus/Deficit	2532	1786	335	-312	-201	-317	1307	1680	2852	-267	1418	3226	3721	3884
1976 Federal Surplus/Deficit	1488	461	722	1285	1707	3379	3764	2873	2797	3459	3387	3365	3173	3471
1977 Federal Surplus/Deficit	2664	2889	3243	514	-20	-543	165	-237	229	-1813	-2181	-1577	-2038	226
1978 Federal Surplus/Deficit	936	-342	216	-862	-828	831	1122	1187	1995	2862	2173	2985	2345	2689
1979 Federal Surplus/Deficit	1350	-224	1679	767	130	-299	73	813	2698	732	982	3039	177	572
1980 Federal Surplus/Deficit	-777	-1539	-579	73	71	545	-321	-554	445	369	2783	3438	2941	1806
1981 Federal Surplus/Deficit	395	-1182	198	228	215	2870	3325	1165	2182	-725	1400	2531	3616	3284
1982 Federal Surplus/Deficit	2619	2311	199	326	365	500	2365	3746	3736	2865	2696	3317	3568	3016
1983 Federal Surplus/Deficit	2642	1253	1534	1280	586	1115	2846	2194	3817	2559	2938	3127	2896	3491
1984 Federal Surplus/Deficit	2632	1217	724	469	2119	657	3408	1118	3715	3326	3394	2823	3505	3226
1985 Federal Surplus/Deficit	2112	-644	589	320	477	481	1125	440	1512	2677	2992	3124	1067	114
1986 Federal Surplus/Deficit	-1565	-1919	-287	361	1198	-450	1986	2903	3866	3432	2983	2463	2473	2344
1987 Federal Surplus/Deficit	1500	-930	-471	-179	363	-178	89	-1040	1344	1146	1271	2297	1986	1129
1988 Federal Surplus/Deficit	-390	-1695	-713	-147	-79	-414	-1164	-769	-110	-1009	796	1214	-1350	1654
1989 Federal Surplus/Deficit	963	-643	-150	-425	-630	-215	-430	-179	1482	2747	3259	2917	1607	730
1990 Federal Surplus/Deficit	-1352	-1503	-352	-24	134	1508	2481	2197	1865	2632	3521	2673	3301	2263
1991 Federal Surplus/Deficit	1811	229	-511	-399	1495	1803	3116	3312	943	2132	2074	3173	2771	3444
1992 Federal Surplus/Deficit	2639	1037	-192	-109	-471	-396	-575	16	1399	-461	487	1366	-180	730

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-1060	-1429	-905	-103	-138	-264	-684	-466	545	8.8	-285	2872	650	1814
<i>1994 Federal Surplus/Deficit</i>	1152	-285	-920	-173	324	130	-583	66	166	-1053	2066	1742	268	1184
<i>1995 Federal Surplus/Deficit</i>	-651	-1529	-736	-230	-474	-134	95	2309	3118	1989	829	2758	2470	2605
<i>1996 Federal Surplus/Deficit</i>	1040	-588	116	795	2599	3335	3820	3883	3752	2990	3746	3369	3496	3612
<i>1997 Federal Surplus/Deficit</i>	2605	306	202	298	-192	1552	3887	3679	3848	3000	3646	3251	3540	3640
<i>1998 Federal Surplus/Deficit</i>	2530	1109	1630	2682	1117	399	2058	2007	2321	1120	1359	2887	3683	2628

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	1655	-1115	-73	-146	-269	-615	-576	-583	-7.4	-1313	227	478	1713	1091
1930 Federal Surplus/Deficit	198	-1500	-241	206	-138	-521	-763	-637	35	-1011	1204	-113	181	856
1931 Federal Surplus/Deficit	-663	-1283	-474	-58	117	-433	-904	-465	-321	-355	-1853	1091	46	1250
1932 Federal Surplus/Deficit	964	-758	168	-626	-620	-589	-1574	-1499	777	1345	3312	4148	4054	1915
1933 Federal Surplus/Deficit	226	-360	312	139	-795	472	2548	1972	193	1169	1740	3497	3957	3397
1934 Federal Surplus/Deficit	2511	1597	665	706	1713	3205	3613	3780	3056	3390	3364	3553	3096	1960
1935 Federal Surplus/Deficit	-473	-1397	-33	-96	-988	-408	2146	2934	-161	60	1503	3332	2287	2563
1936 Federal Surplus/Deficit	2072	-711	-364	9.1	-327	-579	-1477	-229	151	-409	2853	3731	3724	1523
1937 Federal Surplus/Deficit	874	-786	-595	121	175	-612	-701	-805	-365	-1830	-1909	1784	254	218
1938 Federal Surplus/Deficit	1083	-511	-65	19	-595	233	2189	1044	2273	2155	3445	4022	3364	2309
1939 Federal Surplus/Deficit	85	-1322	398	231	-340	-812	-316	-612	521	492	2688	3744	1628	1056
1940 Federal Surplus/Deficit	-584	-1658	-683	279	136	614	-892	-83	2616	2067	2686	3097	2647	-248
1941 Federal Surplus/Deficit	-976	-1610	-99	45	19	-35	-225	-619	828	-632	194	1575	466	1005
1942 Federal Surplus/Deficit	636	-535	686	-556	47	773	601	1190	-34	-444	1769	3040	3668	2841
1943 Federal Surplus/Deficit	2107	432	159	213	-836	-301	1681	2499	2702	3644	3570	3914	3988	2796
1944 Federal Surplus/Deficit	1616	-1036	-1177	-76	-281	-641	-257	-489	85	-1356	-946	114	-646	-123
1945 Federal Surplus/Deficit	514	-899	336	-547	-587	-776	-1345	-1354	-341	-1827	-2768	3329	2878	743
1946 Federal Surplus/Deficit	481	-1137	-452	-313	-6.8	435	1103	406	2997	2769	3574	3929	3332	2765
1947 Federal Surplus/Deficit	1666	-485	243	-166	-114	2856	2519	2892	3191	2120	2481	3854	3798	2825
1948 Federal Surplus/Deficit	1396	-898	72	2033	1821	1491	3195	1082	2123	1268	3159	4220	3874	3315
1949 Federal Surplus/Deficit	2427	1642	553	365	-258	162	-320	1182	3257	2456	3471	4172	3699	395
1950 Federal Surplus/Deficit	-189	-1843	-1046	-40	-501	-18	1837	2983	3576	2931	2879	3797	3717	3028
1951 Federal Surplus/Deficit	1936	524	280	925	1162	3144	3687	3846	2802	3498	3417	3905	3370	3270
1952 Federal Surplus/Deficit	2354	-383	13	1530	681	1524	2991	1956	1084	3172	3499	4194	3926	2531
1953 Federal Surplus/Deficit	1593	-670	-509	29	-395	-709	-267	2877	1440	-1082	1576	3850	4196	3390
1954 Federal Surplus/Deficit	1777	-445	77	365	-23	911	1686	3338	1788	1949	2196	3952	3738	3342
1955 Federal Surplus/Deficit	2549	2796	2206	394	797	944	-326	-202	562	-584	982	3017	4086	3402
1956 Federal Surplus/Deficit	2524	1233	-204	524	1303	3013	3639	2546	3439	2965	3405	4014	3831	3334
1957 Federal Surplus/Deficit	1872	308	203	567	-462	705	761	871	2700	2449	2556	4103	3952	1988
1958 Federal Surplus/Deficit	594	-1330	-93	42	-64	-341	555	2652	2088	1525	2936	4145	4122	1911
1959 Federal Surplus/Deficit	604	-735	-219	309	424	2331	3522	2913	1583	2711	2359	3641	3836	2397
1960 Federal Surplus/Deficit	2074	112	2477	2594	2571	2654	2403	1751	2443	3494	2986	3594	3917	2475
1961 Federal Surplus/Deficit	1121	-1099	145	189	-410	-171	1928	1862	2825	2699	1466	3887	3836	2264
1962 Federal Surplus/Deficit	1272	-14	-418	-373	-121	351	1286	1780	734	1888	3551	3793	3960	1367
1963 Federal Surplus/Deficit	798	-677	-452	851	671	2129	1842	2398	135	469	1432	3494	3755	2645
1964 Federal Surplus/Deficit	1948	-336	125	-270	-288	301	317	1610	61	734	83	3626	3929	3524
1965 Federal Surplus/Deficit	2508	333	924	1026	556	3050	3736	3546	3079	1907	3503	3908	3983	2410
1966 Federal Surplus/Deficit	2174	1196	317	514	-284	198	1591	841	-337	3120	2130	3393	2960	2661
1967 Federal Surplus/Deficit	1857	-638	-369	-136	-474	389	3130	3413	1436	813	-605	3466	3761	3195
1968 Federal Surplus/Deficit	2307	-58	280	306	-315	399	2158	2584	2255	-1015	716	2886	3686	3046
1969 Federal Surplus/Deficit	2251	981	1526	1077	1465	1602	3614	2895	2278	3351	3399	4090	3744	2971
1970 Federal Surplus/Deficit	1313	-1228	-173	405	-21	-457	-194	2335	1928	786	1023	3338	4178	2234
1971 Federal Surplus/Deficit	512	-1309	-487	-17	-206	88	3236	3791	3299	2877	3142	4125	3982	3565
1972 Federal Surplus/Deficit	2554	1584	482	528	-184	603	3186	3637	3833	3406	2694	4097	3882	3384
1973 Federal Surplus/Deficit	2578	2549	629	370	-125	1050	561	338	363	-1939	75	2573	724	1011
1974 Federal Surplus/Deficit	-699	-1819	-702	-89	-908	2213	3733	3933	3738	3461	3438	3852	3888	3430
1975 Federal Surplus/Deficit	2434	1689	242	-408	-305	-429	1198	1685	2750	-385	1301	3911	4072	3570
1976 Federal Surplus/Deficit	1390	364	629	1189	1603	3267	3655	2879	2695	3341	3270	4050	3857	3403
1977 Federal Surplus/Deficit	2566	2792	3150	417	-124	-655	8.6	-224	135	-1931	-2210	-892	-1354	159
1978 Federal Surplus/Deficit	838	-439	123	-1218	-934	986	1013	1193	1893	2744	2056	3670	3029	2621
1979 Federal Surplus/Deficit	1252	-322	1586	670	26	-546	-80	1053	2597	614	865	3724	861	505
1980 Federal Surplus/Deficit	-875	-1637	-672	-23	-33	432	-484	-481	343	251	2666	4123	3625	1738
1981 Federal Surplus/Deficit	297	-1280	104	131	111	2758	3216	1170	2081	-843	1283	3216	4026	3217
1982 Federal Surplus/Deficit	2521	2213	105	229	261	388	2256	3702	3634	2747	2579	4002	3830	2948
1983 Federal Surplus/Deficit	2544	1156	1441	1184	482	1003	2738	2200	3715	2441	2821	3812	3580	3423
1984 Federal Surplus/Deficit	2534	1119	631	373	2015	544	3299	1124	3613	3208	3277	3508	4189	3159
1985 Federal Surplus/Deficit	2014	-741	495	223	373	369	1016	371	1474	2559	2875	3809	1751	47
1986 Federal Surplus/Deficit	-1663	-2017	-380	264	1094	-562	1877	2909	3765	3314	2866	3148	3157	2276
1987 Federal Surplus/Deficit	1402	-1027	-564	-275	258	-290	-70	-958	1243	1028	1154	2982	2670	1062
1988 Federal Surplus/Deficit	-489	-1793	-806	-244	-183	-745	-1243	-735	-180	-1104	711	2091	-666	1587
1989 Federal Surplus/Deficit	864	-741	-243	-522	-734	-327	-593	-168	1431	2629	3142	3602	2292	662
1990 Federal Surplus/Deficit	-1450	-1600	-445	-120	29	1396	2372	2203	1763	2514	3404	3358	3986	2196
1991 Federal Surplus/Deficit	1713	132	-604	-495	1391	1691	3007	3318	842	2014	1957	3858	3455	3376
1992 Federal Surplus/Deficit	2541	940	-285	-205	-575	-729	-654	-49	1610	-579	370	2051	504	663

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-1158	-1526	-998	-199	-242	-585	-762	-426	469	-90	1.3	3557	1335	1746
<i>1994 Federal Surplus/Deficit</i>	1054	-383	-1013	-269	220	17	-692	71	64	-1171	1949	2427	952	1116
<i>1995 Federal Surplus/Deficit</i>	-749	-1626	-829	-327	-578	-246	-14	2315	3016	1871	712	3443	3154	2537
<i>1996 Federal Surplus/Deficit</i>	942	-686	23	699	2495	3223	3694	3872	3651	2872	3601	4054	4152	3545
<i>1997 Federal Surplus/Deficit</i>	2507	209	109	202	-296	1440	3760	3653	3717	2882	3481	3936	3967	3545
<i>1998 Federal Surplus/Deficit</i>	2432	1012	1536	2585	1013	286	1949	2013	2219	1002	1242	3572	4146	2560

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	1588	-1181	-136	-226	-387	-564	-984	-867	-169	-1444	97	-425	806	938
1930 Federal Surplus/Deficit	131	-1566	-304	126	-257	-416	-986	-946	-156	-1166	714	-1016	-727	703
1931 Federal Surplus/Deficit	-730	-1349	-536	-138	-2.2	-374	-1117	-775	-509	-506	-2349	189	-862	1097
1932 Federal Surplus/Deficit	897	-824	105	-705	-739	-714	-1764	-1783	616	1214	3182	3245	3402	1762
1933 Federal Surplus/Deficit	159	-427	249	59	-914	348	2357	1687	32	1037	1610	2594	3464	3284
1934 Federal Surplus/Deficit	2444	1531	603	627	1594	3081	3449	3496	2895	3258	3234	2650	2189	1807
1935 Federal Surplus/Deficit	-540	-1464	-96	-176	-1107	-532	1956	2649	-323	-72	1373	2430	1379	2410
1936 Federal Surplus/Deficit	2005	-777	-427	-71	-446	-658	-1667	-577	-10	-541	2723	2829	2816	1370
1937 Federal Surplus/Deficit	807	-852	-657	42	56	-507	-925	-1123	-527	-1962	-2040	881	-654	65
1938 Federal Surplus/Deficit	1016	-577	-128	-61	-714	108	1999	760	2112	2023	3315	3119	2456	2156
1939 Federal Surplus/Deficit	17	-1388	336	152	-459	-936	-455	-903	298	360	2557	2841	720	903
1940 Federal Surplus/Deficit	-651	-1724	-745	199	17	490	-1082	-367	2454	1935	2555	2194	1739	-402
1941 Federal Surplus/Deficit	-1043	-1676	-162	-35	-99	-160	-415	-903	666	-764	64	672	-442	851
1942 Federal Surplus/Deficit	569	-601	623	-636	-71	648	411	905	-196	-576	1639	2137	2760	2688
1943 Federal Surplus/Deficit	2040	366	97	133	-954	-425	1490	2214	2541	3512	3494	3012	3463	2642
1944 Federal Surplus/Deficit	1549	-1102	-1240	-156	-400	-745	-472	-773	-76	-1488	-1076	-788	-1554	-276
1945 Federal Surplus/Deficit	446	-966	273	-627	-706	-901	-1535	-1638	-502	-1958	-2898	2427	1970	590
1946 Federal Surplus/Deficit	414	-1203	-514	-393	-126	310	913	122	2835	2637	3444	3026	2424	2612
1947 Federal Surplus/Deficit	1598	-551	180	-246	-233	2732	2329	2607	3030	1988	2351	2951	2891	2671
1948 Federal Surplus/Deficit	1329	-964	9.8	1954	1702	1367	3005	798	1962	1137	3029	3318	3402	3161
1949 Federal Surplus/Deficit	2359	1576	491	286	-377	37	-459	842	3096	2324	3341	3269	2791	242
1950 Federal Surplus/Deficit	-256	-1910	-1109	-120	-620	-142	1646	2698	3415	2799	2749	2894	3317	2874
1951 Federal Surplus/Deficit	1868	457	218	845	1043	3020	3497	3546	2641	3366	3287	3002	2462	3117
1952 Federal Surplus/Deficit	2287	-449	-49	1450	562	1400	2801	1671	922	3041	3369	3292	3018	2378
1953 Federal Surplus/Deficit	1526	-736	-572	-50	-514	-833	-457	2593	1278	-1213	1446	2948	3529	3236
1954 Federal Surplus/Deficit	1710	-511	14	285	-142	786	1496	3053	1627	1817	2066	3050	3240	3390
1955 Federal Surplus/Deficit	2482	2730	2143	315	678	820	-516	-486	400	-716	852	2114	3500	3409
1956 Federal Surplus/Deficit	2457	1167	-266	444	1184	2889	3449	2262	3278	2833	3235	3112	3384	3181
1957 Federal Surplus/Deficit	1805	242	140	488	-581	581	571	586	2539	2318	2426	3200	3380	1834
1958 Federal Surplus/Deficit	527	-1396	-156	-38	-182	-466	365	2368	1927	1393	2806	3242	3250	1757
1959 Federal Surplus/Deficit	537	-801	-281	230	306	2206	3332	2628	1421	2579	2229	2738	3212	2243
1960 Federal Surplus/Deficit	2007	46	2415	2514	2452	2530	2213	1466	2282	3362	2856	2692	3009	2322
1961 Federal Surplus/Deficit	1054	-1165	82	110	-528	-295	1737	1577	2663	2567	1335	2984	3313	2111
1962 Federal Surplus/Deficit	1205	-81	-481	-453	-240	227	1096	1495	573	1756	3421	2890	3052	1213
1963 Federal Surplus/Deficit	731	-743	-515	772	553	2004	1652	2114	-27	337	1301	2592	2847	2492
1964 Federal Surplus/Deficit	1881	-402	62	-350	-407	177	127	1325	-100	602	-47	2724	3390	3370
1965 Federal Surplus/Deficit	2441	267	862	947	437	2926	3546	3262	2917	1775	3373	3005	3075	2256
1966 Federal Surplus/Deficit	2107	1130	254	434	-403	74	1401	557	-498	2989	1999	2491	2052	2508
1967 Federal Surplus/Deficit	1790	-704	-431	-216	-593	264	2940	3129	1275	682	-735	2564	3281	3041
1968 Federal Surplus/Deficit	2240	-124	218	226	-433	275	1968	2300	2094	-1146	586	1984	2778	2892
1969 Federal Surplus/Deficit	2184	914	1464	997	1346	1477	3424	2610	2117	3219	3269	3187	2836	2818
1970 Federal Surplus/Deficit	1246	-1295	-236	325	-140	-480	-484	2036	1767	655	893	2435	3270	2081
1971 Federal Surplus/Deficit	445	-1375	-549	-96	-325	-37	3046	3467	3137	2745	3012	3222	3471	3646
1972 Federal Surplus/Deficit	2487	1517	419	448	-303	479	2996	3353	3671	3438	2564	3133	3301	3386
1973 Federal Surplus/Deficit	2511	2483	567	290	-244	926	371	129	194	-2071	-65	1630	-184	858
1974 Federal Surplus/Deficit	-767	-1886	-764	-169	-1027	2089	3568	3657	3577	3290	3268	2887	3326	3491
1975 Federal Surplus/Deficit	2367	1623	179	-488	-423	-553	1008	1401	2589	-517	1171	3008	3497	3663
1976 Federal Surplus/Deficit	1323	298	566	1109	1484	3143	3465	2594	2534	3209	3140	3147	2949	3250
1977 Federal Surplus/Deficit	2499	2725	3088	338	-243	-780	-133	-516	-34	-2062	-2428	-1795	-2262	5.4
1978 Federal Surplus/Deficit	771	-506	61	-1038	-1051	594	823	908	1732	2612	1926	2767	2122	2468
1979 Federal Surplus/Deficit	1185	-388	1523	591	-93	-535	-226	534	2435	482	735	2821	-47	351
1980 Federal Surplus/Deficit	-942	-1703	-735	-103	-152	308	-620	-833	182	120	2536	3220	2717	1585
1981 Federal Surplus/Deficit	230	-1346	42	52	-7.5	2633	3026	886	1919	-975	1153	2313	3392	3063
1982 Federal Surplus/Deficit	2454	2147	43	149	142	264	2066	3379	3473	2615	2449	3100	3344	2795
1983 Federal Surplus/Deficit	2477	1089	1378	1104	363	878	2548	1915	3554	2309	2690	2910	2672	3270
1984 Federal Surplus/Deficit	2467	1053	568	293	1896	420	3109	839	3452	3076	3147	2605	3281	3005
1985 Federal Surplus/Deficit	1947	-807	433	144	254	245	826	160	1249	2427	2745	2907	843	-107
1986 Federal Surplus/Deficit	-1730	-2083	-442	185	975	-686	1687	2624	3603	3183	2736	2245	2249	2123
1987 Federal Surplus/Deficit	1335	-1094	-626	-355	140	-415	-210	-1319	1081	896	1024	2080	1762	909
1988 Federal Surplus/Deficit	-556	-1859	-869	-323	-302	-651	-1463	-1049	-373	-1259	549	996	-1573	1433
1989 Federal Surplus/Deficit	797	-807	-306	-601	-853	-451	-729	-458	1219	2498	3012	2700	1384	509
1990 Federal Surplus/Deficit	-1517	-1666	-507	-200	-89	1271	2182	1918	1602	2382	3274	2456	3078	2043
1991 Federal Surplus/Deficit	1646	66	-666	-575	1273	1566	2817	3034	680	1882	1826	2955	2547	3223
1992 Federal Surplus/Deficit	2474	874	-348	-285	-694	-632	-874	-264	1136	-711	240	1149	-404	510

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-1226	-1593	-1060	-279	-361	-500	-983	-745	282	-241	-532	2655	427	1593
<i>1994 Federal Surplus/Deficit</i>	987	-449	-1076	-349	101	-107	-882	-213	-97	-1303	1819	1525	45	963
<i>1995 Federal Surplus/Deficit</i>	-816	-1693	-892	-406	-697	-371	-204	2030	2855	1739	582	2540	2246	2384
<i>1996 Federal Surplus/Deficit</i>	874	-752	-40	619	2376	3099	3521	3516	3489	2740	3499	3151	3272	3392
<i>1997 Federal Surplus/Deficit</i>	2440	142	47	122	-415	1316	3588	3312	3516	2750	3311	3035	3316	3419
<i>1998 Federal Surplus/Deficit</i>	2365	946	1474	2506	894	162	1759	1728	2058	870	1112	2669	3459	2407

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2017 - 2018 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	1419	-1349	-289	-386	-505	-869	-840	-937	-263	-1537	5.5	211	1438	810
1930 Federal Surplus/Deficit	-38	-1734	-457	-33	-375	-775	-1027	-991	-220	-1235	982	-380	-95	575
1931 Federal Surplus/Deficit	-899	-1517	-690	-298	-120	-687	-1167	-819	-576	-579	-2074	824	-230	968
1932 Federal Surplus/Deficit	728	-992	-48	-865	-856	-844	-1838	-1853	522	1121	3091	3881	3778	1634
1933 Federal Surplus/Deficit	-10	-594	96	-100	-1031	218	2284	1618	-62	944	1519	3229	3681	3116
1934 Federal Surplus/Deficit	2275	1364	449	467	1477	2951	3349	3426	2801	3166	3142	3286	2821	1678
1935 Federal Surplus/Deficit	-709	-1631	-249	-335	-1225	-662	1882	2580	-417	-164	1281	3065	2012	2281
1936 Federal Surplus/Deficit	1836	-945	-580	-230	-564	-834	-1741	-583	-104	-634	2631	3464	3448	1242
1937 Federal Surplus/Deficit	638	-1020	-811	-118	-62	-866	-965	-1160	-621	-2055	-2131	1517	-22	-64
1938 Federal Surplus/Deficit	847	-745	-281	-221	-831	-21	1925	690	2018	1931	3223	3755	3088	2028
1939 Federal Surplus/Deficit	-152	-1556	182	-8.1	-576	-1066	-580	-966	266	268	2466	3477	1352	774
1940 Federal Surplus/Deficit	-820	-1892	-899	40	-100	360	-1155	-437	2361	1843	2464	2830	2371	-530
1941 Federal Surplus/Deficit	-1212	-1844	-315	-195	-217	-290	-488	-973	573	-856	-27	1307	190	723
1942 Federal Surplus/Deficit	399	-769	470	-796	-189	519	337	835	-290	-668	1547	2773	3393	2560
1943 Federal Surplus/Deficit	1871	198	-57	-27	-1072	-555	1417	2145	2447	3420	3349	3647	3713	2514
1944 Federal Surplus/Deficit	1380	-1269	-1393	-316	-518	-896	-521	-843	-170	-1580	-1168	-153	-922	-404
1945 Federal Surplus/Deficit	277	-1133	120	-787	-823	-1031	-1609	-1708	-596	-2051	-2989	3062	2603	461
1946 Federal Surplus/Deficit	245	-1370	-668	-552	-243	180	840	52	2741	2545	3353	3661	3056	2484
1947 Federal Surplus/Deficit	1429	-719	27	-405	-350	2602	2255	2537	2936	1896	2260	3587	3523	2543
1948 Federal Surplus/Deficit	1160	-1132	-144	1794	1585	1237	2932	728	1868	1044	2938	3953	3598	3033
1949 Federal Surplus/Deficit	2190	1409	337	126	-495	-93	-583	828	3002	2231	3249	3905	3424	114
1950 Federal Surplus/Deficit	-425	-2077	-1262	-280	-737	-272	1573	2628	3321	2707	2657	3530	3441	2746
1951 Federal Surplus/Deficit	1699	290	64	685	925	2890	3423	3444	2547	3274	3196	3638	3095	2989
1952 Federal Surplus/Deficit	2118	-616	-203	1291	444	1270	2727	1602	829	2948	3278	3927	3651	2249
1953 Federal Surplus/Deficit	1357	-903	-725	-210	-632	-963	-530	2523	1185	-1306	1355	3583	3920	3108
1954 Federal Surplus/Deficit	1541	-678	-139	125	-259	656	1423	2983	1533	1725	1974	3685	3462	3061
1955 Federal Surplus/Deficit	2313	2562	1990	155	560	690	-589	-556	306	-809	760	2750	3810	3121
1956 Federal Surplus/Deficit	2288	999	-420	284	1067	2759	3376	2192	3184	2741	3112	3747	3555	3053
1957 Federal Surplus/Deficit	1636	75	-13	328	-698	451	498	517	2445	2225	2334	3835	3676	1706
1958 Federal Surplus/Deficit	358	-1564	-309	-198	-300	-596	292	2298	1833	1301	2715	3877	3846	1629
1959 Federal Surplus/Deficit	368	-969	-435	70	188	2076	3258	2559	1328	2486	2138	3373	3560	2115
1960 Federal Surplus/Deficit	1838	-122	2261	2355	2335	2400	2139	1397	2188	3270	2764	3327	3642	2194
1961 Federal Surplus/Deficit	885	-1333	-71	-50	-646	-425	1664	1508	2569	2474	1244	3619	3560	1983
1962 Federal Surplus/Deficit	1036	-248	-634	-612	-357	97	1022	1425	479	1664	3330	3525	3684	1085
1963 Federal Surplus/Deficit	562	-911	-668	612	435	1874	1578	2044	-120	244	1210	3227	3479	2364
1964 Federal Surplus/Deficit	1712	-569	-91	-510	-524	47	54	1255	-194	509	-139	3359	3654	3242
1965 Federal Surplus/Deficit	2272	100	708	787	320	2796	3472	3193	2824	1683	3281	3641	3707	2128
1966 Federal Surplus/Deficit	1937	963	101	275	-520	-56	1328	487	-592	2896	1908	3126	2684	2379
1967 Federal Surplus/Deficit	1621	-871	-584	-375	-710	134	2866	3060	1181	589	-826	3199	3485	2913
1968 Federal Surplus/Deficit	2071	-291	65	66	-551	145	1894	2230	2000	-1239	495	2619	3410	2764
1969 Federal Surplus/Deficit	2015	747	1310	838	1229	1348	3350	2541	2023	3127	3178	3823	3468	2689
1970 Federal Surplus/Deficit	1077	-1462	-389	165	-257	-711	-457	1981	1673	562	802	3071	3902	1953
1971 Federal Surplus/Deficit	276	-1543	-703	-256	-443	-167	2973	3365	3043	2653	2920	3858	3707	3283
1972 Federal Surplus/Deficit	2318	1350	266	289	-421	349	2923	3283	3577	3182	2473	3751	3607	3102
1973 Federal Surplus/Deficit	2342	2315	413	130	-361	796	297	-16	108	-2163	-147	2306	449	730
1974 Federal Surplus/Deficit	-936	-2053	-918	-328	-1144	1959	3469	3579	3483	3166	3145	3505	3613	3148
1975 Federal Surplus/Deficit	2198	1455	26	-648	-541	-683	934	1331	2495	-609	1080	3644	3796	3289
1976 Federal Surplus/Deficit	1154	130	413	950	1367	3013	3392	2524	2440	3116	3048	3783	3581	3122
1977 Federal Surplus/Deficit	2329	2558	2934	178	-360	-910	-255	-578	-120	-2155	-2431	-1159	-1630	-123
1978 Federal Surplus/Deficit	602	-673	-93	-1457	-1171	732	750	838	1638	2520	1835	3403	2754	2340
1979 Federal Surplus/Deficit	1016	-556	1370	431	-210	-800	-344	699	2341	389	643	3457	585	223
1980 Federal Surplus/Deficit	-1111	-1871	-888	-263	-269	178	-748	-835	88	27	2444	3855	3350	1457
1981 Federal Surplus/Deficit	61	-1513	-112	-108	-125	2503	2952	816	1826	-1068	1062	2949	3751	2935
1982 Federal Surplus/Deficit	2285	1979	-111	-10	24	134	1993	3277	3379	2522	2357	3735	3555	2667
1983 Federal Surplus/Deficit	2308	922	1225	945	245	748	2474	1845	3460	2216	2599	3545	3304	3142
1984 Federal Surplus/Deficit	2298	886	415	134	1778	290	3036	769	3358	2984	3055	3241	3914	2877
1985 Federal Surplus/Deficit	1777	-975	280	-16	137	115	752	16	1218	2335	2654	3542	1475	-235
1986 Federal Surplus/Deficit	-1899	-2251	-596	25	858	-816	1613	2555	3509	3090	2644	2881	2881	1995
1987 Federal Surplus/Deficit	1166	-1261	-780	-514	22	-544	-333	-1313	988	803	933	2715	2395	780
1988 Federal Surplus/Deficit	-725	-2027	-1022	-483	-420	-999	-1507	-1089	-435	-1328	490	1824	-941	1305
1989 Federal Surplus/Deficit	628	-975	-459	-761	-970	-581	-857	-522	1176	2405	2921	3335	2016	381
1990 Federal Surplus/Deficit	-1686	-1834	-661	-360	-207	1141	2108	1848	1508	2290	3183	3091	3710	1914
1991 Federal Surplus/Deficit	1476	-102	-820	-734	1155	1436	2743	2965	587	1789	1735	3591	3179	3095
1992 Federal Surplus/Deficit	2305	706	-501	-444	-811	-983	-917	-404	1355	-803	149	1784	229	381

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-1395	-1760	-1214	-439	-479	-839	-1026	-780	214	-314	-220	3290	1059	1465
<i>1994 Federal Surplus/Deficit</i>	817	-617	-1229	-508	-16	-237	-956	-283	-191	-1395	1728	2160	677	835
<i>1995 Federal Surplus/Deficit</i>	-985	-1860	-1045	-566	-814	-501	-278	1960	2761	1647	490	3176	2879	2256
<i>1996 Federal Surplus/Deficit</i>	705	-919	-193	459	2259	2969	3430	3446	3396	2648	3380	3787	3877	3263
<i>1997 Federal Surplus/Deficit</i>	2271	-25	-107	-38	-532	1186	3496	3228	3391	2658	3188	3671	3692	3264
<i>1998 Federal Surplus/Deficit</i>	2196	778	1320	2346	776	32	1686	1658	1964	778	1020	3304	3871	2279

Table A-30: Federal Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2018 - 2019 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Federal Surplus/Deficit	1292	-1475	-410	-507	-632	-827	-1192	-1070	-393	-1666	-123	-674	551	672
1930 Federal Surplus/Deficit	-165	-1860	-579	-155	-502	-679	-1194	-1148	-381	-1388	494	-1265	-982	437
1931 Federal Surplus/Deficit	-1026	-1643	-811	-419	-247	-637	-1325	-977	-733	-729	-2569	-60	-1117	830
1932 Federal Surplus/Deficit	601	-1118	-170	-986	-983	-977	-1972	-1986	392	991	2962	2996	3148	1496
1933 Federal Surplus/Deficit	-137	-720	-26	-222	-1158	84	2149	1485	-192	815	1390	2345	3209	3018
1934 Federal Surplus/Deficit	2148	1237	328	345	1350	2818	3240	3294	2670	3036	3014	2401	1934	1540
1935 Federal Surplus/Deficit	-836	-1757	-371	-457	-1351	-795	1748	2447	-547	-294	1153	2181	1125	2143
1936 Federal Surplus/Deficit	1709	-1071	-702	-352	-691	-921	-1875	-779	-235	-763	2503	2580	2561	1103
1937 Federal Surplus/Deficit	511	-1146	-932	-240	-189	-770	-1133	-1326	-751	-2184	-2259	632	-909	-202
1938 Federal Surplus/Deficit	720	-871	-403	-342	-958	-155	1791	558	1887	1801	3095	2870	2201	1889
1939 Federal Surplus/Deficit	-279	-1682	61	-130	-703	-1199	-663	-1105	73	138	2338	2592	465	636
1940 Federal Surplus/Deficit	-947	-2018	-1020	-82	-227	227	-1290	-569	2230	1713	2336	1945	1484	-668
1941 Federal Surplus/Deficit	-1339	-1970	-437	-316	-344	-423	-623	-1105	442	-986	-156	423	-697	585
1942 Federal Surplus/Deficit	272	-895	349	-917	-316	385	202	703	-420	-798	1419	1888	2505	2421
1943 Federal Surplus/Deficit	1744	72	-178	-148	-1199	-688	1282	2012	2317	3290	3274	2763	3208	2376
1944 Federal Surplus/Deficit	1253	-1396	-1515	-437	-645	-1008	-680	-976	-300	-1710	-1296	-1037	-1809	-542
1945 Federal Surplus/Deficit	150	-1259	-1.8	-908	-950	-1164	-1744	-1841	-726	-2181	-3118	2178	1715	323
1946 Federal Surplus/Deficit	118	-1496	-789	-674	-370	47	705	-81	2611	2415	3224	2777	2169	2345
1947 Federal Surplus/Deficit	1302	-845	-95	-527	-477	2469	2121	2405	2806	1766	2131	2702	2636	2405
1948 Federal Surplus/Deficit	1033	-1258	-265	1673	1458	1103	2797	596	1737	915	2809	3069	3147	2895
1949 Federal Surplus/Deficit	2063	1282	216	4.7	-622	-226	-667	640	2871	2102	3121	3020	2537	-24
1950 Federal Surplus/Deficit	-552	-2203	-1383	-401	-864	-405	1438	2496	3191	2577	2529	2645	3062	2608
1951 Federal Surplus/Deficit	1572	164	-57	564	798	2757	3288	3294	2417	3144	3067	2753	2207	2850
1952 Federal Surplus/Deficit	1991	-742	-324	1169	318	1136	2593	1469	698	2818	3149	3043	2763	2111
1953 Federal Surplus/Deficit	1230	-1029	-847	-331	-759	-1096	-665	2391	1054	-1435	1226	2699	3274	2970
1954 Federal Surplus/Deficit	1414	-805	-261	3.9	-386	523	1288	2851	1402	1595	1846	2801	2985	3123
1955 Federal Surplus/Deficit	2186	2436	1868	33	434	557	-724	-688	176	-938	632	1865	3245	3143
1956 Federal Surplus/Deficit	2161	873	-541	163	940	2626	3241	2060	3053	2611	2967	2863	3129	2915
1957 Federal Surplus/Deficit	1509	-52	-135	207	-825	318	363	384	2314	2096	2206	2951	3125	1568
1958 Federal Surplus/Deficit	231	-1690	-431	-319	-427	-729	157	2165	1703	1171	2586	2993	2995	1491
1959 Federal Surplus/Deficit	241	-1095	-556	-52	61	1943	3124	2426	1197	2357	2009	2489	2957	1977
1960 Federal Surplus/Deficit	1711	-248	2140	2233	2208	2267	2005	1264	2058	3140	2636	2443	2754	2056
1961 Federal Surplus/Deficit	758	-1459	-193	-171	-773	-558	1529	1375	2439	2345	1116	2735	3058	1845
1962 Federal Surplus/Deficit	909	-374	-756	-734	-484	-37	888	1293	349	1534	3201	2641	2797	947
1963 Federal Surplus/Deficit	435	-1037	-790	491	308	1741	1444	1911	-251	115	1082	2343	2592	2226
1964 Federal Surplus/Deficit	1584	-696	-213	-631	-651	-87	-81	1123	-324	380	-267	2475	3135	3104
1965 Federal Surplus/Deficit	2145	-27	587	665	193	2663	3338	3062	2693	1553	3153	2757	2820	1990
1966 Federal Surplus/Deficit	1810	836	-21	153	-647	-189	1193	354	-722	2767	1780	2242	1797	2241
1967 Federal Surplus/Deficit	1494	-998	-706	-497	-837	1.3	2731	2928	1051	460	-955	2315	3026	2775
1968 Federal Surplus/Deficit	1944	-418	-57	-55	-678	11	1760	2097	1869	-1369	366	1735	2523	2626
1969 Federal Surplus/Deficit	1888	621	1189	716	1102	1214	3216	2408	1893	2998	3049	2938	2581	2551
1970 Federal Surplus/Deficit	950	-1588	-511	44	-384	-743	-692	1834	1542	433	673	2186	3015	1815
1971 Federal Surplus/Deficit	149	-1669	-824	-377	-569	-300	2838	3216	2913	2523	2792	2973	3216	3379
1972 Federal Surplus/Deficit	2191	1224	144	167	-548	216	2788	3151	3447	3218	2344	2853	3046	3120
1973 Federal Surplus/Deficit	2215	2189	292	8.8	-488	663	162	-73	-30	-2293	-285	1381	-439	592
1974 Federal Surplus/Deficit	-1063	-2179	-1039	-450	-1271	1826	3360	3456	3353	3019	3000	2608	3071	3224
1975 Federal Surplus/Deficit	2071	1329	-96	-769	-668	-816	800	1198	2364	-739	951	2759	3242	3397
1976 Federal Surplus/Deficit	1027	3.8	291	828	1240	2880	3257	2392	2310	2987	2920	2898	2694	2983
1977 Federal Surplus/Deficit	2202	2432	2813	56	-487	-1043	-342	-718	-258	-2284	-2648	-2044	-2517	-261
1978 Federal Surplus/Deficit	475	-799	-214	-1319	-1296	331	615	706	1508	2390	1706	2518	1867	2202
1979 Federal Surplus/Deficit	889	-682	1248	309	-337	-798	-434	331	2211	260	515	2572	-302	85
1980 Federal Surplus/Deficit	-1239	-1997	-1010	-384	-396	45	-828	-1035	-43	-102	2316	2971	2462	1318
1981 Federal Surplus/Deficit	-66	-1640	-233	-229	-252	2370	2818	683	1695	-1197	933	2064	3137	2797
1982 Federal Surplus/Deficit	2158	1853	-232	-132	-102	0.9	1858	3127	3249	2393	2229	2851	3089	2528
1983 Federal Surplus/Deficit	2181	796	1104	823	118	615	2339	1713	3330	2087	2471	2661	2417	3004
1984 Federal Surplus/Deficit	2171	759	293	12	1652	157	2901	637	3227	2854	2927	2356	3027	2739
1985 Federal Surplus/Deficit	1650	-1101	158	-137	9.7	-18	618	-42	1024	2205	2525	2657	588	-373
1986 Federal Surplus/Deficit	-2026	-2377	-717	-96	731	-949	1478	2422	3379	2961	2516	1996	1994	1857
1987 Federal Surplus/Deficit	1039	-1387	-901	-636	-105	-678	-418	-1522	857	674	804	1831	1508	642
1988 Federal Surplus/Deficit	-852	-2153	-1144	-604	-547	-914	-1671	-1251	-597	-1481	329	747	-1828	1167
1989 Federal Surplus/Deficit	501	-1101	-581	-883	-1097	-714	-937	-660	995	2276	2792	2450	1129	242
1990 Federal Surplus/Deficit	-1813	-1960	-782	-481	-334	1008	1974	1716	1378	2160	3054	2207	2823	1776
1991 Federal Surplus/Deficit	1349	-228	-941	-856	1028	1303	2609	2833	456	1660	1607	2706	2292	2956
1992 Federal Surplus/Deficit	2178	580	-623	-566	-938	-895	-1082	-466	912	-933	20	900	-659	243

Table A-30: Federal Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Federal Surplus/Deficit</i>	-1522	-1886	-1335	-560	-606	-763	-1191	-948	57	-463	-752	2406	172	1327
<i>1994 Federal Surplus/Deficit</i>	690	-743	-1351	-630	-143	-370	-1090	-416	-322	-1525	1599	1276	-210	697
<i>1995 Federal Surplus/Deficit</i>	-1112	-1986	-1167	-687	-941	-634	-412	1828	2631	1517	362	2291	1991	2118
<i>1996 Federal Surplus/Deficit</i>	578	-1046	-315	338	2132	2835	3313	3265	3265	2518	3280	2902	3017	3125
<i>1997 Federal Surplus/Deficit</i>	2144	-151	-228	-159	-659	1053	3380	3061	3243	2528	3042	2787	3061	3153
<i>1998 Federal Surplus/Deficit</i>	2069	652	1199	2225	650	-101	1551	1526	1833	648	892	2420	3204	2140

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Section 11

Monthly Regional Loads & Resources

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Monthly Regional
Loads & Resources
1-Hour Capacity in Megawatts

For OY 2010 – 2019

Power Services

Reports Powered by:



Loads and Resources Information System

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Regional Loads														
<i>Regional Firm Loads</i>	25941	25941	24284	25651	28994	31100	31576	30090	27407	25694	25694	25084	26928	28217
<i>Exports</i>	2487	2487	2487	2080	1946	1950	1949	1948	1946	1970	1892	1950	2466	2474
<i>Federal Diversity</i>	-474	-509	-549	-360	-333	-558	-339	-346	-389	-523	-539	-521	-510	-416
<i>Total Firm Regional Loads</i>	27954	27919	26222	27371	30608	32491	33186	31693	28964	27142	27048	26513	28884	30274
Non-Firm Regional Loads														
<i>Regional Non-Firm Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Non-Firm Regional Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Loads</i>	27954	27919	26236	27371	30608	32491	33190	31716	29018	27176	27081	26513	28884	30274
Hydro Resources														
<i>Regulated Hydro</i>	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30398	30947
<i>Independent Hydro</i>	1631	1639	1684	1721	1671	1530	1446	1515	1703	1807	1929	2104	2164	1818
<i>Operational Peaking Adjustment</i>	-3367	-5945	-6951	-6255	-4887	-4671	-4626	-4982	-4869	-6164	-6950	-2007	-5423	-4151
<i>Total Hydro Resources</i>	29088	26422	25371	26092	27741	27833	27142	26296	25747	24153	23176	28819	27140	28614
Other Resources														
<i>Small Thermal & Misc.</i>	32	32	32	32	32	32	32	32	32	32	32	32	32	32
<i>Combustion Turbines</i>	4774	4774	5030	5129	5204	5239	5526	5502	4939	5307	5224	2859	4710	5245
<i>Renewables</i>	226	226	226	226	226	226	226	226	226	226	226	226	226	226
<i>Cogeneration</i>	2905	2905	2912	2903	2935	2939	2938	2934	2300	2919	2919	1845	2621	2895
<i>Imports</i>	1339	1339	1201	1307	1759	2082	2094	2062	1570	1466	1466	1250	1389	1461
<i>Large Thermal</i>	7016	7016	7016	7016	7016	7016	7016	7016	7016	6346	5816	5906	7016	7016
<i>Non-Utility Generation</i>	862	860	774	708	656	637	630	639	620	783	785	950	957	934
<i>Resource Acquisition</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	17154	17152	17191	17321	17829	18170	18461	18412	16702	17079	16468	13068	16951	17809
<i>Total Resources</i>	46242	43574	42562	43413	45569	46003	45603	44708	42448	41232	39644	41887	44091	46423
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-1279	-1277	-1280	-1282	-1290	-1287	-1276	-1263	-1216	-1214	-1189	-1128	-1276	-1300
<i>Contingency Reserves (Spinning)</i>	-913	-850	-854	-936	-982	-1008	-1010	-971	-934	-907	-869	-925	-975	-991
<i>Generation Imbalance Reserves</i>	-666	-666	-666	-666	-666	-666	-694	-748	-748	-779	-779	-779	-779	-779
<i>Load Following Reserves</i>	-251	-251	-251	-251	-251	-251	-256	-266	-266	-272	-272	-272	-272	-272
<i>Regional Hydro Maintenance</i>	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
<i>Regional Transmission Losses</i>	-1291	-1223	-1197	-1242	-1321	-1365	-1367	-1312	-1228	-1183	-1141	-1220	-1293	-1319
<i>Total Reserves, Maintenance & Losses</i>	-8995	-8298	-8035	-7585	-7445	-6614	-6164	-6846	-7019	-7107	-6733	-6684	-6797	-8381
<i>Total Net Resources</i>	37247	35276	34527	35827	38124	39389	39439	37862	35429	34125	32910	35203	37294	38042
Surplus/Deficits														
<i>Firm Surplus/Deficit</i>	9293	7357	8305	8456	7516	6897	6253	6169	6466	6983	5863	8690	8410	7767
<i>Total Surplus/Deficit</i>	9293	7357	8291	8456	7516	6897	6249	6146	6411	6949	5829	8690	8410	7767

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<u>Firm Regional Loads</u>														
Regional Firm Loads	27417	27417	25600	26980	30481	32648	33121	31573	28770	26916	26916	26359	27338	28658
Exports	2470	2470	2462	2055	1928	1932	1931	1931	1928	1952	1816	1925	2465	2473
Federal Diversity	-483	-520	-561	-366	-340	-568	-345	-352	-397	-532	-548	-531	-520	-422
Total Firm Regional Loads	29403	29367	27502	28669	32069	34012	34708	33152	30302	28336	28184	27753	29282	30709
<u>Non-Firm Regional Loads</u>														
Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Loads	29403	29367	27516	28669	32069	34012	34711	33175	30356	28370	28218	27753	29282	30709
<u>Hydro Resources</u>														
Regulated Hydro	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30398	30947
Independent Hydro	1647	1654	1700	1736	1686	1544	1455	1524	1712	1816	1940	2117	2178	1832
Operational Peaking Adjustment	-3010	-5596	-6612	-6044	-4486	-4378	-4398	-4906	-4623	-6109	-6808	-1968	-5336	-3595
Total Hydro Resources	29460	26787	25726	26319	28157	28140	27380	26381	26001	24217	23329	28871	27241	29184
<u>Other Resources</u>														
Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Combustion Turbines	5038	5038	5300	5404	5483	5519	5526	5502	4939	5307	5224	3130	4701	5245
Renewables	226	226	226	226	226	244	244	244	244	244	244	244	244	244
Cogeneration	2896	2896	2904	2925	2935	2939	2938	2934	2300	2919	2919	2317	2621	2895
Imports	1344	1344	1206	1311	1666	1988	1901	1869	1376	1272	1272	1155	1296	1368
Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	6346	4616	5286	5866	7016
Non-Utility Generation	867	865	778	711	664	645	638	647	628	791	793	950	949	934
Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Resources	17419	17417	17461	17625	18022	18383	18295	18245	16535	16912	15100	13114	15709	17735
Total Resources	46879	44204	43187	43944	46180	46523	45675	44626	42536	41129	38430	41985	42949	46919
<u>Reserves & Maintenance</u>														
Contingency Reserves (Non-Spinning)	-1286	-1284	-1287	-1290	-1298	-1295	-1274	-1262	-1215	-1213	-1145	-1123	-1233	-1299
Contingency Reserves (Spinning)	-984	-931	-915	-946	-1000	-1031	-1022	-979	-947	-915	-844	-929	-945	-1011
Generation Imbalance Reserves	-939	-939	-939	-1013	-1013	-1031	-1031	-1031	-1031	-1031	-1031	-1031	-1031	-1031
Load Following Reserves	-306	-306	-306	-321	-321	-325	-325	-325	-325	-325	-325	-325	-325	-325
Regional Hydro Maintenance	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
Regional Transmission Losses	-1299	-1230	-1204	-1245	-1327	-1367	-1355	-1298	-1219	-1169	-1092	-1213	-1247	-1324
Total Reserves, Maintenance & Losses	-9408	-8721	-8438	-8023	-7893	-7086	-6569	-7180	-7363	-7403	-6920	-6981	-6983	-8710
Total Net Resources	37471	35482	34748	35922	38287	39437	39106	37446	35173	33726	31510	35004	35967	38209
<u>Surplus/Deficits</u>														
Firm Surplus/Deficit	8068	6115	7246	7253	6218	5425	4398	4295	4871	5390	3326	7251	6684	7500
Total Surplus/Deficit	8068	6115	7232	7253	6218	5425	4394	4272	4817	5356	3292	7251	6684	7500

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Regional Loads														
<i>Regional Firm Loads</i>	27843	27843	25983	27330	30857	33040	33741	32167	29328	27480	27480	26893	27921	29421
<i>Exports</i>	2470	2470	2463	2008	1875	1873	1871	1872	1874	1903	1767	1880	2385	2386
<i>Federal Diversity</i>	-494	-531	-572	-312	-287	-486	-300	-299	-335	-449	-463	-464	-462	-375
<i>Total Firm Regional Loads</i>	29819	29782	27874	29026	32444	34427	35313	33740	30867	28934	28784	28309	29844	31432
Non-Firm Regional Loads														
<i>Regional Non-Firm Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Non-Firm Regional Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Loads</i>	29819	29782	27889	29026	32444	34427	35316	33763	30922	28968	28818	28309	29844	31432
Hydro Resources														
<i>Regulated Hydro</i>	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30398	30947
<i>Independent Hydro</i>	1659	1667	1710	1748	1697	1541	1455	1524	1712	1816	1940	2117	2178	1832
<i>Operational Peaking Adjustment</i>	-2758	-5761	-7005	-5903	-4599	-4789	-4714	-5117	-4549	-6203	-6968	-1898	-5642	-4473
<i>Total Hydro Resources</i>	29725	26635	25343	26471	28055	27725	27064	26170	26075	24123	23169	28941	26934	28306
Other Resources														
<i>Small Thermal & Misc.</i>	32	32	32	32	32	32	32	32	32	32	32	32	32	32
<i>Combustion Turbines</i>	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	2859	4701	5245
<i>Renewables</i>	244	244	244	244	244	244	244	244	244	244	244	244	244	244
<i>Cogeneration</i>	2896	2896	2904	2931	2942	2951	2953	2950	2313	2929	2929	2043	2918	2906
<i>Imports</i>	1250	1251	1111	1216	1646	1969	1982	1950	1381	1277	1277	1161	1303	1376
<i>Large Thermal</i>	7016	7016	7016	7016	7016	7016	7016	7016	7016	6276	5166	5236	7016	7016
<i>Non-Utility Generation</i>	867	865	778	711	665	645	625	619	599	763	764	905	920	909
<i>Resource Acquisition</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	17548	17547	17384	17555	18028	18376	18378	18313	16525	16320	15129	12480	17134	17729
<i>Total Resources</i>	47274	44182	42727	44026	46082	46101	45442	44482	42599	40443	38297	41421	44068	46035
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-1290	-1287	-1286	-1288	-1296	-1293	-1275	-1261	-1214	-1197	-1151	-1106	-1280	-1298
<i>Contingency Reserves (Spinning)</i>	-1002	-938	-912	-956	-1002	-1017	-1012	-972	-947	-880	-828	-935	-980	-983
<i>Generation Imbalance Reserves</i>	-1089	-1089	-1089	-1148	-1148	-1148	-1201	-1201	-1201	-1201	-1201	-1201	-1201	-1201
<i>Load Following Reserves</i>	-341	-341	-341	-356	-356	-356	-370	-370	-370	-370	-370	-370	-370	-370
<i>Regional Hydro Maintenance</i>	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
<i>Regional Transmission Losses</i>	-1305	-1223	-1183	-1242	-1318	-1348	-1341	-1286	-1214	-1140	-1081	-1188	-1274	-1288
<i>Total Reserves, Maintenance & Losses</i>	-9621	-8911	-8598	-8199	-8056	-7201	-6761	-7376	-7573	-7540	-7114	-7160	-7308	-8861
<i>Total Net Resources</i>	37652	35271	34129	35827	38027	38900	38682	37106	35027	32904	31183	34260	36760	37173
Surplus/Deficits														
<i>Firm Surplus/Deficit</i>	7833	5489	6255	6801	5583	4473	3369	3366	4159	3970	2399	5951	6916	5741
<i>Total Surplus/Deficit</i>	7833	5489	6241	6801	5583	4473	3366	3343	4105	3936	2365	5951	6916	5741

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Regional Loads														
<i>Regional Firm Loads</i>	28527	28527	26660	28020	31551	33846	34281	32655	29818	27953	27953	27368	28389	29823
<i>Exports</i>	2386	2386	2385	1988	1855	1853	1851	1852	1854	1883	1747	1860	2365	2366
<i>Federal Diversity</i>	-432	-465	-498	-316	-291	-491	-303	-304	-338	-454	-468	-467	-466	-380
<i>Total Firm Regional Loads</i>	30481	30449	28547	29692	33116	35208	35830	34203	31334	29382	29232	28762	30287	31810
Non-Firm Regional Loads														
<i>Regional Non-Firm Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Non-Firm Regional Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Loads</i>	30481	30449	28561	29692	33116	35208	35834	34226	31388	29415	29265	28762	30287	31810
Hydro Resources														
<i>Regulated Hydro</i>	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30398	30947
<i>Independent Hydro</i>	1659	1667	1710	1748	1697	1541	1455	1524	1712	1816	1940	2117	2178	1832
<i>Operational Peaking Adjustment</i>	-3140	-6107	-7203	-5831	-4393	-4577	-4500	-4930	-4386	-5836	-7012	-1790	-5813	-3464
<i>Total Hydro Resources</i>	29343	26288	25145	26543	28260	27937	27278	26357	26238	24489	23125	29048	26763	29315
Other Resources														
<i>Small Thermal & Misc.</i>	32	32	32	32	32	32	32	32	32	32	32	32	32	32
<i>Combustion Turbines</i>	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	3130	4701	5245
<i>Renewables</i>	244	244	244	244	244	244	244	244	244	244	244	244	244	244
<i>Cogeneration</i>	2908	2908	2912	2931	2942	2951	2953	2950	2313	2457	2457	2327	2634	2906
<i>Imports</i>	1257	1257	1117	1222	1621	1795	1807	1775	1387	1157	1157	1042	1106	1180
<i>Large Thermal</i>	7016	7016	7016	7016	7016	7016	7016	7016	7016	7016	5906	4616	5866	7016
<i>Non-Utility Generation</i>	837	835	764	682	627	616	610	619	600	763	765	905	929	909
<i>Resource Acquisition</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	17537	17535	17385	17531	17966	18173	18188	18139	16531	16468	15277	12296	15512	17533
<i>Total Resources</i>	46880	43823	42530	44075	46226	46110	45466	44496	42769	40958	38402	41345	42275	46848
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-1289	-1287	-1286	-1287	-1295	-1292	-1274	-1261	-1214	-1211	-1165	-1098	-1233	-1298
<i>Contingency Reserves (Spinning)</i>	-986	-923	-901	-951	-1002	-1017	-1013	-972	-947	-891	-829	-927	-927	-1008
<i>Generation Imbalance Reserves</i>	-1201	-1201	-1201	-1238	-1238	-1238	-1404	-1404	-1404	-1404	-1404	-1404	-1404	-1404
<i>Load Following Reserves</i>	-370	-370	-370	-378	-378	-378	-416	-416	-416	-416	-416	-416	-416	-416
<i>Regional Hydro Maintenance</i>	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
<i>Regional Transmission Losses</i>	-1288	-1206	-1172	-1240	-1319	-1345	-1333	-1278	-1211	-1149	-1075	-1177	-1209	-1307
<i>Total Reserves, Maintenance & Losses</i>	-9729	-9020	-8717	-8303	-8167	-7308	-7002	-7617	-7819	-7822	-7373	-7382	-7391	-9153
<i>Total Net Resources</i>	37151	34803	33813	35772	38059	38803	38464	36878	34950	33136	31029	33962	34884	37695
Surplus/Deficits														
<i>Firm Surplus/Deficit</i>	6670	4354	5266	6080	4944	3594	2634	2675	3616	3754	1797	5200	4597	5885
<i>Total Surplus/Deficit</i>	6670	4354	5251	6080	4944	3594	2631	2652	3562	3720	1763	5200	4597	5885

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<u>Firm Regional Loads</u>														
Regional Firm Loads	28940	28940	27021	28337	31906	34237	35204	33550	30621	28692	28692	28157	29234	30722
Exports	2366	2366	2365	1988	1855	1853	1851	1852	1854	1883	1747	1860	2365	2366
Federal Diversity	-437	-470	-503	-319	-294	-496	-307	-308	-343	-460	-474	-474	-472	-384
Total Firm Regional Loads	30869	30836	28882	30006	33467	35594	36748	35094	32132	30115	29965	29544	31127	32704
<u>Non-Firm Regional Loads</u>														
Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Loads	30869	30836	28897	30006	33467	35594	36752	35117	32187	30149	29999	29544	31127	32704
<u>Hydro Resources</u>														
Regulated Hydro	30824	30729	30638	30626	30957	30958	30289	29726	28870	28486	28197	28722	30398	30947
Independent Hydro	1659	1667	1710	1748	1697	1541	1455	1524	1712	1816	1940	2117	2178	1832
Operational Peaking Adjustment	-3072	-5962	-6870	-5610	-4163	-4273	-4398	-4826	-4278	-5746	-6926	-1712	-5735	-3326
Total Hydro Resources	29411	26433	25478	26764	28491	28225	27346	26425	26304	24556	23210	29127	26841	29453
<u>Other Resources</u>														
Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	2859	4710	5245
Renewables	244	244	244	244	244	244	244	244	244	244	244	244	244	244
Cogeneration	2908	2908	2912	2931	2942	2951	2953	2950	2313	2929	2457	2327	2634	2906
Imports	1059	1059	998	1102	1502	1676	1688	1656	1267	1162	1162	1047	1114	1188
Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	7016	5906	5236	7016	7016
Non-Utility Generation	837	836	764	683	627	617	610	620	600	764	766	906	921	909
Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Resources	17340	17338	17266	17412	17847	18055	18070	18020	16412	16946	15282	12652	16671	17541
Total Resources	46751	43771	42745	44176	46338	46280	45416	44445	42716	41502	38493	41779	43512	46994
<u>Reserves & Maintenance</u>														
Contingency Reserves (Non-Spinning)	-1289	-1287	-1286	-1287	-1295	-1292	-1273	-1261	-1213	-1222	-1165	-1113	-1273	-1298
Contingency Reserves (Spinning)	-987	-927	-909	-957	-1008	-1024	-1015	-974	-948	-905	-831	-943	-968	-1012
Generation Imbalance Reserves	-1404	-1404	-1404	-1404	-1411	-1411	-1471	-1471	-1471	-1471	-1471	-1471	-1471	-1527
Load Following Reserves	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
Regional Hydro Maintenance	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
Regional Transmission Losses	-1275	-1196	-1171	-1236	-1316	-1343	-1329	-1274	-1207	-1164	-1076	-1188	-1246	-1307
Total Reserves, Maintenance & Losses	-9966	-9262	-8972	-8509	-8380	-7524	-7066	-7681	-7882	-7929	-7443	-7492	-7576	-9279
Total Net Resources	36784	34509	33772	35667	37958	38756	38350	36764	34834	33573	31050	34287	35937	37714
<u>Surplus/Deficits</u>														
Firm Surplus/Deficit	5915	3672	4890	5662	4491	3162	1602	1671	2701	3458	1085	4744	4810	5011
Total Surplus/Deficit	5915	3672	4876	5662	4491	3162	1599	1648	2647	3424	1051	4744	4810	5011

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<u>Firm Regional Loads</u>														
Regional Firm Loads	29829	29829	27815	29082	32738	35151	35635	33944	30984	29022	29022	28540	29667	31150
Exports	2367	2367	2365	1988	1855	1853	1676	1677	1679	1708	1572	1670	2174	2176
Federal Diversity	-443	-477	-510	-323	-298	-503	-310	-311	-346	-464	-478	-479	-477	-389
Total Firm Regional Loads	31752	31719	29670	30747	34296	36501	37001	35310	32317	30266	30116	29731	31364	32937
<u>Non-Firm Regional Loads</u>														
Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Loads	31752	31719	29684	30747	34296	36501	37005	35333	32371	30300	30149	29731	31364	32937
<u>Hydro Resources</u>														
Regulated Hydro	30824	30729	30638	30626	30957	30900	30167	29593	28715	28399	28197	28722	30398	30947
Independent Hydro	1659	1667	1710	1748	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
Operational Peaking Adjustment	-2933	-5823	-6738	-5488	-4004	-3806	-4222	-4657	-4028	-5563	-6828	-1613	-5596	-3243
Total Hydro Resources	29550	26572	25610	26886	28654	28639	27405	26465	26403	24656	23313	29230	26984	29540
<u>Other Resources</u>														
Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	3130	4701	5245
Renewables	244	244	244	244	244	244	244	244	244	244	244	244	244	244
Cogeneration	2908	2908	2912	2931	2942	2951	2953	2950	2313	2929	2457	2327	2634	2906
Imports	1066	1066	1004	1108	1508	1682	1694	1662	1272	1166	1166	1053	1122	1197
Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	6276	5696	4616	5866	7016
Non-Utility Generation	839	838	766	685	629	619	612	622	602	766	768	908	923	911
Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Resources	17349	17347	17274	17420	17855	18063	18078	18028	16419	16213	15079	12311	15522	17552
Total Resources	46898	43919	42884	44306	46509	46701	45482	44493	42822	40869	38392	41540	42506	47092
<u>Reserves & Maintenance</u>														
Contingency Reserves (Non-Spinning)	-1289	-1287	-1286	-1287	-1295	-1291	-1270	-1257	-1210	-1194	-1158	-1099	-1233	-1299
Contingency Reserves (Spinning)	-991	-930	-912	-959	-1011	-1034	-1016	-975	-951	-889	-834	-931	-932	-1014
Generation Imbalance Reserves	-1527	-1527	-1527	-1527	-1570	-1570	-1570	-1570	-1570	-1570	-1570	-1570	-1610	-1610
Load Following Reserves	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
Regional Hydro Maintenance	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
Regional Transmission Losses	-1276	-1197	-1171	-1236	-1316	-1352	-1328	-1273	-1208	-1141	-1070	-1178	-1210	-1308
Total Reserves, Maintenance & Losses	-10093	-9389	-9098	-8634	-8543	-7700	-7162	-7776	-7980	-7961	-7530	-7553	-7602	-9365
Total Net Resources	36806	34530	33786	35672	37966	39002	38321	36717	34843	32908	30862	33987	34904	37726
<u>Surplus/Deficits</u>														
Firm Surplus/Deficit	5054	2812	4116	4925	3670	2500	1319	1407	2526	2642	746	4256	3539	4789
Total Surplus/Deficit	5054	2812	4102	4925	3670	2500	1316	1384	2471	2608	712	4256	3539	4789

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Regional Loads														
<i>Regional Firm Loads</i>	30271	30271	28204	29464	33235	35597	36029	34224	31313	29316	29316	28894	30065	31575
<i>Exports</i>	2176	2176	2174	1813	1680	1678	1676	1677	1679	1708	1572	1558	2062	2053
<i>Federal Diversity</i>	-448	-482	-515	-328	-302	-510	-315	-313	-351	-471	-485	-486	-484	-394
<i>Total Firm Regional Loads</i>	31999	31965	29863	30949	34613	36764	37390	35587	32641	30553	30403	29966	31643	33234
Non-Firm Regional Loads														
<i>Regional Non-Firm Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Non-Firm Regional Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Loads</i>	31999	31965	29877	30949	34613	36764	37394	35610	32696	30587	30436	29966	31643	33234
Hydro Resources														
<i>Regulated Hydro</i>	30824	30729	30638	30626	30957	30958	30289	29726	28870	28486	28197	28722	30398	30947
<i>Independent Hydro</i>	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
<i>Operational Peaking Adjustment</i>	-2850	-5740	-6655	-5405	-3933	-4044	-4229	-4656	-4108	-5577	-6757	-1542	-5529	-3176
<i>Total Hydro Resources</i>	29637	26660	25697	26974	28725	28459	27520	26599	26478	24729	23384	29301	27051	29607
Other Resources														
<i>Small Thermal & Misc.</i>	32	32	32	32	32	32	32	32	32	32	32	32	32	32
<i>Combustion Turbines</i>	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	2859	4701	5245
<i>Renewables</i>	244	244	244	244	244	244	244	244	244	244	244	244	244	244
<i>Cogeneration</i>	2908	2908	2912	2931	2942	2951	2953	2950	2313	2457	2457	2327	2634	2906
<i>Imports</i>	1073	1073	1010	1113	1438	1613	1625	1593	1278	1171	1171	1059	1130	1206
<i>Large Thermal</i>	7016	7016	7016	7016	7016	7016	7016	7016	7016	6346	4706	6436	7016	7016
<i>Non-Utility Generation</i>	839	838	766	735	679	669	662	672	652	816	818	958	973	961
<i>Resource Acquisition</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	17356	17354	17281	17476	17835	18044	18059	18009	16474	15866	14144	13916	16730	17610
<i>Total Resources</i>	46993	44014	42978	44449	46560	46503	45579	44607	42952	40595	37528	43216	43781	47218
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-1289	-1287	-1286	-1289	-1297	-1293	-1275	-1262	-1215	-1188	-1125	-1157	-1275	-1300
<i>Contingency Reserves (Spinning)</i>	-993	-932	-914	-962	-1013	-1030	-1019	-978	-952	-896	-817	-965	-972	-1015
<i>Generation Imbalance Reserves</i>	-1610	-1610	-1610	-1610	-1641	-1641	-1641	-1641	-1641	-1641	-1641	-1641	-1677	-1677
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Regional Hydro Maintenance</i>	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
<i>Regional Transmission Losses</i>	-1276	-1197	-1171	-1238	-1315	-1343	-1329	-1274	-1209	-1129	-1040	-1229	-1248	-1310
<i>Total Reserves, Maintenance & Losses</i>	-10179	-9475	-9184	-8723	-8616	-7760	-7240	-7856	-8059	-8021	-7521	-7766	-7789	-9437
<i>Total Net Resources</i>	36814	34539	33794	35726	37944	38743	38338	36752	34893	32574	30007	35450	35992	37781
Surplus/Deficits														
<i>Firm Surplus/Deficit</i>	4815	2574	3931	4777	3332	1979	948	1164	2252	2021	-395	5484	4350	4547
<i>Total Surplus/Deficit</i>	4815	2574	3917	4777	3332	1979	944	1141	2198	1987	-429	5484	4350	4547

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Regional Loads														
<i>Regional Firm Loads</i>	30725	30725	28575	29820	33617	35990	36494	34779	31725	29735	29735	29269	30500	32084
<i>Exports</i>	2053	2053	2053	1692	1655	1652	1652	1652	1655	1685	1549	1549	2053	2053
<i>Federal Diversity</i>	-455	-489	-523	-333	-306	-518	-323	-324	-360	-481	-496	-498	-497	-403
<i>Total Firm Regional Loads</i>	32323	32289	30105	31178	34966	37125	37823	36108	33020	30939	30788	30320	32057	33734
Non-Firm Regional Loads														
<i>Regional Non-Firm Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Non-Firm Regional Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Loads</i>	32323	32289	30119	31178	34966	37125	37827	36131	33074	30972	30822	30320	32057	33734
Hydro Resources														
<i>Regulated Hydro</i>	30824	30729	30638	30626	30957	30900	30167	29593	28715	28399	28197	28722	30398	30947
<i>Independent Hydro</i>	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
<i>Operational Peaking Adjustment</i>	-2783	-5673	-6588	-5337	-3875	-3678	-4093	-4528	-3900	-5434	-6700	-1451	-5475	-3121
<i>Total Hydro Resources</i>	29704	26727	25764	27041	28782	28767	27533	26593	26532	24785	23441	29392	27106	29662
Other Resources														
<i>Small Thermal & Misc.</i>	32	32	32	32	32	32	32	32	32	32	32	32	32	32
<i>Combustion Turbines</i>	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	3130	4710	5245
<i>Renewables</i>	244	244	244	244	244	244	244	244	244	244	244	244	244	244
<i>Cogeneration</i>	2908	2908	2912	2931	2942	2951	2950	2946	2310	2926	2170	2323	2914	2903
<i>Imports</i>	1080	1080	1017	1119	1444	1619	1631	1599	1283	1177	1177	1065	1138	1215
<i>Large Thermal</i>	7016	7016	7016	7016	7016	7016	7016	7016	7016	6346	5766	4756	5866	7016
<i>Non-Utility Generation</i>	889	887	816	735	679	669	662	672	652	816	818	958	973	961
<i>Resource Acquisition</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	17413	17411	17337	17481	17841	18050	18061	18012	16476	16339	14922	12509	15878	17616
<i>Total Resources</i>	47117	44138	43101	44522	46624	46817	45594	44605	43008	41124	38363	41901	42984	47278
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-1291	-1288	-1287	-1289	-1297	-1292	-1272	-1258	-1211	-1198	-1155	-1105	-1242	-1300
<i>Contingency Reserves (Spinning)</i>	-994	-933	-915	-963	-1014	-1037	-1018	-977	-953	-909	-847	-917	-941	-1016
<i>Generation Imbalance Reserves</i>	-1677	-1677	-1677	-1677	-1698	-1698	-1698	-1698	-1698	-1698	-1698	-1732	-1732	-1732
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Regional Hydro Maintenance</i>	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
<i>Regional Transmission Losses</i>	-1278	-1199	-1173	-1238	-1315	-1351	-1328	-1272	-1209	-1144	-1064	-1185	-1221	-1310
<i>Total Reserves, Maintenance & Losses</i>	-10250	-9546	-9255	-8791	-8674	-7831	-7293	-7907	-8113	-8116	-7663	-7714	-7753	-9493
<i>Total Net Resources</i>	36867	34592	33846	35731	37949	38986	38301	36698	34895	33008	30701	34187	35230	37785
Surplus/Deficits														
<i>Firm Surplus/Deficit</i>	4545	2304	3741	4553	2984	1861	478	590	1875	2069	-87	3868	3174	4051
<i>Total Surplus/Deficit</i>	4545	2304	3727	4553	2984	1861	475	567	1820	2036	-121	3868	3174	4051

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Regional Loads														
<i>Regional Firm Loads</i>	31171	31171	28962	30200	33973	36513	36914	35053	32071	30069	30069	29641	30895	32528
<i>Exports</i>	2033	2033	2033	1672	1635	1635	1635	1635	1590	1590	1454	1454	1958	1958
<i>Federal Diversity</i>	-467	-502	-536	-342	-314	-531	-328	-328	-365	-488	-503	-505	-504	-409
<i>Total Firm Regional Loads</i>	32737	32702	30459	31530	35293	37617	38221	36360	33295	31171	31020	30590	32349	34077
Non-Firm Regional Loads														
<i>Regional Non-Firm Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Non-Firm Regional Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Loads</i>	32737	32702	30473	31530	35293	37617	38225	36383	33350	31205	31054	30590	32349	34077
Hydro Resources														
<i>Regulated Hydro</i>	30824	30729	30638	30626	30957	30958	30289	29726	28870	28486	28197	28722	30398	30947
<i>Independent Hydro</i>	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
<i>Operational Peaking Adjustment</i>	-2728	-5618	-6533	-5283	-3829	-3940	-4125	-4553	-4004	-5473	-6653	-1425	-5449	-3096
<i>Total Hydro Resources</i>	29759	26781	25819	27095	28829	28563	27624	26702	26582	24833	23488	29417	27131	29687
Other Resources														
<i>Small Thermal & Misc.</i>	32	32	32	32	32	32	32	32	32	32	32	32	32	32
<i>Combustion Turbines</i>	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	2859	4710	5245
<i>Renewables</i>	244	244	244	244	244	244	244	244	244	244	244	244	244	244
<i>Cogeneration</i>	2905	2905	2909	2927	2939	2948	2950	2946	2310	2642	2170	2323	2914	2903
<i>Imports</i>	1086	1086	1022	1125	1450	1625	1637	1605	1244	1107	1107	996	1070	1148
<i>Large Thermal</i>	7016	7016	7016	7016	7016	7016	7016	7016	7016	6276	5166	5236	7016	7016
<i>Non-Utility Generation</i>	889	887	816	735	679	669	662	672	652	816	818	958	973	961
<i>Resource Acquisition</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	17416	17414	17339	17483	17843	18053	18067	18017	16437	15915	14252	12649	16960	17549
<i>Total Resources</i>	47175	44195	43158	44579	46672	46616	45691	44720	43019	40749	37740	42066	44092	47236
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-1291	-1288	-1287	-1289	-1296	-1293	-1275	-1262	-1215	-1191	-1134	-1115	-1282	-1300
<i>Contingency Reserves (Spinning)</i>	-996	-935	-917	-965	-1016	-1032	-1021	-980	-955	-887	-813	-950	-982	-1017
<i>Generation Imbalance Reserves</i>	-1732	-1732	-1732	-1732	-1745	-1745	-1745	-1745	-1745	-1745	-1745	-1757	-1757	-1757
<i>Load Following Reserves</i>	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
<i>Regional Hydro Maintenance</i>	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
<i>Regional Transmission Losses</i>	-1278	-1199	-1173	-1238	-1315	-1343	-1329	-1274	-1208	-1131	-1044	-1188	-1255	-1307
<i>Total Reserves, Maintenance & Losses</i>	-10306	-9602	-9312	-8847	-8722	-7866	-7347	-7962	-8164	-8119	-7634	-7786	-7893	-9517
<i>Total Net Resources</i>	36868	34593	33846	35731	37950	38750	38344	36758	34855	32629	30106	34281	36199	37719
Surplus/Deficits														
<i>Firm Surplus/Deficit</i>	4131	1891	3387	4201	2657	1133	123	398	1559	1458	-914	3690	3850	3642
<i>Total Surplus/Deficit</i>	4131	1891	3373	4201	2657	1133	120	375	1505	1424	-948	3690	3850	3642

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<u>Firm Regional Loads</u>														
Regional Firm Loads	31551	31551	29313	30555	34365	36929	37336	35453	32444	30419	30419	29995	31269	32924
Exports	1958	1958	1958	1627	1590	1590	1590	1595	1595	1595	1459	1459	1962	1962
Federal Diversity	-474	-510	-544	-347	-319	-538	-332	-333	-371	-495	-510	-512	-511	-415
Total Firm Regional Loads	33034	32999	30727	31835	35636	37981	38594	36715	33667	31519	31368	30941	32720	34472
<u>Non-Firm Regional Loads</u>														
Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Loads	33034	32999	30741	31835	35636	37981	38598	36738	33722	31553	31401	30941	32720	34472
<u>Hydro Resources</u>														
Regulated Hydro	30824	30729	30638	30626	30957	30900	30167	29593	28715	28399	28197	28722	30398	30947
Independent Hydro	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
Operational Peaking Adjustment	-2703	-5593	-6508	-5257	-3804	-3606	-4022	-4456	-3828	-5363	-6628	-1407	-5430	-3077
Total Hydro Resources	29785	26807	25844	27121	28854	28839	27605	26665	26603	24856	23513	29436	27150	29706
<u>Other Resources</u>														
Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	3174	4701	5245
Renewables	244	244	244	244	244	244	244	244	244	244	244	244	244	244
Cogeneration	2905	2905	2909	2927	2939	2948	2950	2946	2310	2454	2454	2323	2630	2903
Imports	1018	1018	953	1086	1411	1587	1598	1566	1249	1112	1112	1002	1078	1156
Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	7016	5906	4616	5866	7016
Non-Utility Generation	889	887	816	735	679	669	662	672	655	816	822	961	973	960
Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Resources	17347	17345	17270	17444	17804	18014	18028	17978	16445	16472	15285	12353	15525	17556
Total Resources	47132	44152	43114	44565	46658	46853	45632	44643	43048	41329	38798	41789	42675	47262
<u>Reserves & Maintenance</u>														
Contingency Reserves (Non-Spinning)	-1291	-1288	-1287	-1289	-1296	-1292	-1272	-1259	-1211	-1210	-1167	-1101	-1234	-1300
Contingency Reserves (Spinning)	-996	-936	-918	-965	-1016	-1039	-1021	-979	-956	-900	-839	-937	-936	-1018
Generation Imbalance Reserves	-1757	-1757	-1757	-1757	-1770	-1770	-1770	-1770	-1770	-1770	-1770	-1776	-1776	-1776
Load Following Reserves	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
Regional Hydro Maintenance	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
Regional Transmission Losses	-1276	-1197	-1171	-1237	-1314	-1350	-1326	-1271	-1208	-1148	-1076	-1179	-1210	-1308
Total Reserves, Maintenance & Losses	-10330	-9626	-9336	-8872	-8747	-7904	-7366	-7980	-8186	-8195	-7750	-7769	-7773	-9537
Total Net Resources	36801	34526	33779	35693	37911	38949	38267	36664	34862	33134	31048	34020	34901	37725
<u>Surplus/Deficits</u>														
Firm Surplus/Deficit	3767	1527	3052	3858	2275	968	-327	-52	1195	1615	-319	3080	2181	3253
Total Surplus/Deficit	3767	1527	3038	3858	2275	968	-331	-75	1140	1581	-353	3080	2181	3253

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Monthly Regional
Loads & Resources
120-Hour Capacity in Megawatts

For OY 2010 – 2019

Power Services

Reports Powered by:



Loads and Resources Information System

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<u>Firm Regional Loads</u>														
<i>Regional Firm Loads</i>	25941	25941	24284	25651	28994	31100	31576	30090	27407	25694	25694	25084	26928	28217
<i>Exports</i>	2487	2487	2487	2080	1946	1950	1949	1948	1946	1970	1892	1950	2466	2474
<i>Federal Diversity</i>	-761	-823	-905	-1277	-1277	-1146	-1328	-1285	-1130	-1142	-1225	-1103	-918	-831
<i>Total Firm Regional Loads</i>	27667	27605	25867	26454	29664	31903	32197	30753	28223	26522	26361	25932	28476	29860
<u>Non-Firm Regional Loads</u>														
<i>Regional Non-Firm Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Non-Firm Regional Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Loads</i>	27667	27605	25881	26454	29664	31903	32201	30776	28277	26556	26395	25932	28476	29860
<u>Hydro Resources</u>														
<i>Regulated Hydro</i>	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30398	30947
<i>Independent Hydro</i>	1631	1639	1684	1721	1671	1530	1446	1515	1703	1807	1929	2104	2164	1818
<i>Operational Peaking Adjustment</i>	-5797	-8677	-8833	-7884	-6607	-7146	-7263	-7329	-7089	-8722	-9454	-4914	-7756	-6614
<i>Total Hydro Resources</i>	26658	23690	23489	24463	26021	25359	24505	23949	23526	21595	20673	25912	24807	26151
<u>Other Resources</u>														
<i>Small Thermal & Misc.</i>	32	32	32	32	32	32	32	32	32	32	32	32	32	32
<i>Combustion Turbines</i>	4774	4774	5030	5129	5204	5239	5526	5502	4939	5307	5224	2859	4710	5245
<i>Renewables</i>	226	226	226	226	226	226	226	226	226	226	226	226	226	226
<i>Cogeneration</i>	2905	2905	2912	2903	2935	2939	2938	2934	2300	2919	2919	1845	2621	2895
<i>Imports</i>	1339	1339	1201	1307	1759	2082	2094	2062	1570	1466	1466	1250	1389	1461
<i>Large Thermal</i>	7016	7016	7016	7016	7016	7016	7016	7016	7016	6346	5816	5906	7016	7016
<i>Non-Utility Generation</i>	862	860	774	708	656	637	630	639	620	783	785	950	957	934
<i>Resource Acquisition</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	17154	17152	17191	17321	17829	18170	18461	18412	16702	17079	16468	13068	16951	17809
<i>Total Resources</i>	43812	40842	40680	41784	43850	43528	42967	42361	40228	38674	37140	38980	41758	43960
<u>Reserves & Maintenance</u>														
<i>Contingency Reserves (Non-Spinning)</i>	-1279	-1277	-1280	-1282	-1290	-1287	-1276	-1263	-1216	-1214	-1189	-1128	-1276	-1300
<i>Contingency Reserves (Spinning)</i>	-1056	-1068	-1077	-896	-941	-947	-945	-913	-880	-844	-808	-854	-918	-930
<i>Generation Imbalance Reserves</i>	-666	-666	-666	-666	-666	-666	-694	-748	-748	-779	-779	-779	-779	-779
<i>Load Following Reserves</i>	-251	-251	-251	-251	-251	-251	-256	-266	-266	-272	-272	-272	-272	-272
<i>Regional Hydro Maintenance</i>	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
<i>Regional Transmission Losses</i>	-1205	-1124	-1126	-1189	-1265	-1284	-1281	-1236	-1155	-1099	-1059	-1125	-1216	-1238
<i>Total Reserves, Maintenance & Losses</i>	-9052	-8418	-8188	-7492	-7347	-6473	-6014	-6712	-6892	-6960	-6590	-6518	-6664	-8240
<i>Total Net Resources</i>	34760	32425	32493	34292	36502	37055	36953	35649	33336	31714	30550	32462	35094	35720
<u>Surplus/Deficits</u>														
<i>Firm Surplus/Deficit</i>	7094	4820	6626	7838	6839	5152	4756	4895	5113	5192	4189	6530	6618	5861
<i>Total Surplus/Deficit</i>	7094	4820	6612	7838	6839	5152	4753	4872	5058	5158	4155	6530	6618	5861

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Regional Loads														
<i>Regional Firm Loads</i>	27417	27417	25600	26980	30481	32648	33121	31573	28770	26916	26916	26359	27338	28658
<i>Exports</i>	2470	2470	2462	2055	1928	1932	1931	1931	1928	1952	1816	1925	2465	2473
<i>Federal Diversity</i>	-777	-840	-923	-1299	-1304	-1166	-1351	-1308	-1151	-1163	-1247	-1123	-935	-843
<i>Total Firm Regional Loads</i>	29110	29046	27139	27736	31105	33413	33702	32196	29547	27705	27485	27161	28867	30288
Non-Firm Regional Loads														
<i>Regional Non-Firm Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Non-Firm Regional Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Loads</i>	29110	29046	27154	27736	31105	33413	33705	32219	29602	27739	27519	27161	28867	30288
Hydro Resources														
<i>Regulated Hydro</i>	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30398	30947
<i>Independent Hydro</i>	1647	1654	1700	1736	1686	1544	1455	1524	1712	1816	1940	2117	2178	1832
<i>Operational Peaking Adjustment</i>	-5440	-8325	-8487	-7647	-6311	-6805	-6891	-7044	-6855	-8616	-9310	-4720	-7693	-6503
<i>Total Hydro Resources</i>	27030	24058	23851	24715	26332	25713	24887	24244	23768	21710	20827	26119	24883	26276
Other Resources														
<i>Small Thermal & Misc.</i>	32	32	32	32	32	32	32	32	32	32	32	32	32	32
<i>Combustion Turbines</i>	5038	5038	5300	5404	5483	5519	5526	5502	4939	5307	5224	3130	4701	5245
<i>Renewables</i>	226	226	226	226	226	244	244	244	244	244	244	244	244	244
<i>Cogeneration</i>	2896	2896	2904	2925	2935	2939	2938	2934	2300	2919	2919	2317	2621	2895
<i>Imports</i>	1344	1344	1206	1311	1666	1988	1901	1869	1376	1272	1272	1155	1296	1368
<i>Large Thermal</i>	7016	7016	7016	7016	7016	7016	7016	7016	7016	6346	4616	5286	5866	7016
<i>Non-Utility Generation</i>	867	865	778	711	664	645	638	647	628	791	793	950	949	934
<i>Resource Acquisition</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	17419	17417	17461	17625	18022	18383	18295	18245	16535	16912	15100	13114	15709	17735
<i>Total Resources</i>	44449	41475	41311	42341	44355	44096	43181	42489	40303	38622	35927	39233	40592	44011
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-1286	-1284	-1287	-1290	-1298	-1295	-1274	-1262	-1215	-1213	-1145	-1123	-1233	-1299
<i>Contingency Reserves (Spinning)</i>	-925	-863	-869	-906	-955	-973	-962	-928	-893	-854	-784	-863	-887	-938
<i>Generation Imbalance Reserves</i>	-939	-939	-939	-1013	-1013	-1031	-1031	-1031	-1031	-1031	-1031	-1031	-1031	-1031
<i>Load Following Reserves</i>	-306	-306	-306	-321	-321	-325	-325	-325	-325	-325	-325	-325	-325	-325
<i>Regional Hydro Maintenance</i>	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
<i>Regional Transmission Losses</i>	-1219	-1141	-1143	-1193	-1267	-1288	-1274	-1228	-1146	-1087	-1010	-1123	-1170	-1229
<i>Total Reserves, Maintenance & Losses</i>	-9269	-8565	-8331	-7931	-7789	-6949	-6427	-7059	-7236	-7260	-6778	-6825	-6848	-8541
<i>Total Net Resources</i>	35180	32911	32981	34410	36566	37147	36754	35429	33068	31362	29149	32408	33744	35470
Surplus/Deficits														
<i>Firm Surplus/Deficit</i>	6070	3864	5842	6674	5461	3733	3052	3234	3520	3656	1665	5247	4877	5181
<i>Total Surplus/Deficit</i>	6070	3864	5827	6674	5461	3733	3049	3211	3466	3622	1631	5247	4877	5181

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<u>Firm Regional Loads</u>														
Regional Firm Loads	27843	27843	25983	27330	30857	33040	33741	32167	29328	27480	27480	26893	27921	29421
Exports	2470	2470	2463	2008	1875	1873	1871	1872	1874	1903	1767	1880	2385	2386
Federal Diversity	-794	-858	-941	-1107	-1102	-997	-1173	-1111	-972	-982	-1054	-980	-830	-749
Total Firm Regional Loads	29519	29455	27504	28231	31630	33916	34439	32929	30230	28401	28194	27793	29476	31058
<u>Non-Firm Regional Loads</u>														
Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Loads	29519	29455	27519	28231	31630	33916	34443	32952	30285	28435	28227	27793	29476	31058
<u>Hydro Resources</u>														
Regulated Hydro	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30398	30947
Independent Hydro	1659	1667	1710	1748	1697	1541	1455	1524	1712	1816	1940	2117	2178	1832
Operational Peaking Adjustment	-5248	-8200	-8411	-7557	-6359	-6905	-6964	-6965	-6743	-8415	-7246	-4506	-7549	-6461
Total Hydro Resources	27235	24195	23937	24817	26294	25609	24814	24322	23881	21910	22891	26333	25027	26318
<u>Other Resources</u>														
Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	2859	4701	5245
Renewables	244	244	244	244	244	244	244	244	244	244	244	244	244	244
Cogeneration	2896	2896	2904	2931	2942	2951	2953	2950	2313	2929	2929	2043	2918	2906
Imports	1250	1251	1111	1216	1646	1969	1982	1950	1381	1277	1277	1161	1303	1376
Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	6276	5166	5236	7016	7016
Non-Utility Generation	867	865	778	711	665	645	625	619	599	763	764	905	920	909
Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Resources	17548	17547	17384	17555	18028	18376	18378	18313	16525	16320	15129	12480	17134	17729
Total Resources	44784	41743	41322	42372	44322	43985	43193	42635	40406	38230	38020	38812	42161	44046
<u>Reserves & Maintenance</u>														
Contingency Reserves (Non-Spinning)	-1290	-1287	-1286	-1288	-1296	-1293	-1275	-1261	-1214	-1197	-1151	-1106	-1280	-1298
Contingency Reserves (Spinning)	-941	-878	-877	-916	-961	-967	-959	-929	-895	-827	-782	-874	-934	-931
Generation Imbalance Reserves	-1089	-1089	-1089	-1148	-1148	-1148	-1201	-1201	-1201	-1201	-1201	-1201	-1201	-1201
Load Following Reserves	-341	-341	-341	-356	-356	-356	-370	-370	-370	-370	-370	-370	-370	-370
Regional Hydro Maintenance	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
Regional Transmission Losses	-1224	-1143	-1137	-1188	-1260	-1279	-1267	-1226	-1142	-1068	-1073	-1102	-1212	-1224
Total Reserves, Maintenance & Losses	-9480	-8771	-8518	-8104	-7957	-7081	-6634	-7273	-7449	-7414	-7061	-7014	-7199	-8744
Total Net Resources	35304	32972	32804	34268	36365	36904	36559	35362	32957	30816	30959	31799	34962	35302
<u>Surplus/Deficits</u>														
Firm Surplus/Deficit	5785	3517	5299	6037	4736	2988	2120	2433	2726	2415	2765	4006	5486	4244
Total Surplus/Deficit	5785	3517	5285	6037	4736	2988	2116	2410	2672	2381	2732	4006	5486	4244

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Regional Loads														
<i>Regional Firm Loads</i>	28527	28527	26660	28020	31551	33846	34281	32655	29818	27953	27953	27368	28389	29823
<i>Exports</i>	2386	2386	2385	1988	1855	1853	1851	1852	1854	1883	1747	1860	2365	2366
<i>Federal Diversity</i>	-695	-751	-820	-1120	-1114	-1008	-1185	-1130	-982	-993	-1065	-987	-839	-758
<i>Total Firm Regional Loads</i>	30219	30162	28225	28888	32292	34691	34947	33376	30690	28843	28635	28241	29915	31432
Non-Firm Regional Loads														
<i>Regional Non-Firm Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Non-Firm Regional Loads</i>	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>Total Loads</i>	30219	30162	28239	28888	32292	34691	34951	33399	30745	28877	28669	28241	29915	31432
Hydro Resources														
<i>Regulated Hydro</i>	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30398	30947
<i>Independent Hydro</i>	1659	1667	1710	1748	1697	1541	1455	1524	1712	1816	1940	2117	2178	1832
<i>Operational Peaking Adjustment</i>	-5261	-8134	-8342	-7482	-6237	-6775	-6718	-6765	-6537	-8129	-8685	-4258	-7579	-6411
<i>Total Hydro Resources</i>	27222	24261	24005	24892	26417	25739	25060	24522	24087	22197	21452	26580	24997	26368
Other Resources														
<i>Small Thermal & Misc.</i>	32	32	32	32	32	32	32	32	32	32	32	32	32	32
<i>Combustion Turbines</i>	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	3130	4701	5245
<i>Renewables</i>	244	244	244	244	244	244	244	244	244	244	244	244	244	244
<i>Cogeneration</i>	2908	2908	2912	2931	2942	2951	2953	2950	2313	2457	2457	2327	2634	2906
<i>Imports</i>	1257	1257	1117	1222	1621	1795	1807	1775	1387	1157	1157	1042	1106	1180
<i>Large Thermal</i>	7016	7016	7016	7016	7016	7016	7016	7016	7016	7016	5906	4616	5866	7016
<i>Non-Utility Generation</i>	837	835	764	682	627	616	610	619	600	763	765	905	929	909
<i>Resource Acquisition</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Other Resources</i>	17537	17535	17385	17531	17966	18173	18188	18139	16531	16468	15277	12296	15512	17533
<i>Total Resources</i>	44760	41796	41390	42423	44382	43912	43248	42661	40617	38665	36728	38877	40509	43900
Reserves & Maintenance														
<i>Contingency Reserves (Non-Spinning)</i>	-1289	-1287	-1286	-1287	-1295	-1292	-1274	-1261	-1214	-1211	-1165	-1098	-1233	-1298
<i>Contingency Reserves (Spinning)</i>	-935	-873	-873	-911	-959	-966	-961	-930	-896	-839	-792	-869	-883	-931
<i>Generation Imbalance Reserves</i>	-1201	-1201	-1201	-1238	-1238	-1238	-1404	-1404	-1404	-1404	-1404	-1404	-1404	-1404
<i>Load Following Reserves</i>	-370	-370	-370	-378	-378	-378	-416	-416	-416	-416	-416	-416	-416	-416
<i>Regional Hydro Maintenance</i>	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
<i>Regional Transmission Losses</i>	-1218	-1140	-1135	-1186	-1259	-1273	-1261	-1218	-1141	-1073	-1021	-1096	-1151	-1210
<i>Total Reserves, Maintenance & Losses</i>	-9608	-8904	-8652	-8208	-8063	-7184	-6877	-7515	-7697	-7695	-7281	-7244	-7290	-8979
<i>Total Net Resources</i>	35151	32893	32739	34215	36319	36728	36371	35146	32920	30970	29448	31633	33219	34921
Surplus/Deficits														
<i>Firm Surplus/Deficit</i>	4933	2731	4514	5327	4028	2037	1423	1769	2230	2127	813	3392	3305	3489
<i>Total Surplus/Deficit</i>	4933	2731	4499	5327	4028	2037	1420	1746	2175	2093	779	3392	3305	3489

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<u>Firm Regional Loads</u>														
Regional Firm Loads	28940	28940	27021	28337	31906	34237	35204	33550	30621	28692	28692	28157	29234	30722
Exports	2366	2366	2365	1988	1855	1853	1851	1852	1854	1883	1747	1860	2365	2366
Federal Diversity	-703	-760	-829	-1132	-1126	-1019	-1202	-1146	-995	-1005	-1078	-1003	-849	-767
Total Firm Regional Loads	30604	30546	28557	29193	32635	35071	35853	34256	31480	29570	29361	29015	30750	32321
<u>Non-Firm Regional Loads</u>														
Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Loads	30604	30546	28571	29193	32635	35071	35857	34279	31535	29604	29395	29015	30750	32321
<u>Hydro Resources</u>														
Regulated Hydro	30824	30729	30638	30626	30957	30958	30289	29726	28870	28486	28197	28722	30398	30947
Independent Hydro	1659	1667	1710	1748	1697	1541	1455	1524	1712	1816	1940	2117	2178	1832
Operational Peaking Adjustment	-5016	-8021	-8248	-7265	-6012	-6445	-6616	-6661	-6430	-8039	-8608	-4178	-7500	-6269
Total Hydro Resources	27467	24375	24100	25109	26642	26053	25129	24590	24153	22263	21529	26661	25076	26510
<u>Other Resources</u>														
Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	2859	4710	5245
Renewables	244	244	244	244	244	244	244	244	244	244	244	244	244	244
Cogeneration	2908	2908	2912	2931	2942	2951	2953	2950	2313	2929	2457	2327	2634	2906
Imports	1059	1059	998	1102	1502	1676	1688	1656	1267	1162	1162	1047	1114	1188
Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	7016	5906	5236	7016	7016
Non-Utility Generation	837	836	764	683	627	617	610	620	600	764	766	906	921	909
Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Resources	17340	17338	17266	17412	17847	18055	18070	18020	16412	16946	15282	12652	16671	17541
Total Resources	44807	41712	41366	42521	44489	44108	43199	42610	40564	39209	36811	39313	41748	44051
<u>Reserves & Maintenance</u>														
Contingency Reserves (Non-Spinning)	-1289	-1287	-1286	-1287	-1295	-1292	-1273	-1261	-1213	-1222	-1165	-1113	-1273	-1298
Contingency Reserves (Spinning)	-939	-875	-875	-917	-965	-974	-963	-932	-898	-853	-794	-886	-925	-935
Generation Imbalance Reserves	-1404	-1404	-1404	-1404	-1411	-1411	-1471	-1471	-1471	-1471	-1471	-1471	-1471	-1527
Load Following Reserves	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
Regional Hydro Maintenance	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
Regional Transmission Losses	-1211	-1129	-1126	-1182	-1255	-1272	-1257	-1214	-1137	-1089	-1021	-1108	-1188	-1211
Total Reserves, Maintenance & Losses	-9854	-9143	-8893	-8415	-8277	-7402	-6941	-7579	-7761	-7802	-7350	-7354	-7475	-9107
Total Net Resources	34953	32570	32473	34107	36212	36706	36257	35031	32803	31407	29461	31959	34273	34945
<u>Surplus/Deficits</u>														
Firm Surplus/Deficit	4349	2023	3916	4914	3578	1634	404	775	1323	1837	100	2944	3523	2624
Total Surplus/Deficit	4349	2023	3902	4914	3578	1634	401	752	1268	1803	66	2944	3523	2624

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<u>Firm Regional Loads</u>														
Regional Firm Loads	29829	29829	27815	29082	32738	35151	35635	33944	30984	29022	29022	28540	29667	31150
Exports	2367	2367	2365	1988	1855	1853	1676	1677	1679	1708	1572	1670	2174	2176
Federal Diversity	-713	-771	-840	-1147	-1141	-1033	-1215	-1157	-1005	-1014	-1088	-1013	-858	-776
Total Firm Regional Loads	31483	31425	29340	29923	33452	35972	36096	34464	31659	29716	29506	29197	30983	32550
<u>Non-Firm Regional Loads</u>														
Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Loads	31483	31425	29354	29923	33452	35972	36100	34487	31713	29749	29540	29197	30983	32550
<u>Hydro Resources</u>														
Regulated Hydro	30824	30729	30638	30626	30957	30900	30167	29593	28715	28399	28197	28722	30398	30947
Independent Hydro	1659	1667	1710	1748	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
Operational Peaking Adjustment	-4876	-7882	-8114	-7143	-5853	-5896	-6447	-6481	-6180	-7855	-8509	-4079	-7361	-6185
Total Hydro Resources	27607	24513	24234	25231	26805	26548	25180	24640	24251	22364	21631	26764	25219	26598
<u>Other Resources</u>														
Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	3130	4701	5245
Renewables	244	244	244	244	244	244	244	244	244	244	244	244	244	244
Cogeneration	2908	2908	2912	2931	2942	2951	2953	2950	2313	2929	2457	2327	2634	2906
Imports	1066	1066	1004	1108	1508	1682	1694	1662	1272	1166	1166	1053	1122	1197
Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	6276	5696	4616	5866	7016
Non-Utility Generation	839	838	766	685	629	619	612	622	602	766	768	908	923	911
Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Resources	17349	17347	17274	17420	17855	18063	18078	18028	16419	16213	15079	12311	15522	17552
Total Resources	44956	41860	41508	42651	44659	44611	43258	42668	40670	38576	36711	39074	40741	44149
<u>Reserves & Maintenance</u>														
Contingency Reserves (Non-Spinning)	-1289	-1287	-1286	-1287	-1295	-1291	-1270	-1257	-1210	-1194	-1158	-1099	-1233	-1299
Contingency Reserves (Spinning)	-942	-878	-879	-920	-970	-987	-965	-933	-901	-838	-797	-874	-890	-937
Generation Imbalance Reserves	-1527	-1527	-1527	-1527	-1570	-1570	-1570	-1570	-1570	-1570	-1570	-1570	-1610	-1610
Load Following Reserves	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
Regional Hydro Maintenance	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
Regional Transmission Losses	-1212	-1130	-1126	-1182	-1255	-1283	-1255	-1213	-1137	-1066	-1015	-1097	-1152	-1212
Total Reserves, Maintenance & Losses	-9981	-9270	-9020	-8541	-8440	-7584	-7037	-7674	-7859	-7834	-7438	-7415	-7502	-9193
Total Net Resources	34975	32590	32488	34111	36219	37027	36220	34994	32811	30742	29273	31659	33239	34956
<u>Surplus/Deficits</u>														
Firm Surplus/Deficit	3492	1166	3148	4188	2767	1056	124	530	1153	1026	-233	2462	2256	2406
Total Surplus/Deficit	3492	1166	3134	4188	2767	1056	120	507	1098	992	-267	2462	2256	2406

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<u>Firm Regional Loads</u>														
Regional Firm Loads	30271	30271	28204	29464	33235	35597	36029	34224	31313	29316	29316	28894	30065	31575
Exports	2176	2176	2174	1813	1680	1678	1676	1677	1679	1708	1572	1558	2062	2053
Federal Diversity	-721	-779	-849	-1165	-1159	-1048	-1232	-1165	-1020	-1028	-1103	-1028	-871	-787
Total Firm Regional Loads	31727	31668	29529	30112	33756	36227	36473	34735	31973	29995	29784	29424	31256	32841
<u>Non-Firm Regional Loads</u>														
Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Loads	31727	31668	29544	30112	33756	36227	36476	34758	32027	30029	29818	29424	31256	32841
<u>Hydro Resources</u>														
Regulated Hydro	30824	30729	30638	30626	30957	30958	30289	29726	28870	28486	28197	28722	30398	30947
Independent Hydro	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
Operational Peaking Adjustment	-4792	-7799	-8031	-7059	-5782	-6216	-6447	-6492	-6260	-7869	-8438	-4008	-7294	-6118
Total Hydro Resources	27695	24601	24321	25319	26876	26287	25302	24763	24326	22437	21702	26835	25287	26665
<u>Other Resources</u>														
Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	2859	4701	5245
Renewables	244	244	244	244	244	244	244	244	244	244	244	244	244	244
Cogeneration	2908	2908	2912	2931	2942	2951	2953	2950	2313	2457	2457	2327	2634	2906
Imports	1073	1073	1010	1113	1438	1613	1625	1593	1278	1171	1171	1059	1130	1206
Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	6346	4706	6436	7016	7016
Non-Utility Generation	839	838	766	735	679	669	662	672	652	816	818	958	973	961
Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Resources	17356	17354	17281	17476	17835	18044	18059	18009	16474	15866	14144	13916	16730	17610
Total Resources	45051	41955	41602	42794	44711	44331	43361	42772	40800	38302	35847	40750	42016	44275
<u>Reserves & Maintenance</u>														
Contingency Reserves (Non-Spinning)	-1289	-1287	-1286	-1289	-1297	-1293	-1275	-1262	-1215	-1188	-1125	-1157	-1275	-1300
Contingency Reserves (Spinning)	-945	-881	-881	-923	-972	-981	-968	-937	-903	-845	-780	-908	-930	-939
Generation Imbalance Reserves	-1610	-1610	-1610	-1610	-1641	-1641	-1641	-1641	-1641	-1641	-1641	-1641	-1677	-1677
Load Following Reserves	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
Regional Hydro Maintenance	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
Regional Transmission Losses	-1213	-1130	-1126	-1184	-1255	-1272	-1256	-1214	-1139	-1054	-985	-1148	-1190	-1214
Total Reserves, Maintenance & Losses	-10067	-9356	-9106	-8630	-8514	-7640	-7117	-7754	-7939	-7895	-7429	-7629	-7689	-9265
Total Net Resources	34983	32599	32496	34165	36197	36691	36244	35018	32861	30407	28418	33121	34328	35011
<u>Surplus/Deficits</u>														
Firm Surplus/Deficit	3256	931	2966	4053	2441	465	-229	282	889	412	-1367	3697	3071	2170
Total Surplus/Deficit	3256	931	2952	4053	2441	465	-232	259	834	378	-1401	3697	3071	2170

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<u>Firm Regional Loads</u>														
Regional Firm Loads	30725	30725	28575	29820	33617	35990	36494	34779	31725	29735	29735	29269	30500	32084
Exports	2053	2053	2053	1692	1655	1652	1652	1652	1655	1685	1549	1549	2053	2053
Federal Diversity	-732	-791	-861	-1183	-1175	-1063	-1266	-1204	-1046	-1052	-1128	-1053	-893	-805
Total Firm Regional Loads	32046	31987	29766	30329	34097	36580	36881	35228	32335	30368	30156	29765	31660	33332
<u>Non-Firm Regional Loads</u>														
Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Loads	32046	31987	29781	30329	34097	36580	36884	35251	32389	30402	30189	29765	31660	33332
<u>Hydro Resources</u>														
Regulated Hydro	30824	30729	30638	30626	30957	30900	30167	29593	28715	28399	28197	28722	30398	30947
Independent Hydro	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
Operational Peaking Adjustment	-4725	-7732	-7964	-6992	-5725	-5768	-6318	-6353	-6052	-7727	-8381	-3917	-7239	-6064
Total Hydro Resources	27762	24668	24388	25386	26933	26677	25308	24769	24380	22492	21760	26925	25341	26719
<u>Other Resources</u>														
Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	3130	4710	5245
Renewables	244	244	244	244	244	244	244	244	244	244	244	244	244	244
Cogeneration	2908	2908	2912	2931	2942	2951	2950	2946	2310	2926	2170	2323	2914	2903
Imports	1080	1080	1017	1119	1444	1619	1631	1599	1283	1177	1177	1065	1138	1215
Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	6346	5766	4756	5866	7016
Non-Utility Generation	889	887	816	735	679	669	662	672	652	816	818	958	973	961
Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Resources	17413	17411	17337	17481	17841	18050	18061	18012	16476	16339	14922	12509	15878	17616
Total Resources	45175	42079	41725	42867	44775	44727	43369	42780	40856	38831	36682	39435	41219	44335
<u>Reserves & Maintenance</u>														
Contingency Reserves (Non-Spinning)	-1291	-1288	-1287	-1289	-1297	-1292	-1272	-1258	-1211	-1198	-1155	-1105	-1242	-1300
Contingency Reserves (Spinning)	-946	-882	-883	-924	-973	-990	-968	-936	-904	-859	-811	-860	-900	-940
Generation Imbalance Reserves	-1677	-1677	-1677	-1677	-1698	-1698	-1698	-1698	-1698	-1698	-1698	-1732	-1732	-1732
Load Following Reserves	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
Regional Hydro Maintenance	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
Regional Transmission Losses	-1214	-1132	-1128	-1184	-1255	-1283	-1255	-1212	-1139	-1069	-1009	-1104	-1163	-1214
Total Reserves, Maintenance & Losses	-10139	-9427	-9178	-8698	-8572	-7716	-7169	-7806	-7993	-7990	-7571	-7576	-7654	-9321
Total Net Resources	35036	32652	32547	34169	36202	37011	36200	34974	32863	30841	29111	31858	33565	35014
<u>Surplus/Deficits</u>														
Firm Surplus/Deficit	2990	665	2781	3840	2105	432	-680	-254	528	473	-1045	2094	1905	1682
Total Surplus/Deficit	2990	665	2767	3840	2105	432	-684	-277	474	439	-1079	2094	1905	1682

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<u>Firm Regional Loads</u>														
Regional Firm Loads	31171	31171	28962	30200	33973	36513	36914	35053	32071	30069	30069	29641	30895	32528
Exports	2033	2033	2033	1672	1635	1635	1635	1635	1590	1590	1454	1454	1958	1958
Federal Diversity	-751	-812	-883	-1213	-1206	-1090	-1283	-1220	-1061	-1067	-1144	-1068	-906	-817
Total Firm Regional Loads	32453	32392	30112	30659	34402	37058	37266	35467	32600	30592	30379	30027	31947	33670
<u>Non-Firm Regional Loads</u>														
Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Loads	32453	32392	30126	30659	34402	37058	37269	35490	32654	30626	30413	30027	31947	33670
<u>Hydro Resources</u>														
Regulated Hydro	30824	30729	30638	30626	30957	30958	30289	29726	28870	28486	28197	28722	30398	30947
Independent Hydro	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
Operational Peaking Adjustment	-4671	-7677	-7909	-6938	-5678	-6112	-6343	-6388	-6156	-7765	-8335	-3892	-7214	-6038
Total Hydro Resources	27817	24723	24443	25440	26980	26391	25406	24867	24430	22541	21806	26951	25367	26745
<u>Other Resources</u>														
Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	2859	4710	5245
Renewables	244	244	244	244	244	244	244	244	244	244	244	244	244	244
Cogeneration	2905	2905	2909	2927	2939	2948	2950	2946	2310	2642	2170	2323	2914	2903
Imports	1086	1086	1022	1125	1450	1625	1637	1605	1244	1107	1107	996	1070	1148
Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	6276	5166	5236	7016	7016
Non-Utility Generation	889	887	816	735	679	669	662	672	652	816	818	958	973	961
Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Resources	17416	17414	17339	17483	17843	18053	18067	18017	16437	15915	14252	12649	16960	17549
Total Resources	45232	42136	41782	42924	44823	44444	43473	42885	40867	38456	36058	39600	42327	44294
<u>Reserves & Maintenance</u>														
Contingency Reserves (Non-Spinning)	-1291	-1288	-1287	-1289	-1296	-1293	-1275	-1262	-1215	-1191	-1134	-1115	-1282	-1300
Contingency Reserves (Spinning)	-949	-885	-885	-926	-975	-984	-971	-939	-906	-836	-777	-894	-940	-942
Generation Imbalance Reserves	-1732	-1732	-1732	-1732	-1745	-1745	-1745	-1745	-1745	-1745	-1745	-1757	-1757	-1757
Load Following Reserves	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
Regional Hydro Maintenance	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
Regional Transmission Losses	-1214	-1132	-1128	-1184	-1255	-1272	-1256	-1214	-1138	-1056	-988	-1107	-1197	-1211
Total Reserves, Maintenance & Losses	-10196	-9484	-9234	-8755	-8621	-7746	-7223	-7861	-8044	-7994	-7543	-7649	-7794	-9346
Total Net Resources	35037	32652	32548	34169	36202	36697	36250	35023	32822	30462	28516	31951	34534	34948
<u>Surplus/Deficits</u>														
Firm Surplus/Deficit	2584	260	2435	3510	1801	-360	-1016	-444	222	-130	-1863	1924	2587	1279
Total Surplus/Deficit	2584	260	2421	3510	1801	-360	-1019	-467	168	-164	-1897	1924	2587	1279

Loads and Resources - Pacific Northwest Region
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<u>Firm Regional Loads</u>														
Regional Firm Loads	31551	31551	29313	30555	34365	36929	37336	35453	32444	30419	30419	29995	31269	32924
Exports	1958	1958	1958	1627	1590	1590	1590	1595	1595	1595	1459	1459	1962	1962
Federal Diversity	-763	-825	-896	-1231	-1223	-1105	-1301	-1237	-1076	-1082	-1160	-1084	-919	-829
Total Firm Regional Loads	32746	32684	30375	30951	34732	37414	37625	35811	32962	30932	30718	30370	32312	34058
<u>Non-Firm Regional Loads</u>														
Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Non-Firm Regional Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
Total Loads	32746	32684	30389	30951	34732	37414	37629	35834	33017	30966	30751	30370	32312	34058
<u>Hydro Resources</u>														
Regulated Hydro	30824	30729	30638	30626	30957	30900	30167	29593	28715	28399	28197	28722	30398	30947
Independent Hydro	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
Operational Peaking Adjustment	-4645	-7652	-7884	-6912	-5653	-5696	-6246	-6281	-5980	-7655	-8309	-3873	-7195	-6019
Total Hydro Resources	27842	24748	24468	25466	27005	26748	25380	24840	24451	22564	21832	26970	25385	26764
<u>Other Resources</u>														
Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	3174	4701	5245
Renewables	244	244	244	244	244	244	244	244	244	244	244	244	244	244
Cogeneration	2905	2905	2909	2927	2939	2948	2950	2946	2310	2454	2454	2323	2630	2903
Imports	1018	1018	953	1086	1411	1587	1598	1566	1249	1112	1112	1002	1078	1156
Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	7016	5906	4616	5866	7016
Non-Utility Generation	889	887	816	735	679	669	662	672	655	816	822	961	973	960
Resource Acquisition	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Resources	17347	17345	17270	17444	17804	18014	18028	17978	16445	16472	15285	12353	15525	17556
Total Resources	45189	42093	41738	42910	44809	44763	43408	42819	40897	39036	37117	39323	40910	44319
<u>Reserves & Maintenance</u>														
Contingency Reserves (Non-Spinning)	-1291	-1288	-1287	-1289	-1296	-1292	-1272	-1259	-1211	-1210	-1167	-1101	-1234	-1300
Contingency Reserves (Spinning)	-949	-885	-886	-927	-975	-992	-970	-939	-906	-850	-803	-881	-894	-942
Generation Imbalance Reserves	-1757	-1757	-1757	-1757	-1770	-1770	-1770	-1770	-1770	-1770	-1770	-1776	-1776	-1776
Load Following Reserves	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416	-416
Regional Hydro Maintenance	-4595	-4032	-3787	-3208	-2935	-2037	-1561	-2286	-2626	-2751	-2483	-2360	-2202	-3720
Regional Transmission Losses	-1212	-1129	-1126	-1183	-1253	-1282	-1254	-1211	-1138	-1073	-1021	-1098	-1152	-1212
Total Reserves, Maintenance & Losses	-10220	-9508	-9259	-8780	-8645	-7789	-7242	-7880	-8067	-8069	-7659	-7632	-7674	-9365
Total Net Resources	34970	32585	32480	34130	36164	36974	36166	34939	32830	30967	29458	31691	33236	34954
<u>Surplus/Deficits</u>														
Firm Surplus/Deficit	2223	-99	2105	3179	1432	-440	-1460	-872	-133	35	-1259	1322	923	896
Total Surplus/Deficit	2223	-99	2091	3179	1432	-440	-1463	-895	-187	0.8	-1293	1322	923	896

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Section 12
Monthly Regional 70-Water Year
Surplus/Deficit

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Monthly Regional 70-Water Year
Surplus/Deficit
1-Hour Capacity in Megawatts

For OY 2010 – 2019

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	10370	7102	9023	8609	7208	7033	6022	6754	7980	7944	10262	6677	10124	8775
1930 Regional Surplus/Deficit	8253	6576	8681	8543	6962	6957	6152	6462	7281	7969	11525	5580	8013	8535
1931 Regional Surplus/Deficit	6724	6548	8217	8172	7422	6938	5941	6540	6609	9275	6367	7568	7351	8481
1932 Regional Surplus/Deficit	9071	7069	8709	7473	6472	6813	5141	6179	8565	11892	12791	10666	12036	10000
1933 Regional Surplus/Deficit	8274	7854	9116	8811	6823	8227	10949	10635	7737	11563	12139	9916	11836	11083
1934 Regional Surplus/Deficit	11421	10505	10198	9956	10819	11774	11585	12231	12427	13327	12394	10062	11101	9645
1935 Regional Surplus/Deficit	7168	6577	8695	8416	6789	7288	10413	11489	7180	10207	12196	10654	10776	10672
1936 Regional Surplus/Deficit	10890	7533	8507	8651	6993	6816	4668	7630	7509	9355	12684	10693	12227	9319
1937 Regional Surplus/Deficit	9293	7357	8291	8456	7516	6897	6249	6146	6411	6949	5829	8690	8410	7767
1938 Regional Surplus/Deficit	9577	7681	8738	8493	6869	8090	10645	9364	11166	12767	12787	10570	11994	10513
1939 Regional Surplus/Deficit	8166	6863	9189	8893	6992	6993	6489	6825	9319	10625	12668	11006	9951	8761
1940 Regional Surplus/Deficit	7012	6394	8275	8710	7418	8201	6551	7750	11884	12684	12573	10224	11004	7400
1941 Regional Surplus/Deficit	6437	6295	8589	8391	7335	7634	6004	7325	10147	8705	10157	7901	7731	8199
1942 Regional Surplus/Deficit	8598	7488	9796	7597	7417	8594	8316	9595	7265	9120	11970	9918	12171	11036
1943 Regional Surplus/Deficit	10873	8968	9362	9060	6859	7594	9767	11401	11795	13887	13058	10501	11893	11065
1944 Regional Surplus/Deficit	10384	7271	8505	8462	7254	7047	6127	6994	7658	7970	10335	5721	6499	6347
1945 Regional Surplus/Deficit	7802	6318	8858	7556	6417	6709	5523	6415	6642	6848	5863	10386	11237	8449
1946 Regional Surplus/Deficit	8745	6952	8488	8271	7488	8346	9302	8496	11896	13447	12883	10532	12043	11066
1947 Regional Surplus/Deficit	10519	7909	9352	8566	7470	11289	11041	11703	11917	12928	12578	10695	12236	10978
1948 Regional Surplus/Deficit	9932	7395	9062	12368	10964	9467	11590	10446	10945	11878	12836	10768	11186	11241
1949 Regional Surplus/Deficit	11331	10551	10070	9471	7260	7944	6454	10098	12146	13181	12973	10891	12190	8096
1950 Regional Surplus/Deficit	7823	6418	8384	8614	7020	7739	10125	11423	12170	13504	12765	9929	11341	11309
1951 Regional Surplus/Deficit	10905	9175	9607	10556	10085	11826	11631	12808	12560	13495	12687	10517	11980	11252
1952 Regional Surplus/Deficit	11241	8020	9103	11612	8910	9528	11558	10978	9378	13625	13213	10780	12507	10761
1953 Regional Surplus/Deficit	10444	7751	8752	8467	6995	6971	7143	11838	9956	8485	12121	10809	12329	11450
1954 Regional Surplus/Deficit	10758	8039	9171	9442	7525	8853	10082	11551	10383	12889	12662	10531	11326	10999
1955 Regional Surplus/Deficit	11513	11936	12697	9463	9005	8789	7214	7448	8288	9281	11480	9798	12040	11046
1956 Regional Surplus/Deficit	11508	10061	9071	9783	10102	11529	11658	11706	11512	12676	12021	10389	11753	11476
1957 Regional Surplus/Deficit	10843	8911	9403	9840	7118	8663	8752	9342	11960	13374	12560	10913	11873	9948
1958 Regional Surplus/Deficit	9024	6910	8795	8610	7401	7516	8486	11863	10949	12267	12933	10745	12405	9955
1959 Regional Surplus/Deficit	9054	7603	8645	9081	8274	10471	11533	12005	11174	13630	12560	10174	11434	10533
1960 Regional Surplus/Deficit	11019	8657	12903	12851	11432	10921	10710	10631	11494	13829	12704	10499	12283	10602
1961 Regional Surplus/Deficit	9743	7137	8921	8882	7048	7464	10163	10736	12046	13442	11867	10430	11546	10116
1962 Regional Surplus/Deficit	9823	8277	8566	7990	7404	8025	9147	10436	8746	12962	12800	10451	12171	9270
1963 Regional Surplus/Deficit	9198	7496	8398	10110	8778	10297	10187	11586	7604	11108	11922	10772	12441	10781
1964 Regional Surplus/Deficit	10689	7985	9010	8394	7216	8109	8041	10250	7424	11338	10314	10212	12260	11244
1965 Regional Surplus/Deficit	11396	8830	10659	10510	8557	11490	11736	12242	12034	12939	12914	9890	12623	10636
1966 Regional Surplus/Deficit	11079	9946	9723	9794	7185	7968	9937	9102	7201	13679	12373	10726	11443	10716
1967 Regional Surplus/Deficit	10730	7698	8655	8517	6995	8159	11467	11687	11153	11478	9022	9966	11876	11299
1968 Regional Surplus/Deficit	11186	8328	9195	9334	7225	8243	10721	11865	11517	8326	10950	10177	12002	11160
1969 Regional Surplus/Deficit	11117	9799	11702	10804	10472	9608	11661	11856	11595	13046	12545	10759	12247	11130
1970 Regional Surplus/Deficit	9995	7039	9007	9518	7564	7380	7611	11387	10789	11202	11498	10272	12659	10458
1971 Regional Surplus/Deficit	8814	6761	8522	8688	7367	7957	11569	12164	12455	13379	12497	10536	11988	11449
1972 Regional Surplus/Deficit	11502	10583	10066	9817	7626	8562	11698	11954	12416	13369	12489	10134	11456	10934
1973 Regional Surplus/Deficit	11482	11775	10331	9409	7586	9062	8609	7617	8260	6803	10231	9329	9021	8741
1974 Regional Surplus/Deficit	6746	6125	8313	8424	6813	10443	11802	12201	11895	12746	12092	9167	11370	11186
1975 Regional Surplus/Deficit	11414	10715	9698	8227	7252	7573	9510	10463	12032	9555	11774	10460	12111	11380
1976 Regional Surplus/Deficit	10151	9021	9993	10979	10746	12197	11710	12195	12301	13507	12575	10524	12409	11204
1977 Regional Surplus/Deficit	11545	11927	13363	9461	7478	7098	5977	7296	7573	6790	8337	4746	5481	6904
1978 Regional Surplus/Deficit	8458	7167	8930	6860	6465	8865	9045	9618	10804	13195	12610	10501	11612	10847
1979 Regional Surplus/Deficit	9770	7992	11790	9772	7492	7109	6461	9759	11587	10588	11107	10505	9169	8011
1980 Regional Surplus/Deficit	6206	6158	8094	8230	7145	7897	5538	9071	8024	10453	12806	10693	12277	9654
1981 Regional Surplus/Deficit	8296	6640	8751	8638	7647	11048	11466	11511	10866	8604	11726	10108	11929	11069
1982 Regional Surplus/Deficit	11112	11019	9263	9093	7910	8153	10641	11712	12037	13512	12265	9970	12011	11192
1983 Regional Surplus/Deficit	11276	9755	11412	10800	8505	8889	11351	11200	12013	13306	12457	10418	12316	11333
1984 Regional Surplus/Deficit	11405	9948	10197	9369	11383	8413	11583	10877	12113	13544	12589	10395	12499	11310
1985 Regional Surplus/Deficit	10959	7715	9642	9178	8328	8137	8688	6905	10820	13257	12588	10820	10317	7574
1986 Regional Surplus/Deficit	6507	6221	8581	8891	9385	6930	10156	11641	12417	13357	12556	10059	11683	10143
1987 Regional Surplus/Deficit	9898	7071	8499	8291	7985	7464	6205	7824	9425	11110	11422	9855	10335	8334
1988 Regional Surplus/Deficit	6671	5999	8029	7447	6863	6530	5348	6333	6935	8172	11251	9914	7206	9195
1989 Regional Surplus/Deficit	9111	7104	8387	7459	6627	7280	5583	8157	10275	13468	12611	10798	10778	8366
1990 Regional Surplus/Deficit	6408	6356	8289	8180	7376	9270	10868	10930	10347	13171	12727	10247	12073	10232
1991 Regional Surplus/Deficit	10343	8527	8304	7863	10216	9489	11161	11391	9671	12715	11938	10437	11898	10961
1992 Regional Surplus/Deficit	11199	9502	8767	8077	6784	6805	6496	6572	10895	9057	10500	8789	7683	7637

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	5926	5936	7870	7608	6798	6916	5821	6715	7886	9648	10149	10220	9535	9615
<i>1994 Regional Surplus/Deficit</i>	9068	7635	7708	7254	7651	7542	6340	7690	7718	7953	12265	9719	8999	8757
<i>1995 Regional Surplus/Deficit</i>	6482	6182	7987	7768	6571	7339	7547	11370	11940	12297	10985	10663	11822	10643
<i>1996 Regional Surplus/Deficit</i>	9374	7400	8630	9799	11447	11982	11543	12139	11775	13205	13015	10295	12308	11211
<i>1997 Regional Surplus/Deficit</i>	11304	8572	9387	9149	7176	9411	11605	11452	11482	12513	12237	9737	11606	11212
<i>1998 Regional Surplus/Deficit</i>	11432	9901	11735	12688	9497	8052	10324	10924	11238	11222	11645	10462	12254	10784

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2010 - 2011 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	9139	5854	7971	7432	5901	5575	4182	4944	6343	6346	7583	5267	8365	8493
1930 Regional Surplus/Deficit	7031	5321	7627	7332	5664	5488	4301	4621	5658	6367	8898	4176	6287	8261
1931 Regional Surplus/Deficit	5507	5298	7160	6970	6125	5429	4092	4714	5003	7651	3572	6143	5624	8182
1932 Regional Surplus/Deficit	7846	5828	7662	6337	5137	5344	3350	3721	6915	10218	10279	9481	10716	9633
1933 Regional Surplus/Deficit	7052	6619	8071	7607	5439	6666	9052	8698	6109	9898	9532	8439	10570	10501
1934 Regional Surplus/Deficit	10180	9279	9153	8730	9330	10420	9895	10286	10601	11681	9990	8578	9271	9250
1935 Regional Surplus/Deficit	5952	5325	7646	7216	5378	5793	8511	9537	5567	8569	9573	9143	9001	10134
1936 Regional Surplus/Deficit	9654	6294	7454	7454	5687	5352	3462	5754	5878	7734	10110	9200	10689	9004
1937 Regional Surplus/Deficit	8068	6115	7232	7253	6218	5425	4394	4272	4817	5356	3292	7251	6684	7500
1938 Regional Surplus/Deficit	8350	6443	7687	7299	5524	6539	8746	7426	9566	11097	10116	9093	10190	10066
1939 Regional Surplus/Deficit	6946	5612	8143	7681	5679	5581	4639	5020	7677	8984	10092	9524	8197	8481
1940 Regional Surplus/Deficit	5794	5136	7213	7492	6119	6630	4708	5896	10308	11013	9998	8722	9220	7513
1941 Regional Surplus/Deficit	5182	5039	7538	7184	6039	6100	4254	5385	8523	7091	7482	6462	5999	7917
1942 Regional Surplus/Deficit	7374	6249	8751	6454	6121	7018	6419	7655	5643	7501	9362	8412	10364	10400
1943 Regional Surplus/Deficit	9637	7739	8316	7847	5468	6093	7863	9454	10101	12240	10653	9083	10514	10463
1944 Regional Surplus/Deficit	9153	6024	7425	7280	5944	5610	4282	5169	6032	6370	7669	4317	4782	6408
1945 Regional Surplus/Deficit	6580	5075	7812	6415	5086	5254	3715	3963	5048	5256	3327	8878	9443	8180
1946 Regional Surplus/Deficit	7522	5704	7432	7114	6191	6791	7405	6596	10070	11802	10324	9160	10240	10476
1947 Regional Surplus/Deficit	9288	6671	8304	7393	6170	9722	9149	9758	10092	11258	9997	9227	10699	10350
1948 Regional Surplus/Deficit	8704	6151	8013	11093	9492	7882	9593	7606	9343	10214	10274	9521	9938	10550
1949 Regional Surplus/Deficit	10093	9325	9025	8254	5952	6405	4603	8156	10320	11520	10513	9540	10621	7831
1950 Regional Surplus/Deficit	6605	5163	7305	7424	5689	6208	8225	9477	10257	11765	10094	8453	10125	10666
1951 Regional Surplus/Deficit	9671	7945	8560	9328	8711	10265	10000	10862	10732	11849	10017	9088	10177	10567
1952 Regional Surplus/Deficit	10004	6784	8052	10369	7587	7944	9514	9024	7734	11978	10694	9535	10970	10254
1953 Regional Surplus/Deficit	9214	6509	7694	7272	5678	5514	5277	9892	8321	6882	9504	9332	10956	10752
1954 Regional Surplus/Deficit	9527	6801	8121	8224	6229	7278	8180	9606	8763	11216	10067	9117	10100	10446
1955 Regional Surplus/Deficit	10277	10701	11646	8245	7671	7212	5349	5604	6652	7668	8836	8301	10729	10479
1956 Regional Surplus/Deficit	10268	8837	8019	8561	8705	9960	9854	9647	9685	11029	9348	8911	10535	10784
1957 Regional Surplus/Deficit	9611	7680	8355	8616	5789	7095	6858	7421	10391	11709	9979	9710	10561	9568
1958 Regional Surplus/Deficit	7801	5658	7743	7413	6104	6025	6597	9921	9348	10597	10361	9510	10950	9586
1959 Regional Surplus/Deficit	7831	6362	7591	7866	6969	8887	9756	9695	8487	11989	9958	8702	10176	10059
1960 Regional Surplus/Deficit	9784	7426	11849	11485	9742	9352	8818	8690	9907	12472	10135	8992	10759	10105
1961 Regional Surplus/Deficit	8516	5890	7874	7674	5728	5948	8266	8760	10485	11804	9247	9002	9974	9667
1962 Regional Surplus/Deficit	8596	7045	7509	6841	6106	6469	7248	8492	7103	11286	10419	8972	10622	8970
1963 Regional Surplus/Deficit	7973	6255	7342	8881	7456	8707	8291	9632	5982	9466	9299	9263	10651	10220
1964 Regional Surplus/Deficit	9457	6748	7962	7233	5907	6558	6157	8310	5806	9686	7619	8714	10898	10583
1965 Regional Surplus/Deficit	10155	7600	9614	9281	7244	9933	9909	10229	10207	11256	10240	8413	10976	10161
1966 Regional Surplus/Deficit	9844	8720	8675	8567	5880	6419	8044	7180	5608	12278	9776	9220	9650	10162
1967 Regional Surplus/Deficit	9498	6458	7599	7327	5671	6603	9595	9336	8318	9686	6217	8489	10214	10606
1968 Regional Surplus/Deficit	9949	7095	8149	8120	5912	6687	8827	9922	9927	6723	8294	8686	10511	10443
1969 Regional Surplus/Deficit	9880	8571	10654	9576	9055	8023	9885	9665	9683	11400	9872	9427	10681	10455
1970 Regional Surplus/Deficit	8767	5793	7956	8299	6268	5899	5742	9434	9176	9551	8854	8763	11159	10031
1971 Regional Surplus/Deficit	7590	5509	7465	7489	6062	6425	9535	9794	10252	11632	9826	9059	10706	10786
1972 Regional Surplus/Deficit	10261	9358	9020	8594	6322	6999	9732	9727	10416	11723	9818	8657	10198	10363
1973 Regional Surplus/Deficit	10244	10543	9286	8192	6286	7483	6718	5768	6626	5211	7552	7850	7278	8463
1974 Regional Surplus/Deficit	5528	4856	7250	7227	5401	8853	10074	10255	10069	11100	9421	7690	10136	10603
1975 Regional Surplus/Deficit	10174	9489	8653	7087	5941	6095	7603	8521	10324	7938	9143	8982	10778	10700
1976 Regional Surplus/Deficit	8921	7791	8947	9752	9306	10678	10079	10018	10298	11860	9902	9113	10857	10547
1977 Regional Surplus/Deficit	10307	10691	12304	8241	6179	5627	4130	5440	5944	5198	5611	3053	4403	6637
1978 Regional Surplus/Deficit	7237	5932	7881	5862	5058	7265	7141	7672	9187	11547	10012	9022	9814	10297
1979 Regional Surplus/Deficit	8542	6756	10743	8546	6196	5642	4599	7817	10012	8942	8453	9010	7431	7746
1980 Regional Surplus/Deficit	4975	4902	7034	7033	5849	6338	3795	7108	6389	8815	10228	9437	10469	9312
1981 Regional Surplus/Deficit	7074	5389	7703	7430	6351	9478	9274	8320	9257	6907	9080	8598	10570	10363
1982 Regional Surplus/Deficit	9872	9791	8215	7882	6611	6598	8746	9656	10010	11817	9675	8494	10336	10527
1983 Regional Surplus/Deficit	10034	8529	10365	9572	7196	7311	9392	9235	10186	11633	9883	8941	10507	10601
1984 Regional Surplus/Deficit	10165	8721	9153	8150	9863	6852	9433	7768	10214	11844	10006	8887	11066	10579
1985 Regional Surplus/Deficit	9726	6474	8596	7969	7025	6584	6793	5091	9222	11591	10016	9344	8558	7455
1986 Regional Surplus/Deficit	5242	4953	7523	7678	8017	5459	8255	9695	10593	11713	9984	8553	9881	9702
1987 Regional Surplus/Deficit	8670	5826	7441	7120	6687	5959	4366	5955	7787	9450	8785	8360	8548	8050
1988 Regional Surplus/Deficit	5452	4742	6966	6264	5567	5138	3530	4538	5327	6569	8597	8449	5494	8869
1989 Regional Surplus/Deficit	7887	5863	7335	6331	5257	5772	3779	6261	8648	11810	10059	9299	9003	8099
1990 Regional Surplus/Deficit	5142	5100	7233	6996	6080	7681	8974	8996	8723	11518	10167	8740	10722	9810
1991 Regional Surplus/Deficit	9113	7297	7245	6735	8801	7901	8964	9206	7081	11032	9336	8978	10091	10306
1992 Regional Surplus/Deficit	9957	8277	7713	6905	5447	5403	4638	4778	9301	7439	7829	7332	5951	7368

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	4665	4681	6791	6421	5494	5452	3976	4891	6252	8024	7451	8712	7786	9272
<i>1994 Regional Surplus/Deficit</i>	7840	6396	6630	6091	6352	6006	4502	5814	6095	6350	9672	8249	7258	8471
<i>1995 Regional Surplus/Deficit</i>	5265	4925	6915	6600	5235	5831	5671	9411	10114	10624	8325	9155	10021	10130
<i>1996 Regional Surplus/Deficit</i>	8148	6158	7582	8573	9757	10234	9720	10192	9948	11559	10343	8818	10871	10524
<i>1997 Regional Surplus/Deficit</i>	10063	7342	8338	7942	5863	7827	9726	9507	9655	10867	9567	8261	10298	10554
<i>1998 Regional Surplus/Deficit</i>	10193	8674	10688	11332	8136	6501	8426	8976	9640	9562	9009	8959	10859	10260

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2011 - 2012 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	8824	5196	7150	6884	5082	4576	3261	4001	5364	4938	6930	3986	8705	6951
1930 Regional Surplus/Deficit	6887	4626	6749	6907	4930	4514	3248	3656	4940	4945	8215	2936	6526	6665
1931 Regional Surplus/Deficit	5492	4624	6214	6505	5479	4583	3001	3813	4320	6219	3020	4837	5861	6706
1932 Regional Surplus/Deficit	7602	5205	6918	5634	4174	4355	2201	3370	6131	8848	9616	8153	10954	8328
1933 Regional Surplus/Deficit	6894	6035	7356	7163	4300	6058	8318	8105	5373	8526	8847	7073	10730	9677
1934 Regional Surplus/Deficit	9787	8857	8461	8368	8847	9856	9176	9556	9820	10350	9277	7532	9844	7993
1935 Regional Surplus/Deficit	5906	4641	6835	6749	4120	4897	7793	8807	4872	7142	8889	7906	9425	9061
1936 Regional Surplus/Deficit	9285	5682	6594	6978	4875	4353	2463	4943	5147	6302	9435	8157	11168	7587
1937 Regional Surplus/Deficit	7833	5489	6241	6801	5583	4473	3366	3343	4105	3936	2365	5951	6916	5741
1938 Regional Surplus/Deficit	8097	5841	6872	6813	4522	5858	8027	6755	8708	9791	9340	7727	10776	8887
1939 Regional Surplus/Deficit	6814	4935	7425	7258	4827	4434	3585	4090	6871	7571	9411	8476	8539	6933
1940 Regional Surplus/Deficit	5768	4425	6163	7097	5485	6066	3613	5043	9452	9706	9318	7606	9706	5209
1941 Regional Surplus/Deficit	5229	4335	6730	6745	5369	5365	3373	4222	7566	5660	6829	5165	6252	6375
1942 Regional Surplus/Deficit	7172	5646	8057	5774	5436	6465	5602	7002	4928	6067	8676	7299	11017	9418
1943 Regional Surplus/Deficit	9272	7227	7578	7429	4308	5229	7132	8724	9320	10908	9947	7935	10707	9449
1944 Regional Surplus/Deficit	8839	5372	6030	6747	5114	4542	3204	4275	5297	4955	7011	3060	5004	4236
1945 Regional Surplus/Deficit	6396	4438	7082	5731	4144	4244	2484	3611	4336	3836	-86	7777	9956	6546
1946 Regional Surplus/Deficit	7343	5045	6513	6486	5469	6154	6636	5833	9289	10471	9548	7794	10822	9454
1947 Regional Surplus/Deficit	8973	6070	7564	6824	5402	9316	8415	9028	9311	9945	9314	8165	11103	9362
1948 Regional Surplus/Deficit	8416	5514	7239	10614	9007	7443	8862	6925	8486	8850	9498	8280	10071	9775
1949 Regional Surplus/Deficit	9707	8904	8326	7855	5132	5699	3552	7531	9539	10229	9803	8357	11124	6115
1950 Regional Surplus/Deficit	6516	4510	5912	6924	4748	5466	7503	8748	9476	10433	9318	7087	10226	9720
1951 Regional Surplus/Deficit	9329	7438	7827	8966	8209	9844	9227	10117	9940	10517	9241	7722	10764	9795
1952 Regional Surplus/Deficit	9626	6194	7252	9941	7036	7501	8783	8411	6932	10646	9918	8291	11441	9146
1953 Regional Surplus/Deficit	8908	5889	6726	6788	4811	4515	4287	9163	7490	5461	8819	8277	11256	9989
1954 Regional Surplus/Deficit	9198	6207	7337	7828	5506	6747	7451	8876	7915	9885	9350	7820	10216	9614
1955 Regional Surplus/Deficit	9861	10316	10815	7850	7140	6704	4369	4746	5887	6236	8161	7150	10951	9651
1956 Regional Surplus/Deficit	9874	8385	7155	8183	8212	9547	9054	8863	8902	9696	8572	7549	10637	9978
1957 Regional Surplus/Deficit	9277	7154	7607	8241	4856	6520	6070	6717	9537	10412	9297	8372	10793	8288
1958 Regional Surplus/Deficit	7604	4978	6906	6936	5372	5138	5760	9253	8493	9246	9686	8199	11347	8283
1959 Regional Surplus/Deficit	7634	5739	6728	7462	6373	8487	8950	8894	7644	10657	9268	7336	10344	8912
1960 Regional Surplus/Deficit	9433	6883	11029	11088	9217	8950	8087	8077	9051	11186	9463	7944	11108	8988
1961 Regional Surplus/Deficit	8257	5234	7123	7244	4839	5152	7548	8137	9636	10527	8564	7873	10253	8489
1962 Regional Surplus/Deficit	8323	6491	6574	6190	5360	5822	6505	7886	6320	9958	9745	7919	11041	7502
1963 Regional Surplus/Deficit	7746	5639	6419	8519	6904	8301	7571	9039	5256	8053	8617	8203	11305	9169
1964 Regional Surplus/Deficit	9115	6164	7201	6624	5076	5906	5281	7694	5092	8279	6972	7621	11184	9801
1965 Regional Surplus/Deficit	9760	7077	8921	8917	6675	9516	9114	9323	9272	9911	9464	7048	11521	9016
1966 Regional Surplus/Deficit	9480	8266	7941	8198	5073	5755	7317	6483	4896	11000	9090	8150	10174	9105
1967 Regional Surplus/Deficit	9166	5844	6689	6825	4761	5962	8864	8607	7481	8292	5602	7123	10656	9737
1968 Regional Surplus/Deficit	9575	6535	7422	7710	5062	6056	8108	9331	9071	5299	7628	7521	10937	9526
1969 Regional Surplus/Deficit	9512	8102	9891	9202	8566	7590	9097	8883	8824	10068	9096	8228	11179	9507
1970 Regional Surplus/Deficit	8484	5133	7135	7907	5554	4976	4765	8842	8324	8148	8179	7698	11610	8822
1971 Regional Surplus/Deficit	7406	4833	6506	7021	5260	5691	8804	8966	9367	10301	9050	7693	10887	10004
1972 Regional Surplus/Deficit	9846	8933	8320	8214	5527	6403	9001	8998	9635	10392	9042	7291	10350	9536
1973 Regional Surplus/Deficit	9828	10163	8589	7791	5523	6976	5881	4913	5867	3791	6903	6647	7569	6906
1974 Regional Surplus/Deficit	5521	4219	6161	6749	4150	8450	9283	9526	9286	9766	8646	6326	10263	9779
1975 Regional Surplus/Deficit	9783	9075	7929	6396	5099	5164	6835	7902	9543	6505	8464	7616	11027	9933
1976 Regional Surplus/Deficit	8634	7268	8251	9374	8821	10113	9311	9250	9522	10529	9126	7747	11235	9761
1977 Regional Surplus/Deficit	9891	10308	11704	7851	5430	4671	3063	4604	5199	3778	5001	2141	4008	4883
1978 Regional Surplus/Deficit	7013	5338	7110	4642	3837	6742	6370	7014	8332	10215	9326	7656	10362	9234
1979 Regional Surplus/Deficit	8254	6179	9937	8184	5497	4674	3595	7180	9157	7535	7781	7935	7700	6055
1980 Regional Surplus/Deficit	5003	4197	5993	6562	5138	5714	2768	6062	5637	7395	9548	8156	11112	7957
1981 Regional Surplus/Deficit	6915	4718	6947	6994	5682	9078	8454	7093	8403	5478	8399	7506	10858	9523
1982 Regional Surplus/Deficit	9456	9403	7455	7459	5986	5958	8025	8828	9120	10480	8993	7128	10867	9569
1983 Regional Surplus/Deficit	9633	8073	9602	9193	6612	6795	8660	8633	9376	10234	9205	7703	11129	9823
1984 Regional Surplus/Deficit	9768	8260	8455	7752	9371	6242	8702	7089	9432	10512	9229	7695	11442	9679
1985 Regional Surplus/Deficit	9377	5849	7886	7532	6413	5941	6026	4168	8368	10294	9287	8289	8911	5506
1986 Regional Surplus/Deficit	5290	4315	6584	7262	7511	4504	7531	8965	9811	10381	9306	7450	10448	8514
1987 Regional Surplus/Deficit	8381	5177	6461	6545	6045	5121	3256	5134	6967	8073	8108	7201	9038	6511
1988 Regional Surplus/Deficit	5410	4076	5855	5732	4833	3913	2336	3589	4633	5150	7926	7197	5712	7475
1989 Regional Surplus/Deficit	7652	5241	6488	5608	4167	4945	2530	5492	7802	10514	9288	8192	9424	6451
1990 Regional Surplus/Deficit	5190	4397	6301	6471	5395	7241	8250	8276	7875	10236	9391	7405	11002	8596
1991 Regional Surplus/Deficit	8786	6759	6246	6007	8309	7486	8232	8477	6289	9720	8650	7630	10699	9516
1992 Regional Surplus/Deficit	9556	7801	6836	6335	4486	4207	3608	3823	8447	6008	7171	6057	6206	5729

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	4709	3982	5504	5909	4703	4475	2898	3993	5500	6590	6809	7660	8083	7915
<i>1994 Regional Surplus/Deficit</i>	7585	5809	5361	5487	5725	5290	3388	5010	5370	4933	8987	7013	7541	6948
<i>1995 Regional Surplus/Deficit</i>	5262	4219	5758	6020	4280	5005	4734	8695	9333	9298	7657	7918	10575	9027
<i>1996 Regional Surplus/Deficit</i>	7908	5543	6816	8209	9232	9670	8989	9463	9167	10227	9567	7452	11255	9767
<i>1997 Regional Surplus/Deficit</i>	9671	6805	7575	7505	5013	7363	8994	8777	8874	9535	8790	6895	10520	9769
<i>1998 Regional Surplus/Deficit</i>	9807	8206	9921	10924	7628	5847	7704	8374	8784	8179	8331	7915	11190	9171

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2012 - 2013 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	7546	3977	6046	6171	4459	3704	2924	3280	4199	4661	5946	3387	6450	6742
1930 Regional Surplus/Deficit	5746	3259	5684	6183	4303	3638	2539	2999	4335	4640	7174	2352	4221	6550
1931 Regional Surplus/Deficit	4287	3354	5195	5785	4840	3680	2330	3147	3771	5858	2367	4181	3547	6390
1932 Regional Surplus/Deficit	6432	4077	5761	4977	3558	3482	1683	2600	5417	8350	8611	7084	9268	7696
1933 Regional Surplus/Deficit	5754	4953	6180	6440	3689	5036	6777	7085	4745	8041	7806	6221	9240	8428
1934 Regional Surplus/Deficit	8293	7542	7275	7628	8003	7776	7758	8631	8990	9675	8276	6153	7273	7312
1935 Regional Surplus/Deficit	4726	3323	5726	6029	3497	4006	6313	7941	4305	6746	7848	6738	7146	7993
1936 Regional Surplus/Deficit	7868	4575	5513	6258	4252	3481	1945	4239	4522	5943	8433	6796	8800	7165
1937 Regional Surplus/Deficit	6670	4354	5251	6080	4944	3594	2631	2652	3562	3720	1763	5200	4597	5885
1938 Regional Surplus/Deficit	6915	4742	5765	6094	3907	4884	6551	5923	7738	9173	8729	6827	8382	8019
1939 Regional Surplus/Deficit	5672	3658	6252	6532	4206	3572	2875	3430	6104	7153	8396	7114	6289	6735
1940 Regional Surplus/Deficit	4572	2974	5217	6368	4845	5008	2944	4355	8419	9093	8306	6366	7395	5483
1941 Regional Surplus/Deficit	3805	2926	5617	6021	4733	4420	3128	3508	6281	5315	5844	4415	3970	6171
1942 Regional Surplus/Deficit	6027	4546	6870	5071	4801	5391	4546	6145	4327	5711	7635	6053	8551	8195
1943 Regional Surplus/Deficit	7856	6112	6416	6703	3698	4329	5779	7768	8303	10248	9006	6654	9151	8276
1944 Regional Surplus/Deficit	7568	4173	5244	6032	4491	3676	2863	3553	4621	4634	5410	2427	2595	4500
1945 Regional Surplus/Deficit	5255	3275	5919	5038	3527	3373	1934	2842	3796	3620	-476	6508	7620	6487
1946 Regional Surplus/Deficit	6203	3823	5476	5780	4839	5153	5464	5092	8592	9781	8795	6696	8433	8295
1947 Regional Surplus/Deficit	7695	4970	6406	6111	4774	7747	6880	8162	8614	9351	8290	6851	8832	8148
1948 Regional Surplus/Deficit	7191	4350	6103	9603	8156	6209	7508	6102	7535	8354	8617	7210	8647	8428
1949 Regional Surplus/Deficit	8227	7580	7142	7126	4509	4739	2840	6607	8842	9559	8835	7254	8811	6193
1950 Regional Surplus/Deficit	5360	2918	5127	6206	4130	4524	6105	7881	8779	9873	8536	6235	8775	8449
1951 Regional Surplus/Deficit	7982	6320	6664	8214	7490	7999	7874	9047	9046	9953	8680	6672	8370	8447
1952 Regional Surplus/Deficit	8164	5106	6134	9110	6369	6274	7358	7420	6169	10085	9064	7130	9150	8142
1953 Regional Surplus/Deficit	7649	4763	5722	6070	4191	3643	3500	8296	6658	5159	7777	6926	9469	8686
1954 Regional Surplus/Deficit	7888	5114	6208	7099	4876	5655	6103	8009	7021	9325	8346	6666	8820	8394
1955 Regional Surplus/Deficit	8378	9093	9687	7121	6463	5585	3575	4065	5197	5893	7131	5983	9331	8431
1956 Regional Surplus/Deficit	8380	7153	6079	7451	7465	7838	7669	7857	8200	9134	8018	6677	9259	8681
1957 Regional Surplus/Deficit	7949	6058	6454	7506	4238	5470	4956	5928	8456	9747	8278	7302	9153	7611
1958 Regional Surplus/Deficit	6460	3683	5813	6216	4744	4244	4749	8182	7543	8731	8685	7130	9256	7649
1959 Regional Surplus/Deficit	6490	4609	5651	6734	5722	7044	7556	7850	6783	10053	8233	6484	8844	7979
1960 Regional Surplus/Deficit	8049	5800	9890	9518	8310	7400	6556	7132	8061	10243	8449	6579	8940	8002
1961 Regional Surplus/Deficit	7070	4025	5973	6520	4219	4232	6113	7175	8546	9747	7523	6558	8651	7619
1962 Regional Surplus/Deficit	7118	5413	5548	5486	4732	4829	5256	6910	5598	9390	8732	6564	8748	7164
1963 Regional Surplus/Deficit	6588	4521	5383	7769	6238	6922	6139	7940	4638	7634	7576	6858	8839	8061
1964 Regional Surplus/Deficit	7766	5079	6058	5916	4453	4916	4339	6764	4493	7839	6015	6303	9187	8576
1965 Regional Surplus/Deficit	8263	5978	7737	8154	6017	7759	7730	8272	8480	9283	8903	6199	9119	8081
1966 Regional Surplus/Deficit	8062	7042	6778	7461	4450	4773	5995	5687	4353	10084	8055	6822	7834	8010
1967 Regional Surplus/Deficit	7846	4729	5647	6108	4142	4965	7477	7740	6634	7841	4723	6271	8914	8383
1968 Regional Surplus/Deficit	8129	5458	6256	6983	4440	5051	6633	8181	8092	4987	6615	6386	8693	8191
1969 Regional Surplus/Deficit	8080	6916	8736	8427	7802	6344	7735	7874	7840	9508	8535	6999	8872	8227
1970 Regional Surplus/Deficit	7267	3914	6031	7177	4924	4092	3958	7738	7405	7710	7150	6362	9371	8007
1971 Regional Surplus/Deficit	6265	3547	5495	6300	4635	4745	7499	8100	8670	9740	8389	6827	9353	8840
1972 Regional Surplus/Deficit	8362	7626	7138	7480	4900	5371	7600	8131	8937	9831	8426	6439	8753	8316
1973 Regional Surplus/Deficit	8345	8679	7405	7063	4896	5853	4867	4228	5191	3576	5926	5603	5314	6727
1974 Regional Surplus/Deficit	4311	2568	5242	6029	3540	7051	7875	8659	8589	9205	8085	5474	8824	8560
1975 Regional Surplus/Deficit	8295	7726	6761	5725	4478	4280	5631	6970	8559	6153	7426	6663	9352	8799
1976 Regional Surplus/Deficit	7410	6166	7066	8595	8017	8032	7948	8319	8487	9968	8478	6787	9039	8535
1977 Regional Surplus/Deficit	8408	9086	10433	7120	4802	3792	2715	3857	4495	3563	3122	853	1479	5029
1978 Regional Surplus/Deficit	5858	4248	5973	5071	3229	5620	5198	6152	7407	9586	8293	6681	8000	8145
1979 Regional Surplus/Deficit	7037	5099	8785	7443	4865	3797	2828	6295	8125	7109	6762	6605	5433	6095
1980 Regional Surplus/Deficit	3760	2781	5040	5843	4507	4705	2667	4769	4977	6990	8535	7107	8657	7417
1981 Regional Surplus/Deficit	5776	3455	5798	6270	5046	7533	7422	6470	7452	5155	7359	6219	9099	8131
1982 Regional Surplus/Deficit	7972	7955	6312	6734	5344	4959	6533	7962	8423	9791	7973	6276	9029	8313
1983 Regional Surplus/Deficit	8134	6851	8428	8414	5958	5683	7164	7589	8679	9539	8197	6557	8687	8567
1984 Regional Surplus/Deficit	8270	7051	7270	7021	8464	5221	7583	6263	8735	9905	8362	6484	9245	8376
1985 Regional Surplus/Deficit	8010	4714	6708	6807	5765	4943	4856	4052	7110	9555	8335	6962	6657	5716
1986 Regional Surplus/Deficit	3756	2363	5558	6535	6801	3626	6136	8099	9114	9662	8301	6186	8068	7661
1987 Regional Surplus/Deficit	7151	3990	5464	5834	5404	4214	2850	4026	6164	7602	7074	6051	6695	6301
1988 Regional Surplus/Deficit	4225	2504	4951	5019	4205	3055	1757	2933	4066	4850	6904	6275	3282	7010
1989 Regional Surplus/Deficit	6490	4118	5400	5026	3554	4037	2202	4470	6928	9777	8397	6884	7147	6422
1990 Regional Surplus/Deficit	3655	2998	5272	5756	4759	6011	6725	7340	6985	9532	8614	6326	8965	7794
1991 Regional Surplus/Deficit	7482	5674	5265	5434	7546	6191	7076	7610	5552	9124	7613	6564	8285	8287
1992 Regional Surplus/Deficit	8056	6623	5768	5625	3869	3345	2872	3337	7471	5516	6162	5205	3927	5687

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	3175	2616	4678	5193	4079	3600	2214	3326	4843	6217	5846	6303	5828	7377
<i>1994 Regional Surplus/Deficit</i>	6402	4720	4529	4780	5083	4337	2796	4295	4750	4635	7929	6052	5284	6712
<i>1995 Regional Surplus/Deficit</i>	4048	2800	4886	5311	3663	4096	3881	7732	8636	8733	6644	6753	8205	8012
<i>1996 Regional Surplus/Deficit</i>	6739	4425	5675	7468	8325	7866	7749	8555	8468	9665	9008	6602	9122	8591
<i>1997 Regional Surplus/Deficit</i>	8179	5719	6432	6782	4391	6156	7730	7911	8176	8974	8230	6043	8762	8539
<i>1998 Regional Surplus/Deficit</i>	8327	7015	8751	9380	6926	4858	6283	7341	7817	7716	7296	6547	9307	8131

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2013 - 2014 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	6779	3315	5690	5752	4002	3313	1754	2290	3296	4374	5231	2934	6661	5865
1930 Regional Surplus/Deficit	5019	2619	5324	5765	3848	3238	1502	1989	3417	4340	6330	1903	4436	5674
1931 Regional Surplus/Deficit	3615	2701	4826	5367	4387	3185	1308	2157	2869	5571	1654	3727	3764	5512
1932 Regional Surplus/Deficit	5675	3394	5405	4544	3098	3124	648	1593	4510	8060	7894	6616	9319	6814
1933 Regional Surplus/Deficit	5023	4246	5815	6022	3225	4542	5751	6089	3840	7754	7082	5690	9206	7671
1934 Regional Surplus/Deficit	7547	6768	6898	7210	7543	7271	6771	7612	8064	9378	7573	5694	7563	6393
1935 Regional Surplus/Deficit	4038	2678	5371	5611	3025	3510	5289	6871	3403	6458	7125	6273	7360	7108
1936 Regional Surplus/Deficit	7110	3883	5154	5840	3796	3181	911	2828	3619	5656	7705	6329	9045	6285
1937 Regional Surplus/Deficit	5915	3672	4876	5662	4491	3162	1599	1648	2647	3424	1051	4744	4810	5011
1938 Regional Surplus/Deficit	6155	4048	5410	5676	3446	4389	5526	4928	6832	8882	7987	6344	8593	7135
1939 Regional Surplus/Deficit	4950	3005	5890	6113	3749	3179	2267	2354	4458	6866	7668	6653	6505	5858
1940 Regional Surplus/Deficit	3894	2347	4831	5950	4391	4515	1921	3361	7511	8803	7579	5899	7610	4594
1941 Regional Surplus/Deficit	3158	2295	5262	5602	4279	3925	2590	2448	4786	5029	5129	3959	4184	5293
1942 Regional Surplus/Deficit	5280	3850	6485	4650	4344	4895	3522	5150	3424	5423	6910	5586	8761	7308
1943 Regional Surplus/Deficit	7098	5370	6058	6284	3234	3831	4753	6768	7395	9951	8302	6233	9138	7389
1944 Regional Surplus/Deficit	6800	3504	4778	5612	4033	3366	2146	2466	3640	4290	3178	1978	2808	3626
1945 Regional Surplus/Deficit	4515	2600	5561	4611	3068	2877	911	1835	2894	3324	-1206	6041	7831	5610
1946 Regional Surplus/Deficit	5464	3161	5110	5360	4383	4658	4439	4097	7614	9487	8109	6264	8645	7409
1947 Regional Surplus/Deficit	6928	4276	6048	5691	4317	7251	5853	7092	7636	9062	7564	6386	9071	7263
1948 Regional Surplus/Deficit	6425	3675	5748	9169	7694	5715	6478	5105	6630	8067	7897	6742	8600	7567
1949 Regional Surplus/Deficit	7478	6805	6771	6707	4051	4244	2296	5071	7864	9268	8119	6795	9021	5318
1950 Regional Surplus/Deficit	4654	2297	4695	5787	3670	4028	5080	6811	7801	9513	7809	5704	8686	7563
1951 Regional Surplus/Deficit	7217	5577	6306	7794	7034	7494	6848	7428	7700	9593	7887	6240	8581	7585
1952 Regional Surplus/Deficit	7412	4403	5778	8688	5916	5780	6328	6423	5266	9725	8339	6753	9359	7256
1953 Regional Surplus/Deficit	6882	4078	5350	5651	3734	3159	2459	7226	5755	4871	7054	6467	9516	7828
1954 Regional Surplus/Deficit	7122	4414	5853	6680	4421	5161	5079	6939	6118	9036	7620	6236	8770	7629
1955 Regional Surplus/Deficit	7636	7443	9121	6703	6010	5092	2553	3074	4296	5606	6411	5518	9334	7677
1956 Regional Surplus/Deficit	7636	6388	5720	7032	7010	7332	6628	6698	7222	8775	7225	6169	9197	7819
1957 Regional Surplus/Deficit	7183	5323	6097	7087	3778	4975	3932	4933	7548	9455	7551	6834	9163	6728
1958 Regional Surplus/Deficit	5715	3033	5455	5796	4288	3748	3726	7183	6639	8444	7957	6662	9449	6767
1959 Regional Surplus/Deficit	5745	3925	5292	6316	5268	6549	6525	6780	5878	9737	7519	5953	8820	7094
1960 Regional Surplus/Deficit	7287	5073	9302	9085	7838	6905	5529	6136	7156	9947	7730	6113	9149	7116
1961 Regional Surplus/Deficit	6309	3360	5617	6101	3760	3737	5089	6178	7638	9454	6801	6127	8622	6735
1962 Regional Surplus/Deficit	6354	4693	5180	5067	4275	4334	4232	5913	4695	9100	8038	6105	8984	6285
1963 Regional Surplus/Deficit	5835	3833	5017	7349	5784	6428	5114	6941	3735	7348	6854	6390	9049	7175
1964 Regional Surplus/Deficit	7002	4374	5703	5497	3995	4422	3316	5770	3592	7549	5298	5837	9218	7847
1965 Regional Surplus/Deficit	7521	5242	7335	7735	5564	7254	6681	7022	7502	8994	8110	5667	9327	7195
1966 Regional Surplus/Deficit	7304	6277	6420	7042	3993	4278	4971	4694	3447	9788	7330	6355	8048	7124
1967 Regional Surplus/Deficit	7081	4041	5283	5690	3683	4470	6458	6670	5730	7555	4012	5740	8874	7513
1968 Regional Surplus/Deficit	7375	4741	5897	6564	3982	4557	5607	7181	7187	4701	5898	5921	8909	7316
1969 Regional Surplus/Deficit	7324	6157	8243	8007	7345	5851	6700	6781	6923	9148	7742	6592	9082	7350
1970 Regional Surplus/Deficit	6503	3251	5675	6758	4469	3596	2932	6740	6500	7423	6430	5895	9578	7123
1971 Regional Surplus/Deficit	5524	2896	5123	5880	4178	4249	6468	7030	7692	9381	7670	6310	9331	8072
1972 Regional Surplus/Deficit	7620	6853	6768	7061	4442	4877	6570	7061	7926	9435	7688	5907	8844	7566
1973 Regional Surplus/Deficit	7603	7415	7033	6644	4438	5359	3843	4008	4228	3280	5130	5082	5134	5850
1974 Regional Surplus/Deficit	3641	1950	4849	5610	3074	6557	6846	7589	7611	8846	7292	4943	8791	7818
1975 Regional Surplus/Deficit	7549	6950	6401	5292	4021	3783	4606	5974	7651	5866	6705	6224	9368	7984
1976 Regional Surplus/Deficit	6644	5428	6692	8174	7559	7526	6945	7054	7579	9608	7750	6364	9247	7702
1977 Regional Surplus/Deficit	7666	7436	9849	6700	4346	3295	2315	2752	3488	3266	131	385	1694	4157
1978 Regional Surplus/Deficit	5107	3548	5618	4638	2764	5124	4172	5155	6502	9292	7567	6227	8212	7259
1979 Regional Surplus/Deficit	6272	4387	8265	7025	4410	3301	2234	4759	7218	6824	6042	6137	5647	5220
1980 Regional Surplus/Deficit	3104	2149	4657	5426	4052	4211	2334	2703	4074	6704	7808	6639	8866	6536
1981 Regional Surplus/Deficit	5045	2801	5442	5852	4592	7039	6403	5291	6548	4868	6637	5752	9138	7278
1982 Regional Surplus/Deficit	7230	7011	5957	6316	4890	4465	5507	6892	7445	9498	7246	5745	8992	7426
1983 Regional Surplus/Deficit	7392	6086	7937	7992	5503	5189	6136	6590	7701	9248	7470	6091	8895	7712
1984 Regional Surplus/Deficit	7528	6288	6896	6601	7993	4726	6552	5266	7757	9592	7635	6017	9452	7491
1985 Regional Surplus/Deficit	7247	4030	6343	6386	5309	4448	3833	3931	5612	9263	7607	6496	6871	4844
1986 Regional Surplus/Deficit	2860	1972	5188	6116	6347	3129	5158	6995	8113	9366	7574	5719	8199	6777
1987 Regional Surplus/Deficit	6386	3321	5089	5413	4949	3718	2475	2061	5261	7317	6354	5585	6941	5425
1988 Regional Surplus/Deficit	3540	1883	4554	4601	3751	2897	681	1867	3144	4516	6134	5571	3496	6124
1989 Regional Surplus/Deficit	5735	3433	5043	4593	3089	3495	1877	2974	5608	9484	7669	6419	7361	5547
1990 Regional Surplus/Deficit	2759	2363	4905	5338	4304	5518	5702	6339	6081	9241	7912	5861	9220	6910
1991 Regional Surplus/Deficit	6716	4945	4887	5001	7090	5699	6059	6540	4649	8835	6889	6123	8497	7463
1992 Regional Surplus/Deficit	7313	5867	5408	5207	3409	3137	1803	3218	5729	5073	5430	4737	4144	4813

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	2384	1978	4260	4775	3623	3103	1191	2334	3936	5928	5110	5835	6039	6496
<i>1994 Regional Surplus/Deficit</i>	5642	4014	4112	4361	4630	3843	1956	3277	3827	4332	7110	5591	5500	5835
<i>1995 Regional Surplus/Deficit</i>	3381	2169	4482	4893	3204	3600	2858	6732	7657	8445	5926	6285	8415	7126
<i>1996 Regional Surplus/Deficit</i>	5982	3735	5321	7049	7853	7361	6709	7315	7487	9303	8214	6074	9308	7778
<i>1997 Regional Surplus/Deficit</i>	7434	4991	6077	6363	3932	5662	6698	6745	7166	8615	7437	5511	8903	7853
<i>1998 Regional Surplus/Deficit</i>	7578	6256	8254	8946	6472	4364	5258	6344	6912	7430	6575	6079	9401	7245

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	5913	2453	4917	5016	3181	2594	1255	2083	3120	3558	4892	2447	5390	5643
1930 Regional Surplus/Deficit	4160	1757	4551	5028	3028	2576	1221	1742	3201	3490	5648	1415	3165	5452
1931 Regional Surplus/Deficit	2759	1840	4053	4630	3566	2476	1037	1909	2659	4727	442	3239	2493	5291
1932 Regional Surplus/Deficit	4814	2535	4634	3807	2278	2224	404	1386	4334	7244	7556	6128	8293	6592
1933 Regional Surplus/Deficit	4164	3386	5045	5285	2404	3643	5507	5882	3664	6938	6743	5110	8341	7489
1934 Regional Surplus/Deficit	6674	5907	6128	6473	6723	6371	6525	7312	7868	8521	7235	5206	6293	6171
1935 Regional Surplus/Deficit	3182	1817	4599	4875	2205	2611	5045	6571	3227	5643	6787	5786	6089	6886
1936 Regional Surplus/Deficit	6239	3022	4382	5103	2975	2329	667	2519	3443	4841	7367	5841	7774	6064
1937 Regional Surplus/Deficit	5054	2812	4102	4925	3670	2500	1316	1384	2471	2608	712	4256	3539	4789
1938 Regional Surplus/Deficit	5293	3188	4638	4940	2626	3489	5282	4721	6656	8067	7556	5764	7322	6913
1939 Regional Surplus/Deficit	4092	2143	5119	5377	2928	2279	2083	2138	4198	6051	7330	6166	5234	5636
1940 Regional Surplus/Deficit	3038	1484	4057	5214	3571	3616	1677	3154	7335	7987	7240	5412	6339	4373
1941 Regional Surplus/Deficit	2303	1434	4489	4865	3458	3025	2346	2241	4610	4214	4790	3472	2913	5072
1942 Regional Surplus/Deficit	4420	2989	5715	3914	3524	3996	3278	4943	3248	4608	6572	5099	7490	7087
1943 Regional Surplus/Deficit	6226	4510	5286	5547	2413	2932	4509	6488	7219	9080	8006	5745	8209	7167
1944 Regional Surplus/Deficit	5933	2642	3998	4875	3213	2488	1874	2259	3464	3474	2840	1490	1537	3405
1945 Regional Surplus/Deficit	3655	1738	4790	3875	2247	1977	667	1628	2718	2508	-1544	5553	6560	5389
1946 Regional Surplus/Deficit	4604	2299	4336	4624	3563	3758	4195	3890	7345	8642	7763	5777	7374	7187
1947 Regional Surplus/Deficit	6062	3415	5276	4954	3496	6351	5609	6792	7367	8246	7225	5898	7801	7041
1948 Regional Surplus/Deficit	5561	2814	4976	8433	6874	4816	6234	4898	6454	7252	7559	6254	7762	7345
1949 Regional Surplus/Deficit	6604	5943	6000	5970	3230	3345	2112	4785	7595	8453	7781	6308	7750	5097
1950 Regional Surplus/Deficit	3796	1434	3919	5050	2849	3129	4836	6512	7532	8605	7470	5123	7521	7341
1951 Regional Surplus/Deficit	6347	4716	5534	7057	6214	6594	6604	7129	7483	8685	7456	5752	7310	7363
1952 Regional Surplus/Deficit	6539	3543	5005	7952	5095	4881	6084	6216	5090	8817	8000	6265	8088	7035
1953 Regional Surplus/Deficit	6016	3217	4576	4915	2913	2260	2215	6926	5579	4056	6716	5979	8462	7607
1954 Regional Surplus/Deficit	6254	3553	5081	5944	3600	4262	4835	6640	5942	8220	7282	5748	7911	7621
1955 Regional Surplus/Deficit	6759	6567	8350	5967	5190	4192	2309	2867	4120	4790	6072	5030	8369	7629
1956 Regional Surplus/Deficit	6761	5527	4947	6296	6189	6433	6385	6398	6953	7866	6794	5589	8388	7597
1957 Regional Surplus/Deficit	6315	4462	5325	6350	2957	4076	3689	4726	7373	8640	7213	6346	8206	6507
1958 Regional Surplus/Deficit	4854	2171	4683	5060	3468	2848	3483	6976	6463	7628	7618	6174	8213	6545
1959 Regional Surplus/Deficit	4884	3063	4519	5579	4447	5650	6281	6481	5702	8829	7180	5372	7765	6873
1960 Regional Surplus/Deficit	6417	4213	8528	8348	7018	6006	5285	5929	6980	9131	7392	5625	7879	6895
1961 Regional Surplus/Deficit	5446	2498	4846	5365	2940	2838	4845	5971	7462	8638	6462	5639	7729	6513
1962 Regional Surplus/Deficit	5491	3833	4406	4331	3455	3435	3988	5706	4519	8284	7699	5618	7713	6063
1963 Regional Surplus/Deficit	4973	2972	4243	6613	4964	5528	4870	6734	3559	6532	6515	5903	7778	6953
1964 Regional Surplus/Deficit	6133	3514	4932	4760	3174	3522	3073	5563	3416	6734	4960	5350	8312	7625
1965 Regional Surplus/Deficit	6644	4381	6565	6998	4744	6354	6437	6722	7233	8178	7679	5087	8056	6974
1966 Regional Surplus/Deficit	6432	5416	5648	6305	3172	3379	4727	4487	3272	8973	6991	5868	6777	6902
1967 Regional Surplus/Deficit	6213	3180	4510	4953	2863	3571	6214	6370	5554	6740	3673	5160	7856	7292
1968 Regional Surplus/Deficit	6502	3881	5126	5827	3161	3657	5364	6974	7011	3885	5560	5433	7638	7094
1969 Regional Surplus/Deficit	6452	5297	7473	7271	6524	4952	6456	6481	6747	8240	7311	6105	7811	7128
1970 Regional Surplus/Deficit	5639	2390	4903	6022	3648	2801	2570	6518	6324	6608	6092	5407	8307	6902
1971 Regional Surplus/Deficit	4664	2034	4348	5144	3357	3350	6224	6730	7423	8472	7265	5730	8443	8158
1972 Regional Surplus/Deficit	6744	5992	5998	6324	3621	3977	6326	6761	7657	8526	7257	5327	7898	7514
1973 Regional Surplus/Deficit	6726	6539	6262	5907	3618	4460	3599	3916	4042	2464	4778	4564	3863	5629
1974 Regional Surplus/Deficit	2785	1087	4074	4873	2253	5658	6597	7289	7342	7938	6861	4362	7690	7845
1975 Regional Surplus/Deficit	6674	6088	5630	4555	3200	2884	4363	5767	7475	5051	6366	5652	8404	8090
1976 Regional Surplus/Deficit	5778	4566	5921	7438	6738	6627	6701	6755	7403	8700	7342	5783	7977	7481
1977 Regional Surplus/Deficit	6789	6559	9068	5964	3525	2396	2128	2533	3301	2451	-424	-102	423	3935
1978 Regional Surplus/Deficit	4246	2688	4846	3901	1946	3944	3928	4948	6326	8387	7229	5693	6941	7038
1979 Regional Surplus/Deficit	5408	3527	7496	6288	3590	2541	2042	4212	7043	6008	5704	5650	4376	4998
1980 Regional Surplus/Deficit	2248	1287	3883	4689	3231	3311	2153	2384	3898	5889	7469	6151	7596	6315
1981 Regional Surplus/Deficit	4186	1939	4670	5115	3771	6139	6089	5084	6373	4053	6299	5264	8114	7056
1982 Regional Surplus/Deficit	6353	6135	5186	5579	4069	3565	5263	6592	7176	8651	6908	5165	7940	7204
1983 Regional Surplus/Deficit	6516	5225	7168	7256	4683	4289	5892	6383	7432	8433	7131	5604	7624	7491
1984 Regional Surplus/Deficit	6652	5426	6125	5865	7172	3827	6308	5059	7488	8684	7296	5529	8181	7269
1985 Regional Surplus/Deficit	6376	3167	5571	5650	4489	3549	3589	3837	5346	8447	7269	6008	5600	4622
1986 Regional Surplus/Deficit	1983	1096	4413	5380	5526	2230	4915	6695	7844	8550	7235	5231	6928	6555
1987 Regional Surplus/Deficit	5521	2459	4314	4677	4128	2819	2290	1854	5085	6502	6015	5098	5670	5203
1988 Regional Surplus/Deficit	2683	1020	3780	3865	2930	2221	403	1611	2926	3666	5760	4877	2225	5902
1989 Regional Surplus/Deficit	4861	2555	4257	3856	2269	2595	1696	2758	5361	8669	7331	5931	6090	5325
1990 Regional Surplus/Deficit	1882	1501	4131	4601	3483	4619	5458	6039	5905	8425	7574	5374	7950	6689
1991 Regional Surplus/Deficit	5849	4085	4113	4265	6270	4799	5815	6240	4473	8020	6551	5635	7226	7242
1992 Regional Surplus/Deficit	6437	5008	4635	4470	2588	2464	1524	3122	5110	4257	5092	4249	2873	4591

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	1530	1117	3485	4039	2802	2419	912	2071	3724	5084	4118	5347	4768	6274
<i>1994 Regional Surplus/Deficit</i>	4778	3152	3336	3625	3810	2944	1712	3070	3651	3516	6771	5104	4229	5614
<i>1995 Regional Surplus/Deficit</i>	2525	1307	3707	4157	2383	2701	2614	6459	7389	7629	5587	5798	7144	6905
<i>1996 Regional Surplus/Deficit</i>	5119	2874	4549	6313	7033	6461	6459	6975	7219	8394	7783	5494	8063	7556
<i>1997 Regional Surplus/Deficit</i>	6559	4131	5305	5626	3112	4762	6450	6420	6897	7707	7006	4931	7881	7664
<i>1998 Regional Surplus/Deficit</i>	6704	5395	7484	8210	5651	3464	5014	6137	6736	6615	6237	5591	8321	7024

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	5674	2215	4732	4868	2843	2129	1099	1784	2846	2937	3751	3674	6200	5401
1930 Regional Surplus/Deficit	3922	1519	4366	4881	2689	2055	848	1483	2967	2903	4850	2643	3976	5210
1931 Regional Surplus/Deficit	2521	1601	3868	4483	3228	2002	654	1651	2419	4134	174	4467	3304	5048
1932 Regional Surplus/Deficit	4576	2296	4449	3659	1939	1940	-5.9	1087	4061	6623	6414	7356	8858	6350
1933 Regional Surplus/Deficit	3925	3148	4860	5138	2066	3359	5096	5583	3391	6317	5602	6271	8745	7207
1934 Regional Surplus/Deficit	6436	5669	5943	6325	6384	6087	6117	6946	7528	7833	6093	6434	7103	5929
1935 Regional Surplus/Deficit	2944	1579	4414	4727	1866	2327	4634	6205	2953	5021	5645	7014	6899	6644
1936 Regional Surplus/Deficit	6000	2784	4197	4955	2637	1998	256	2322	3169	4219	6225	7069	8584	5822
1937 Regional Surplus/Deficit	4815	2574	3917	4777	3332	1979	944	1141	2198	1987	-429	5484	4350	4547
1938 Regional Surplus/Deficit	5054	2949	4453	4792	2287	3205	4872	4422	6383	7445	6347	6925	8132	6671
1939 Regional Surplus/Deficit	3853	1905	4934	5229	2590	1995	1613	1848	4009	5429	6188	7394	6045	5394
1940 Regional Surplus/Deficit	2799	1246	3872	5066	3232	3332	1267	2855	7061	7366	6098	6640	7150	4131
1941 Regional Surplus/Deficit	2065	1196	4305	4717	3120	2741	1935	1942	4336	3592	3649	4700	3723	4830
1942 Regional Surplus/Deficit	4181	2751	5530	3766	3185	3712	2867	4644	2975	3986	5430	6327	8300	6845
1943 Regional Surplus/Deficit	5988	4272	5101	5400	2075	2648	4099	6122	6945	8391	6822	6973	8678	6925
1944 Regional Surplus/Deficit	5694	2404	3813	4727	2874	2183	1492	1960	3190	2852	1698	2718	2348	3162
1945 Regional Surplus/Deficit	3416	1500	4605	3727	1909	1693	257	1329	2444	1887	-2686	6781	7370	5146
1946 Regional Surplus/Deficit	4365	2061	4151	4476	3224	3474	3785	3591	7005	7954	6555	6992	8184	6945
1947 Regional Surplus/Deficit	5823	3177	5091	4806	3158	6067	5198	6426	7027	7625	6084	7126	8611	6799
1948 Regional Surplus/Deficit	5322	2576	4791	8285	6535	4532	5823	4599	6181	6630	6417	7482	8140	7103
1949 Regional Surplus/Deficit	6365	5705	5815	5823	2892	3061	1642	4565	7254	7831	6639	7536	8560	4855
1950 Regional Surplus/Deficit	3558	1196	3734	4903	2511	2845	4426	6146	7191	7917	6325	6284	8225	7099
1951 Regional Surplus/Deficit	6109	4478	5349	6909	5875	6310	6194	6763	7142	7996	6247	6926	8120	7121
1952 Regional Surplus/Deficit	6300	3304	4820	7804	4756	4597	5674	5917	4817	8129	6859	7493	8898	6793
1953 Regional Surplus/Deficit	5778	2979	4391	4767	2575	1976	1805	6560	5305	3434	5574	7207	9056	7365
1954 Regional Surplus/Deficit	6016	3315	4896	5796	3262	3978	4424	6274	5668	7599	6140	6976	8309	7166
1955 Regional Surplus/Deficit	6521	6329	8165	5819	4851	3908	1898	2568	3846	4169	4931	6258	8873	7213
1956 Regional Surplus/Deficit	6522	5289	4762	6148	5850	6149	5974	6032	6613	7178	5585	6749	8737	7355
1957 Regional Surplus/Deficit	6076	4224	5140	6203	2619	3792	3278	4427	7099	8018	6071	7574	8702	6265
1958 Regional Surplus/Deficit	4616	1933	4498	4912	3129	2564	3072	6651	6189	7007	6477	7402	8989	6303
1959 Regional Surplus/Deficit	4646	2825	4334	5431	4109	5366	5870	6115	5428	8140	6039	6533	8359	6630
1960 Regional Surplus/Deficit	6178	3975	8343	8200	6679	5722	4875	5630	6706	8510	6250	6853	8689	6653
1961 Regional Surplus/Deficit	5208	2260	4661	5217	2601	2554	4435	5672	7189	8017	5321	6867	8162	6271
1962 Regional Surplus/Deficit	5252	3595	4221	4183	3116	3151	3578	5407	4246	7663	6558	6846	8524	5821
1963 Regional Surplus/Deficit	4734	2734	4058	6465	4625	5244	4460	6435	3285	5911	5374	7131	8588	6711
1964 Regional Surplus/Deficit	5895	3276	4747	4613	2836	3238	2662	5264	3142	6112	3818	6578	8757	7383
1965 Regional Surplus/Deficit	6406	4143	6380	6851	4405	6070	6027	6356	6893	7557	6471	6248	8867	6732
1966 Regional Surplus/Deficit	6194	5178	5463	6157	2834	3095	4316	4188	2998	8351	5850	7096	7587	6660
1967 Regional Surplus/Deficit	5975	2942	4325	4805	2524	3287	5803	6004	5281	6118	2531	6321	8413	7050
1968 Regional Surplus/Deficit	6264	3643	4941	5679	2823	3373	4953	6675	6738	3264	4418	6661	8449	6852
1969 Regional Surplus/Deficit	6214	5059	7288	7123	6186	4668	6045	6115	6473	7551	6102	7333	8621	6886
1970 Regional Surplus/Deficit	5401	2152	4718	5874	3310	2412	2278	6234	6051	5986	4950	6635	9117	6660
1971 Regional Surplus/Deficit	4425	1796	4163	4996	3019	3066	5813	6364	7083	7784	6056	6891	8870	7608
1972 Regional Surplus/Deficit	6505	5754	5813	6176	3283	3693	5916	6395	7317	7838	6048	6488	8383	7102
1973 Regional Surplus/Deficit	6488	6301	6077	5759	3279	4176	3189	3501	3778	1842	3650	5822	4673	5387
1974 Regional Surplus/Deficit	2547	849	3889	4725	1915	5374	6192	6923	7002	7249	5652	5523	8331	7354
1975 Regional Surplus/Deficit	6435	5850	5445	4407	2862	2600	3952	5467	7201	4429	5225	6813	8907	7521
1976 Regional Surplus/Deficit	5539	4328	5736	7290	6399	6343	6291	6389	7130	8012	6133	6944	8787	7239
1977 Regional Surplus/Deficit	6551	6321	8883	5816	3186	2112	1660	2246	3038	1829	-1349	1126	1234	3693
1978 Regional Surplus/Deficit	4008	2450	4661	3754	1605	3941	3518	4649	6052	7698	6087	6854	7751	6795
1979 Regional Surplus/Deficit	5170	3289	7311	6140	3251	2118	1580	4253	6769	5387	4562	6878	5187	4756
1980 Regional Surplus/Deficit	2010	1049	3698	4541	2893	3027	1680	2197	3624	5267	6328	7379	8406	6072
1981 Regional Surplus/Deficit	3948	1701	4485	4967	3432	5855	5612	4785	6099	3431	5157	6492	8678	6814
1982 Regional Surplus/Deficit	6115	5897	5001	5431	3731	3281	4853	6226	6835	7963	5766	6326	8531	6962
1983 Regional Surplus/Deficit	6277	4987	6983	7108	4344	4005	5482	6084	7092	7811	5989	6832	8435	7248
1984 Regional Surplus/Deficit	6413	5188	5940	5717	6834	3543	5854	4760	7148	7995	6155	6757	8992	7027
1985 Regional Surplus/Deficit	6138	2929	5386	5502	4150	3265	3179	3425	5163	7797	6127	7236	6411	4380
1986 Regional Surplus/Deficit	1744	857	4228	5232	5188	1946	4504	6329	7503	7861	6094	6459	7738	6313
1987 Regional Surplus/Deficit	5283	2221	4129	4529	3790	2535	1821	1555	4811	5880	4873	6326	6480	4961
1988 Regional Surplus/Deficit	2444	782	3595	3717	2591	1713	27	1361	2694	3078	4654	6312	3035	5660
1989 Regional Surplus/Deficit	4622	2317	4072	3708	1930	2311	1222	2468	5158	8047	6189	7159	6900	5083
1990 Regional Surplus/Deficit	1644	1263	3946	4453	3145	4335	5048	5673	5631	7804	6398	6602	8760	6447
1991 Regional Surplus/Deficit	5610	3847	3928	4117	5931	4515	5385	5874	4200	7398	5409	6827	8036	7000
1992 Regional Surplus/Deficit	6199	4770	4450	4322	2250	1954	1149	2712	5280	3636	3950	5477	3684	4349

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	1291	878	3300	3891	2463	1919	537	1828	3486	4491	3630	6575	5578	6032
<i>1994 Regional Surplus/Deficit</i>	4540	2914	3151	3477	3471	2660	1302	2771	3378	2895	5630	6331	5040	5372
<i>1995 Regional Surplus/Deficit</i>	2287	1069	3522	4009	2045	2417	2204	6093	7048	7008	4446	7026	7955	6663
<i>1996 Regional Surplus/Deficit</i>	4881	2636	4364	6165	6694	6177	6039	6649	6878	7706	6574	6655	8847	7314
<i>1997 Regional Surplus/Deficit</i>	6320	3893	5120	5479	2773	4478	6044	6079	6556	7018	5797	6092	8443	7389
<i>1998 Regional Surplus/Deficit</i>	6466	5156	7299	8062	5312	3180	4603	5838	6463	5993	5095	6819	8940	6782

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	5404	1945	4542	4644	2495	1955	414	1265	2469	2985	4059	2058	5024	4905
1930 Regional Surplus/Deficit	3651	1249	4176	4656	2341	1937	380	924	2550	2917	4814	1027	2800	4714
1931 Regional Surplus/Deficit	2250	1331	3678	4258	2880	1837	196	1091	2008	4154	-392	2851	2128	4553
1932 Regional Surplus/Deficit	4305	2026	4260	3435	1591	1585	-437	569	3684	6671	6722	5740	7928	5854
1933 Regional Surplus/Deficit	3655	2878	4670	4913	1718	3004	4666	5064	3014	6365	5910	4569	7976	6751
1934 Regional Surplus/Deficit	6165	5399	5753	6101	6036	5733	5684	6374	7097	7827	6401	4818	5927	5433
1935 Regional Surplus/Deficit	2673	1309	4224	4502	1518	1972	4204	5632	2576	5070	5953	5397	5723	6148
1936 Regional Surplus/Deficit	5730	2514	4007	4731	2289	1690	-174	1701	2792	4268	6534	5453	7409	5326
1937 Regional Surplus/Deficit	4545	2304	3727	4553	2984	1861	475	567	1820	2036	-121	3868	3174	4051
1938 Regional Surplus/Deficit	4784	2679	4263	4567	1939	2851	4441	3903	6005	7494	6601	5223	6957	6175
1939 Regional Surplus/Deficit	3583	1635	4744	5005	2242	1640	1242	1320	3547	5478	6497	5777	4869	4898
1940 Regional Surplus/Deficit	2529	976	3682	4842	2884	2977	836	2336	6684	7414	6407	5024	5974	3635
1941 Regional Surplus/Deficit	1794	926	4115	4493	2772	2386	1505	1423	3959	3641	3957	3083	2547	4334
1942 Regional Surplus/Deficit	3911	2481	5340	3541	2837	3357	2437	4125	2597	4035	5738	4710	7124	6349
1943 Regional Surplus/Deficit	5717	4002	4911	5175	1727	2293	3668	5549	6568	8386	7173	5357	7729	6429
1944 Regional Surplus/Deficit	5424	2133	3623	4503	2526	1849	1033	1441	2813	2901	2007	1102	1172	2666
1945 Regional Surplus/Deficit	3146	1230	4415	3503	1561	1338	-174	810	2067	1935	-2378	5165	6195	4651
1946 Regional Surplus/Deficit	4095	1791	3961	4252	2876	3120	3354	3073	6573	7948	6809	5290	7008	6449
1947 Regional Surplus/Deficit	5553	2907	4901	4582	2810	5713	4768	5853	6595	7673	6392	5510	7435	6303
1948 Regional Surplus/Deficit	5052	2306	4601	8061	6187	4177	5393	4081	5803	6679	6725	5866	7397	6607
1949 Regional Surplus/Deficit	6095	5435	5625	5598	2544	2706	1271	3967	6823	7880	6947	5920	7385	4359
1950 Regional Surplus/Deficit	3287	926	3544	4678	2163	2490	3995	5573	6760	7911	6579	4583	7041	6603
1951 Regional Surplus/Deficit	5838	4208	5159	6685	5527	5956	5763	6190	6711	7991	6501	5224	6944	6625
1952 Regional Surplus/Deficit	6030	3034	4630	7580	4408	4242	5243	5399	4440	8123	7167	5877	7723	6297
1953 Regional Surplus/Deficit	5507	2709	4201	4542	2227	1621	1374	5988	4928	3483	5882	5591	8097	6869
1954 Regional Surplus/Deficit	5745	3045	4706	5571	2914	3623	3994	5701	5291	7647	6449	5316	7546	6883
1955 Regional Surplus/Deficit	6250	6058	7975	5594	4503	3553	1468	2050	3469	4217	5239	4642	8004	6891
1956 Regional Surplus/Deficit	6252	5019	4572	5924	5502	5794	5543	5459	6181	7172	5839	5048	8023	6859
1957 Regional Surplus/Deficit	5806	3954	4950	5978	2271	3437	2847	3909	6722	8067	6379	5958	7840	5769
1958 Regional Surplus/Deficit	4345	1663	4308	4688	2781	2209	2641	6078	5812	7055	6785	5786	7848	5807
1959 Regional Surplus/Deficit	4375	2555	4144	5207	3761	5011	5440	5542	5051	8135	6347	4831	7284	6134
1960 Regional Surplus/Deficit	5908	3705	8154	7976	6331	5367	4444	5111	6329	8558	6559	5237	7513	6157
1961 Regional Surplus/Deficit	4937	1990	4471	4993	2253	2199	4004	5153	6812	8065	5629	5251	7364	5775
1962 Regional Surplus/Deficit	4982	3325	4031	3959	2768	2796	3147	4888	3869	7711	6866	5229	7348	5325
1963 Regional Surplus/Deficit	4464	2464	3869	6241	4277	4890	4029	5916	2908	5959	5682	5514	7412	6215
1964 Regional Surplus/Deficit	5624	3006	4557	4388	2488	2884	2231	4746	2765	6161	4126	4962	7946	6887
1965 Regional Surplus/Deficit	6135	3873	6190	6626	4057	5716	5596	5783	6461	7605	6725	4546	7691	6236
1966 Regional Surplus/Deficit	5923	4908	5273	5933	2486	2740	3886	3669	2621	8400	6158	5480	6411	6164
1967 Regional Surplus/Deficit	5704	2672	4135	4581	2176	2932	5373	5432	4904	6167	2840	4619	7375	6554
1968 Regional Surplus/Deficit	5993	3373	4751	5455	2475	3018	4522	6156	6360	3312	4726	5045	7273	6356
1969 Regional Surplus/Deficit	5943	4789	7099	6898	5838	4313	5615	5543	6096	7546	6356	5717	7446	6390
1970 Regional Surplus/Deficit	5130	1882	4528	5650	2962	2162	1729	5700	5674	6035	5258	5019	7942	6164
1971 Regional Surplus/Deficit	4155	1526	3973	4771	2671	2711	5383	5792	6651	7779	6311	5189	8077	7420
1972 Regional Surplus/Deficit	6235	5484	5623	5952	2935	3339	5485	5823	6886	7832	6303	4786	7533	6776
1973 Regional Surplus/Deficit	6217	6031	5887	5535	2931	3821	2758	3098	3391	1891	3945	4176	3497	4891
1974 Regional Surplus/Deficit	2276	579	3699	4501	1567	5019	5755	6351	6570	7244	5907	3821	7210	7107
1975 Regional Surplus/Deficit	6165	5580	5255	4183	2514	2245	3521	4949	6824	4478	5533	5111	8039	7352
1976 Regional Surplus/Deficit	5269	4057	5546	7065	6052	5988	5860	5816	6753	8006	6387	5242	7611	6743
1977 Regional Surplus/Deficit	6280	6051	8693	5592	2838	1757	1287	1716	2650	1878	-1258	-491	58	3197
1978 Regional Surplus/Deficit	3737	2180	4471	3529	1259	3305	3087	4130	5675	7693	6396	5152	6575	6299
1979 Regional Surplus/Deficit	4899	3019	7121	5916	2903	1902	1201	3395	6392	5435	4870	5262	4011	4260
1980 Regional Surplus/Deficit	1739	779	3508	4317	2545	2672	1312	1566	3247	5316	6636	5763	7230	5576
1981 Regional Surplus/Deficit	3677	1431	4295	4743	3084	5500	5127	4267	5722	3480	5465	4876	7748	6318
1982 Regional Surplus/Deficit	5844	5627	4811	5207	3383	2926	4422	5653	6404	7957	6075	4624	7460	6466
1983 Regional Surplus/Deficit	6007	4717	6793	6884	3996	3651	5051	5565	6660	7860	6298	5199	7259	6753
1984 Regional Surplus/Deficit	6143	4918	5750	5493	6486	3188	5370	4242	6717	7990	6463	5141	7816	6531
1985 Regional Surplus/Deficit	5867	2659	5196	5278	3802	2910	2748	3020	4695	7792	6435	5620	5235	3884
1986 Regional Surplus/Deficit	1474	587	4038	5008	4840	1591	4073	5756	7072	7856	6402	4843	6562	5817
1987 Regional Surplus/Deficit	5012	1951	3939	4305	3442	2180	1449	1036	4434	5929	5182	4710	5304	4465
1988 Regional Surplus/Deficit	2174	512	3405	3493	2243	1582	-438	794	2276	3093	4926	4488	1859	5164
1989 Regional Surplus/Deficit	4352	2047	3882	3484	1582	1957	855	1940	4710	8060	6498	5543	5725	4587
1990 Regional Surplus/Deficit	1373	993	3756	4229	2797	3980	4617	5101	5254	7805	6652	4901	7584	5951
1991 Regional Surplus/Deficit	5340	3577	3738	3893	5583	4160	4900	5302	3823	7447	5717	5125	6860	6504
1992 Regional Surplus/Deficit	5928	4500	4260	4098	1902	1826	683	2304	4459	3684	4258	3861	2508	3853

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	1020	608	3110	3667	2115	1780	71	1253	3073	4511	3285	4959	4403	5536
<i>1994 Regional Surplus/Deficit</i>	4269	2644	2961	3253	3123	2305	871	2252	3001	2944	5938	4715	3864	4876
<i>1995 Regional Surplus/Deficit</i>	2016	799	3332	3785	1697	2062	1773	5520	6617	7056	4754	5409	6779	6167
<i>1996 Regional Surplus/Deficit</i>	4610	2366	4174	5941	6346	5822	5510	6036	6447	7700	6829	4953	7698	6818
<i>1997 Regional Surplus/Deficit</i>	6049	3623	4930	5254	2425	4124	5599	5482	6125	7013	6051	4390	7515	6926
<i>1998 Regional Surplus/Deficit</i>	6195	4886	7109	7838	4964	2825	4173	5319	6086	6042	5403	5203	7955	6286

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2017 - 2018 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	4990	1533	4188	4292	2168	1283	275	1018	2154	2374	3232	1881	5700	4496
1930 Regional Surplus/Deficit	3238	837	3822	4304	2014	1209	23	717	2275	2340	4332	849	3476	4305
1931 Regional Surplus/Deficit	1837	919	3325	3906	2552	1156	-171	885	1727	3571	-345	2673	2804	4144
1932 Regional Surplus/Deficit	3892	1614	3906	3083	1264	1094	-831	321	3368	6060	5895	5563	8358	5445
1933 Regional Surplus/Deficit	3242	2465	4316	4561	1391	2513	4272	4817	2698	5754	5083	4367	8246	6302
1934 Regional Surplus/Deficit	5752	4987	5400	5749	5709	5241	5292	6082	6737	7172	5574	4640	6603	5024
1935 Regional Surplus/Deficit	2260	896	3871	4150	1191	1481	3810	5341	2260	4458	5126	5199	6399	5739
1936 Regional Surplus/Deficit	5317	2102	3653	4379	1962	1152	-568	1556	2477	3656	5706	5276	8085	4917
1937 Regional Surplus/Deficit	4131	1891	3373	4201	2657	1133	120	375	1505	1424	-948	3690	3850	3642
1938 Regional Surplus/Deficit	4371	2267	3910	4215	1612	2359	4047	3656	5690	6873	5730	5021	7633	5766
1939 Regional Surplus/Deficit	3169	1223	4391	4653	1915	1149	788	1082	3316	4867	5670	5600	5545	4489
1940 Regional Surplus/Deficit	2115	564	3328	4490	2557	2486	442	2089	6369	6803	5580	4846	6650	3226
1941 Regional Surplus/Deficit	1381	514	3761	4141	2444	1895	1111	1176	3644	3029	3130	2906	3223	3925
1942 Regional Surplus/Deficit	3497	2069	4986	3189	2510	2866	2043	3878	2282	3423	4911	4533	7800	5940
1943 Regional Surplus/Deficit	5304	3589	4558	4823	1400	1802	3274	5258	6245	7731	6303	5179	8178	6020
1944 Regional Surplus/Deficit	5010	1721	3269	4151	2199	1337	667	1194	2498	2290	1180	924	1848	2258
1945 Regional Surplus/Deficit	2732	818	4061	3151	1233	847	-568	563	1752	1324	-3205	4988	6870	4242
1946 Regional Surplus/Deficit	3681	1379	3608	3900	2549	2628	2960	2825	6214	7293	5938	5088	7684	6040
1947 Regional Surplus/Deficit	5140	2495	4547	4230	2483	5221	4374	5562	6236	7062	5565	5333	8111	5894
1948 Regional Surplus/Deficit	4638	1894	4247	7709	5860	3686	4999	3833	5488	6067	5888	5689	7640	6198
1949 Regional Surplus/Deficit	5682	5023	5271	5246	2217	2215	817	3799	6464	7268	6120	5742	8061	3950
1950 Regional Surplus/Deficit	2874	514	3190	4326	1836	1999	3601	5282	6401	7256	5708	4381	7693	6194
1951 Regional Surplus/Deficit	5425	3796	4805	6333	5200	5464	5361	5899	6352	7336	5630	5022	7620	6216
1952 Regional Surplus/Deficit	5616	2622	4277	7228	4081	3751	4849	5151	4124	7468	6308	5700	8398	5888
1953 Regional Surplus/Deficit	5094	2296	3847	4190	1900	1130	980	5696	4613	2872	5055	5414	8556	6460
1954 Regional Surplus/Deficit	5332	2633	4352	5219	2587	3132	3600	5410	4976	7036	5622	5114	7810	6261
1955 Regional Surplus/Deficit	5837	5646	7621	5242	4176	3062	1074	1802	3154	3606	4412	4464	8373	6308
1956 Regional Surplus/Deficit	5838	4606	4218	5572	5175	5303	5138	5168	5822	6517	4968	4846	8237	6450
1957 Regional Surplus/Deficit	5392	3542	4597	5626	1943	2946	2453	3661	6406	7456	5552	5781	8202	5360
1958 Regional Surplus/Deficit	3932	1250	3954	4336	2454	1718	2247	5787	5497	6444	5958	5608	8489	5398
1959 Regional Surplus/Deficit	3962	2143	3790	4855	3434	4520	5046	5251	4736	7480	5520	4630	7860	5726
1960 Regional Surplus/Deficit	5495	3292	7800	7624	6004	4876	4050	4864	6014	7947	5731	5060	8189	5748
1961 Regional Surplus/Deficit	4524	1577	4117	4641	1926	1708	3610	4906	6496	7454	4802	5073	7662	5366
1962 Regional Surplus/Deficit	4569	2913	3678	3607	2441	2305	2753	4641	3553	7100	6039	5052	8024	4916
1963 Regional Surplus/Deficit	4050	2052	3515	5889	3950	4398	3635	5669	2593	5348	4855	5337	8088	5806
1964 Regional Surplus/Deficit	5211	2593	4203	4036	2161	2392	1837	4498	2450	5549	3299	4784	8257	6478
1965 Regional Surplus/Deficit	5722	3461	5837	6274	3730	5224	5202	5492	6102	6994	5854	4344	8367	5827
1966 Regional Surplus/Deficit	5510	4495	4919	5581	2159	2249	3492	3422	2305	7788	5331	5302	7087	5755
1967 Regional Surplus/Deficit	5291	2260	3781	4229	1849	2441	4979	5140	4588	5556	2013	4417	7913	6145
1968 Regional Surplus/Deficit	5580	2961	4397	5103	2147	2527	4128	5909	6045	2701	3899	4868	7949	5947
1969 Regional Surplus/Deficit	5530	4377	6745	6546	5511	3822	5221	5251	5781	6891	5485	5522	8122	5981
1970 Regional Surplus/Deficit	4717	1470	4174	5298	2635	1566	1453	5468	5358	5424	4431	4841	8617	5755
1971 Regional Surplus/Deficit	3741	1114	3620	4419	2343	2220	4988	5500	6292	7123	5440	4987	8370	6703
1972 Regional Surplus/Deficit	5821	5071	5269	5600	2608	2847	5091	5531	6526	7177	5432	4585	7883	6197
1973 Regional Surplus/Deficit	5804	5618	5533	5183	2604	3330	2364	2735	3086	1280	3131	4029	4173	4482
1974 Regional Surplus/Deficit	1863	167	3346	4149	1240	4528	5367	6059	6211	6589	5036	3620	7831	6449
1975 Regional Surplus/Deficit	5751	5168	4901	3831	2186	1754	3127	4701	6468	3867	4706	4910	8407	6616
1976 Regional Surplus/Deficit	4856	3645	5193	6713	5724	5497	5466	5525	6437	7351	5516	5041	8287	6334
1977 Regional Surplus/Deficit	5867	5639	8339	5240	2511	1266	836	1480	2345	1267	-1868	-668	734	2788
1978 Regional Surplus/Deficit	3324	1768	4117	3177	930	3095	2693	3883	5360	7038	5568	4950	7251	5890
1979 Regional Surplus/Deficit	4486	2606	6767	5564	2576	1272	755	3487	6076	4824	4043	5084	4687	3851
1980 Regional Surplus/Deficit	1326	367	3154	3965	2218	2181	855	1431	2932	4704	5809	5586	7906	5167
1981 Regional Surplus/Deficit	3264	1019	3941	4391	2757	5009	4689	4019	5406	2868	4638	4699	8178	5909
1982 Regional Surplus/Deficit	5431	5214	4457	4855	3056	2435	4028	5362	6045	7302	5247	4422	8031	6057
1983 Regional Surplus/Deficit	5593	4305	6439	6532	3669	3159	4657	5287	6301	7248	5471	4997	7935	6344
1984 Regional Surplus/Deficit	5729	4506	5396	5141	6158	2697	4932	3994	6357	7335	5619	4963	8492	6122
1985 Regional Surplus/Deficit	5454	2247	4842	4926	3475	2419	2354	2659	4470	7137	5608	5443	5911	3475
1986 Regional Surplus/Deficit	1061	175	3684	4656	4513	1100	3679	5465	6713	7201	5575	4665	7238	5408
1987 Regional Surplus/Deficit	4599	1539	3585	3953	3114	1689	996	788	4119	5318	4355	4532	5980	4056
1988 Regional Surplus/Deficit	1761	100	3051	3141	1916	867	-798	595	2002	2516	4136	4518	2535	4755
1989 Regional Surplus/Deficit	3939	1635	3529	3132	1255	1465	398	1702	4466	7405	5671	5365	6401	4178
1990 Regional Surplus/Deficit	960	580	3403	3877	2470	3489	4223	4809	4939	7150	5781	4699	8260	5542
1991 Regional Surplus/Deficit	4927	3165	3384	3541	5256	3669	4462	5010	3507	6835	4890	4923	7536	6095
1992 Regional Surplus/Deficit	5515	4087	3907	3746	1575	1108	324	1946	4587	3073	3431	3684	3184	3444

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	607	196	2756	3315	1788	1073	-288	1062	2794	3928	3111	4781	5079	5127
<i>1994 Regional Surplus/Deficit</i>	3856	2232	2607	2901	2796	1814	477	2005	2685	2332	5111	4538	4540	4467
<i>1995 Regional Surplus/Deficit</i>	1603	387	2979	3433	1370	1571	1379	5229	6258	6445	3927	5212	7455	5758
<i>1996 Regional Surplus/Deficit</i>	4197	1953	3821	5589	6019	5331	5116	5785	6088	7045	5958	4751	8347	6409
<i>1997 Regional Surplus/Deficit</i>	5636	3210	4577	4902	2098	3632	5183	5215	5766	6358	5180	4188	7943	6485
<i>1998 Regional Surplus/Deficit</i>	5782	4474	6756	7486	4637	2334	3779	5072	5770	5431	4576	5026	8440	5877

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2018 - 2019 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	4626	1169	3853	3948	1786	1062	-391	624	1789	2531	3827	1270	4031	4107
1930 Regional Surplus/Deficit	2873	473	3487	3961	1633	1044	-426	283	1870	2463	4582	239	1807	3917
1931 Regional Surplus/Deficit	1473	555	2989	3563	2171	944	-610	450	1328	3700	-624	2063	1135	3755
1932 Regional Surplus/Deficit	3527	1250	3570	2740	883	692	-1242	-73	3004	6217	6490	4952	6935	5057
1933 Regional Surplus/Deficit	2877	2101	3981	4218	1009	2111	3860	4423	2333	5911	5678	3739	6982	5953
1934 Regional Surplus/Deficit	5388	4623	5064	5406	5327	4840	4878	5665	6349	7306	6169	4030	4934	4636
1935 Regional Surplus/Deficit	1895	532	3535	3807	810	1079	3398	4923	1896	4615	5721	4571	4730	5350
1936 Regional Surplus/Deficit	4952	1738	3318	4036	1580	797	-980	1060	2112	3813	6301	4665	6415	4528
1937 Regional Surplus/Deficit	3767	1527	3038	3858	2275	968	-331	-75	1140	1581	-353	3080	2181	3253
1938 Regional Surplus/Deficit	4006	1903	3574	3872	1231	1958	3635	3262	5325	7006	6302	4393	5964	5378
1939 Regional Surplus/Deficit	2805	859	4055	4309	1533	747	437	679	2867	5023	6265	4990	3876	4101
1940 Regional Surplus/Deficit	1751	200	2993	4146	2176	2084	30	1695	6004	6960	6175	4236	4981	2837
1941 Regional Surplus/Deficit	1017	150	3425	3798	2063	1493	699	782	3279	3186	3725	2295	1554	3536
1942 Regional Surplus/Deficit	3133	1705	4651	2846	2129	2464	1631	3484	1917	3580	5506	3923	6131	5551
1943 Regional Surplus/Deficit	4940	3225	4222	4480	1018	1400	2863	4840	5856	7864	6940	4569	6694	5632
1944 Regional Surplus/Deficit	4646	1357	2934	3808	1818	956	227	800	2133	2447	1774	314	179	1869
1945 Regional Surplus/Deficit	2368	454	3726	2807	852	445	-980	169	1387	1481	-2610	4377	5201	3853
1946 Regional Surplus/Deficit	3317	1015	3272	3556	2168	2227	2548	2431	5826	7426	6509	4460	6015	5651
1947 Regional Surplus/Deficit	4775	2131	4212	3887	2101	4820	3962	5144	5848	7219	6160	4722	6442	5506
1948 Regional Surplus/Deficit	4274	1530	3912	7365	5479	3284	4587	3439	5123	6224	6459	5078	6403	5809
1949 Regional Surplus/Deficit	5317	4659	4936	4903	1835	1813	466	3326	6076	7425	6715	5132	6392	3561
1950 Regional Surplus/Deficit	2510	150	2855	3983	1454	1597	3190	4864	6012	7389	6279	3753	6006	5805
1951 Regional Surplus/Deficit	5061	3432	4470	5990	4819	5063	4926	5481	5963	7469	6202	4394	5951	5827
1952 Regional Surplus/Deficit	5252	2258	3941	6884	3700	3349	4438	4757	3759	7601	6880	5089	6729	5499
1953 Regional Surplus/Deficit	4730	1932	3512	3847	1518	728	569	5279	4248	3028	5650	4803	7103	6071
1954 Regional Surplus/Deficit	4967	2269	4017	4876	2205	2730	3188	4992	4611	7193	6217	4486	6553	6086
1955 Regional Surplus/Deficit	5472	5282	7286	4899	3795	2660	662	1408	2789	3763	5007	3854	7010	6093
1956 Regional Surplus/Deficit	5474	4242	3883	5228	4794	4901	4702	4750	5434	6650	5540	4218	7030	6062
1957 Regional Surplus/Deficit	5028	3178	4261	5283	1562	2544	2042	3267	6042	7612	6147	5170	6847	4971
1958 Regional Surplus/Deficit	3567	886	3618	3992	2073	1316	1836	5369	5132	6601	6553	4998	6855	5010
1959 Regional Surplus/Deficit	3598	1779	3455	4512	3052	4118	4628	4833	4371	7613	6115	4002	6250	5337
1960 Regional Surplus/Deficit	5130	2928	7464	7281	5623	4474	3638	4470	5649	8104	6326	4449	6520	5359
1961 Regional Surplus/Deficit	4159	1213	3782	4297	1545	1306	3199	4512	6131	7611	5397	4463	6370	4978
1962 Regional Surplus/Deficit	4204	2549	3342	3263	2060	1903	2341	4247	3188	7257	6634	4441	6355	4528
1963 Regional Surplus/Deficit	3686	1688	3179	5545	3569	3997	3223	5275	2228	5505	5450	4727	6419	5418
1964 Regional Surplus/Deficit	4847	2229	3868	3693	1779	1991	1426	4104	2085	5706	3894	4174	6953	6089
1965 Regional Surplus/Deficit	5358	3097	5501	5931	3349	4823	4778	5074	5714	7151	6425	3716	6698	5438
1966 Regional Surplus/Deficit	5146	4131	4584	5238	1777	1847	3080	3028	1941	7945	5926	4692	5418	5366
1967 Regional Surplus/Deficit	4926	1896	3446	3886	1468	2039	4567	4723	4223	5712	2608	3789	6341	5756
1968 Regional Surplus/Deficit	5216	2597	4062	4760	1766	2125	3717	5515	5680	2858	4494	4257	6280	5559
1969 Regional Surplus/Deficit	5166	4013	6409	6203	5129	3420	4787	4834	5416	7024	6057	4894	6453	5593
1970 Regional Surplus/Deficit	4352	1106	3839	4954	2253	1269	923	5058	4993	5580	5026	4231	6948	5366
1971 Regional Surplus/Deficit	3377	750	3284	4076	1962	1818	4577	5083	5904	7257	6011	4359	7084	6622
1972 Regional Surplus/Deficit	5457	4708	4934	5257	2226	2446	4679	5114	6138	7311	6003	3957	6540	5979
1973 Regional Surplus/Deficit	5440	5255	5198	4840	2223	2928	1952	2457	2711	1437	3713	3388	2504	4093
1974 Regional Surplus/Deficit	1499	-197	3010	3806	858	4126	4950	5642	5823	6722	5607	2992	6175	6309
1975 Regional Surplus/Deficit	5387	4804	4566	3488	1805	1352	2716	4307	6079	4023	5301	4282	7045	6555
1976 Regional Surplus/Deficit	4491	3281	4857	6370	5343	5095	5041	5107	6071	7484	6088	4413	6618	5945
1977 Regional Surplus/Deficit	5503	5275	8004	4896	2130	864	481	1074	1970	1424	-1490	-1278	-935	2400
1978 Regional Surplus/Deficit	2960	1404	3782	2834	550	2412	2282	3489	4995	7171	6163	4322	5582	5502
1979 Regional Surplus/Deficit	4121	2242	6432	5221	2195	1009	396	2753	5712	4981	4638	4474	3018	3463
1980 Regional Surplus/Deficit	962	2.7	2819	3622	1836	1779	506	925	2567	4861	6404	4975	6237	4779
1981 Regional Surplus/Deficit	2899	655	3606	4048	2376	4607	4254	3625	5042	3025	5233	4088	6755	5520
1982 Regional Surplus/Deficit	5067	4851	4122	4512	2674	2033	3617	4944	5656	7435	5842	3794	6425	5669
1983 Regional Surplus/Deficit	5229	3941	6104	6188	3288	2758	4246	4869	5913	7405	6066	4369	6266	5955
1984 Regional Surplus/Deficit	5365	4142	5061	4797	5777	2295	4497	3600	5969	7468	6191	4353	6823	5733
1985 Regional Surplus/Deficit	5090	1883	4507	4582	3094	2017	1942	2378	4015	7270	6203	4832	4242	3086
1986 Regional Surplus/Deficit	696	-189	3349	4312	4131	698	3268	5047	6325	7334	6170	4055	5569	5020
1987 Regional Surplus/Deficit	4234	1175	3250	3609	2733	1287	644	395	3754	5474	4950	3922	4311	3668
1988 Regional Surplus/Deficit	1396	-264	2716	2797	1535	689	-1243	152	1596	2638	4694	3700	866	4366
1989 Regional Surplus/Deficit	3574	1271	3193	2789	874	1064	50	1299	4030	7538	6249	4755	4732	3790
1990 Regional Surplus/Deficit	596	217	3067	3534	2088	3087	3811	4392	4574	7283	6352	4071	6591	5153
1991 Regional Surplus/Deficit	4562	2801	3049	3197	4874	3267	4027	4593	3143	6992	5485	4295	5867	5706
1992 Regional Surplus/Deficit	5151	3723	3571	3403	1193	933	-122	1663	3779	3230	4026	3073	1515	3055

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	243	-168	2421	2971	1407	887	-735	611	2393	4057	3053	4171	3410	4738
<i>1994 Regional Surplus/Deficit</i>	3492	1868	2271	2557	2415	1412	66	1611	2321	2489	5706	3927	2871	4078
<i>1995 Regional Surplus/Deficit</i>	1239	23	2643	3089	988	1169	968	4811	5869	6602	4522	4584	5786	5369
<i>1996 Regional Surplus/Deficit</i>	3833	1589	3485	5245	5638	4929	4637	5327	5699	7178	6529	4123	6705	6020
<i>1997 Regional Surplus/Deficit</i>	5272	2847	4241	4559	1717	3231	4726	4773	5377	6491	5751	3560	6522	6129
<i>1998 Regional Surplus/Deficit</i>	5417	4110	6420	7142	4256	1932	3367	4678	5406	5587	5171	4415	6962	5488

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Monthly Regional 70-Water Year
Surplus/Deficit
120-Hour Capacity in Megawatts

For OY 2010 – 2019

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	8312	4470	7517	8046	6620	5248	4544	5496	6343	6090	7037	4771	8687	7026
1930 Regional Surplus/Deficit	6104	3816	7123	7893	6374	5194	4662	5221	5800	6066	8683	3927	6242	6737
1931 Regional Surplus/Deficit	4801	3867	6586	7558	6747	5286	4461	5255	5231	7248	4472	5460	5560	6794
1932 Regional Surplus/Deficit	6878	4541	7256	6932	5793	5037	3734	4289	6882	9648	11903	10552	11173	8540
1933 Regional Surplus/Deficit	6111	5422	7661	8186	5910	6819	10001	8944	6214	9322	9587	9533	10884	10273
1934 Regional Surplus/Deficit	10153	8387	8721	9151	9332	11119	10750	10981	10564	11744	11507	9654	10239	8259
1935 Regional Surplus/Deficit	5180	3854	7197	7805	5732	5592	9232	10630	5769	8096	9460	9710	9528	9659
1936 Regional Surplus/Deficit	9180	5040	6972	8048	6408	5030	3332	6204	5994	7333	11545	10223	11425	7701
1937 Regional Surplus/Deficit	7094	4820	6612	7838	6839	5152	4753	4872	5058	5158	4155	6530	6618	5861
1938 Regional Surplus/Deficit	7389	5201	7237	7897	6148	6601	9457	7727	9040	10633	12059	10469	11124	9271
1939 Regional Surplus/Deficit	6034	4176	7736	8243	6391	5087	4999	5581	7529	8467	11108	10627	8500	7006
1940 Regional Surplus/Deficit	5062	3569	6519	8011	6732	6845	5073	6384	9714	10542	11107	8889	9892	5453
1941 Regional Surplus/Deficit	4425	3498	7095	7757	6700	6088	4558	6000	8143	6714	6932	5741	6026	6447
1942 Regional Surplus/Deficit	6400	5009	8303	7056	6792	7258	6805	7938	5794	7110	9494	8602	11483	10266
1943 Regional Surplus/Deficit	9152	6674	7910	8402	5914	5929	8397	9818	9623	12426	11795	10383	11012	10208
1944 Regional Surplus/Deficit	8313	4660	6330	7893	6662	5206	4643	5697	6125	6096	7121	3948	4591	4405
1945 Regional Surplus/Deficit	5614	3747	7407	7015	5753	4915	4087	4254	5289	5056	4189	9150	10198	6624
1946 Regional Surplus/Deficit	6560	4316	6888	7726	6893	6905	7821	6987	10118	11696	12086	10286	11161	10185
1947 Regional Surplus/Deficit	8461	5429	7898	8009	6889	10484	10072	10782	10586	10758	10757	10412	11495	10188
1948 Regional Surplus/Deficit	7789	4822	7592	11268	9474	8316	10990	8755	8840	9634	11868	10627	10196	10686
1949 Regional Surplus/Deficit	9923	8441	8604	8781	6672	6428	4963	8412	10573	11138	11981	10730	11370	6213
1950 Regional Surplus/Deficit	5755	3547	6209	8029	6358	6188	8805	10609	11100	11892	11438	9875	10312	10606
1951 Regional Surplus/Deficit	8990	6885	8155	9675	8871	11114	10858	11433	11046	11918	11851	10318	11112	10659
1952 Regional Surplus/Deficit	9717	5566	7614	10520	8001	8369	11033	9283	7594	12491	12424	10640	11756	9671
1953 Regional Surplus/Deficit	8353	5226	7096	7873	6386	5187	5636	10582	8041	6588	9431	10483	11543	10888
1954 Regional Surplus/Deficit	8760	5576	7695	8749	6932	7541	8708	11242	8358	10677	10481	10402	10312	10127
1955 Regional Surplus/Deficit	10823	10864	11036	8767	8012	7511	5706	6095	6645	7298	8415	8255	11163	10204
1956 Regional Surplus/Deficit	10244	7874	7529	9048	8785	10778	11081	11382	10884	11976	11087	10176	10734	10900
1957 Regional Surplus/Deficit	8884	6586	7946	9089	6462	7296	7253	7751	9788	11297	10890	10808	11004	8526
1958 Regional Surplus/Deficit	6826	4207	7277	8010	6812	5830	6969	10241	8844	10025	11849	10640	11670	8496
1959 Regional Surplus/Deficit	6857	5071	7101	8403	7511	9532	10943	11444	9038	11960	10577	10200	10484	9361
1960 Regional Surplus/Deficit	9201	6301	11406	12171	10879	10095	9714	8937	9348	12002	11695	9738	11529	9489
1961 Regional Surplus/Deficit	7556	4514	7463	8242	6426	5859	8896	9041	9877	11630	9085	10298	10703	8876
1962 Regional Surplus/Deficit	7658	5897	6947	7448	6818	6571	7703	8740	7042	10757	11914	10114	11471	7597
1963 Regional Surplus/Deficit	6995	4983	6795	9246	7878	9294	8914	9927	6102	8944	9095	9880	11746	9825
1964 Regional Surplus/Deficit	8779	5544	7548	7846	6625	6650	6520	8560	5953	9143	7117	9649	11454	10612
1965 Regional Surplus/Deficit	10160	6509	9123	9571	7718	10750	11192	11527	10901	10753	11943	10096	11983	9467
1966 Regional Surplus/Deficit	9369	7756	8271	9023	6601	6496	8537	7502	5848	11863	10125	9728	10422	9741
1967 Regional Surplus/Deficit	8759	5190	7062	7933	6359	6712	10731	11532	9019	9256	6021	9515	11045	10760
1968 Regional Surplus/Deficit	9585	5941	7743	8665	6626	6808	9529	10242	9381	6411	7772	8555	11190	10600
1969 Regional Surplus/Deficit	9456	7578	10020	9823	9082	8468	11107	11723	9428	11844	11506	10573	11424	10457
1970 Regional Surplus/Deficit	7843	4405	7501	8815	6966	5660	6102	9731	8725	9006	8427	9321	12004	9163
1971 Regional Surplus/Deficit	6625	4067	6878	8082	6783	6414	10943	11691	10952	11994	11571	10316	11061	10821
1972 Regional Surplus/Deficit	10476	8456	8603	9084	7044	7168	11068	11732	10797	11418	11159	10323	10491	10100
1973 Regional Surplus/Deficit	10750	9943	8864	8724	7003	7787	7092	6255	6647	5012	7008	7510	7437	6976
1974 Regional Surplus/Deficit	4836	3218	6509	7824	5755	9460	11106	11534	10941	11776	11292	9644	10377	10378
1975 Regional Surplus/Deficit	10076	8629	8248	7686	6656	5848	8040	8772	9859	7551	8859	10386	11263	10795
1976 Regional Surplus/Deficit	8005	6704	8523	9992	9296	11607	10950	11551	10403	12236	11779	10380	11658	10560
1977 Regional Surplus/Deficit	10854	10879	12690	8756	6894	5350	4491	5910	6003	4998	5406	2709	3489	4997
1978 Regional Surplus/Deficit	6261	4708	7461	6212	5428	7594	7565	7959	8734	11638	10453	10248	10652	9865
1979 Regional Surplus/Deficit	7616	5576	10082	8957	6884	5350	4958	8085	9420	8410	7956	10004	7518	6144
1980 Regional Surplus/Deficit	4340	3359	6351	7627	6545	6470	4143	7483	6441	8319	11316	10583	11559	8121
1981 Regional Surplus/Deficit	6130	3965	7291	8003	7011	10216	10871	9868	8758	6653	8827	8949	11127	10568
1982 Regional Surplus/Deficit	10135	9060	7800	8442	7209	6708	9491	11723	10602	11972	10616	9988	11192	10495
1983 Regional Surplus/Deficit	10145	7561	9739	9812	7711	7600	10480	9515	10987	11353	11113	10097	11557	10818
1984 Regional Surplus/Deficit	10176	7742	8728	8676	9931	7003	10926	9181	11202	12538	11986	9472	11801	10788
1985 Regional Surplus/Deficit	9093	5182	8190	8538	7600	6690	7207	5643	8704	11359	11417	10497	8897	5647
1986 Regional Surplus/Deficit	3810	3313	6960	8229	8193	5183	8832	10446	11349	11769	11297	8804	10773	8886
1987 Regional Surplus/Deficit	7765	4471	6832	7735	7312	5820	4731	6409	7565	8876	8414	8270	9232	6585
1988 Regional Surplus/Deficit	4689	3133	6198	6877	6274	4563	3901	5122	5526	6281	8108	7892	5280	7606
1989 Regional Surplus/Deficit	6914	4582	6862	6918	5787	5646	4153	6660	8287	11556	11726	10230	9523	6528
1990 Regional Surplus/Deficit	3845	3570	6675	7606	6749	8114	9806	9256	8328	11208	11801	9403	11251	8924
1991 Regional Surplus/Deficit	8338	6180	6610	7322	8831	8400	10534	11304	7748	10552	9630	10222	11081	10308
1992 Regional Surplus/Deficit	10018	7275	7213	7520	6105	4861	5000	5366	8763	7037	7283	6682	5970	5804

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	3714	3176	5821	7030	6215	5149	4338	5425	6313	7599	6968	9420	7985	8082
<i>1994 Regional Surplus/Deficit</i>	6878	5190	5677	6705	6954	6015	4866	6252	6223	6072	10169	7757	7387	7023
<i>1995 Regional Surplus/Deficit</i>	4584	3380	6090	7215	5893	5707	6031	9699	10389	10090	7805	9736	10882	9566
<i>1996 Regional Surplus/Deficit</i>	7173	4888	7164	8990	10672	11472	10776	11083	10652	11785	11716	10285	11616	10650
<i>1997 Regional Surplus/Deficit</i>	10006	6227	7923	8515	6576	8233	10853	11337	10830	11717	11353	9871	10724	10573
<i>1998 Regional Surplus/Deficit</i>	10014	7682	10052	11951	8347	6591	9034	9235	9114	8994	8658	9817	11503	9737

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2010 - 2011 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	7259	3524	6718	6870	5234	3833	2821	3858	4813	4567	4629	3447	7053	6375
1930 Regional Surplus/Deficit	5105	2881	6330	6735	4991	3775	2950	3558	4234	4553	6275	2575	4515	6080
1931 Regional Surplus/Deficit	3831	2927	5799	6393	5371	3852	2733	3618	3638	5754	1965	4159	3819	6148
1932 Regional Surplus/Deficit	5849	3585	6445	5744	4401	3613	1915	3018	5352	8214	9837	9327	10167	7904
1933 Regional Surplus/Deficit	5111	4453	6845	7024	4511	5378	8045	7295	4659	7891	7177	8199	9955	9751
1934 Regional Surplus/Deficit	9051	7353	7897	8015	7939	10150	9225	9765	9120	11039	9814	8313	8547	7622
1935 Regional Surplus/Deficit	4203	2918	6399	6641	4328	4162	7339	8836	4184	6618	7047	8387	7905	9015
1936 Regional Surplus/Deficit	8097	4078	6176	6882	5022	3609	1408	4597	4432	5840	9094	8880	10120	7062
1937 Regional Surplus/Deficit	6070	3864	5827	6674	5461	3733	3049	3211	3466	3622	1631	5247	4877	5181
1938 Regional Surplus/Deficit	6358	4238	6438	6730	4754	5158	7569	6128	7598	9242	10089	9265	9468	8633
1939 Regional Surplus/Deficit	5042	3236	6921	7084	5003	3685	3289	3939	6030	7006	8673	9285	6869	6355
1940 Regional Surplus/Deficit	4089	2639	5739	6862	5355	5401	3348	4767	8285	9150	8668	7587	8265	4765
1941 Regional Surplus/Deficit	3463	2568	6295	6597	5321	4653	2868	4282	6684	5217	4528	4458	4329	5796
1942 Regional Surplus/Deficit	5387	4045	7474	5868	5412	5810	5099	6336	4225	5614	7077	7296	9801	9609
1943 Regional Surplus/Deficit	8071	5676	7099	7245	4514	4501	6587	8093	8194	11776	10394	9036	9928	9554
1944 Regional Surplus/Deficit	7261	3712	5546	6718	5275	3797	2926	4069	4575	4577	4718	2611	2760	3713
1945 Regional Surplus/Deficit	4606	2795	6595	5826	4361	3501	2313	3267	3697	3522	1665	7839	8561	5963
1946 Regional Surplus/Deficit	5554	3371	6098	6541	5511	5465	6091	5394	8688	10320	10216	9128	9507	9535
1947 Regional Surplus/Deficit	7410	4467	7087	6830	5504	9026	8128	9015	9149	9364	8329	9064	10183	9533
1948 Regional Surplus/Deficit	6750	3871	6787	10120	8104	6870	9335	6317	7399	8211	9575	9424	9293	10108
1949 Regional Surplus/Deficit	8828	7404	7783	7630	5285	4993	3254	6798	9128	9757	10192	9490	10024	5541
1950 Regional Surplus/Deficit	4770	2621	5434	6859	4966	4754	6973	8836	9837	10586	8986	8524	9451	10020
1951 Regional Surplus/Deficit	7923	5886	7343	8547	7503	9646	9664	10234	9794	11429	10104	9113	9457	10062
1952 Regional Surplus/Deficit	8628	4600	6813	9396	6629	6924	9028	7633	6092	11097	10413	9436	10446	9028
1953 Regional Surplus/Deficit	7305	4269	6310	6704	4996	3772	3939	8830	6564	5073	7021	9135	10458	10281
1954 Regional Surplus/Deficit	7703	4611	6891	7598	5550	6098	6903	9432	6902	9270	8057	9069	9438	9617
1955 Regional Surplus/Deficit	9692	9756	10164	7617	6643	6068	4012	4481	5118	5799	6011	6960	10169	9688
1956 Regional Surplus/Deficit	9142	6857	6735	7904	7418	9309	9766	9243	9428	10632	9533	9038	9870	10298
1957 Regional Surplus/Deficit	7823	5596	7137	7946	5070	5854	5540	6163	8363	9912	8454	9549	10010	7890
1958 Regional Surplus/Deficit	5818	3269	6480	6843	5429	4406	5275	8515	7404	8606	9397	9368	10469	7859
1959 Regional Surplus/Deficit	5847	4116	6307	7251	6136	8074	9484	9581	6682	10583	8096	8811	9565	8722
1960 Regional Surplus/Deficit	8127	5319	10521	10962	9440	8639	7777	7315	7916	11419	9246	8407	10236	8849
1961 Regional Surplus/Deficit	6527	3568	6656	7083	5036	4429	7042	7381	8454	10265	6679	8949	9357	8238
1962 Regional Surplus/Deficit	6622	4920	6159	6263	5435	5129	5945	7103	5523	9350	10285	8768	10137	6954
1963 Regional Surplus/Deficit	5976	4026	6006	8116	6507	7835	7064	8220	4544	7485	6689	8554	10088	9178
1964 Regional Surplus/Deficit	7714	4575	6741	6664	5237	5212	4832	6942	4388	7689	4702	8311	10387	10053
1965 Regional Surplus/Deficit	9057	5519	8289	8448	6346	9293	9873	10324	9445	9340	10475	8813	10507	8827
1966 Regional Surplus/Deficit	8289	6736	7458	7882	5215	5059	6756	5914	4257	11119	7706	8411	8787	9095
1967 Regional Surplus/Deficit	7696	4231	6272	6763	4968	5271	9329	9601	6536	7682	3523	8181	9579	10184
1968 Regional Surplus/Deficit	8498	4963	6931	7510	5237	5369	7647	8516	7947	4901	5372	7267	9950	9931
1969 Regional Surplus/Deficit	8372	6563	9165	8705	7715	7022	9712	9537	7700	11335	10072	9374	10084	9795
1970 Regional Surplus/Deficit	6805	3462	6704	7666	5585	4239	4406	8022	7277	7554	6023	7999	10726	8525
1971 Regional Surplus/Deficit	5617	3127	6091	6917	5397	4981	9313	10269	9429	10411	9355	9148	10110	10261
1972 Regional Surplus/Deficit	9365	7426	7783	7939	5658	5727	9344	9951	10259	10929	8720	9151	9573	9583
1973 Regional Surplus/Deficit	9624	8869	8043	7572	5619	6343	5396	4641	5113	3478	4601	6230	5782	6325
1974 Regional Surplus/Deficit	3866	2281	5732	6657	4351	8000	9690	10095	10191	10905	9901	8281	9492	9855
1975 Regional Surplus/Deficit	8977	7588	7435	6496	5268	4428	6292	7153	8435	6056	6453	9035	10239	10226
1976 Regional Surplus/Deficit	6965	5712	7700	8873	7928	10524	9700	9936	8361	11482	9633	9165	10327	10003
1977 Regional Surplus/Deficit	9722	9761	11791	7606	5510	3932	2777	4303	4461	3465	2972	1341	1545	4318
1978 Regional Surplus/Deficit	5240	3744	6656	5001	4026	6125	5827	6351	7280	10243	8027	8895	9008	9219
1979 Regional Surplus/Deficit	6579	4604	9223	7823	5504	3933	3258	6478	7992	6954	5552	8663	5841	5475
1980 Regional Surplus/Deficit	3375	2429	5572	6462	5164	5029	2350	5856	4898	6851	8876	9328	9881	7484
1981 Regional Surplus/Deficit	5128	3024	6484	6842	5632	8759	9474	6966	7311	5067	6405	7622	10062	9984
1982 Regional Surplus/Deficit	9021	8001	6994	7285	5833	5268	7593	10248	9923	10325	8136	8713	9705	9832
1983 Regional Surplus/Deficit	9038	6543	8887	8693	6337	6156	8507	7828	10205	9944	8670	8747	9884	10146
1984 Regional Surplus/Deficit	9073	6727	7907	7525	8533	5562	9489	6477	9827	10941	9528	8148	10621	10116
1985 Regional Surplus/Deficit	8023	4225	7370	7378	6224	5251	5479	4004	7266	9954	8968	9151	7268	4962
1986 Regional Surplus/Deficit	2843	2370	6171	7073	6826	3765	7000	8670	10225	11035	8852	7496	9121	8249
1987 Regional Surplus/Deficit	6722	3522	6047	6556	5934	4393	3002	4803	6079	7441	6011	6978	7603	5933
1988 Regional Surplus/Deficit	3713	2205	5423	5702	4892	3163	2140	3468	3945	4764	5703	6613	3427	6966
1989 Regional Surplus/Deficit	5889	3625	6066	5728	4389	4218	2371	5065	6823	10170	9404	8892	7899	5866
1990 Regional Surplus/Deficit	2896	2637	5886	6433	5369	6664	7883	7584	6868	9835	10077	8077	10199	8288
1991 Regional Surplus/Deficit	7278	5196	5828	6131	7463	6949	8823	9460	5477	9141	7207	8871	9417	9750
1992 Regional Surplus/Deficit	8911	6265	6420	6342	4711	3458	3293	3709	7326	5546	4876	5402	4272	5141

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	2754	2240	5050	5858	4830	3733	2620	3793	4768	6112	4552	8090	6333	7443
<i>1994 Regional Surplus/Deficit</i>	5848	4220	4906	5523	5578	4580	3137	4651	4662	4553	7745	6479	5723	6374
<i>1995 Regional Surplus/Deficit</i>	3614	2449	5317	6035	4499	4279	4340	7999	8947	8685	5400	8413	9234	8923
<i>1996 Regional Surplus/Deficit</i>	6150	3929	6359	7854	9253	10359	9585	9900	9929	10721	10360	9046	10430	10077
<i>1997 Regional Surplus/Deficit</i>	8905	5242	7116	7355	5188	6788	9395	9982	10102	10416	9989	8692	9735	10015
<i>1998 Regional Surplus/Deficit</i>	8918	6669	9198	10748	6979	5152	7189	7571	7675	7554	6253	8476	10383	9094

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	6948	3180	6158	6227	4493	3067	2028	3030	3832	3319	4057	2282	7535	5428
1930 Regional Surplus/Deficit	4824	2542	5778	6098	4253	3018	2009	2753	3457	3282	5641	1450	5113	5137
1931 Regional Surplus/Deficit	3531	2584	5255	5749	4637	3154	1779	2808	2876	4451	2825	2951	4433	5199
1932 Regional Surplus/Deficit	5562	3237	5864	5089	3657	2851	900	1785	4554	6922	9095	7988	10227	6930
1933 Regional Surplus/Deficit	4827	4105	6255	6388	3784	4782	7328	6507	3873	6600	6523	6906	9941	9047
1934 Regional Surplus/Deficit	8666	7031	7305	7392	7321	9720	8720	9313	8448	9720	8906	7017	9077	6644
1935 Regional Surplus/Deficit	3911	2578	5839	5996	3570	3441	6605	8084	3416	5306	6407	7095	8392	8001
1936 Regional Surplus/Deficit	7742	3728	5615	6238	4278	2843	348	3776	3650	4538	8372	7581	10488	6106
1937 Regional Surplus/Deficit	5785	3517	5285	6037	4736	2988	2116	2410	2672	2381	2732	4006	5486	4244
1938 Regional Surplus/Deficit	6071	3893	5878	6086	4013	4530	6832	5309	6847	7985	9291	7921	10013	7639
1939 Regional Surplus/Deficit	4757	2891	6335	6449	4264	2853	2346	3130	5234	5698	7968	7988	7361	5409
1940 Regional Surplus/Deficit	3792	2304	5207	6228	4628	4825	2392	3947	7560	7892	7959	6297	8771	3759
1941 Regional Surplus/Deficit	3152	2231	5731	5958	4588	4002	2167	3248	5807	3922	3955	3220	4887	4851
1942 Regional Surplus/Deficit	5106	3698	6875	5216	4675	5236	4255	5522	3449	4312	6418	6004	10386	8579
1943 Regional Surplus/Deficit	7720	5336	6519	6609	3788	3793	5813	7315	7477	10465	9476	7723	9945	8526
1944 Regional Surplus/Deficit	6951	3367	5040	6075	4535	2999	1976	3256	3792	3318	4138	1470	3485	2775
1945 Regional Surplus/Deficit	4326	2451	6017	5179	3623	2729	1319	1734	2903	2281	2766	6545	9072	5020
1946 Regional Surplus/Deficit	5273	3027	5551	5895	4774	4857	5279	4566	8005	9046	9462	7794	10051	8510
1947 Regional Surplus/Deficit	7099	4122	6512	6184	4764	8495	7406	8260	8477	8104	7636	7761	10443	8504
1948 Regional Surplus/Deficit	6453	3526	6219	9491	7488	6344	8614	5495	6641	6924	8846	8114	9255	9312
1949 Regional Surplus/Deficit	8452	7082	7193	6997	4544	4354	2313	5991	8454	8507	9289	8165	10429	4604
1950 Regional Surplus/Deficit	4484	2289	4922	6217	4226	4100	6213	8085	9172	9312	8274	7222	9385	8986
1951 Regional Surplus/Deficit	7594	5547	6766	7927	6835	9108	9099	9827	9108	10112	9186	7765	10003	9313
1952 Regional Surplus/Deficit	8261	4255	6249	8775	5927	6395	8312	6827	5298	9796	9626	8126	10792	8020
1953 Regional Surplus/Deficit	6999	3923	5769	6064	4257	3007	3018	8069	5776	3804	6376	7833	10584	9525
1954 Regional Surplus/Deficit	7383	4265	6324	6966	4813	5535	6130	8690	6127	8000	7381	7757	9387	8935
1955 Regional Surplus/Deficit	9292	9110	9538	6985	5950	5515	3096	3665	4328	4503	5401	5671	10214	8996
1956 Regional Surplus/Deficit	8756	6527	6179	7275	6763	8774	9151	8339	8763	9356	8593	7774	9802	9475
1957 Regional Surplus/Deficit	7499	5255	6563	7317	4332	5272	4715	5340	7644	8658	7753	8207	10064	6913
1958 Regional Surplus/Deficit	5537	2927	5921	6202	4692	3688	4421	7742	6648	7327	8666	8034	10712	6886
1959 Regional Surplus/Deficit	5567	3770	5752	6617	5418	7549	8901	8644	5896	9314	7415	7465	9560	7718
1960 Regional Surplus/Deficit	7794	4976	9911	10305	8837	8111	7054	6514	7176	10110	8522	7115	10429	7843
1961 Regional Surplus/Deficit	6238	3223	6083	6447	4296	3752	6295	6570	7748	9013	6042	7638	9490	7243
1962 Regional Surplus/Deficit	6329	4577	5614	5613	4693	4517	5154	6306	4730	8081	9496	7470	10408	6000
1963 Regional Surplus/Deficit	5691	3678	5456	7494	5803	7311	6314	7436	3764	6177	6056	7258	10674	8158
1964 Regional Surplus/Deficit	7385	4230	6171	6019	4496	4597	3959	6141	3613	6380	4138	7016	10498	9303
1965 Regional Surplus/Deficit	8670	5179	7687	7835	5636	8755	9250	9757	8472	8047	9581	7466	10936	7825
1966 Regional Surplus/Deficit	7939	6407	6881	7255	4475	4439	5985	5093	3464	9837	7035	7119	9304	8078
1967 Regional Surplus/Deficit	7375	3884	5725	6121	4227	4662	8610	8865	5749	6380	2986	6888	9919	9202
1968 Regional Surplus/Deficit	8137	4618	6350	6876	4497	4763	6910	7742	7203	3625	4780	5980	10249	8889
1969 Regional Surplus/Deficit	8018	6231	8541	8092	7070	6498	9131	8630	6954	10010	9160	8085	10484	8763
1970 Regional Surplus/Deficit	6508	3116	6143	7034	4850	3506	3489	7240	6509	6248	5414	6705	11029	7534
1971 Regional Surplus/Deficit	5337	2785	5548	6277	4657	4330	8592	9670	8545	9144	8625	7885	10116	9507
1972 Regional Surplus/Deficit	8967	7103	7196	7309	4917	5136	8627	9213	9671	9673	8016	7807	9553	8888
1973 Regional Surplus/Deficit	9220	8558	7453	6939	4879	5789	4542	3823	4324	2237	4034	4950	6295	5381
1974 Regional Surplus/Deficit	3566	1951	5203	6016	3599	7475	8989	9524	9525	9585	8972	6843	9447	9149
1975 Regional Surplus/Deficit	8595	7267	6854	5849	4529	3690	5478	6349	7719	4756	5829	7726	10311	9465
1976 Regional Surplus/Deficit	6667	5371	7110	8259	7297	9995	9137	9045	7645	10175	8891	7853	10559	9255
1977 Regional Surplus/Deficit	9322	9102	11242	6975	4772	3184	1831	3485	3676	2224	2439	269	2418	3385
1978 Regional Surplus/Deficit	4957	3397	6088	4313	3300	5553	5013	5531	6513	8973	7350	7593	9535	8200
1979 Regional Surplus/Deficit	6278	4254	8580	7199	4769	3180	2333	5668	7267	5648	4953	7366	6375	4538
1980 Regional Surplus/Deficit	3069	2091	5038	5823	4427	4427	1619	4754	4110	5541	8168	7994	10459	6518
1981 Regional Surplus/Deficit	4848	2681	5910	6205	4901	8233	8866	5640	6556	3782	5776	6328	10175	9038
1982 Regional Surplus/Deficit	8621	7688	6424	6649	5108	4659	6861	9604	9093	9027	7437	7372	10154	8797
1983 Regional Surplus/Deficit	8644	6212	8257	8078	5622	5598	7792	7032	9544	8520	7957	7444	10445	9353
1984 Regional Surplus/Deficit	8685	6396	7315	6890	7931	4966	8764	5655	9158	9656	8786	6853	10831	9087
1985 Regional Surplus/Deficit	7688	3879	6784	6738	5501	4639	4669	3190	6515	8679	8241	7852	7755	4027
1986 Regional Surplus/Deficit	2499	1815	5624	6438	6153	3018	6239	7890	9660	9725	8134	6203	9656	7255
1987 Regional Surplus/Deficit	6423	3177	5505	5910	5206	3698	2041	3982	5287	6149	5395	5689	8110	4989
1988 Regional Surplus/Deficit	3418	1871	4895	5058	4151	2295	1156	2663	3178	3497	5103	5345	4177	6007
1989 Regional Surplus/Deficit	5602	3276	5506	5080	3659	3528	1371	4240	6040	8896	8666	7597	8387	4927
1990 Regional Surplus/Deficit	2565	2299	5341	5789	4629	6138	7161	6805	6091	8588	9160	6785	10306	7299
1991 Regional Surplus/Deficit	6960	4854	5290	5480	6816	6432	8108	8722	4683	7882	6539	7566	9975	9003
1992 Regional Surplus/Deficit	8517	5929	5863	5696	3969	2602	2358	2903	6581	4245	4297	4144	4837	4203

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	2433	1898	4528	5217	4091	2977	1671	2982	3977	4804	3993	6790	6832	6475
<i>1994 Regional Surplus/Deficit</i>	5559	3873	4386	4877	4853	3939	2175	3830	3881	3290	7067	5206	6246	5428
<i>1995 Regional Surplus/Deficit</i>	3313	2112	4792	5391	3762	3589	3440	7208	8261	7418	4807	7119	9761	7911
<i>1996 Regional Surplus/Deficit</i>	5865	3583	5789	7230	8652	9820	9043	9452	9357	9446	9432	7701	10649	9314
<i>1997 Regional Surplus/Deficit</i>	8521	4901	6546	6719	4447	6241	8875	9513	9511	9141	9063	7357	9781	9265
<i>1998 Regional Surplus/Deficit</i>	8542	6337	8570	10107	6304	4537	6435	6775	6925	6259	5635	7173	10542	8081

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2012 - 2013 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	5990	2369	5367	5513	3765	2112	1743	2316	2838	2979	3784	1586	5392	4684
1930 Regional Surplus/Deficit	4003	1685	4988	5390	3533	2065	1307	2087	2976	2924	5343	659	2944	4400
1931 Regional Surplus/Deficit	2696	1757	4467	5039	3928	2208	1065	2145	2394	4077	1168	2327	2257	4443
1932 Regional Surplus/Deficit	4703	2453	5081	4371	2922	1898	280	1124	4068	6598	8424	6960	8854	6090
1933 Regional Surplus/Deficit	4006	3328	5477	5679	3045	3819	6302	5902	3390	6276	6205	5558	8795	7931
1934 Regional Surplus/Deficit	7392	6091	6536	6687	6577	7812	7791	8663	7796	9328	8204	5697	6537	5850
1935 Regional Surplus/Deficit	3085	1737	5049	5286	2811	2493	5687	7431	2935	4938	6102	5997	6211	6949
1936 Regional Surplus/Deficit	6632	2948	4825	5528	3551	1889	549	3120	3168	4164	7891	6452	8211	5328
1937 Regional Surplus/Deficit	4933	2731	4499	5327	4028	2037	1420	1746	2175	2093	779	3392	3305	3489
1938 Regional Surplus/Deficit	5201	3115	5088	5375	3276	3576	5918	4677	6335	7686	8620	6659	7694	6699
1939 Regional Surplus/Deficit	3939	2062	5556	5740	3534	1883	1642	2465	4750	5339	7551	6776	5225	4666
1940 Regional Surplus/Deficit	2961	1421	4426	5522	3920	3853	1676	3284	7026	7594	7530	5367	6549	2944
1941 Regional Surplus/Deficit	2302	1363	4941	5248	3874	3053	1901	2541	4913	3551	3683	2606	2738	4108
1942 Regional Surplus/Deficit	4271	2919	6110	4496	3959	4257	3559	4895	2967	3938	6093	5068	7991	7416
1943 Regional Surplus/Deficit	6611	4528	5734	5900	3049	2843	5000	6697	6919	9949	8968	6481	8728	7399
1944 Regional Surplus/Deficit	5999	2560	4243	5361	3806	2037	1668	2549	3267	2940	3255	686	1218	1996
1945 Regional Surplus/Deficit	3498	1656	5235	4460	2888	1774	553	1074	2410	1993	-396	5585	6819	4280
1946 Regional Surplus/Deficit	4447	2215	4761	5177	4054	3897	4551	3914	7388	8678	8782	6495	7737	7396
1947 Regional Surplus/Deficit	6142	3343	5726	5468	4038	7282	6394	7625	7822	7807	7251	6633	8298	7343
1948 Regional Surplus/Deficit	5544	2731	5430	8748	6743	5309	7411	4859	6133	6605	8270	7086	8183	7988
1949 Regional Surplus/Deficit	7226	6135	6420	6289	3815	3403	1610	5364	7801	8200	8708	7134	8222	3858
1950 Regional Surplus/Deficit	3665	1442	4162	5505	3491	3150	5370	7445	8431	8937	7831	5922	8260	7784
1951 Regional Surplus/Deficit	6567	4738	5982	7220	6136	7841	8062	9136	8032	9766	8589	6459	7683	7988
1952 Regional Surplus/Deficit	7078	3479	5459	8057	5230	5364	7151	6207	4815	9364	8976	7010	8625	7005
1953 Regional Surplus/Deficit	6060	3138	4981	5352	3526	2052	2327	7444	5287	3447	6067	6627	9111	8270
1954 Regional Surplus/Deficit	6395	3487	5535	6258	4093	4552	5321	7995	5632	7697	7032	6465	8342	7886
1955 Regional Surplus/Deficit	7756	8071	8723	6278	5256	4523	2409	3004	3849	4132	5117	4811	8926	7943
1956 Regional Surplus/Deficit	7480	5645	5388	6569	6058	7530	7989	7241	8039	8938	8259	6496	8780	8240
1957 Regional Surplus/Deficit	6493	4459	5777	6610	3597	4300	4008	4700	7066	8332	7350	7179	8755	6057
1958 Regional Surplus/Deficit	4704	2092	5130	5490	3972	2739	3733	7126	6141	7015	8172	7006	8823	6045
1959 Regional Surplus/Deficit	4734	2984	4961	5909	4714	6414	7788	7454	5403	8947	7017	6099	8404	6743
1960 Regional Surplus/Deficit	6724	4190	9035	9481	7833	6911	6053	5901	6658	9754	7937	5975	8416	6839
1961 Regional Surplus/Deficit	5363	2414	5297	5738	3563	2805	5422	5946	7177	8646	5741	6346	8208	6302
1962 Regional Surplus/Deficit	5439	3797	4825	4895	3971	3560	4401	5695	4249	7778	8729	6251	8242	5238
1963 Regional Surplus/Deficit	4844	2895	4667	6787	5106	6210	5443	6821	3282	5820	5757	6203	8279	7078
1964 Regional Surplus/Deficit	6357	3453	5384	5303	3767	3641	3278	5528	3133	6029	3864	5885	8712	8175
1965 Regional Surplus/Deficit	7384	4382	6929	7128	4938	7503	8098	8756	7631	7678	8915	6214	8638	6848
1966 Regional Surplus/Deficit	6827	5530	6096	6548	3748	3484	5190	4456	2967	9408	6692	6078	7047	7007
1967 Regional Surplus/Deficit	6377	3103	4936	5408	3494	3704	7322	8107	5259	6039	2713	5810	8457	7863
1968 Regional Surplus/Deficit	6984	3840	5569	6168	3766	3803	5997	7124	6688	3264	4504	5148	8132	7559
1969 Regional Surplus/Deficit	6887	5379	7782	7383	6365	5459	8035	7506	6437	9571	8492	6858	8283	7520
1970 Regional Surplus/Deficit	5607	2305	5353	6326	4131	2557	2799	6626	6009	5900	5131	5664	8962	6619
1971 Regional Surplus/Deficit	4509	1954	4759	5566	3929	3380	7391	8725	7894	8771	8045	6698	8922	8461
1972 Regional Surplus/Deficit	7610	6169	6422	6601	4189	4169	7445	8453	8808	9225	7597	6705	8255	7834
1973 Regional Surplus/Deficit	7712	7411	6680	6231	4155	4795	3852	3160	3843	1949	3763	4190	4164	4640
1974 Regional Surplus/Deficit	2730	1152	4424	5304	2859	6365	8016	8908	8647	9262	8422	5896	8353	8092
1975 Regional Surplus/Deficit	7344	6300	6072	5129	3799	2740	4735	5733	7177	4383	5537	6430	8962	8435
1976 Regional Surplus/Deficit	5759	4571	6337	7549	6571	8067	8108	8065	7104	9679	8290	6657	8508	8130
1977 Regional Surplus/Deficit	7786	8073	10149	6267	4049	2232	1531	2777	3144	1936	1444	-637	32	2634
1978 Regional Surplus/Deficit	4113	2621	5300	3576	2562	4558	4287	4903	6010	8593	6999	6384	7252	7132
1979 Regional Surplus/Deficit	5376	3476	7805	6494	4052	2228	1641	5047	6730	5296	4673	6240	4238	3797
1980 Regional Surplus/Deficit	2224	1219	4256	5113	3708	3466	1330	3626	3628	5178	7743	6984	8075	5708
1981 Regional Surplus/Deficit	4026	1856	5123	5495	4187	7038	7444	5221	6050	3416	5481	5349	8733	7629
1982 Regional Surplus/Deficit	7226	6620	5638	5940	4401	3700	5927	8690	8286	8661	7036	6167	8576	7607
1983 Regional Surplus/Deficit	7323	5336	7487	7367	4920	4608	6737	6416	8577	8174	7511	6313	8072	8168
1984 Regional Surplus/Deficit	7396	5528	6543	6182	7147	4001	7538	5020	8381	9226	8169	5805	8805	7855
1985 Regional Surplus/Deficit	6639	3090	6006	6027	4794	3681	3945	2987	5713	8322	7761	6721	5613	3262
1986 Regional Surplus/Deficit	1534	1249	4833	5729	5460	2067	5398	7239	8806	9226	7675	5248	7352	6322
1987 Regional Surplus/Deficit	5510	2375	4717	5194	4496	2750	1614	2974	4801	5820	5108	4843	5849	4246
1988 Regional Surplus/Deficit	2590	1008	4119	4346	3432	1319	405	1998	2695	3142	4822	4661	1890	5219
1989 Regional Surplus/Deficit	4751	2492	4716	4360	2921	2582	847	3332	5545	8541	8107	6412	6209	4189
1990 Regional Surplus/Deficit	1677	1432	4552	5076	3913	5106	6177	6201	5596	8280	8547	5598	8461	6391
1991 Regional Surplus/Deficit	5978	4066	4505	4760	6111	5373	6859	8000	4201	7585	6203	6310	7634	7877
1992 Regional Surplus/Deficit	7185	5083	5073	4982	3233	1624	1661	2377	6068	3743	4011	3492	2691	3467

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	1569	1042	3763	4505	3365	2024	960	2319	3493	4428	3705	5714	4698	5665
<i>1994 Regional Surplus/Deficit</i>	4687	3094	3619	4162	4146	2990	1524	3167	3393	2934	6633	4503	4115	4683
<i>1995 Regional Surplus/Deficit</i>	2475	1239	4021	4677	3027	2642	2758	6592	7637	7118	4530	6072	7469	6889
<i>1996 Regional Surplus/Deficit</i>	5006	2799	5002	6524	7711	7901	7991	8908	8473	9018	8987	6479	8719	8224
<i>1997 Regional Surplus/Deficit</i>	7256	4113	5759	6009	3717	5217	7891	8728	8618	8753	8600	6105	8297	8134
<i>1998 Regional Surplus/Deficit</i>	7319	5481	7799	9307	5611	3581	5573	6160	6414	5926	5347	6067	8950	7044

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	5389	1681	4817	5099	3313	1764	562	1334	1943	2697	3076	1139	5609	3815
1930 Regional Surplus/Deficit	3406	1030	4421	4977	3083	1706	282	1088	2066	2630	4434	215	3165	3533
1931 Regional Surplus/Deficit	2054	1082	3882	4626	3478	1721	58	1163	1500	3796	455	1880	2480	3576
1932 Regional Surplus/Deficit	4120	1744	4560	3957	2469	1593	-742	-141	3170	6314	7746	6500	8848	5218
1933 Regional Surplus/Deficit	3411	2605	4967	5265	2591	3333	5292	4918	2494	5997	5495	5180	8680	7268
1934 Regional Surplus/Deficit	6675	5407	6035	6274	6127	7311	7170	7748	6865	9263	7547	5319	6853	4901
1935 Regional Surplus/Deficit	2456	1073	4503	4873	2347	2005	4678	6446	2041	4657	5393	5580	6431	6074
1936 Regional Surplus/Deficit	5984	2233	4265	5114	3100	1663	-473	1775	2272	3883	7176	5997	8473	4460
1937 Regional Surplus/Deficit	4349	2023	3902	4914	3578	1634	401	752	1268	1803	66	2944	3523	2624
1938 Regional Surplus/Deficit	4617	2399	4540	4961	2823	3089	4908	3693	5437	7405	7937	6271	7911	5825
1939 Regional Surplus/Deficit	3338	1388	5044	5326	3082	1534	1118	1412	3118	5059	6839	6351	5448	3799
1940 Regional Surplus/Deficit	2324	786	3812	5108	3469	3368	667	2299	6127	7314	6817	4915	6771	2059
1941 Regional Surplus/Deficit	1639	720	4396	4834	3423	2565	1458	1500	3441	3270	2974	2160	2957	3240
1942 Regional Surplus/Deficit	3685	2201	5612	4081	3506	3769	2549	3911	2072	3656	5381	4615	8207	6540
1943 Regional Surplus/Deficit	5964	3804	5213	5486	2595	2353	3989	5710	6019	9836	8299	6096	8637	6521
1944 Regional Surplus/Deficit	5398	1866	3546	4946	3353	1799	1017	1486	2292	2605	1305	241	1437	1131
1945 Regional Surplus/Deficit	2911	954	4716	4046	2435	1286	-456	88	1516	1703	-1119	5132	7037	3412
1946 Regional Surplus/Deficit	3857	1528	4182	4763	3603	3411	3540	2929	6488	8397	8137	6105	7955	6519
1947 Regional Surplus/Deficit	5540	2627	5203	5053	3586	6794	5382	6637	6922	7527	6540	6178	8554	6473
1948 Regional Surplus/Deficit	4953	2030	4895	8336	6293	4824	6399	3874	5236	6326	7591	6626	8055	7146
1949 Regional Surplus/Deficit	6541	5452	5915	5875	3362	2916	1161	3834	6900	7920	8027	6684	8438	2992
1950 Regional Surplus/Deficit	3051	762	3489	5091	3037	2663	4360	6458	7529	8656	7119	5532	8084	6906
1951 Regional Surplus/Deficit	5945	4014	5461	6806	5686	7352	7281	8073	6333	9561	7897	6071	7901	7148
1952 Regional Surplus/Deficit	6407	2757	4915	7644	4779	4878	6139	5222	3920	9082	8265	6637	8840	6130
1953 Regional Surplus/Deficit	5463	2428	4389	4939	3074	1580	1297	6457	4391	3165	5357	6202	9089	7430
1954 Regional Surplus/Deficit	5785	2767	4996	5844	3642	4066	4311	7008	4736	7416	6320	6078	8212	7218
1955 Regional Surplus/Deficit	6832	7207	8179	5864	4807	4039	1401	2022	2956	3850	4408	4360	8852	7279
1956 Regional Surplus/Deficit	6779	4943	4825	6155	5608	7042	7041	5936	7137	8658	7763	6107	8634	7398
1957 Regional Surplus/Deficit	5877	3733	5251	6196	3143	3814	2999	3716	6167	8050	6638	6718	8690	5185
1958 Regional Surplus/Deficit	4117	1421	4575	5076	3520	2250	2725	6140	5245	6736	7458	6546	9017	5173
1959 Regional Surplus/Deficit	4147	2275	4398	5496	4263	5928	6798	6467	4506	8667	6344	5709	8301	5868
1960 Regional Surplus/Deficit	6090	3463	8476	9055	7369	6425	5042	4917	5761	9699	7269	5555	8632	5964
1961 Regional Surplus/Deficit	4778	1724	4770	5324	3111	2318	4413	4961	6278	8367	5032	5961	8099	5429
1962 Regional Surplus/Deficit	4851	3071	4242	4482	3519	3074	3391	4710	3354	7496	8066	5831	8495	4369
1963 Regional Surplus/Deficit	4258	2183	4088	6373	4656	5725	4433	5835	2387	5540	5047	5749	8495	6202
1964 Regional Surplus/Deficit	5735	2731	4854	4888	3314	3155	2269	4545	2240	5745	3153	5444	8687	7493
1965 Regional Surplus/Deficit	6680	3656	6436	6715	4487	7014	7225	7528	6730	7397	8269	5824	8852	5973
1966 Regional Surplus/Deficit	6180	4825	5575	6134	3296	2998	4180	3473	2069	9129	5982	5639	7268	6132
1967 Regional Surplus/Deficit	5764	2390	4360	4995	3041	3218	6337	7118	4363	5760	2005	5360	8336	7018
1968 Regional Surplus/Deficit	6322	3115	5052	5754	3314	3317	4987	6138	5792	2983	3796	4697	8357	6714
1969 Regional Surplus/Deficit	6233	4667	7266	6970	5915	4975	7072	6438	5527	9298	7869	6475	8500	6675
1970 Regional Surplus/Deficit	5018	1618	4803	5912	3680	2068	1787	5641	5112	5620	4422	5210	9175	5745
1971 Regional Surplus/Deficit	3920	1281	4168	5151	3477	2892	6378	7733	6993	8490	7369	6314	8820	7722
1972 Regional Surplus/Deficit	6816	5484	5915	6187	3736	3683	6433	7463	7940	9401	6886	6319	8312	7171
1973 Regional Surplus/Deficit	6799	6782	6176	5817	3702	4309	2842	2851	2887	1659	2974	3627	3938	3773
1974 Regional Surplus/Deficit	2085	422	3800	4890	2403	5879	7384	8117	7743	9250	7798	5471	8244	7433
1975 Regional Surplus/Deficit	6651	5624	5556	4714	3347	2250	3725	4749	6278	4102	4828	6039	8903	7637
1976 Regional Surplus/Deficit	5167	3843	5834	7135	6121	7567	7327	6449	6206	9396	7575	6273	8723	7322
1977 Regional Surplus/Deficit	6862	7200	9561	5853	3597	1743	1246	1697	2143	1646	-637	-1098	253	1772
1978 Regional Surplus/Deficit	3530	1901	4765	3150	2108	4070	3276	3916	5113	8314	6289	5973	7470	6255
1979 Regional Surplus/Deficit	4787	2751	7279	6081	3601	1740	1132	3528	5832	5017	3963	5785	4457	2931
1980 Regional Surplus/Deficit	1569	576	3646	4700	3257	2980	1134	1723	2732	4898	7030	6523	8291	4837
1981 Regional Surplus/Deficit	3433	1179	4594	5082	3736	6551	6488	4055	5154	3135	4771	4895	8702	6812
1982 Regional Surplus/Deficit	6426	5973	5108	5527	3950	3214	4917	7700	7382	8380	6323	5781	8458	6729
1983 Regional Surplus/Deficit	6588	4632	6967	6953	4468	4122	5725	5429	7670	7893	6799	5859	8286	7330
1984 Regional Surplus/Deficit	6691	4820	6039	5767	6696	3514	6525	4034	7478	8944	7454	5350	9018	6977
1985 Regional Surplus/Deficit	6011	2381	5495	5612	4342	3194	2936	2765	4243	8041	7048	6267	5833	2399
1986 Regional Surplus/Deficit	792	272	4247	5315	5010	1579	4447	6244	7899	8954	6962	4795	7469	5448
1987 Regional Surplus/Deficit	4919	1680	4121	4780	4044	2262	1362	955	3905	5542	4399	4391	6108	3379
1988 Regional Surplus/Deficit	1959	345	3490	3933	2981	1292	-666	953	1781	2816	4050	3869	2109	4338
1989 Regional Surplus/Deficit	4167	1783	4160	3947	2464	2033	661	1912	4248	8260	7393	5988	6428	3323
1990 Regional Surplus/Deficit	975	785	3969	4663	3462	4622	5171	5217	4700	8002	7891	5193	8740	5518
1991 Regional Surplus/Deficit	5370	3340	3905	4346	5661	4889	5876	7012	3307	7307	5494	5922	7852	7083
1992 Regional Surplus/Deficit	6462	4372	4508	4569	2780	1529	599	2131	4354	3312	3287	3031	2914	2602

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	893	388	3107	4092	2914	1535	-48	1336	2594	4145	2977	5259	4914	4793
<i>1994 Regional Surplus/Deficit</i>	4102	2370	2963	3748	3695	2504	730	2162	2478	2638	5676	4054	4337	3817
<i>1995 Regional Surplus/Deficit</i>	1828	597	3381	4264	2575	2155	1749	5604	6738	6838	3821	5618	7685	6013
<i>1996 Regional Surplus/Deficit</i>	4422	2085	4470	6110	7259	7401	7212	8056	7563	8680	8410	6094	8901	7428
<i>1997 Regional Surplus/Deficit</i>	6558	3387	5227	5596	3264	4732	7229	7582	7698	8472	7968	5715	8419	7504
<i>1998 Regional Surplus/Deficit</i>	6635	4770	7278	8895	5160	3095	4562	5175	5517	5647	4638	5611	8994	6168

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	4529	823	4049	4373	2503	1111	29	1135	1773	1887	2743	657	4341	3597
1930 Regional Surplus/Deficit	2550	170	3654	4251	2273	1126	2.8	857	1854	1788	3609	-268	1898	3315
1931 Regional Surplus/Deficit	1200	223	3114	3900	2667	1079	-209	930	1294	2959	-378	1398	1212	3358
1932 Regional Surplus/Deficit	3263	888	3793	3231	1659	700	-976	-340	3000	5504	7413	6018	7932	5000
1933 Regional Surplus/Deficit	2555	1749	4200	4539	1781	2440	5057	4719	2324	5186	5162	4698	7981	7105
1934 Regional Surplus/Deficit	5824	4552	5268	5547	5317	6418	6971	7549	6695	8452	7214	4836	5586	4683
1935 Regional Surplus/Deficit	1601	214	3736	4147	1537	1112	4443	6247	1871	3846	5060	5097	5164	5856
1936 Regional Surplus/Deficit	5121	1376	3497	4388	2290	832	-708	1490	2102	3073	6843	5515	7206	4242
1937 Regional Surplus/Deficit	3492	1166	3134	4188	2767	1056	120	507	1098	992	-267	2462	2256	2406
1938 Regional Surplus/Deficit	3759	1542	3773	4235	2013	2196	4673	3494	5267	6595	7604	5788	6644	5607
1939 Regional Surplus/Deficit	2482	528	4276	4599	2272	641	954	1206	2863	4248	6506	5869	4180	3581
1940 Regional Surplus/Deficit	1469	-74	3044	4382	2659	2475	433	2100	5957	6503	6484	4432	5503	1842
1941 Regional Surplus/Deficit	786	-139	3628	4108	2613	1672	1224	1302	3271	2460	2641	1677	1689	3022
1942 Regional Surplus/Deficit	2829	1344	4844	3355	2696	2876	2314	3712	1902	2845	5048	4133	6939	6322
1943 Regional Surplus/Deficit	5101	2949	4445	4760	1785	1460	3754	5511	5849	9025	8039	5613	7893	6303
1944 Regional Surplus/Deficit	4537	1006	2772	4220	2543	934	749	1287	2122	1795	972	-241	169	913
1945 Regional Surplus/Deficit	2055	96	3949	3320	1625	393	-690	-111	1346	892	-1452	4649	5769	3194
1946 Regional Surplus/Deficit	3001	670	3414	4037	2793	2518	3306	2730	6318	7586	7804	5623	6688	6302
1947 Regional Surplus/Deficit	4680	1770	4435	4327	2776	5901	5148	6438	6752	6716	6207	5696	7287	6255
1948 Regional Surplus/Deficit	4094	1172	4127	7610	5483	3931	6164	3675	5066	5515	7258	6144	7386	6928
1949 Regional Surplus/Deficit	5674	4596	5147	5148	2552	2023	996	3559	6730	7109	7694	6201	7171	2774
1950 Regional Surplus/Deficit	2195	-99	2720	4365	2227	1770	4126	6259	7359	7845	6786	5049	7513	6688
1951 Regional Surplus/Deficit	5083	3158	4693	6080	4876	6459	7046	7875	6163	8751	7564	5589	6634	6930
1952 Regional Surplus/Deficit	5542	1901	4147	6918	3969	3985	5904	5024	3750	8272	7932	6155	7573	5912
1953 Regional Surplus/Deficit	4603	1570	3621	4212	2264	687	1062	6259	4221	2355	5024	5719	8151	7212
1954 Regional Surplus/Deficit	4924	1910	4229	5118	2832	3173	4077	6809	4566	6606	5987	5595	7506	7275
1955 Regional Surplus/Deficit	5958	6334	7414	5138	3997	3146	1166	1824	2786	3040	4075	3877	8026	7281
1956 Regional Surplus/Deficit	5911	4088	4058	5429	4798	6149	6806	5737	6967	7847	7403	5624	7999	7180
1957 Regional Surplus/Deficit	5016	2877	4483	5470	2333	2921	2764	3518	5997	7240	6305	6236	7882	4967
1958 Regional Surplus/Deficit	3260	561	3807	4350	2710	1357	2490	5941	5075	5926	7125	6063	7799	4955
1959 Regional Surplus/Deficit	3290	1417	3630	4769	3452	5035	6564	6268	4336	7857	6011	5226	7423	5650
1960 Regional Surplus/Deficit	5227	2608	7711	8329	6559	5532	4807	4718	5591	8888	6936	5072	7365	5747
1961 Regional Surplus/Deficit	3920	865	4003	4598	2301	1425	4178	4762	6108	7556	4699	5478	7360	5211
1962 Regional Surplus/Deficit	3993	2215	3474	3756	2709	2181	3156	4511	3184	6685	7733	5348	7227	4151
1963 Regional Surplus/Deficit	3401	1326	3321	5646	3845	4832	4198	5637	2217	4729	4714	5266	7227	5984
1964 Regional Surplus/Deficit	4874	1874	4086	4162	2504	2262	2035	4347	2070	4935	2820	4961	7925	7275
1965 Regional Surplus/Deficit	5812	2800	5668	5989	3677	6121	6990	7329	6560	6587	7936	5342	7584	5755
1966 Regional Surplus/Deficit	5316	3970	4807	5408	2486	2105	3946	3274	1899	8318	5649	5157	6000	5914
1967 Regional Surplus/Deficit	4904	1534	3593	4269	2231	2325	6102	6920	4193	4949	1672	4877	7655	6800
1968 Regional Surplus/Deficit	5458	2260	4285	5028	2504	2424	4752	5939	5622	2172	3463	4215	7090	6496
1969 Regional Surplus/Deficit	5369	3813	6499	6244	5105	4082	6837	6239	5357	8488	7536	5993	7232	6457
1970 Regional Surplus/Deficit	4160	760	4036	5186	2870	1314	1415	5422	4942	4809	4089	4728	7907	5527
1971 Regional Surplus/Deficit	3063	422	3399	4425	2666	1999	6143	7536	6823	7679	7036	5831	8095	7825
1972 Regional Surplus/Deficit	5943	4629	5148	5460	2926	2790	6198	7265	7770	8814	6553	5839	7492	7167
1973 Regional Surplus/Deficit	5925	5923	5408	5091	2892	3416	2607	2755	2707	848	2628	3088	2671	3555
1974 Regional Surplus/Deficit	1230	-439	3033	4164	1593	4986	7184	7931	7573	8441	7471	4896	7450	7509
1975 Regional Surplus/Deficit	5784	4768	4788	3988	2537	1357	3490	4550	6108	3291	4495	5556	8092	7756
1976 Regional Surplus/Deficit	4307	2986	5066	6408	5311	6674	7093	6251	6036	8585	7242	5790	7456	7104
1977 Regional Surplus/Deficit	5988	6327	8795	5127	2787	850	1077	1488	1962	835	-1089	-1580	-1014	1554
1978 Regional Surplus/Deficit	2675	1046	3998	2780	1300	2810	3041	3717	4942	7504	5956	5491	6202	6037
1979 Regional Surplus/Deficit	3928	1895	6513	5355	2791	1032	958	3008	5662	4206	3630	5303	3190	2713
1980 Regional Surplus/Deficit	714	-284	2879	3974	2447	2087	973	1431	2562	4088	6697	6041	7023	4619
1981 Regional Surplus/Deficit	2578	320	3826	4355	2926	5658	6253	3856	4984	2325	4438	4412	7809	6594
1982 Regional Surplus/Deficit	5552	5116	4341	4801	3140	2321	4682	7438	7212	7569	5991	5298	7768	6511
1983 Regional Surplus/Deficit	5715	3776	6200	6227	3658	3229	5491	5231	7500	7083	6466	5377	7019	7112
1984 Regional Surplus/Deficit	5823	3964	5270	5041	5886	2621	6290	3835	7308	8134	7121	4868	7751	6759
1985 Regional Surplus/Deficit	5148	1521	4726	4886	3532	2301	2701	2668	3986	7230	6715	5784	4566	2181
1986 Regional Surplus/Deficit	-82	-590	3478	4589	4200	686	4212	6045	7729	8143	6629	4312	6202	5230
1987 Regional Surplus/Deficit	4060	822	3352	4053	3234	1369	1196	652	3735	4732	4066	3909	4840	3161
1988 Regional Surplus/Deficit	1104	-516	2722	3207	2171	697	-941	714	1567	1974	3672	3122	842	4120
1989 Regional Surplus/Deficit	3296	909	3377	3220	1654	1140	501	1706	4008	7449	7060	5506	5161	3106
1990 Regional Surplus/Deficit	121	-76	3201	3936	2652	3729	4937	5019	4530	7191	7558	4710	7472	5300
1991 Regional Surplus/Deficit	4509	2485	3137	3620	4851	3996	5641	6813	3136	6496	5161	5440	6585	6865
1992 Regional Surplus/Deficit	5612	3519	3741	3843	1970	939	323	2029	3756	2501	2954	2548	1647	2384

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	39	-471	2339	3365	2104	929	-324	1090	2388	3307	2091	4777	3647	4575
<i>1994 Regional Surplus/Deficit</i>	3243	1512	2194	3022	2885	1611	496	1963	2308	1827	5343	3571	3070	3599
<i>1995 Regional Surplus/Deficit</i>	974	-262	2614	3537	1765	1262	1514	5405	6567	6028	3488	5136	6418	5795
<i>1996 Regional Surplus/Deficit</i>	3564	1227	3703	5384	6449	6508	6998	7821	7393	7870	8115	5612	7672	7210
<i>1997 Regional Surplus/Deficit</i>	5692	2532	4460	4869	2454	3839	7020	7267	7530	7661	7615	5233	7503	7323
<i>1998 Regional Surplus/Deficit</i>	5769	3915	6511	8169	4350	2202	4328	4976	5347	4836	4305	5129	8029	5951

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	4293	587	3867	4237	2177	595	-71	841	1510	1272	1609	1892	5157	3361
1930 Regional Surplus/Deficit	2314	-65	3472	4116	1947	536	-351	596	1632	1205	2968	968	2714	3079
1931 Regional Surplus/Deficit	964	-12	2933	3764	2341	551	-575	671	1066	2371	-1011	2633	2028	3122
1932 Regional Surplus/Deficit	3028	653	3611	3096	1333	424	-1375	-633	2736	4889	6279	7253	8396	4763
1933 Regional Surplus/Deficit	2319	1514	4018	4404	1455	2163	4659	4426	2061	4572	4028	5933	8228	6813
1934 Regional Surplus/Deficit	5588	4317	5086	5412	4991	6142	6538	7256	6431	7838	6080	6071	6401	4447
1935 Regional Surplus/Deficit	1365	-21	3554	4012	1211	835	4045	5953	1607	3232	3926	6332	5979	5619
1936 Regional Surplus/Deficit	4885	1141	3316	4253	1963	493	-1106	1283	1838	2458	5709	6750	8021	4005
1937 Regional Surplus/Deficit	3256	931	2952	4053	2441	465	-232	259	834	378	-1401	3697	3071	2170
1938 Regional Surplus/Deficit	3524	1307	3591	4100	1687	1919	4275	3200	5003	5980	6471	7024	7459	5370
1939 Regional Surplus/Deficit	2246	293	4095	4464	1946	365	485	920	2684	3634	5373	7104	4996	3344
1940 Regional Surplus/Deficit	1233	-310	2863	4247	2333	2198	34	1807	5693	5889	5351	5668	6319	1605
1941 Regional Surplus/Deficit	550	-374	3446	3973	2287	1396	825	1008	3008	1846	1508	2913	2505	2786
1942 Regional Surplus/Deficit	2593	1109	4662	3220	2370	2599	1916	3419	1638	2231	3914	5368	7755	6085
1943 Regional Surplus/Deficit	4865	2713	4263	4625	1459	1184	3356	5218	5585	8411	6833	6849	8185	6067
1944 Regional Surplus/Deficit	4301	771	2590	4085	2217	630	384	993	1858	1181	-162	994	985	677
1945 Regional Surplus/Deficit	1819	-139	3767	3184	1299	116	-1088	-404	1082	278	-2585	5884	6585	2957
1946 Regional Surplus/Deficit	2765	434	3232	3901	2467	2241	2907	2436	6054	6972	6670	6858	7503	6065
1947 Regional Surplus/Deficit	4444	1535	4253	4192	2450	5624	4750	6145	6488	6102	5074	6931	8102	6019
1948 Regional Surplus/Deficit	3858	937	3945	7474	5157	3654	5766	3381	4802	4901	6124	7379	7603	6691
1949 Regional Surplus/Deficit	5439	4361	4966	5013	2226	1747	528	3342	6466	6495	6560	7436	7986	2537
1950 Regional Surplus/Deficit	1959	-334	2538	4229	1901	1493	3728	5965	7095	7231	5652	6284	7633	6451
1951 Regional Surplus/Deficit	4847	2923	4511	5944	4550	6183	6648	7583	5900	8136	6430	6824	7449	6694
1952 Regional Surplus/Deficit	5306	1666	3965	6783	3643	3709	5506	4730	3486	7657	6798	7390	8388	5675
1953 Regional Surplus/Deficit	4367	1335	3439	4077	1938	410	664	5965	3957	1741	3890	6955	8637	6976
1954 Regional Surplus/Deficit	4688	1675	4047	4983	2505	2897	3678	6515	4302	5992	4854	6831	7760	6763
1955 Regional Surplus/Deficit	5722	6099	7232	5003	3670	2869	768	1530	2522	2426	2941	5112	8400	6825
1956 Regional Surplus/Deficit	5675	3853	3876	5294	4472	5872	6408	5443	6703	7233	6203	6859	8183	6944
1957 Regional Surplus/Deficit	4780	2642	4301	5335	2007	2644	2366	3224	5733	6625	5171	7471	8238	4730
1958 Regional Surplus/Deficit	3024	326	3626	4215	2384	1080	2092	5647	4811	5311	5992	7299	8565	4719
1959 Regional Surplus/Deficit	3054	1182	3448	4634	3126	4758	6166	5975	4072	7242	4877	6462	7849	5413
1960 Regional Surplus/Deficit	4992	2372	7529	8194	6233	5255	4409	4425	5327	8274	5803	6307	8180	5510
1961 Regional Surplus/Deficit	3684	630	3821	4463	1975	1149	3780	4468	5844	6942	3565	6714	7647	4974
1962 Regional Surplus/Deficit	3758	1980	3292	3620	2382	1905	2758	4218	2920	6071	6599	6584	8043	3914
1963 Regional Surplus/Deficit	3165	1090	3139	5511	3519	4556	3800	5343	1953	4115	3580	6501	8043	5747
1964 Regional Surplus/Deficit	4638	1639	3904	4027	2178	1986	1637	4053	1806	4321	1687	6197	8235	7039
1965 Regional Surplus/Deficit	5576	2565	5487	5853	3351	5844	6592	7035	6296	5972	6802	6577	8400	5518
1966 Regional Surplus/Deficit	5080	3735	4625	5273	2160	1828	3547	2980	1635	7704	4515	6392	6816	5677
1967 Regional Surplus/Deficit	4668	1299	3411	4133	1905	2048	5704	6626	3929	4335	538	6112	7884	6564
1968 Regional Surplus/Deficit	5222	2025	4103	4892	2178	2147	4354	5645	5358	1558	2329	5450	7905	6259
1969 Regional Surplus/Deficit	5133	3578	6318	6108	4778	3806	6439	5946	5094	7873	6403	7228	8048	6221
1970 Regional Surplus/Deficit	3925	524	3854	5051	2544	899	1154	5148	4678	4195	2955	5963	8723	5290
1971 Regional Surplus/Deficit	2827	187	3218	4290	2340	1723	5745	7216	6559	7065	5902	7066	8368	7267
1972 Regional Surplus/Deficit	5707	4393	4966	5325	2600	2513	5800	6971	7506	7976	5420	7030	7860	6717
1973 Regional Surplus/Deficit	5690	5688	5227	4955	2566	3140	2209	2358	2453	234	1508	4379	3486	3318
1974 Regional Surplus/Deficit	995	-674	2851	4029	1267	4709	6751	7625	7309	7807	6270	6065	7792	6978
1975 Regional Surplus/Deficit	5548	4533	4607	3853	2211	1081	3092	4256	5844	2677	3362	6792	8452	7182
1976 Regional Surplus/Deficit	4071	2751	4884	6273	4985	6397	6695	5957	5772	7971	6108	7026	8271	6868
1977 Regional Surplus/Deficit	5752	6092	8613	4992	2461	573	613	1205	1709	221	-2104	-345	-199	1317
1978 Regional Surplus/Deficit	2439	811	3816	2289	971	2900	2643	3424	4679	6889	4822	6726	7018	5800
1979 Regional Surplus/Deficit	3692	1659	6331	5219	2465	570	499	3036	5398	3592	2497	6538	4005	2477
1980 Regional Surplus/Deficit	479	-519	2697	3838	2121	1811	501	1231	2299	3473	5564	7276	7839	4382
1981 Regional Surplus/Deficit	2342	85	3644	4220	2600	5382	5855	3562	4720	1710	3304	5648	8250	6358
1982 Regional Surplus/Deficit	5317	4881	4159	4665	2814	2044	4284	7078	6948	6955	4857	6533	8006	6274
1983 Regional Surplus/Deficit	5479	3541	6018	6091	3332	2952	5093	4937	7236	6468	5332	6612	7834	6875
1984 Regional Surplus/Deficit	5587	3728	5088	4905	5560	2345	5892	3541	7044	7519	5987	6103	8566	6523
1985 Regional Surplus/Deficit	4912	1286	4544	4751	3206	2024	2303	2273	3809	6616	5581	7019	5381	1944
1986 Regional Surplus/Deficit	-317	-825	3296	4454	3874	409	3814	5751	7465	7529	5495	5548	7017	4994
1987 Regional Surplus/Deficit	3824	586	3171	3918	2908	1092	729	463	3471	4118	2932	5144	5656	2925
1988 Regional Surplus/Deficit	869	-751	2541	3072	1845	122	-1298	460	1347	1391	2583	4621	1657	3883
1989 Regional Surplus/Deficit	3060	674	3196	3085	1328	864	28	1420	3814	6835	5926	6741	5976	2869
1990 Regional Surplus/Deficit	-115	-311	3020	3801	2325	3452	4538	4725	4266	6577	6425	5946	8288	5063
1991 Regional Surplus/Deficit	4274	2249	2955	3485	4525	3719	5243	6520	2873	5882	4027	6675	7400	6628
1992 Regional Surplus/Deficit	5376	3283	3559	3707	1644	359	-34	1639	3920	1887	1821	3784	2463	2147

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	-197	-706	2157	3230	1778	365	-681	844	2160	2720	1511	6012	4462	4338
<i>1994 Regional Surplus/Deficit</i>	3007	1277	2012	2887	2559	1335	98	1669	2044	1213	4210	4807	3885	3362
<i>1995 Regional Surplus/Deficit</i>	738	-498	2432	3402	1439	985	1116	5112	6304	5414	2354	6371	7233	5558
<i>1996 Regional Surplus/Deficit</i>	3328	992	3521	5249	6123	6231	6579	7501	7129	7256	6943	6847	8450	6973
<i>1997 Regional Surplus/Deficit</i>	5456	2297	4278	4734	2128	3562	6596	6931	7225	7047	6415	6468	7967	7050
<i>1998 Regional Surplus/Deficit</i>	5533	3680	6329	8034	4024	1925	3929	4683	5083	4222	3172	6364	8542	5714

Table A-30: Regional Surplus/Deficit - By Water Year
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	4026	322	3682	4025	1841	487	-775	350	1149	1333	1931	289	3991	2873
1930 Regional Surplus/Deficit	2047	-331	3287	3903	1611	502	-801	72	1230	1235	2797	-636	1547	2591
1931 Regional Surplus/Deficit	697	-278	2747	3552	2005	455	-1013	145	670	2405	-1190	1030	862	2634
1932 Regional Surplus/Deficit	2761	387	3426	2884	997	76	-1781	-1124	2375	4950	6601	5649	7581	4276
1933 Regional Surplus/Deficit	2052	1248	3833	4191	1119	1816	4253	3935	1700	4633	4350	4330	7631	6381
1934 Regional Surplus/Deficit	5321	4051	4901	5200	4655	5794	6167	6765	6071	7899	6402	4468	5235	3959
1935 Regional Surplus/Deficit	1098	-287	3369	3800	875	487	3639	5463	1246	3293	4248	4729	4813	5131
1936 Regional Surplus/Deficit	4619	875	3130	4040	1627	208	-1512	705	1478	2519	6031	5146	6855	3518
1937 Regional Surplus/Deficit	2990	665	2767	3840	2105	432	-684	-277	474	439	-1079	2094	1905	1682
1938 Regional Surplus/Deficit	3257	1041	3406	3888	1351	1572	3869	2710	4642	6041	6793	5420	6293	4883
1939 Regional Surplus/Deficit	1979	27	3909	4252	1610	17	150	421	2238	3695	5695	5501	3830	2857
1940 Regional Surplus/Deficit	967	-575	2677	4035	1997	1851	-372	1316	5332	5950	5673	4064	5153	1117
1941 Regional Surplus/Deficit	283	-640	3261	3761	1951	1048	419	517	2647	1907	1830	1309	1339	2298
1942 Regional Surplus/Deficit	2326	843	4477	3007	2034	2252	1510	2928	1278	2292	4236	3765	6589	5597
1943 Regional Surplus/Deficit	4598	2448	4078	4412	1123	836	2950	4727	5224	8472	7228	5245	7543	5579
1944 Regional Surplus/Deficit	4034	505	2405	3873	1881	310	-55	503	1498	1242	160	-609	-181	189
1945 Regional Surplus/Deficit	1552	-405	3582	2972	963	-232	-1494	-895	721	339	-2263	4281	5418	2470
1946 Regional Surplus/Deficit	2498	169	3047	3689	2131	1894	2501	1945	5693	7033	6992	5255	6337	5577
1947 Regional Surplus/Deficit	4177	1269	4068	3979	2114	5277	4344	5654	6127	6163	5396	5328	6936	5531
1948 Regional Surplus/Deficit	3591	671	3760	7262	4821	3307	5360	2890	4441	4962	6447	5776	7035	6204
1949 Regional Surplus/Deficit	5172	4095	4780	4801	1890	1399	192	2774	6106	6556	6882	5833	6820	2049
1950 Regional Surplus/Deficit	1693	-600	2353	4017	1565	1146	3322	5474	6734	7292	5974	4681	7163	5964
1951 Regional Surplus/Deficit	4580	2657	4326	5732	4214	5835	6242	7070	5539	8197	6752	5221	6283	6206
1952 Regional Surplus/Deficit	5039	1400	3780	6571	3307	3361	5100	4239	3125	7718	7120	5787	7222	5188
1953 Regional Surplus/Deficit	4101	1069	3254	3865	1602	63	258	5474	3597	1802	4212	5351	7800	6488
1954 Regional Surplus/Deficit	4421	1409	3862	4771	2169	2549	3272	6024	3941	6053	5176	5227	7156	6551
1955 Regional Surplus/Deficit	5456	5833	7047	4791	3334	2522	362	1039	2161	2487	3263	3509	7675	6557
1956 Regional Surplus/Deficit	5408	3587	3691	5082	4135	5525	6002	4953	6342	7294	6471	5256	7648	6456
1957 Regional Surplus/Deficit	4513	2376	4116	5123	1671	2297	1960	2733	5372	6686	5494	5868	7532	4242
1958 Regional Surplus/Deficit	2758	60	3440	4002	2048	733	1686	5157	4450	5372	6314	5695	7449	4231
1959 Regional Surplus/Deficit	2788	916	3263	4422	2790	4411	5760	5484	3711	7303	5199	4858	7072	4926
1960 Regional Surplus/Deficit	4725	2107	7344	7982	5897	4908	4003	3934	4966	8335	6125	4704	7014	5022
1961 Regional Surplus/Deficit	3417	364	3636	4251	1639	801	3374	3978	5484	7003	3887	5110	7009	4487
1962 Regional Surplus/Deficit	3491	1714	3107	3408	2046	1557	2352	3727	2559	6132	6922	4980	6877	3427
1963 Regional Surplus/Deficit	2898	825	2954	5299	3183	4208	3394	4852	1592	4176	3903	4898	6877	5260
1964 Regional Surplus/Deficit	4371	1373	3719	3815	1842	1638	1231	3562	1445	4382	2009	4593	7574	6551
1965 Regional Surplus/Deficit	5310	2299	5301	5641	3015	5497	6186	6545	5936	6033	7124	4974	7234	5030
1966 Regional Surplus/Deficit	4813	3469	4439	5060	1824	1481	3141	2489	1275	7765	4837	4789	5650	5190
1967 Regional Surplus/Deficit	4401	1033	3226	3921	1569	1701	5298	6135	3568	4396	860	4509	7305	6076
1968 Regional Surplus/Deficit	4956	1759	3918	4680	1842	1800	3948	5154	4997	1619	2651	3847	6739	5772
1969 Regional Surplus/Deficit	4867	3312	6132	5896	4442	3458	6033	5455	4733	7934	6725	5625	6882	5733
1970 Regional Surplus/Deficit	3658	259	3669	4839	2208	690	611	4638	4317	4256	3277	4360	7557	4803
1971 Regional Surplus/Deficit	2561	-79	3032	4077	2004	1375	5339	6672	6198	7126	6224	5463	7744	7101
1972 Regional Surplus/Deficit	5440	4128	4781	5113	2264	2166	5394	6480	7146	8261	5742	5341	7141	6443
1973 Regional Surplus/Deficit	5423	5422	5041	4743	2230	2792	1803	1971	2082	295	1816	2720	2320	2831
1974 Regional Surplus/Deficit	728	-940	2665	3816	931	4362	6380	7147	6949	7814	6539	4376	7099	6785
1975 Regional Surplus/Deficit	5281	4267	4421	3641	1875	733	2686	3765	5483	2738	3684	5188	7742	7032
1976 Regional Surplus/Deficit	3804	2485	4699	6061	4649	6049	6289	5466	5411	8032	6430	5422	7105	6380
1977 Regional Surplus/Deficit	5486	5826	8428	4779	2125	226	273	704	1337	282	-1901	-1948	-1365	830
1978 Regional Surplus/Deficit	2172	545	3631	2433	638	2186	2237	2933	4318	6950	5144	5123	5852	5313
1979 Regional Surplus/Deficit	3426	1394	6146	5007	2129	408	154	2223	5037	3653	2819	4935	2839	1989
1980 Regional Surplus/Deficit	212	-785	2512	3626	1785	1463	169	647	1938	3534	5886	5673	6672	3895
1981 Regional Surplus/Deficit	2075	-181	3459	4008	2264	5034	5449	3071	4360	1771	3626	4044	7459	5870
1982 Regional Surplus/Deficit	5050	4615	3974	4453	2478	1697	3878	6533	6587	7016	5179	4930	7417	5787
1983 Regional Surplus/Deficit	5212	3275	5833	5879	2996	2605	4687	4446	6875	6529	5655	5009	6668	6387
1984 Regional Surplus/Deficit	5321	3463	4903	4693	5224	1997	5486	3050	6684	7580	6310	4500	7400	6035
1985 Regional Surplus/Deficit	4645	1020	4359	4538	2870	1677	1897	1884	3362	6677	5903	5416	4215	1457
1986 Regional Surplus/Deficit	-584	-1091	3111	4241	3538	61	3408	5260	7104	7590	5817	3944	5851	4506
1987 Regional Surplus/Deficit	3558	321	2985	3706	2572	745	392	-133	3111	4179	3254	3541	4490	2437
1988 Regional Surplus/Deficit	602	-1017	2355	2859	1509	73	-1745	-71	943	1421	2861	2754	491	3396
1989 Regional Surplus/Deficit	2793	408	3010	2873	992	516	-303	921	3384	6896	6248	5138	4810	2381
1990 Regional Surplus/Deficit	-382	-577	2834	3589	1989	3105	4132	4234	3905	6638	6747	4342	7122	4576
1991 Regional Surplus/Deficit	4007	1984	2770	3273	4189	3371	4837	6029	2512	5943	4349	5072	6234	6140
1992 Regional Surplus/Deficit	5109	3018	3374	3495	1308	315	-481	1245	3131	1948	2143	2180	1296	1660

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	-464	-972	1972	3018	1442	304	-1128	305	1763	2754	1280	4409	3296	3851
<i>1994 Regional Surplus/Deficit</i>	2741	1011	1827	2675	2223	987	-308	1179	1683	1274	4532	3203	2719	2875
<i>1995 Regional Surplus/Deficit</i>	472	-763	2247	3190	1103	638	710	4621	5943	5475	2676	4768	6067	5071
<i>1996 Regional Surplus/Deficit</i>	3061	726	3336	5037	5787	5884	6194	6916	6768	7317	7303	5244	7322	6486
<i>1997 Regional Surplus/Deficit</i>	5189	2031	4093	4522	1792	3214	6215	6362	6810	7108	6683	4866	7152	6599
<i>1998 Regional Surplus/Deficit</i>	5266	3414	6144	7822	3688	1578	3523	4192	4722	4283	3494	4761	7678	5226

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	3620	-83	3337	3695	1537	-230	-858	115	843	730	1113	119	4672	2470
1930 Regional Surplus/Deficit	1641	-736	2941	3573	1306	-289	-1138	-130	966	663	2472	-805	2229	2188
1931 Regional Surplus/Deficit	291	-683	2402	3222	1701	-273	-1362	-55	400	1829	-1508	860	1543	2231
1932 Regional Surplus/Deficit	2355	-17	3081	2553	693	-401	-2162	-1360	2070	4347	5783	5480	7911	3872
1933 Regional Surplus/Deficit	1646	843	3488	3861	814	1338	3872	3700	1394	4029	3532	4160	7743	5923
1934 Regional Surplus/Deficit	4915	3647	4555	4869	4350	5317	5750	6529	5765	7296	5584	4298	5917	3556
1935 Regional Surplus/Deficit	692	-691	3023	3469	570	10	3258	5227	940	2689	3430	4559	5495	4728
1936 Regional Surplus/Deficit	4213	471	2785	3710	1323	-332	-1893	557	1172	1916	5213	4977	7537	3114
1937 Regional Surplus/Deficit	2584	260	2421	3510	1801	-360	-1019	-467	168	-164	-1897	1924	2587	1279
1938 Regional Surplus/Deficit	2851	637	3061	3557	1047	1094	3488	2474	4336	5438	5974	5251	6975	4479
1939 Regional Surplus/Deficit	1573	-377	3564	3921	1305	-460	-302	194	2018	3091	4876	5331	4511	2453
1940 Regional Surplus/Deficit	561	-980	2332	3704	1693	1374	-753	1081	5027	5347	4855	3895	5834	714
1941 Regional Surplus/Deficit	-123	-1044	2916	3430	1646	571	38	282	2341	1303	1012	1140	2020	1895
1942 Regional Surplus/Deficit	1920	438	4131	2677	1730	1774	1129	2693	972	1688	3418	3595	7270	5194
1943 Regional Surplus/Deficit	4192	2043	3733	4082	818	359	2569	4492	4919	7869	6336	5076	7700	5176
1944 Regional Surplus/Deficit	3628	101	2059	3542	1577	-195	-403	267	1192	638	-658	-779	500	-214
1945 Regional Surplus/Deficit	1146	-809	3236	2642	659	-709	-1876	-1130	416	-264	-3082	4111	6100	2067
1946 Regional Surplus/Deficit	2092	-236	2702	3359	1826	1416	2120	1710	5388	6429	6174	5085	7019	5174
1947 Regional Surplus/Deficit	3771	865	3722	3649	1809	4799	3962	5419	5822	5560	4578	5158	7618	5128
1948 Regional Surplus/Deficit	3185	266	3414	6932	4516	2829	4979	2655	4136	4358	5628	5606	7118	5801
1949 Regional Surplus/Deficit	4766	3691	4435	4470	1586	922	-259	2616	5800	5953	6064	5663	7502	1646
1950 Regional Surplus/Deficit	1287	-1005	2008	3686	1261	668	2940	5239	6428	6689	5156	4511	7148	5561
1951 Regional Surplus/Deficit	4174	2252	3980	5402	3909	5358	5861	6791	5233	7594	5934	5051	6964	5803
1952 Regional Surplus/Deficit	4633	995	3434	6240	3002	2884	4719	4004	2819	7115	6302	5617	7904	4785
1953 Regional Surplus/Deficit	3695	665	2909	3534	1298	-415	-123	5239	3291	1198	3394	5182	8152	6085
1954 Regional Surplus/Deficit	4015	1004	3516	4440	1865	2072	2891	5789	3636	5449	4357	5058	7275	5872
1955 Regional Surplus/Deficit	5050	5429	6702	4460	3030	2045	-19	804	1855	1883	2445	3339	7915	5934
1956 Regional Surplus/Deficit	5002	3183	3345	4751	3831	5048	5621	4717	6037	6690	5609	5086	7698	6053
1957 Regional Surplus/Deficit	4107	1971	3770	4792	1367	1819	1579	2498	5067	6083	4675	5698	7753	3839
1958 Regional Surplus/Deficit	2352	-344	3095	3672	1744	256	1305	4921	4144	4769	5495	5526	8080	3828
1959 Regional Surplus/Deficit	2382	512	2918	4091	2486	3933	5378	5248	3406	6700	4381	4689	7365	4523
1960 Regional Surplus/Deficit	4319	1702	6998	7651	5592	4430	3622	3698	4661	7732	5307	4534	7696	4619
1961 Regional Surplus/Deficit	3011	-41	3290	3920	1334	324	2993	3742	5178	6399	3069	4941	7163	4084
1962 Regional Surplus/Deficit	3085	1310	2761	3077	1742	1080	1971	3491	2254	5528	6103	4811	7558	3023
1963 Regional Surplus/Deficit	2492	420	2608	4968	2879	3731	3013	4617	1287	3573	3084	4728	7558	4857
1964 Regional Surplus/Deficit	3965	969	3374	3484	1538	1161	849	3327	1140	3778	1190	4424	7751	6148
1965 Regional Surplus/Deficit	4904	1894	4956	5311	2711	5019	5805	6311	5630	5430	6306	4805	7915	4627
1966 Regional Surplus/Deficit	4407	3065	4094	4730	1519	1003	2760	2254	969	7162	4019	4619	6331	4786
1967 Regional Surplus/Deficit	3995	628	2880	3590	1264	1223	4917	5901	3262	3793	42	4339	7399	5673
1968 Regional Surplus/Deficit	4550	1354	3572	4350	1537	1322	3567	4919	4691	1016	1833	3677	7421	5368
1969 Regional Surplus/Deficit	4461	2907	5787	5566	4138	2981	5652	5219	4427	7331	5907	5455	7563	5330
1970 Regional Surplus/Deficit	3252	-146	3323	4508	1903	74	367	4422	4012	3653	2459	4190	8238	4400
1971 Regional Surplus/Deficit	2155	-484	2687	3747	1700	898	4958	6393	5893	6523	5406	5293	7883	6376
1972 Regional Surplus/Deficit	5034	3723	4435	4782	1959	1689	5013	6245	6840	7434	4923	5147	7375	5826
1973 Regional Surplus/Deficit	5017	5017	4696	4413	1925	2315	1422	1632	1787	-309	1011	2606	3002	2428
1974 Regional Surplus/Deficit	322	-1344	2320	3486	626	3884	5964	6899	6643	7167	5677	4183	7307	6088
1975 Regional Surplus/Deficit	4875	3863	4076	3310	1571	256	2305	3530	5178	2134	2866	5019	7967	6292
1976 Regional Surplus/Deficit	3398	2081	4353	5730	4344	5572	5907	5231	5105	7429	5612	5253	7786	5977
1977 Regional Surplus/Deficit	5080	5421	8082	4449	1820	-252	-174	479	1043	-322	-2600	-2118	-684	426
1978 Regional Surplus/Deficit	1766	140	3285	1746	331	2075	1856	2698	4012	6347	4326	4953	6533	4910
1979 Regional Surplus/Deficit	3020	989	5800	4677	1824	-254	-288	2310	4731	3050	2000	4765	3521	1586
1980 Regional Surplus/Deficit	-194	-1189	2166	3296	1480	986	-286	504	1632	2931	5068	5503	7354	3491
1981 Regional Surplus/Deficit	1669	-585	3114	3677	1959	4557	5068	2836	4054	1168	2808	3875	7765	5467
1982 Regional Surplus/Deficit	4644	4210	3628	4123	2174	1219	3497	6254	6282	6412	4361	4760	7521	5383
1983 Regional Surplus/Deficit	4806	2871	5487	5549	2692	2127	4305	4211	6569	5926	4836	4839	7350	5984
1984 Regional Surplus/Deficit	4914	3058	4558	4363	4920	1520	5105	2815	6378	6977	5491	4330	8082	5632
1985 Regional Surplus/Deficit	4239	616	4014	4208	2565	1200	1516	1546	3143	6074	5085	5246	4896	1053
1986 Regional Surplus/Deficit	-990	-1496	2765	3911	3233	-416	3027	5025	6799	6987	4999	3775	6533	4103
1987 Regional Surplus/Deficit	3152	-84	2640	3375	2267	268	-58	-263	2805	3575	2436	3371	5171	2034
1988 Regional Surplus/Deficit	196	-1421	2010	2529	1204	-703	-2086	-266	680	849	2087	2848	1172	2993
1989 Regional Surplus/Deficit	2387	3.2	2665	2542	687	39	-759	694	3147	6292	5430	4968	5492	1978
1990 Regional Surplus/Deficit	-788	-981	2489	3258	1685	2627	3751	3999	3600	6034	5929	4173	7803	4172
1991 Regional Surplus/Deficit	3601	1579	2424	2942	3885	2894	4456	5795	2206	5340	3531	4902	6915	5737
1992 Regional Surplus/Deficit	4703	2613	3028	3164	1004	-466	-821	913	3253	1345	1324	2011	1978	1257

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	-870	-1376	1627	2687	1137	-460	-1468	118	1494	2178	1014	4239	3978	3448
<i>1994 Regional Surplus/Deficit</i>	2335	607	1481	2344	1919	510	-690	943	1378	671	3713	3034	3401	2471
<i>1995 Regional Surplus/Deficit</i>	65	-1168	1902	2859	798	160	329	4386	5637	4871	1858	4598	6749	4668
<i>1996 Regional Surplus/Deficit</i>	2655	322	2990	4706	5483	5406	5792	6678	6463	6713	6447	5074	7965	6083
<i>1997 Regional Surplus/Deficit</i>	4783	1627	3747	4191	1487	2737	5809	6107	6461	6505	5821	4697	7482	6159
<i>1998 Regional Surplus/Deficit</i>	4860	3009	5799	7491	3384	1100	3142	3957	4417	3680	2675	4591	8057	4823

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
1929 Regional Surplus/Deficit	3260	-442	3006	3364	1168	-384	-1554	-267	488	895	1717	-483	3009	2087
1930 Regional Surplus/Deficit	1281	-1095	2611	3242	937	-369	-1581	-545	569	796	2583	-1408	566	1806
1931 Regional Surplus/Deficit	-69	-1042	2071	2891	1332	-416	-1793	-472	9	1967	-1404	258	-120	1848
1932 Regional Surplus/Deficit	1994	-377	2750	2223	324	-795	-2560	-1741	1715	4512	6387	4878	6600	3490
1933 Regional Surplus/Deficit	1286	484	3157	3530	445	944	3474	3318	1039	4194	4136	3558	6649	5595
1934 Regional Surplus/Deficit	4555	3288	4225	4539	3981	4923	5388	6147	5410	7461	6188	3696	4253	3173
1935 Regional Surplus/Deficit	332	-1051	2693	3139	202	-384	2860	4845	586	2854	4034	3957	3831	4346
1936 Regional Surplus/Deficit	3852	111	2454	3379	954	-664	-2291	88	817	2081	5817	4375	5874	2732
1937 Regional Surplus/Deficit	2223	-99	2091	3179	1432	-440	-1463	-895	-187	0.8	-1293	1322	923	896
1938 Regional Surplus/Deficit	2490	277	2730	3226	678	700	3090	2092	3981	5603	6578	4648	5312	4097
1939 Regional Surplus/Deficit	1213	-736	3233	3591	936	-854	-629	-196	1577	3256	5480	4729	2848	2071
1940 Regional Surplus/Deficit	200	-1339	2001	3374	1324	979	-1151	699	4672	5512	5459	3292	4171	332
1941 Regional Surplus/Deficit	-483	-1403	2585	3099	1278	177	-360	-100	1986	1468	1615	537	357	1513
1942 Regional Surplus/Deficit	1560	79	3801	2346	1361	1380	731	2311	617	1853	4022	2993	5607	4812
1943 Regional Surplus/Deficit	3832	1684	3402	3751	449	-35	2170	4110	4564	8034	7014	4473	6561	4793
1944 Regional Surplus/Deficit	3268	-259	1729	3212	1208	-561	-834	-115	837	803	-54	-1381	-1163	-597
1945 Regional Surplus/Deficit	786	-1169	2906	2311	290	-1103	-2274	-1512	61	-99	-2478	3509	4437	1684
1946 Regional Surplus/Deficit	1732	-595	2371	3028	1457	1022	1722	1328	5033	6594	6778	4483	5356	4792
1947 Regional Surplus/Deficit	3411	505	3392	3318	1440	4405	3564	5037	5467	5725	5182	4556	5955	4746
1948 Regional Surplus/Deficit	2825	-93	3084	6601	4148	2435	4581	2273	3781	4523	6232	5004	6053	5418
1949 Regional Surplus/Deficit	4405	3331	4104	4140	1217	528	-587	2157	5445	6118	6668	5061	5838	1264
1950 Regional Surplus/Deficit	926	-1364	1677	3356	892	274	2542	4857	6073	6854	5760	3909	6181	5178
1951 Regional Surplus/Deficit	3814	1893	3650	5071	3540	4964	5463	6385	4878	7759	6538	4449	5301	5420
1952 Regional Surplus/Deficit	4273	636	3104	5909	2634	2490	4321	3622	2465	7280	6906	5015	6240	4402
1953 Regional Surplus/Deficit	3334	305	2578	3204	929	-809	-521	4857	2936	1363	3998	4579	6819	5702
1954 Regional Surplus/Deficit	3655	645	3186	4110	1496	1678	2493	5407	3281	5614	4961	4455	6174	5765
1955 Regional Surplus/Deficit	4689	5069	6371	4130	2661	1650	-417	422	1501	2048	3049	2737	6694	5771
1956 Regional Surplus/Deficit	4642	2823	3015	4421	3462	4653	5223	4335	5682	6855	6190	4484	6666	5670
1957 Regional Surplus/Deficit	3747	1612	3440	4462	998	1425	1181	2116	4712	6248	5279	5096	6550	3457
1958 Regional Surplus/Deficit	1991	-704	2764	3341	1375	-139	906	4539	3790	4934	6099	4923	6467	3446
1959 Regional Surplus/Deficit	2021	152	2587	3761	2117	3539	4980	4866	3051	6865	4985	4086	6091	4140
1960 Regional Surplus/Deficit	3959	1343	6668	7321	5224	4036	3224	3316	4306	7897	5911	3932	6032	4237
1961 Regional Surplus/Deficit	2651	-400	2960	3590	965	-70	2595	3360	4823	6564	3673	4338	6027	3701
1962 Regional Surplus/Deficit	2724	951	2431	2747	1373	686	1573	3109	1899	5693	6707	4208	5895	2641
1963 Regional Surplus/Deficit	2132	61	2278	4638	2510	3337	2615	4235	932	3738	3688	4126	5895	4474
1964 Regional Surplus/Deficit	3605	610	3043	3154	1169	767	451	2945	785	3943	1794	3821	6592	5765
1965 Regional Surplus/Deficit	4543	1535	4625	4980	2342	4625	5407	5930	5275	5595	6910	4203	6252	4245
1966 Regional Surplus/Deficit	4047	2705	3764	4399	1151	609	2362	1872	614	7327	4623	4017	4668	4404
1967 Regional Surplus/Deficit	3635	269	2550	3260	896	829	4519	5519	2907	3958	646	3737	6323	5291
1968 Regional Surplus/Deficit	4189	995	3242	4019	1168	928	3169	4537	4336	1181	2437	3075	5757	4986
1969 Regional Surplus/Deficit	4100	2548	5456	5235	3769	2587	5254	4837	4072	7497	6510	4853	5900	4947
1970 Regional Surplus/Deficit	2891	-505	2993	4178	1534	-181	-169	4020	3657	3818	3063	3588	6575	4017
1971 Regional Surplus/Deficit	1794	-843	2356	3416	1331	504	4560	5987	5538	6688	6010	4691	6763	6315
1972 Regional Surplus/Deficit	4674	3364	4105	4452	1590	1294	4615	5863	6485	7825	5527	4528	6159	5657
1973 Regional Surplus/Deficit	4656	4658	4365	4082	1557	1921	1024	1353	1422	-144	1602	1948	1339	2045
1974 Regional Surplus/Deficit	-39	-1704	1989	3155	258	3490	5601	6531	6288	7309	6257	3563	6118	5999
1975 Regional Surplus/Deficit	4515	3503	3745	2979	1202	-138	1907	3148	4823	2299	3470	4416	6760	6246
1976 Regional Surplus/Deficit	3038	1721	4023	5400	3975	5178	5509	4849	4750	7594	6216	4650	6123	5595
1977 Regional Surplus/Deficit	4719	5062	7752	4118	1451	-646	-506	87	677	-157	-2115	-2720	-2347	44
1978 Regional Surplus/Deficit	1406	-219	2955	1771	-35	1315	1457	2316	3657	6512	4930	4351	4870	4527
1979 Regional Surplus/Deficit	2659	630	5470	4346	1456	-463	-625	1606	4376	3215	2604	4163	1857	1203
1980 Regional Surplus/Deficit	-554	-1549	1836	2965	1112	592	-610	30	1277	3096	5672	4901	5691	3109
1981 Regional Surplus/Deficit	1309	-945	2783	3347	1591	4163	4670	2454	3699	1333	3412	3272	6477	5084
1982 Regional Surplus/Deficit	4284	3851	3298	3792	1805	825	3099	5849	5927	6577	4965	4158	6436	5001
1983 Regional Surplus/Deficit	4446	2511	5157	5218	2323	1733	3907	3829	6215	6091	5440	4237	5686	5602
1984 Regional Surplus/Deficit	4554	2699	4227	4032	4551	1126	4707	2433	6023	7142	6095	3728	6419	5249
1985 Regional Surplus/Deficit	3879	257	3683	3877	2196	805	1118	1266	2701	6239	5689	4644	3233	671
1986 Regional Surplus/Deficit	-1351	-1855	2435	3580	2864	-810	2628	4643	6444	7152	5603	3172	4870	3721
1987 Regional Surplus/Deficit	2791	-443	2309	3045	1898	-127	-388	-750	2450	3740	3040	2769	3508	1652
1988 Regional Surplus/Deficit	-165	-1781	1679	2198	836	-798	-2524	-688	282	982	2646	1982	-491	2610
1989 Regional Surplus/Deficit	2027	-356	2334	2212	318	-355	-1082	304	2723	6457	6034	4366	3829	1596
1990 Regional Surplus/Deficit	-1148	-1340	2158	2928	1316	2233	3353	3617	3245	6199	6532	3570	6140	3790
1991 Regional Surplus/Deficit	3241	1220	2094	2612	3516	2500	4057	5414	1851	5504	4135	4300	5252	5355
1992 Regional Surplus/Deficit	4343	2254	2698	2834	635	-557	-1261	627	2471	1510	1928	1408	315	874

Table A-30: Regional Surplus/Deficit - By Water Year
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity 120 (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>1993 Regional Surplus/Deficit</i>	-1230	-1736	1296	2357	768	-567	-1908	-312	1102	2316	1065	3637	2315	3065
<i>1994 Regional Surplus/Deficit</i>	1974	247	1151	2013	1550	116	-1088	561	1023	836	4317	2431	1738	2089
<i>1995 Regional Surplus/Deficit</i>	-295	-1527	1571	2529	430	-234	-69	4004	5282	5036	2462	3996	5085	4285
<i>1996 Regional Surplus/Deficit</i>	2295	-38	2660	4376	5114	5012	5415	6231	6108	6878	7090	4472	6340	5700
<i>1997 Regional Surplus/Deficit</i>	4423	1267	3417	3861	1118	2343	5436	5677	6083	6670	6402	4095	6171	5813
<i>1998 Regional Surplus/Deficit</i>	4500	2650	5468	7161	3015	706	2744	3575	4062	3845	3279	3989	6696	4441

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Section 13

Monthly A-Tables

OY 2010 – 2019

1-Hour Capacity in Megawatts ¹

	<u>Table Number</u>
Total Retail Loads	A-1
Exports	A-2
Regulated Hydro	A-3
Independent Hydro	A-4
Imports	A-5
Small Thermal & Miscellaneous	A-6
Combustion Turbines	A-7
Renewable Resources	A-8
Cogeneration	A-9
Large Thermal	A-10
Canadian Entitlement Return for Canada	A-15
Intra-Regional Transfers	A-16
Capacity Reserves	A-17
Wells & Chelan Allocation	A-18
Rocky Reach & Rock Island Allocation	A-19
Wanapum & Priest Rapids Allocation	A-20
Swift #1 & Swift #2 Allocation	A-21
BPA Power Sale Contracts	A-22
Non-Utility Generating Resources by Owner	A-23
Non-Utility Generating Resources by Project and Project Type	A-24
Dedicated Resources	A-26
Other Dedicated Resources	A-27

¹ Note: Tables A-11 through A-14 are obsolete and no longer available

Table A-1
Total Retail Loads
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-1: Pacific Northwest Total Retail Loads
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Loads														
<i>-Federal Entities-</i>														
1 Federal Entities	169	169	163	171	184	193	210	195	179	172	172	168	162	163
2 Total Federal Entities	169	169	163	171	184	193	210	195	179	172	172	168	162	163
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
6 Total Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	5887	5887	5745	6725	7576	8039	8173	7868	7157	6718	6718	6124	6003	6136
8 Total Generating Public Entities	5887	5887	5745	6725	7576	8039	8173	7868	7157	6718	6718	6124	6003	6136
<i>-Non-Generating Public Entities-</i>														
9 Non-Generating Public Entities	5026	5026	4804	5106	5704	6194	6445	6065	5379	5192	5192	5096	5131	5379
10 Total Non-Generating Public Entities	5026	5026	4804	5106	5704	6194	6445	6065	5379	5192	5192	5096	5131	5379
<i>-Investor-Owned Entities-</i>														
11 Investor-Owned Entities	13829	13829	12584	12829	14741	15874	15942	15168	13879	12575	12575	12632	14579	15460
12 Total Investor-Owned Entities	13829	13829	12584	12829	14741	15874	15942	15168	13879	12575	12575	12632	14579	15460
<i>-Other Firm Loads-</i>														
13 Other PNW Entities	351	351	332	332	337	348	355	342	337	324	324	326	342	358
14 Total Other Firm Loads	351	351	332	332	337	348	355	342	337	324	324	326	342	358
<i>-Total Regional Firm Loads-</i>														
15 Federal Entities	396	396	368	206	185	193	210	196	204	433	433	455	421	431
16 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
17 Public Entities	10913	10913	10549	11831	13279	14233	14618	13933	12536	11910	11910	11220	11134	11515
18 Investor-Owned Entities	13829	13829	12584	12829	14741	15874	15942	15168	13879	12575	12575	12632	14579	15460
19 Other Entities	351	351	332	332	337	348	355	342	337	324	324	326	342	358
20 Total Regional Firm Loads	25941	25941	24284	25651	28994	31100	31576	30090	27407	25694	25694	25084	26928	28217
Non-Firm Loads														
<i>-Investor-Owned Entities-</i>														
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Non-Firm Loads-</i>														
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Loads-</i>														
29 Federal Entities	396	396	368	206	185	193	210	196	204	433	433	455	421	431
30 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
31 Public Entities	10913	10913	10549	11831	13279	14233	14618	13933	12536	11910	11910	11220	11134	11515
32 Investor-Owned Entities	13829	13829	12598	12829	14741	15874	15945	15191	13934	12609	12609	12632	14579	15460
33 Other Entities	351	351	332	332	337	348	355	342	337	324	324	326	342	358
34 Total Regional Loads	25941	25941	24299	25651	28994	31100	31580	30113	27462	25728	25728	25084	26928	28217

Table A-1: Pacific Northwest Total Retail Loads
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Loads														
<i>-Federal Entities-</i>														
1 Federal Entities	174	174	167	175	190	199	213	199	182	175	175	171	165	165
2 Total Federal Entities	174	174	167	175	190	199	213	199	182	175	175	171	165	165
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
6 Total Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	6102	6102	5945	6959	7839	8327	8457	8152	7415	6959	6959	6346	6110	6247
8 Total Generating Public Entities	6102	6102	5945	6959	7839	8327	8457	8152	7415	6959	6959	6346	6110	6247
<i>-Non-Generating Public Entities-</i>														
9 Non-Generating Public Entities	5126	5126	4888	5203	5808	6304	6558	6176	5480	5301	5301	5200	5232	5488
10 Total Non-Generating Public Entities	5126	5126	4888	5203	5808	6304	6558	6176	5480	5301	5301	5200	5232	5488
<i>-Investor-Owned Entities-</i>														
11 Investor-Owned Entities	14985	14985	13611	13823	15854	17018	17085	16250	14880	13444	13444	13577	14777	15678
12 Total Investor-Owned Entities	14985	14985	13611	13823	15854	17018	17085	16250	14880	13444	13444	13577	14777	15678
<i>-Other Firm Loads-</i>														
13 Other PNW Entities	352	352	333	333	338	348	356	343	338	325	325	327	343	360
14 Total Other Firm Loads	352	352	333	333	338	348	356	343	338	325	325	327	343	360
<i>-Total Regional Firm Loads-</i>														
15 Federal Entities	400	400	372	211	190	199	214	199	206	436	436	457	424	433
16 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
17 Public Entities	11228	11228	10833	12162	13647	14631	15015	14329	12895	12260	12260	11547	11343	11736
18 Investor-Owned Entities	14985	14985	13611	13823	15854	17018	17085	16250	14880	13444	13444	13577	14777	15678
19 Other Entities	352	352	333	333	338	348	356	343	338	325	325	327	343	360
20 Total Regional Firm Loads	27417	27417	25600	26980	30481	32648	33121	31573	28770	26916	26916	26359	27338	28658
Non-Firm Loads														
<i>-Investor-Owned Entities-</i>														
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Non-Firm Loads-</i>														
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Loads-</i>														
29 Federal Entities	400	400	372	211	190	199	214	199	206	436	436	457	424	433
30 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
31 Public Entities	11228	11228	10833	12162	13647	14631	15015	14329	12895	12260	12260	11547	11343	11736
32 Investor-Owned Entities	14985	14985	13626	13823	15854	17018	17088	16273	14935	13477	13477	13577	14777	15678
33 Other Entities	352	352	333	333	338	348	356	343	338	325	325	327	343	360
34 Total Regional Loads	27417	27417	25615	26980	30481	32648	33125	31596	28825	26950	26950	26359	27338	28658

Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2011 - 2012 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Loads														
<i>-Federal Entities-</i>														
1 Federal Entities	176	176	169	178	193	202	217	201	184	177	177	173	167	167
2 Total Federal Entities	176	176	169	178	193	202	217	201	184	177	177	173	167	167
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
6 Total Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	6213	6213	6049	7054	7941	8421	8626	8279	7580	7111	7111	6491	6319	6458
8 Total Generating Public Entities	6213	6213	6049	7054	7941	8421	8626	8279	7580	7111	7111	6491	6319	6458
<i>-Non-Generating Public Entities-</i>														
9 Non-Generating Public Entities	5242	5242	5001	5310	5917	6421	6665	6223	5577	5395	5395	5301	5336	5598
10 Total Non-Generating Public Entities	5242	5242	5001	5310	5917	6421	6665	6223	5577	5395	5395	5301	5336	5598
<i>-Investor-Owned Entities-</i>														
11 Investor-Owned Entities	15181	15181	13773	13967	16015	17195	17423	16668	15172	13758	13758	13861	15044	16034
12 Total Investor-Owned Entities	15181	15181	13773	13967	16015	17195	17423	16668	15172	13758	13758	13861	15044	16034
<i>-Other Firm Loads-</i>														
13 Other PNW Entities	353	353	334	334	339	349	358	345	339	327	327	328	345	444
14 Total Other Firm Loads	353	353	334	334	339	349	358	345	339	327	327	328	345	444
<i>-Total Regional Firm Loads-</i>														
15 Federal Entities	403	403	374	213	193	203	217	201	209	438	438	459	426	435
16 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
17 Public Entities	11455	11455	11051	12364	13858	14841	15291	14502	13156	12506	12506	11792	11654	12056
18 Investor-Owned Entities	15181	15181	13773	13967	16015	17195	17423	16668	15172	13758	13758	13861	15044	16034
19 Other Entities	353	353	334	334	339	349	358	345	339	327	327	328	345	444
20 Total Regional Firm Loads	27843	27843	25983	27330	30857	33040	33741	32167	29328	27480	27480	26893	27921	29421
Non-Firm Loads														
<i>-Investor-Owned Entities-</i>														
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Non-Firm Loads-</i>														
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Loads-</i>														
29 Federal Entities	403	403	374	213	193	203	217	201	209	438	438	459	426	435
30 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
31 Public Entities	11455	11455	11051	12364	13858	14841	15291	14502	13156	12506	12506	11792	11654	12056
32 Investor-Owned Entities	15181	15181	13788	13967	16015	17195	17427	16691	15226	13791	13791	13861	15044	16034
33 Other Entities	353	353	334	334	339	349	358	345	339	327	327	328	345	444
34 Total Regional Loads	27843	27843	25997	27330	30857	33040	33745	32190	29382	27514	27514	26893	27921	29421

Table A-1: Pacific Northwest Total Retail Loads
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Loads														
-Federal Entities-														
1 Federal Entities	179	179	171	181	196	205	219	204	186	179	179	175	168	168
2 Total Federal Entities	179	179	171	181	196	205	219	204	186	179	179	175	168	168
-U.S. Bureau of Reclamation-														
3 U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
-Direct Service Industry-														
5 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
6 Total Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
-Generating Public Entities-														
7 Generating Public Entities	6423	6423	6255	7262	8168	8650	8781	8442	7709	7246	7246	6617	6373	6513
8 Total Generating Public Entities	6423	6423	6255	7262	8168	8650	8781	8442	7709	7246	7246	6617	6373	6513
-Non-Generating Public Entities-														
9 Non-Generating Public Entities	5349	5349	5099	5398	6007	6516	6761	6370	5663	5478	5478	5372	5422	5692
10 Total Non-Generating Public Entities	5349	5349	5099	5398	6007	6516	6761	6370	5663	5478	5478	5372	5422	5692
-Investor-Owned Entities-														
11 Investor-Owned Entities	15462	15462	14060	14276	16305	17590	17627	16759	15362	13927	13927	14055	15286	16283
12 Total Investor-Owned Entities	15462	15462	14060	14276	16305	17590	17627	16759	15362	13927	13927	14055	15286	16283
-Other Firm Loads-														
13 Other PNW Entities	437	437	418	417	422	433	441	429	423	410	410	412	429	446
14 Total Other Firm Loads	437	437	418	417	422	433	441	429	423	410	410	412	429	446
-Total Regional Firm Loads-														
15 Federal Entities	405	405	376	216	197	206	219	204	211	440	440	461	427	437
16 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
17 Public Entities	11771	11771	11355	12660	14175	15165	15542	14812	13371	12724	12724	11989	11795	12205
18 Investor-Owned Entities	15462	15462	14060	14276	16305	17590	17627	16759	15362	13927	13927	14055	15286	16283
19 Other Entities	437	437	418	417	422	433	441	429	423	410	410	412	429	446
20 Total Regional Firm Loads	28527	28527	26660	28020	31551	33846	34281	32655	29818	27953	27953	27368	28389	29823
Non-Firm Loads														
-Investor-Owned Entities-														
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
-Total Regional Non-Firm Loads-														
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
-Total Regional Loads-														
29 Federal Entities	405	405	376	216	197	206	219	204	211	440	440	461	427	437
30 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
31 Public Entities	11771	11771	11355	12660	14175	15165	15542	14812	13371	12724	12724	11989	11795	12205
32 Investor-Owned Entities	15462	15462	14074	14276	16305	17590	17631	16782	15416	13961	13961	14055	15286	16283
33 Other Entities	437	437	418	417	422	433	441	429	423	410	410	412	429	446
34 Total Regional Loads	28527	28527	26675	28020	31551	33846	34285	32678	29872	27986	27986	27368	28389	29823

Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2013 - 2014 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Loads														
<i>-Federal Entities-</i>														
1 Federal Entities	180	180	173	182	198	208	243	224	203	194	194	190	185	181
2 Total Federal Entities	180	180	173	182	198	208	243	224	203	194	194	190	185	181
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
6 Total Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	6477	6477	6310	7319	8232	8714	8941	8620	7846	7374	7374	6733	6484	6628
8 Total Generating Public Entities	6477	6477	6310	7319	8232	8714	8941	8620	7846	7374	7374	6733	6484	6628
<i>-Non-Generating Public Entities-</i>														
9 Non-Generating Public Entities	5440	5440	5184	5482	6096	6609	6857	6461	5745	5559	5559	5470	5508	5783
10 Total Non-Generating Public Entities	5440	5440	5184	5482	6096	6609	6857	6461	5745	5559	5559	5470	5508	5783
<i>-Investor-Owned Entities-</i>														
11 Investor-Owned Entities	15725	15725	14278	14448	16505	17820	18268	17363	15926	14441	14441	14613	15916	16961
12 Total Investor-Owned Entities	15725	15725	14278	14448	16505	17820	18268	17363	15926	14441	14441	14613	15916	16961
<i>-Other Firm Loads-</i>														
13 Other PNW Entities	440	440	420	419	424	435	443	430	424	412	412	413	431	449
14 Total Other Firm Loads	440	440	420	419	424	435	443	430	424	412	412	413	431	449
<i>-Total Regional Firm Loads-</i>														
15 Federal Entities	407	407	378	218	199	208	243	224	228	455	455	476	444	449
16 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
17 Public Entities	11917	11917	11494	12801	14327	15323	15798	15081	13591	12933	12933	12203	11992	12411
18 Investor-Owned Entities	15725	15725	14278	14448	16505	17820	18268	17363	15926	14441	14441	14613	15916	16961
19 Other Entities	440	440	420	419	424	435	443	430	424	412	412	413	431	449
20 Total Regional Firm Loads	28940	28940	27021	28337	31906	34237	35204	33550	30621	28692	28692	28157	29234	30722
Non-Firm Loads														
<i>-Investor-Owned Entities-</i>														
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Non-Firm Loads-</i>														
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Loads-</i>														
29 Federal Entities	407	407	378	218	199	208	243	224	228	455	455	476	444	449
30 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
31 Public Entities	11917	11917	11494	12801	14327	15323	15798	15081	13591	12933	12933	12203	11992	12411
32 Investor-Owned Entities	15725	15725	14293	14448	16505	17820	18271	17386	15981	14475	14475	14613	15916	16961
33 Other Entities	440	440	420	419	424	435	443	430	424	412	412	413	431	449
34 Total Regional Loads	28940	28940	27035	28337	31906	34237	35207	33573	30675	28726	28726	28157	29234	30722

Table A-1: Pacific Northwest Total Retail Loads
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Loads														
<i>-Federal Entities-</i>														
1 Federal Entities	198	198	188	199	219	230	249	230	208	198	198	194	189	185
2 Total Federal Entities	198	198	188	199	219	230	249	230	208	198	198	194	189	185
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
6 Total Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	6591	6591	6420	7448	8377	8868	8998	8677	7898	7423	7423	6778	6530	6675
8 Total Generating Public Entities	6591	6591	6420	7448	8377	8868	8998	8677	7898	7423	7423	6778	6530	6675
<i>-Non-Generating Public Entities-</i>														
9 Non-Generating Public Entities	5528	5528	5267	5565	6183	6701	6952	6549	5824	5640	5640	5555	5593	5874
10 Total Non-Generating Public Entities	5528	5528	5267	5565	6183	6701	6952	6549	5824	5640	5640	5555	5593	5874
<i>-Investor-Owned Entities-</i>														
11 Investor-Owned Entities	16392	16392	14863	14963	17082	18465	18539	17605	16152	14635	14635	14860	16211	17245
12 Total Investor-Owned Entities	16392	16392	14863	14963	17082	18465	18539	17605	16152	14635	14635	14860	16211	17245
<i>-Other Firm Loads-</i>														
13 Other PNW Entities	442	442	422	420	425	436	445	432	426	413	413	415	434	451
14 Total Other Firm Loads	442	442	422	420	425	436	445	432	426	413	413	415	434	451
<i>-Total Regional Firm Loads-</i>														
15 Federal Entities	424	424	392	234	219	230	250	230	233	459	459	481	448	453
16 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
17 Public Entities	12119	12119	11687	13013	14560	15568	15950	15226	13722	13063	13063	12333	12123	12549
18 Investor-Owned Entities	16392	16392	14863	14963	17082	18465	18539	17605	16152	14635	14635	14860	16211	17245
19 Other Entities	442	442	422	420	425	436	445	432	426	413	413	415	434	451
20 Total Regional Firm Loads	29829	29829	27815	29082	32738	35151	35635	33944	30984	29022	29022	28540	29667	31150
Non-Firm Loads														
<i>-Investor-Owned Entities-</i>														
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Non-Firm Loads-</i>														
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Loads-</i>														
29 Federal Entities	424	424	392	234	219	230	250	230	233	459	459	481	448	453
30 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
31 Public Entities	12119	12119	11687	13013	14560	15568	15950	15226	13722	13063	13063	12333	12123	12549
32 Investor-Owned Entities	16392	16392	14877	14963	17082	18465	18543	17628	16207	14669	14669	14860	16211	17245
33 Other Entities	442	442	422	420	425	436	445	432	426	413	413	415	434	451
34 Total Regional Loads	29829	29829	27829	29082	32738	35151	35639	33967	31038	29056	29056	28540	29667	31150

Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Loads														
<i>-Federal Entities-</i>														
1 Federal Entities	203	203	192	204	224	236	252	231	210	200	200	197	191	187
2 Total Federal Entities	203	203	192	204	224	236	252	231	210	200	200	197	191	187
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
6 Total Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	6638	6638	6464	7521	8456	8947	9081	8723	7975	7499	7499	6848	6601	6747
8 Total Generating Public Entities	6638	6638	6464	7521	8456	8947	9081	8723	7975	7499	7499	6848	6601	6747
<i>-Non-Generating Public Entities-</i>														
9 Non-Generating Public Entities	5616	5616	5350	5648	6270	6792	7047	6581	5909	5720	5720	5639	5678	5965
10 Total Non-Generating Public Entities	5616	5616	5350	5648	6270	6792	7047	6581	5909	5720	5720	5639	5678	5965
<i>-Investor-Owned Entities-</i>														
11 Investor-Owned Entities	16693	16693	15118	15183	17406	18731	18750	17804	16316	14770	14770	15056	16448	17503
12 Total Investor-Owned Entities	16693	16693	15118	15183	17406	18731	18750	17804	16316	14770	14770	15056	16448	17503
<i>-Other Firm Loads-</i>														
13 Other PNW Entities	444	444	424	421	427	438	446	433	427	414	414	416	436	454
14 Total Other Firm Loads	444	444	424	421	427	438	446	433	427	414	414	416	436	454
<i>-Total Regional Firm Loads-</i>														
15 Federal Entities	429	429	397	239	225	236	253	231	235	461	461	483	450	455
16 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
17 Public Entities	12254	12254	11814	13169	14726	15740	16128	15304	13884	13219	13219	12487	12278	12712
18 Investor-Owned Entities	16693	16693	15118	15183	17406	18731	18750	17804	16316	14770	14770	15056	16448	17503
19 Other Entities	444	444	424	421	427	438	446	433	427	414	414	416	436	454
20 Total Regional Firm Loads	30271	30271	28204	29464	33235	35597	36029	34224	31313	29316	29316	28894	30065	31575
Non-Firm Loads														
<i>-Investor-Owned Entities-</i>														
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Non-Firm Loads-</i>														
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Loads-</i>														
29 Federal Entities	429	429	397	239	225	236	253	231	235	461	461	483	450	455
30 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
31 Public Entities	12254	12254	11814	13169	14726	15740	16128	15304	13884	13219	13219	12487	12278	12712
32 Investor-Owned Entities	16693	16693	15132	15183	17406	18731	18754	17827	16370	14803	14803	15056	16448	17503
33 Other Entities	444	444	424	421	427	438	446	433	427	414	414	416	436	454
34 Total Regional Loads	30271	30271	28218	29464	33235	35597	36032	34247	31368	29349	29349	28894	30065	31575

Table A-1: Pacific Northwest Total Retail Loads
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Loads														
<i>-Federal Entities-</i>														
1 Federal Entities	205	205	194	206	227	238	334	299	267	249	249	248	247	228
2 Total Federal Entities	205	205	194	206	227	238	334	299	267	249	249	248	247	228
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
6 Total Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	6709	6709	6532	7595	8535	9028	9166	8814	8054	7575	7575	6920	6673	6821
8 Total Generating Public Entities	6709	6709	6532	7595	8535	9028	9166	8814	8054	7575	7575	6920	6673	6821
<i>-Non-Generating Public Entities-</i>														
9 Non-Generating Public Entities	5703	5703	5432	5731	6356	6883	7142	6730	5991	5801	5801	5723	5762	6055
10 Total Non-Generating Public Entities	5703	5703	5432	5731	6356	6883	7142	6730	5991	5801	5801	5723	5762	6055
<i>-Investor-Owned Entities-</i>														
11 Investor-Owned Entities	16983	16983	15334	15378	17618	18948	18952	18050	16508	14981	14981	15222	16669	17804
12 Total Investor-Owned Entities	16983	16983	15334	15378	17618	18948	18952	18050	16508	14981	14981	15222	16669	17804
<i>-Other Firm Loads-</i>														
13 Other PNW Entities	447	447	426	423	428	440	448	435	429	416	416	418	438	456
14 Total Other Firm Loads	447	447	426	423	428	440	448	435	429	416	416	418	438	456
<i>-Total Regional Firm Loads-</i>														
15 Federal Entities	431	431	399	241	227	239	335	299	292	510	510	535	506	497
16 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
17 Public Entities	12412	12412	11965	13326	14891	15911	16308	15544	14045	13376	13376	12643	12435	12876
18 Investor-Owned Entities	16983	16983	15334	15378	17618	18948	18952	18050	16508	14981	14981	15222	16669	17804
19 Other Entities	447	447	426	423	428	440	448	435	429	416	416	418	438	456
20 Total Regional Firm Loads	30725	30725	28575	29820	33617	35990	36494	34779	31725	29735	29735	29269	30500	32084
Non-Firm Loads														
<i>-Investor-Owned Entities-</i>														
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Non-Firm Loads-</i>														
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Loads-</i>														
29 Federal Entities	431	431	399	241	227	239	335	299	292	510	510	535	506	497
30 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
31 Public Entities	12412	12412	11965	13326	14891	15911	16308	15544	14045	13376	13376	12643	12435	12876
32 Investor-Owned Entities	16983	16983	15348	15378	17618	18948	18955	18073	16563	15015	15015	15222	16669	17804
33 Other Entities	447	447	426	423	428	440	448	435	429	416	416	418	438	456
34 Total Regional Loads	30725	30725	28589	29820	33617	35990	36498	34802	31780	29769	29769	29269	30500	32084

Table A-1: Pacific Northwest Total Retail Loads
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Loads														
<i>-Federal Entities-</i>														
1 Federal Entities	265	265	244	261	296	314	337	302	269	251	251	250	249	230
2 Total Federal Entities	265	265	244	261	296	314	337	302	269	251	251	250	249	230
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
6 Total Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	6780	6780	6601	7669	8615	9109	9251	8869	8133	7653	7653	6993	6746	6895
8 Total Generating Public Entities	6780	6780	6601	7669	8615	9109	9251	8869	8133	7653	7653	6993	6746	6895
<i>-Non-Generating Public Entities-</i>														
9 Non-Generating Public Entities	5791	5791	5514	5813	6444	6975	7240	6822	6076	5885	5885	5810	5850	6149
10 Total Non-Generating Public Entities	5791	5791	5514	5813	6444	6975	7240	6822	6076	5885	5885	5810	5850	6149
<i>-Investor-Owned Entities-</i>														
11 Investor-Owned Entities	17209	17209	15519	15546	17736	19222	19184	18172	16686	15150	15150	15432	16900	18076
12 Total Investor-Owned Entities	17209	17209	15519	15546	17736	19222	19184	18172	16686	15150	15150	15432	16900	18076
<i>-Other Firm Loads-</i>														
13 Other PNW Entities	448	448	427	424	430	441	450	436	430	417	417	419	440	458
14 Total Other Firm Loads	448	448	427	424	430	441	450	436	430	417	417	419	440	458
<i>-Total Regional Firm Loads-</i>														
15 Federal Entities	492	492	449	296	296	314	337	302	294	512	512	537	508	499
16 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
17 Public Entities	12571	12571	12116	13482	15059	16084	16491	15691	14209	13538	13538	12802	12596	13044
18 Investor-Owned Entities	17209	17209	15519	15546	17736	19222	19184	18172	16686	15150	15150	15432	16900	18076
19 Other Entities	448	448	427	424	430	441	450	436	430	417	417	419	440	458
20 Total Regional Firm Loads	31171	31171	28962	30200	33973	36513	36914	35053	32071	30069	30069	29641	30895	32528
Non-Firm Loads														
<i>-Investor-Owned Entities-</i>														
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Non-Firm Loads-</i>														
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
<i>-Total Regional Loads-</i>														
29 Federal Entities	492	492	449	296	296	314	337	302	294	512	512	537	508	499
30 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
31 Public Entities	12571	12571	12116	13482	15059	16084	16491	15691	14209	13538	13538	12802	12596	13044
32 Investor-Owned Entities	17209	17209	15533	15546	17736	19222	19188	18195	16740	15184	15184	15432	16900	18076
33 Other Entities	448	448	427	424	430	441	450	436	430	417	417	419	440	458
34 Total Regional Loads	31171	31171	28976	30200	33973	36513	36917	35076	32125	30103	30103	29641	30895	32528

Table A-1: Pacific Northwest Total Retail Loads
PNW Loads and Resource Study
2018 - 2019 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Firm Loads														
-Federal Entities-														
1 Federal Entities	267	267	246	263	298	316	340	305	272	254	254	253	251	233
2 Total Federal Entities	267	267	246	263	298	316	340	305	272	254	254	253	251	233
-U.S. Bureau of Reclamation-														
3 U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	226	226	205	35	0.5	0.4	0.4	0.4	25	261	261	286	259	268
-Direct Service Industry-														
5 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
6 Total Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
-Generating Public Entities-														
7 Generating Public Entities	6853	6853	6672	7745	8697	9191	9335	8953	8212	7730	7730	7065	6818	6968
8 Total Generating Public Entities	6853	6853	6672	7745	8697	9191	9335	8953	8212	7730	7730	7065	6818	6968
-Non-Generating Public Entities-														
9 Non-Generating Public Entities	5881	5881	5600	5899	6534	7071	7339	6912	6162	5970	5970	5896	5938	6243
10 Total Non-Generating Public Entities	5881	5881	5600	5899	6534	7071	7339	6912	6162	5970	5970	5896	5938	6243
-Investor-Owned Entities-														
11 Investor-Owned Entities	17422	17422	15710	15735	17953	19457	19418	18393	16889	15335	15335	15622	17109	18300
12 Total Investor-Owned Entities	17422	17422	15710	15735	17953	19457	19418	18393	16889	15335	15335	15622	17109	18300
-Other Firm Loads-														
13 Other PNW Entities	450	450	429	426	431	443	451	438	432	418	418	420	441	460
14 Total Other Firm Loads	450	450	429	426	431	443	451	438	432	418	418	420	441	460
-Total Regional Firm Loads-														
15 Federal Entities	494	494	451	299	298	316	341	305	297	515	515	539	510	501
16 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
17 Public Entities	12734	12734	12272	13644	15231	16262	16674	15865	14374	13699	13699	12961	12757	13212
18 Investor-Owned Entities	17422	17422	15710	15735	17953	19457	19418	18393	16889	15335	15335	15622	17109	18300
19 Other Entities	450	450	429	426	431	443	451	438	432	418	418	420	441	460
20 Total Regional Firm Loads	31551	31551	29313	30555	34365	36929	37336	35453	32444	30419	30419	29995	31269	32924
Non-Firm Loads														
-Investor-Owned Entities-														
21 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
22 Total Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
-Total Regional Non-Firm Loads-														
23 Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Investor-Owned Entities	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
27 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Total Regional Non-Firm Loads	0	0	14	0	0	0	3.5	23	54	34	34	0	0	0
-Total Regional Loads-														
29 Federal Entities	494	494	451	299	298	316	341	305	297	515	515	539	510	501
30 Direct Service Industry	452	452	452	452	452	452	452	452	452	452	452	452	452	452
31 Public Entities	12734	12734	12272	13644	15231	16262	16674	15865	14374	13699	13699	12961	12757	13212
32 Investor-Owned Entities	17422	17422	15725	15735	17953	19457	19422	18416	16944	15369	15369	15622	17109	18300
33 Other Entities	450	450	429	426	431	443	451	438	432	418	418	420	441	460
34 Total Regional Loads	31551	31551	29327	30555	34365	36929	37340	35476	32498	30453	30453	29995	31269	32924

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Table A-2
Exports
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-2: Regional Exports
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Exports East of Continental Divide-</i>														
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 BPA to Other Entities	64	64	57	56	63	68	68	67	62	56	56	54	59	67
3 Total Exports to ECD	71	71	64	63	69	75	75	74	69	63	63	60	66	74
<i>-Exports to Pacific Southwest-</i>														
4 AVST to SMUD PwrS	75	75	75	75	75	75	75	75	75	75	75	75	75	75
5 BPA to Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 BPA to PASA C/N/X	15	15	15	0	0	0	0	0	0	0	0	0	0	15
7 BPA to PASA S/N/X	0	0	0	0	0	0	0	0	0	0	0	15	15	0
8 BPA to RVSD CapS	0	0	0	0	16	16	16	16	16	16	16	23	0	0
9 BPA to RVSD C/N/X	23	23	23	23	0	0	0	0	0	0	0	0	0	0
10 BPA to RVSD C/N/X	60	60	60	60	15	15	15	15	15	15	15	0	0	60
11 BPA to RVSD S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	60	60	0
12 BURB to BURB PwrS	0	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
13 GLEN to GLEN PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14 LDWP to LDWP PwrS	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
15 LDWP to LDWP PwrS	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
16 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
17 Other Entities to Other Entities	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
18 PG&E to PG&E PwrS	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
19 PG&E to PG&E PwrS	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
20 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 PGE to GLEN PwrS	20	20	20	20	20	20	20	20	20	20	20	20	20	20
22 PGE to GLEN S/Pwr/X	30	30	30	0	0	0	0	0	0	0	0	0	30	30
23 PPL to REDD PwrS	50	50	50	50	0	0	0	0	0	0	0	50	50	50
24 PPL to SMUD PwrS	100	100	100	100	100	100	100	100	100	100	100	100	100	100
25 PSE to PG&E S/Pwr/X	300	300	300	0	0	0	0	0	0	0	0	0	300	300
26 SCL to NCPA S/Pwr/X	60	60	60	29	0	0	0	0	0	0	0	0	60	60
27 SDGE to SDGE PwrS	86	86	86	86	86	86	86	86	86	86	0	0	86	86
28 SMUD to SMUD PwrS	20	20	20	20	20	17	17	17	20	20	20	20	20	20
29 SMUD to SMUD PwrS	55	55	55	55	55	55	55	55	55	55	55	55	55	55
30 TID to TID PwrS	58	58	58	58	58	58	58	58	58	58	58	0	58	58
31 TID to TID PwrS	0	0	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
32 BPA NW-SW Intertie Losses	2.9	2.9	2.9	2.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.9	2.3	2.3
33 Total Exports To PSW	990	990	997	620	480	477	477	477	480	480	402	463	973	973
<i>-Exports to Inland Southwest-</i>														
34 BPA to SPP PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75
35 Total Exports To ISW	75	75	75	45	45	45	45	45	45	75	75	75	75	75
<i>-Exports to Canada-</i>														
36 BPA to BCHP CanEnt	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352
37 Total Exports To Canada	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352	1352
<i>-Exports to Other Entities-</i>														
38 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Exports-</i>														
39 Federal Entities	1592	1592	1585	1539	1492	1497	1497	1496	1491	1515	1515	1581	1564	1571
40 Public Entities	211	211	218	187	158	155	155	155	158	158	158	100	218	218
41 Investor-Owned Entities	602	602	602	272	222	222	222	222	222	222	136	186	602	602
42 Other Entities	83	83	83	83	75	75	75	75	75	75	83	83	83	83
43 Total Exports.	2487	2487	2487	2080	1946	1950	1949	1948	1946	1970	1892	1950	2466	2474

Table A-2: Regional Exports
PNW Loads and Resource Study
2010 - 2011 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Exports East of Continental Divide-</i>														
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 BPA to Other Entities	65	65	57	57	63	69	69	68	62	57	57	54	60	68
3 Total Exports to ECD	71	71	64	64	70	76	75	75	69	64	64	61	67	74
<i>-Exports to Pacific Southwest-</i>														
4 AVST to SMUD PwrS	75	75	75	75	75	75	75	75	75	75	75	75	75	75
5 BPA to Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 BPA to PASA C/N/X	15	15	15	0	0	0	0	0	0	0	0	0	0	15
7 BPA to PASA S/N/X	0	0	0	0	0	0	0	0	0	0	0	15	15	0
8 BPA to RVSD C/N/X	60	60	60	60	15	15	15	15	15	15	15	0	0	60
9 BPA to RVSD S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	60	60	0
10 BURB to BURB PwrS	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
11 GLEN to GLEN PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12 LDWP to LDWP PwrS	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
13 LDWP to LDWP PwrS	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
14 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
15 Other Entities to Other Entities	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
16 PG&E to PG&E PwrS	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
17 PG&E to PG&E PwrS	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
18 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 PGE to GLEN PwrS	20	20	20	20	20	20	20	20	20	20	20	20	20	20
20 PGE to GLEN S/Pwr/X	30	30	30	0	0	0	0	0	0	0	0	0	30	30
21 PPL to REDD PwrS	50	50	50	50	0	0	0	0	0	0	0	50	50	50
22 PPL to SMUD PwrS	100	100	100	100	100	100	100	100	100	100	100	100	100	100
23 PSE to PG&E S/Pwr/X	300	300	300	0	0	0	0	0	0	0	0	0	300	300
24 SCL to NCPA S/Pwr/X	60	60	60	29	0	0	0	0	0	0	0	0	60	60
25 SDGE to SDGE PwrS	86	86	86	86	86	86	86	86	86	86	0	0	86	86
26 SMUD to SMUD PwrS	20	20	20	20	20	17	17	17	20	20	20	20	20	20
27 SMUD to SMUD PwrS	55	55	55	55	55	55	55	55	55	55	55	55	55	55
28 TID to TID PwrS	58	58	58	58	58	58	58	58	58	58	0	0	58	58
29 TID to TID PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
30 BPA NW-SW Intertie Losses	2.3	2.3	2.3	1.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.3	2.3	2.3
31 Total Exports To PSW	973	973	973	597	464	461	461	461	464	464	328	439	973	973
<i>-Exports to Inland Southwest-</i>														
32 BPA to SPP PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75
33 Total Exports To ISW	75	75	75	45	45	45	45	45	45	75	75	75	75	75
<i>-Exports to Canada-</i>														
34 BPA to BCHP CanEnt	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
35 Total Exports To Canada	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
<i>-Exports to Other Entities-</i>														
36 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Exports-</i>														
37 Federal Entities	1567	1567	1559	1514	1474	1479	1479	1478	1473	1497	1497	1556	1562	1570
38 Public Entities	218	218	218	187	158	155	155	155	158	158	100	100	218	218
39 Investor-Owned Entities	602	602	602	272	222	222	222	222	222	222	136	186	602	602
40 Other Entities	83	83	83	83	75	75	75	75	75	75	83	83	83	83
41 Total Exports.	2470	2470	2462	2055	1928	1932	1931	1931	1928	1952	1816	1925	2465	2473

Table A-2: Regional Exports
PNW Loads and Resource Study
2011 - 2012 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Exports East of Continental Divide-</i>														
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 BPA to Other Entities	65	65	58	9.6	9.4	10	8.7	9.2	9	7.7	7.7	9	9.6	11
3 Total Exports to ECD	72	72	65	16	16	17	16	16	16	14	14	16	16	18
<i>-Exports to Pacific Southwest-</i>														
4 AVST to SMUD PwrS	75	75	75	75	75	75	75	75	75	75	75	75	75	75
5 BPA to Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 BPA to PASA C/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	15
7 BPA to PASA C/N/X	15	15	15	0	0	0	0	0	0	0	0	0	0	0
8 BPA to PASA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 BPA to PASA S/N/X	0	0	0	0	0	0	0	0	0	0	0	15	15	0
10 BPA to RVSD C/N/X	0	0	0	60	15	15	15	15	15	15	15	0	0	60
11 BPA to RVSD C/N/X	60	60	60	0	0	0	0	0	0	0	0	0	0	0
12 BPA to RVSD S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 BPA to RVSD S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	60	60	0
14 BURB to BURB PwrS	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
15 GLEN to GLEN PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16 LDWP to LDWP PwrS	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
17 LDWP to LDWP PwrS	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
18 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
19 Other Entities to Other Entities	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
20 PG&E to PG&E PwrS	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
21 PG&E to PG&E PwrS	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
22 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 PGE to GLEN PwrS	20	20	20	20	20	20	20	20	20	20	20	20	20	20
24 PGE to GLEN S/Pwr/X	30	30	30	0	0	0	0	0	0	0	0	0	0	0
25 PPL to REDD PwrS	50	50	50	50	0	0	0	0	0	0	0	50	50	50
26 PPL to SMUD PwrS	100	100	100	100	100	100	100	100	100	100	100	100	100	100
27 PSE to PG&E S/Pwr/X	300	300	300	0	0	0	0	0	0	0	0	0	300	300
28 SCL to NCPA S/Pwr/X	60	60	60	29	0	0	0	0	0	0	0	0	60	60
29 SDGE to SDGE PwrS	86	86	86	86	86	86	86	86	86	86	0	0	86	86
30 SMUD to SMUD PwrS	20	20	20	20	20	17	17	17	20	20	20	20	20	20
31 SMUD to SMUD PwrS	55	55	55	55	55	55	55	55	55	55	55	55	55	55
32 TID to TID PwrS	58	58	58	58	58	58	58	58	58	58	0	0	58	58
33 TID to TID PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
34 BPA NW-SW Intertie Losses	2.3	2.3	2.3	1.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.3	2.3	2.3
35 Total Exports To PSW	973	973	973	597	464	461	461	461	464	464	328	439	943	943
<i>-Exports to Inland Southwest-</i>														
36 BPA to SPP PwrS	0	0	0	45	45	45	45	45	45	75	75	75	75	75
37 BPA to SPP PwrS	75	75	75	0	0	0	0	0	0	0	0	0	0	0
38 Total Exports To ISW	75	75	75	45	45	45	45	45	45	75	75	75	75	75
<i>-Exports to Canada-</i>														
39 BPA to BCHP CanEnt	0	0	0	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
40 BPA to BCHP CanEnt	1350	1350	1350	0	0	0	0	0	0	0	0	0	0	0
41 Total Exports To Canada	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
<i>-Exports to Other Entities-</i>														
42 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Exports-</i>														
43 Federal Entities	1567	1567	1560	1466	1420	1421	1419	1420	1419	1448	1448	1511	1512	1513
44 Public Entities	218	218	218	187	158	155	155	155	158	158	100	100	218	218
45 Investor-Owned Entities	602	602	602	272	222	222	222	222	222	222	136	186	572	572
46 Other Entities	83	83	83	83	75	75	75	75	75	75	83	83	83	83
47 Total Exports.	2470	2470	2463	2008	1875	1873	1871	1872	1874	1903	1767	1880	2385	2386

Table A-2: Regional Exports
PNW Loads and Resource Study
2012 - 2013 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Exports East of Continental Divide-</i>														
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 BPA to Other Entities	12	12	9.6	9.6	9.4	10	8.7	9.2	9	7.7	7.7	9	9.6	11
3 Total Exports to ECD	18	18	16	16	16	17	16	16	16	14	14	16	16	18
<i>-Exports to Pacific Southwest-</i>														
4 AVST to SMUD PwrS	75	75	75	75	75	75	75	75	75	75	75	75	75	75
5 BPA to Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 BPA to PASA C/N/X	15	15	15	0	0	0	0	0	0	0	0	0	0	15
7 BPA to PASA S/N/X	0	0	0	0	0	0	0	0	0	0	0	15	15	0
8 BPA to RVSD C/N/X	60	60	60	60	15	15	15	15	15	15	15	0	0	60
9 BPA to RVSD S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	60	60	0
10 BURB to BURB PwrS	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
11 GLEN to GLEN PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12 LDWP to LDWP PwrS	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
13 LDWP to LDWP PwrS	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
14 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
15 Other Entities to Other Entities	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
16 PG&E to PG&E PwrS	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
17 PG&E to PG&E PwrS	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
18 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 PGE to GLEN PwrS	20	20	20	0	0	0	0	0	0	0	0	0	0	0
20 PGE to GLEN S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 PPL to REDD PwrS	50	50	50	50	0	0	0	0	0	0	0	50	50	50
22 PPL to SMUD PwrS	100	100	100	100	100	100	100	100	100	100	100	100	100	100
23 PSE to PG&E S/Pwr/X	300	300	300	0	0	0	0	0	0	0	0	0	300	300
24 SCL to NCPA S/Pwr/X	60	60	60	29	0	0	0	0	0	0	0	0	60	60
25 SDGE to SDGE PwrS	86	86	86	86	86	86	86	86	86	86	0	0	86	86
26 SMUD to SMUD PwrS	20	20	20	20	20	17	17	17	20	20	20	20	20	20
27 SMUD to SMUD PwrS	55	55	55	55	55	55	55	55	55	55	55	55	55	55
28 TID to TID PwrS	58	58	58	58	58	58	58	58	58	58	0	0	58	58
29 TID to TID PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
30 BPA NW-SW Intertie Losses	2.3	2.3	2.3	1.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.3	2.3	2.3
31 Total Exports To PSW	943	943	943	577	444	441	441	441	444	444	308	419	923	923
<i>-Exports to Inland Southwest-</i>														
32 BPA to SPP PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75
33 Total Exports To ISW	75	75	75	45	45	45	45	45	45	75	75	75	75	75
<i>-Exports to Canada-</i>														
34 BPA to BCHP CanEnt	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
35 Total Exports To Canada	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
<i>-Exports to Other Entities-</i>														
36 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Exports-</i>														
37 Federal Entities	1514	1514	1512	1466	1420	1421	1419	1420	1419	1448	1448	1511	1512	1513
38 Public Entities	218	218	218	187	158	155	155	155	158	158	100	100	218	218
39 Investor-Owned Entities	572	572	572	252	202	202	202	202	202	202	116	166	552	552
40 Other Entities	83	83	83	83	75	75	75	75	75	75	83	83	83	83
41 Total Exports.	2386	2386	2385	1988	1855	1853	1851	1852	1854	1883	1747	1860	2365	2366

Table A-2: Regional Exports
PNW Loads and Resource Study
2013 - 2014 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Exports East of Continental Divide-</i>														
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 BPA to Other Entities	12	12	9.6	9.6	9.5	10	8.7	9.3	9.1	7.7	7.7	9.1	9.6	11
3 Total Exports to ECD	18	18	16	16	16	17	16	16	16	14	14	16	16	18
<i>-Exports to Pacific Southwest-</i>														
4 AVST to SMUD PwrS	75	75	75	75	75	75	75	75	75	75	75	75	75	75
5 BPA to Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 BPA to PASA C/N/X	15	15	15	0	0	0	0	0	0	0	0	0	0	15
7 BPA to PASA S/N/X	0	0	0	0	0	0	0	0	0	0	0	15	15	0
8 BPA to RVSD C/N/X	60	60	60	60	15	15	15	15	15	15	15	0	0	60
9 BPA to RVSD S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	60	60	0
10 BURB to BURB PwrS	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
11 GLEN to GLEN PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12 LDWP to LDWP PwrS	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
13 LDWP to LDWP PwrS	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
14 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
15 Other Entities to Other Entities	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
16 PG&E to PG&E PwrS	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
17 PG&E to PG&E PwrS	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
18 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 PPL to REDD PwrS	50	50	50	50	0	0	0	0	0	0	0	50	50	50
20 PPL to SMUD PwrS	100	100	100	100	100	100	100	100	100	100	100	100	100	100
21 PSE to PG&E S/Pwr/X	300	300	300	0	0	0	0	0	0	0	0	0	300	300
22 SCL to NCPA S/Pwr/X	60	60	60	29	0	0	0	0	0	0	0	0	60	60
23 SDGE to SDGE PwrS	86	86	86	86	86	86	86	86	86	86	0	0	86	86
24 SMUD to SMUD PwrS	20	20	20	20	20	17	17	17	20	20	20	20	20	20
25 SMUD to SMUD PwrS	55	55	55	55	55	55	55	55	55	55	55	55	55	55
26 TID to TID PwrS	58	58	58	58	58	58	58	58	58	58	0	0	58	58
27 TID to TID PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
28 BPA NW-SW Intertie Losses	2.3	2.3	2.3	1.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.3	2.3	2.3
29 Total Exports To PSW	923	923	923	577	444	441	441	441	444	444	308	419	923	923
<i>-Exports to Inland Southwest-</i>														
30 BPA to SPP PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75
31 Total Exports To ISW	75	75	75	45	45	45	45	45	45	75	75	75	75	75
<i>-Exports to Canada-</i>														
32 BPA to BCPH CanEnt	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
33 Total Exports To Canada	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
<i>-Exports to Other Entities-</i>														
34 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Exports-</i>														
35 Federal Entities	1514	1514	1512	1466	1420	1421	1419	1420	1420	1448	1448	1511	1512	1513
36 Public Entities	218	218	218	187	158	155	155	155	158	158	100	100	218	218
37 Investor-Owned Entities	552	552	552	252	202	202	202	202	202	202	116	166	552	552
38 Other Entities	83	83	83	83	75	75	75	75	75	75	83	83	83	83
39 Total Exports.	2366	2366	2365	1988	1855	1853	1851	1852	1854	1883	1747	1860	2365	2366

Table A-2: Regional Exports
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Exports East of Continental Divide-</i>														
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 BPA to Other Entities	12	12	9.6	9.6	9.5	10	8.7	9.3	9.1	7.7	7.7	9.1	9.7	11
3 Total Exports to ECD	18	18	16	16	16	17	16	16	16	14	14	16	16	18
<i>-Exports to Pacific Southwest-</i>														
4 AVST to SMUD PwrS	75	75	75	75	75	75	0	0	0	0	0	0	0	0
5 BPA to Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 BPA to PASA C/N/X	15	15	15	0	0	0	0	0	0	0	0	0	0	0
7 BPA to PASA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 BPA to RVSD C/N/X	60	60	60	60	15	15	15	15	15	15	15	0	0	60
9 BPA to RVSD S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	60	60	0
10 BURB to BURB PwrS	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
11 GLEN to GLEN PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12 LDWP to LDWP PwrS	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
13 LDWP to LDWP PwrS	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
14 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
15 Other Entities to Other Entities	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
16 PG&E to PG&E PwrS	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
17 PG&E to PG&E PwrS	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
18 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 PPL to REDD PwrS	50	50	50	50	0	0	0	0	0	0	0	50	50	50
20 PPL to SMUD PwrS	100	100	100	100	100	100	0	0	0	0	0	0	0	0
21 PSE to PG&E S/Pwr/X	300	300	300	0	0	0	0	0	0	0	0	0	300	300
22 SCL to NCPA S/Pwr/X	60	60	60	29	0	0	0	0	0	0	0	0	60	60
23 SDGE to SDGE PwrS	86	86	86	86	86	86	86	86	86	86	0	0	86	86
24 SMUD to SMUD PwrS	20	20	20	20	20	17	17	17	20	20	20	20	20	20
25 SMUD to SMUD PwrS	55	55	55	55	55	55	55	55	55	55	55	55	55	55
26 TID to TID PwrS	58	58	58	58	58	58	58	58	58	58	0	0	58	58
27 TID to TID PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
28 BPA NW-SW Intertie Losses	2.3	2.3	2.3	1.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.8	1.8	1.8
29 Total Exports To PSW	923	923	923	577	444	441	266	266	269	269	133	229	733	733
<i>-Exports to Inland Southwest-</i>														
30 BPA to SPP PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75
31 Total Exports To ISW	75	75	75	45	45	45	45	45	45	75	75	75	75	75
<i>-Exports to Canada-</i>														
32 BPA to BCHP CanEnt	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
33 Total Exports To Canada	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
<i>-Exports to Other Entities-</i>														
34 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Exports-</i>														
35 Federal Entities	1514	1514	1512	1466	1420	1421	1419	1420	1420	1448	1448	1496	1496	1498
36 Public Entities	218	218	218	187	158	155	155	155	158	158	100	100	218	218
37 Investor-Owned Entities	552	552	552	252	202	202	102	102	102	102	16	66	452	452
38 Other Entities	83	83	83	83	75	75	0	0	0	0	7.8	7.8	7.8	7.8
39 Total Exports.	2367	2367	2365	1988	1855	1853	1676	1677	1679	1708	1572	1670	2174	2176

Table A-2: Regional Exports
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Exports East of Continental Divide-</i>														
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 BPA to Other Entities	12	12	9.7	9.6	9.5	10	8.7	9.3	9.1	7.7	7.7	9.1	9.7	0
3 Total Exports to ECD	18	18	16	16	16	17	16	16	16	14	14	16	16	6.8
<i>-Exports to Pacific Southwest-</i>														
4 BPA to Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 BPA to RVSD C/N/X	60	60	60	60	15	15	15	15	15	15	15	0	0	0
6 BPA to RVSD S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 BURB to BURB PwrS	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
8 GLEN to GLEN PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9 LDWP to LDWP PwrS	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
10 LDWP to LDWP PwrS	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
11 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
12 Other Entities to Other Entities	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
13 PG&E to PG&E PwrS	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
14 PG&E to PG&E PwrS	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
15 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 PPL to REDD PwrS	50	50	50	50	0	0	0	0	0	0	0	0	0	0
17 PSE to PG&E S/Pwr/X	300	300	300	0	0	0	0	0	0	0	0	0	300	300
18 SCL to NCPA S/Pwr/X	60	60	60	29	0	0	0	0	0	0	0	0	60	60
19 SDGE to SDGE PwrS	86	86	86	86	86	86	86	86	86	86	0	0	86	86
20 SMUD to SMUD PwrS	20	20	20	20	20	17	17	17	20	20	20	20	20	20
21 SMUD to SMUD PwrS	55	55	55	55	55	55	55	55	55	55	55	55	55	55
22 TID to TID PwrS	58	58	58	58	58	58	58	58	58	58	0	0	58	58
23 TID to TID PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
24 BPA NW-SW Intertie Losses	1.8	1.8	1.8	1.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0
25 Total Exports To PSW	733	733	733	402	269	266	266	266	269	269	133	117	621	621
<i>-Exports to Inland Southwest-</i>														
26 BPA to SPP PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75
27 Total Exports To ISW	75	75	75	45	45	45	45	45	45	75	75	75	75	75
<i>-Exports to Canada-</i>														
28 BPA to BCPH CanEnt	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
29 Total Exports To Canada	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
<i>-Exports to Other Entities-</i>														
30 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Exports-</i>														
31 Federal Entities	1498	1498	1496	1466	1420	1421	1419	1420	1420	1448	1448	1434	1435	1425
32 Public Entities	218	218	218	187	158	155	155	155	158	158	100	100	218	218
33 Investor-Owned Entities	452	452	452	152	102	102	102	102	102	16	16	402	402	402
34 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	7.8	7.8	7.8	7.8	7.8
35 Total Exports.	2176	2176	2174	1813	1680	1678	1676	1677	1679	1708	1572	1558	2062	2053

Table A-2: Regional Exports
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Exports East of Continental Divide-</i>														
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 Total Exports to ECD	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
<i>-Exports to Pacific Southwest-</i>														
3 BPA to Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 BURB to BURB PwrS	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
5 GLEN to GLEN PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6 LDWP to LDWP PwrS	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
7 LDWP to LDWP PwrS	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
8 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
9 Other Entities to Other Entities	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
10 PG&E to PG&E PwrS	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
11 PG&E to PG&E PwrS	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
12 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 PSE to PG&E S/Pwr/X	300	300	300	0	0	0	0	0	0	0	0	0	300	300
14 SCL to NCPA S/Pwr/X	60	60	60	29	0	0	0	0	0	0	0	0	60	60
15 SDGE to SDGE PwrS	86	86	86	86	86	86	86	86	86	86	0	0	86	86
16 SMUD to SMUD PwrS	20	20	20	20	20	17	17	17	20	20	20	20	20	20
17 SMUD to SMUD PwrS	55	55	55	55	55	55	55	55	55	55	55	55	55	55
18 TID to TID PwrS	58	58	58	58	58	58	58	58	58	58	0	0	58	58
19 TID to TID PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
20 BPA NW-SW Intertie Losses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Total Exports To PSW	621	621	621	290	253	251	251	251	253	253	117	117	621	621
<i>-Exports to Inland Southwest-</i>														
22 BPA to SPP PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75
23 Total Exports To ISW	75	75	75	45	45	45	45	45	45	75	75	75	75	75
<i>-Exports to Canada-</i>														
24 BPA to BCHP CanEnt	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
25 Total Exports To Canada	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
<i>-Exports to Other Entities-</i>														
26 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Exports-</i>														
27 Federal Entities	1425	1425	1425	1395	1395	1395	1395	1395	1395	1425	1425	1425	1425	1425
28 Public Entities	218	218	218	187	158	155	155	155	158	158	100	100	218	218
29 Investor-Owned Entities	402	402	402	102	102	102	102	102	102	102	16	16	402	402
30 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
31 Total Exports.	2053	2053	2053	1692	1655	1652	1652	1652	1655	1685	1549	1549	2053	2053

Table A-2: Regional Exports
PNW Loads and Resource Study
2017 - 2018 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Exports East of Continental Divide-</i>														
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 Total Exports to ECD	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
<i>-Exports to Pacific Southwest-</i>														
3 BPA to Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 BURB to BURB PwrS	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
5 GLEN to GLEN PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6 LDWP to LDWP PwrS	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
7 LDWP to LDWP PwrS	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
8 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
9 Other Entities to Other Entities	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
10 PG&E to PG&E PwrS	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
11 PG&E to PG&E PwrS	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
12 PG&E to PG&E PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 PSE to PG&E S/Pwr/X	300	300	300	0	0	0	0	0	0	0	0	0	300	300
14 SCL to NCPA S/Pwr/X	60	60	60	29	0	0	0	0	0	0	0	0	60	60
15 SDGE to SDGE PwrS	86	86	86	86	86	86	86	86	86	86	0	0	86	86
16 SMUD to SMUD PwrS	55	55	55	55	55	55	55	55	55	55	55	55	55	55
17 TID to TID PwrS	58	58	58	58	58	58	58	58	58	58	0	0	58	58
18 TID to TID PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
19 BPA NW-SW Intertie Losses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Exports To PSW	601	601	601	270	233	233	233	233	233	233	97	97	601	601
<i>-Exports to Inland Southwest-</i>														
21 BPA to SPP PwrS	75	75	75	45	45	45	45	45	0	0	0	0	0	0
22 Total Exports To ISW	75	75	75	45	45	45	45	45	0	0	0	0	0	0
<i>-Exports to Canada-</i>														
23 BPA to BCHP CanEnt	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
24 Total Exports To Canada	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
<i>-Exports to Other Entities-</i>														
25 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Exports-</i>														
26 Federal Entities	1425	1425	1425	1395	1395	1395	1395	1395	1350	1350	1350	1350	1350	1350
27 Public Entities	198	198	198	167	138	138	138	138	138	138	80	80	198	198
28 Investor-Owned Entities	402	402	402	102	102	102	102	102	102	102	16	16	402	402
29 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
30 Total Exports.	2033	2033	2033	1672	1635	1635	1635	1635	1590	1590	1454	1454	1958	1958

Table A-2: Regional Exports
PNW Loads and Resource Study
2018 - 2019 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Exports East of Continental Divide-</i>														
1 AVWP to PPLM PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2 Total Exports to ECD	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
<i>-Exports to Pacific Southwest-</i>														
3 BPA to Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 BURB to BURB PwrS	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
5 GLEN to GLEN PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6 LDWP to LDWP PwrS	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
7 LDWP to LDWP PwrS	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
8 MACQ to BURB PwrS	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
9 Other Entities to Other Entities	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
10 PG&E to PG&E PwrS	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.9	4.9	4.9	4.9	4.9	4.9	4.9
11 PG&E to PG&E PwrS	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
12 PG&E to PG&E PwrS	0	0	0	0	0	0	0	3.8	3.8	3.8	3.8	3.8	3.8	3.8
13 PSE to PG&E S/Pwr/X	300	300	300	0	0	0	0	0	0	0	0	0	300	300
14 SCL to NCPA S/Pwr/X	60	60	60	29	0	0	0	0	0	0	0	0	60	60
15 SDGE to SDGE PwrS	86	86	86	86	86	86	86	86	86	86	0	0	86	86
16 SMUD to SMUD PwrS	55	55	55	55	55	55	55	55	55	55	55	55	55	55
17 TID to TID PwrS	58	58	58	58	58	58	58	58	58	58	0	0	58	58
18 TID to TID PwrS	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
19 BPA NW-SW Intertie Losses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Total Exports To PSW	601	601	601	270	233	233	233	238	238	238	102	102	606	606
<i>-Exports to Inland Southwest-</i>														
21 Total Exports To ISW	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Exports to Canada-</i>														
22 BPA to BHP CanEnt	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
23 Total Exports To Canada	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
<i>-Exports to Other Entities-</i>														
24 Total Exports To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Exports-</i>														
25 Federal Entities	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
26 Public Entities	198	198	198	167	138	138	138	138	138	138	80	80	198	198
27 Investor-Owned Entities	402	402	402	102	102	102	102	106	106	106	21	21	406	406
28 Other Entities	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
29 Total Exports.	1958	1958	1958	1627	1590	1590	1590	1595	1595	1595	1459	1459	1962	1962

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Table A-3
Regulated Hydro Projects
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2009 - 2010 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Regulated Hydro Projects-</i>														
1 Albeni Falls	50	50	50	42	32	28	28	29	28	28	26	36	48	50
2 Alder	51	43	0	0	0	44	34	28	28	30	0	43	48	52
3 Bonneville	1042	1042	1049	1048	1049	1051	1052	1052	1048	1042	1042	1042	1042	1042
4 Boundary	845	845	845	845	845	845	845	845	845	845	845	868	1016	845
5 Box Canyon	83	83	83	80	81	82	82	83	82	82	80	78	73	80
6 Brownlee	675	675	675	675	675	675	675	675	675	675	675	675	675	675
7 Cabinet Gorge	238	238	238	238	238	238	238	238	238	238	238	238	238	238
8 Chelan	58	58	57	57	57	56	55	55	16	54	16	55	57	58
9 Chief Joseph	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535
10 Cushman 1	44	39	0	0	0	34	25	18	0	0	0	26	0	0
11 Cushman 2	88	88	0	0	0	88	88	88	0	0	0	88	0	0
12 Diablo	172	172	172	172	172	172	172	172	172	172	172	172	172	172
13 Dworshak	448	446	446	445	445	445	445	443	444	445	446	448	450	449
14 Faraday	43	43	43	43	43	43	43	43	43	43	43	43	43	43
15 Gorge	182	182	182	182	182	182	182	182	182	182	182	182	182	182
16 Grand Coulee	6243	6134	6249	6359	6608	6442	6192	5750	5167	4450	4526	4824	5742	6340
17 Hells Canyon	285	285	366	372	246	394	305	334	342	450	450	450	330	333
18 Hungry Horse	416	414	410	404	396	388	379	370	360	354	278	290	409	417
19 Ice Harbor	693	693	693	693	693	693	693	693	693	693	693	693	693	693
20 John Day	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484
21 Kerr	180	180	180	179	176	174	171	167	165	163	163	171	178	180
22 La Grande	64	64	64	64	64	64	64	64	64	64	64	64	64	64
23 Libby	597	596	594	592	589	583	579	577	575	574	574	577	586	592
24 Little Falls	35	35	35	35	35	35	35	35	35	35	33	32	35	35
25 Little Goose	884	884	922	928	928	928	928	928	928	922	884	884	884	884
26 Long Lake	72	72	72	72	72	69	64	64	69	72	72	72	72	72
27 Lower Baker	71	66	59	61	60	59	57	54	14	64	67	64	67	71
28 Lower Granite	912	912	912	912	918	930	930	930	930	918	912	912	912	912
29 Lower Monumental	803	907	915	922	922	922	922	922	922	915	907	907	907	907
30 Mayfield	125	125	125	125	125	169	125	125	125	125	125	84	125	125
31 McNary	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127
32 Merwin	147	146	147	133	131	128	113	113	113	113	124	124	131	148
33 Monroe Street	6.6	5.3	11	9.2	9	12	4.6	5.9	12	14	14	14	14	11
34 Mossyrock	378	370	378	365	327	252	159	134	157	196	236	0	378	378
35 Nine Mile	22	22	22	22	22	22	22	22	22	22	21	20	21	22
36 North Fork	54	54	54	54	54	54	54	54	54	54	54	54	54	54
37 Noxon	543	507	533	535	545	543	533	533	543	545	535	533	543	552
38 Oak Grove	44	44	44	44	44	44	44	44	44	44	44	44	44	44
39 Oxbow	220	220	220	220	220	220	220	220	220	220	220	220	220	220
40 Pelton	108	108	108	108	108	108	108	108	108	108	108	108	108	108
41 Pelton Rereg. Dam	11	10	10	11	11	12	11	11	12	14	15	12	12	10
42 Post Falls	16	14	16	16	16	16	16	16	16	15	14	13	15	16
43 Priest Rapids	754	754	754	754	754	754	754	754	754	754	754	754	754	754
44 River Mill	23	23	23	23	23	23	23	23	23	23	23	23	23	23
45 Rock Island PH#1	168	175	175	175	171	173	171	174	175	176	175	172	172	173
46 Rock Island PH#2	431	428	429	428	429	428	430	428	429	432	430	429	430	429
47 Rocky Reach	1301	1298	1296	1297	1300	1299	1300	1298	1297	1292	1296	1299	1299	1299
48 Ross	440	425	230	322	414	393	345	269	218	218	223	280	372	430
49 Round Butte	300	300	300	300	300	300	300	300	300	300	300	300	300	300
50 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
51 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
52 The Dalles	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074
53 Thompson Falls	85	85	85	85	85	85	85	85	85	85	85	84	81	85
54 Upper Baker	99	96	96	44	96	86	80	80	0	90	88	92	100	102
55 Upper Falls	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.4	8.8	8.7	9.3	9.8
56 Wanapum	749	749	749	749	749	749	749	749	749	749	749	749	749	749
57 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
58 Yale	132	130	129	96	130	122	108	94	94	106	106	0	133	133
Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30399	30947

-Total Regulated Hydro w/Enc.-

Continued

Table A-3: Regional Regulated Hydro Projects
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
59 Federal System	20306	20297	20459	20566	20798	20631	20368	19914	19317	18560	18507	18832	19892	20506
60 Public Entities	4313	4278	3921	3969	4038	4140	4093	3978	3810	3892	3804	3880	4432	4330
61 Investor-Owned Entities	5599	5550	5654	5487	5371	5453	5123	5133	5048	5322	5148	5272	5336	5373
62 Other Entities	605	604	604	604	750	749	738	738	738	737	737	738	738	738
63 Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30399	30947

Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2010 - 2011 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Regulated Hydro Projects-</i>														
1 Albeni Falls	50	50	50	42	32	28	28	29	28	28	26	36	48	50
2 Alder	51	43	0	0	0	44	34	28	28	30	0	43	48	52
3 Bonneville	1042	1042	1049	1048	1049	1051	1052	1052	1048	1042	1042	1042	1042	1042
4 Boundary	845	845	845	845	845	845	845	845	845	845	845	868	1016	845
5 Box Canyon	83	83	83	80	81	82	82	83	82	82	80	78	73	80
6 Brownlee	675	675	675	675	675	675	675	675	675	675	675	675	675	675
7 Cabinet Gorge	238	238	238	238	238	238	238	238	238	238	238	238	238	238
8 Chelan	58	58	57	57	57	56	55	55	16	54	16	55	57	58
9 Chief Joseph	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535
10 Cushman 1	44	39	0	0	0	34	25	18	0	0	0	26	0	0
11 Cushman 2	88	88	0	0	0	88	88	88	0	0	0	88	0	0
12 Diablo	172	172	172	172	172	172	172	172	172	172	172	172	172	172
13 Dworshak	448	446	446	445	445	445	445	443	444	445	446	448	450	449
14 Faraday	43	43	43	43	43	43	43	43	43	43	43	43	43	43
15 Gorge	182	182	182	182	182	182	182	182	182	182	182	182	182	182
16 Grand Coulee	6243	6134	6249	6359	6608	6442	6192	5750	5167	4450	4526	4824	5742	6340
17 Hells Canyon	285	285	366	372	246	394	305	334	342	450	450	450	330	333
18 Hungry Horse	416	414	410	404	396	388	379	370	360	354	278	290	409	417
19 Ice Harbor	693	693	693	693	693	693	693	693	693	693	693	693	693	693
20 John Day	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484
21 Kerr	180	180	180	179	176	174	171	167	165	163	163	171	178	180
22 La Grande	64	64	64	64	64	64	64	64	64	64	64	64	64	64
23 Libby	597	596	594	592	589	583	579	577	575	574	574	577	586	592
24 Little Falls	35	35	35	35	35	35	35	35	35	35	33	32	35	35
25 Little Goose	884	884	922	928	928	928	928	928	928	922	884	884	884	884
26 Long Lake	72	72	72	72	72	69	64	64	69	72	72	72	72	72
27 Lower Baker	71	66	59	61	60	59	57	54	14	64	67	64	67	71
28 Lower Granite	912	912	912	912	918	930	930	930	930	918	912	912	912	912
29 Lower Monumental	803	907	915	922	922	922	922	922	922	915	907	907	907	907
30 Mayfield	125	125	125	125	125	169	125	125	125	125	125	84	125	125
31 McNary	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127
32 Merwin	147	146	147	133	131	128	113	113	113	113	124	124	131	148
33 Monroe Street	6.6	5.3	11	9.2	9	12	4.6	5.9	12	14	14	14	14	11
34 Mossyrock	378	370	378	365	327	252	159	134	157	196	236	0	378	378
35 Nine Mile	22	22	22	22	22	22	22	22	22	22	21	20	21	22
36 North Fork	54	54	54	54	54	54	54	54	54	54	54	54	54	54
37 Noxon	543	507	533	535	545	543	533	533	543	545	535	533	543	552
38 Oak Grove	44	44	44	44	44	44	44	44	44	44	44	44	44	44
39 Oxbow	220	220	220	220	220	220	220	220	220	220	220	220	220	220
40 Pelton	108	108	108	108	108	108	108	108	108	108	108	108	108	108
41 Pelton Rereg. Dam	11	10	10	11	11	12	11	11	12	14	15	12	12	10
42 Post Falls	16	14	16	16	16	16	16	16	16	15	14	13	15	16
43 Priest Rapids	754	754	754	754	754	754	754	754	754	754	754	754	754	754
44 River Mill	23	23	23	23	23	23	23	23	23	23	23	23	23	23
45 Rock Island PH#1	168	175	175	175	171	173	171	174	175	176	175	172	172	173
46 Rock Island PH#2	431	428	429	428	429	428	430	428	429	432	430	429	430	429
47 Rocky Reach	1301	1298	1296	1297	1300	1299	1300	1298	1297	1292	1296	1299	1299	1299
48 Ross	440	425	230	322	414	393	345	269	218	218	223	280	372	430
49 Round Butte	300	300	300	300	300	300	300	300	300	300	300	300	300	300
50 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
51 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
52 The Dalles	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074
53 Thompson Falls	85	85	85	85	85	85	85	85	85	85	85	84	81	85
54 Upper Baker	99	96	96	44	96	86	80	80	0	90	88	92	100	102
55 Upper Falls	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.4	8.8	8.7	9.3	9.8
56 Wanapum	749	749	749	749	749	749	749	749	749	749	749	749	749	749
57 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
58 Yale	132	130	129	96	130	122	108	94	94	106	106	0	133	133
Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30399	30947

-Total Regulated Hydro w/Enc.-

Continued

Table A-3: Regional Regulated Hydro Projects
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
59 Federal System	20306	20297	20459	20566	20798	20631	20368	19914	19317	18560	18507	18832	19892	20506
60 Public Entities	4474	4438	4082	4130	4204	4307	4093	3978	3810	3892	3804	3880	4432	4330
61 Investor-Owned Entities	5305	5255	5359	5192	5216	5298	5123	5133	5048	5322	5148	5272	5336	5373
62 Other Entities	739	738	738	738	738	738	738	738	738	737	737	738	738	738
63 Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30399	30947

Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Regulated Hydro Projects-</i>														
1 Albeni Falls	50	50	50	42	32	28	28	29	28	28	26	36	48	50
2 Alder	51	43	0	0	0	44	34	28	28	30	0	43	48	52
3 Bonneville	1042	1042	1049	1048	1049	1051	1052	1052	1048	1042	1042	1042	1042	1042
4 Boundary	845	845	845	845	845	845	845	845	845	845	845	868	1016	845
5 Box Canyon	83	83	83	80	81	82	82	83	82	82	80	78	73	80
6 Brownlee	675	675	675	675	675	675	675	675	675	675	675	675	675	675
7 Cabinet Gorge	238	238	238	238	238	238	238	238	238	238	238	238	238	238
8 Chelan	58	58	57	57	57	56	55	55	16	54	16	55	57	58
9 Chief Joseph	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535
10 Cushman 1	44	39	0	0	0	34	25	18	0	0	0	26	0	0
11 Cushman 2	88	88	0	0	0	88	88	88	0	0	0	88	0	0
12 Diablo	172	172	172	172	172	172	172	172	172	172	172	172	172	172
13 Dworshak	448	446	446	445	445	445	445	443	444	445	446	448	450	449
14 Faraday	43	43	43	43	43	43	43	43	43	43	43	43	43	43
15 Gorge	182	182	182	182	182	182	182	182	182	182	182	182	182	182
16 Grand Coulee	6243	6134	6249	6359	6608	6442	6192	5750	5167	4450	4526	4824	5742	6340
17 Hells Canyon	285	285	366	372	246	394	305	334	342	450	450	450	330	333
18 Hungry Horse	416	414	410	404	396	388	379	370	360	354	278	290	409	417
19 Ice Harbor	693	693	693	693	693	693	693	693	693	693	693	693	693	693
20 John Day	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484
21 Kerr	180	180	180	179	176	174	171	167	165	163	163	171	178	180
22 La Grande	64	64	64	64	64	64	64	64	64	64	64	64	64	64
23 Libby	597	596	594	592	589	583	579	577	575	574	574	577	586	592
24 Little Falls	35	35	35	35	35	35	35	35	35	35	33	32	35	35
25 Little Goose	884	884	922	928	928	928	928	928	928	922	884	884	884	884
26 Long Lake	72	72	72	72	72	69	64	64	69	72	72	72	72	72
27 Lower Baker	71	66	59	61	60	59	57	54	14	64	67	64	67	71
28 Lower Granite	912	912	912	912	918	930	930	930	930	918	912	912	912	912
29 Lower Monumental	803	907	915	922	922	922	922	922	922	915	907	907	907	907
30 Mayfield	125	125	125	125	125	169	125	125	125	125	125	84	125	125
31 McNary	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127
32 Merwin	147	146	147	133	131	128	113	113	113	113	124	124	131	148
33 Monroe Street	6.6	5.3	11	9.2	9	12	4.6	5.9	12	14	14	14	14	11
34 Mossyrock	378	370	378	365	327	252	159	134	157	196	236	0	378	378
35 Nine Mile	22	22	22	22	22	22	22	22	22	22	21	20	21	22
36 North Fork	54	54	54	54	54	54	54	54	54	54	54	54	54	54
37 Noxon	543	507	533	535	545	543	533	533	543	545	535	533	543	552
38 Oak Grove	44	44	44	44	44	44	44	44	44	44	44	44	44	44
39 Oxbow	220	220	220	220	220	220	220	220	220	220	220	220	220	220
40 Pelton	108	108	108	108	108	108	108	108	108	108	108	108	108	108
41 Pelton Rereg. Dam	11	10	10	11	11	12	11	11	12	14	15	12	12	10
42 Post Falls	16	14	16	16	16	16	16	16	16	15	14	13	15	16
43 Priest Rapids	754	754	754	754	754	754	754	754	754	754	754	754	754	754
44 River Mill	23	23	23	23	23	23	23	23	23	23	23	23	23	23
45 Rock Island PH#1	168	175	175	175	171	173	171	174	175	176	175	172	172	173
46 Rock Island PH#2	431	428	429	428	429	428	430	428	429	432	430	429	430	429
47 Rocky Reach	1301	1298	1296	1297	1300	1299	1300	1298	1297	1292	1296	1299	1299	1299
48 Ross	440	425	230	322	414	393	345	269	218	218	223	280	372	430
49 Round Butte	300	300	300	300	300	300	300	300	300	300	300	300	300	300
50 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
51 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
52 The Dalles	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074
53 Thompson Falls	85	85	85	85	85	85	85	85	85	85	85	84	81	85
54 Upper Baker	99	96	96	44	96	86	80	80	0	90	88	92	100	102
55 Upper Falls	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.4	8.8	8.7	9.3	9.8
56 Wanapum	749	749	749	749	749	749	749	749	749	749	749	749	749	749
57 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
58 Yale	132	130	129	96	130	122	108	94	94	106	106	0	133	133
Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30399	30947

-Total Regulated Hydro w/Enc.-

Continued

Table A-3: Regional Regulated Hydro Projects
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
59 Federal System	20306	20297	20459	20566	20798	20631	20368	19914	19317	18560	18507	18832	19892	20506
60 Public Entities	4474	4438	4082	4130	4590	4692	4479	4364	4195	4275	4189	4266	4818	4729
61 Investor-Owned Entities	5305	5255	5359	5192	4771	4854	4679	4689	4604	4880	4705	4828	4892	4778
62 Other Entities	739	738	738	738	797	797	797	796	796	795	796	797	797	934
63 Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30399	30947

Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Regulated Hydro Projects-</i>														
1 Albeni Falls	50	50	50	42	32	28	28	29	28	28	26	36	48	50
2 Alder	51	43	0	0	0	44	34	28	28	30	0	43	48	52
3 Bonneville	1042	1042	1049	1048	1049	1051	1052	1052	1048	1042	1042	1042	1042	1042
4 Boundary	845	845	845	845	845	845	845	845	845	845	845	868	1016	845
5 Box Canyon	83	83	83	80	81	82	82	83	82	82	80	78	73	80
6 Brownlee	675	675	675	675	675	675	675	675	675	675	675	675	675	675
7 Cabinet Gorge	238	238	238	238	238	238	238	238	238	238	238	238	238	238
8 Chelan	58	58	57	57	57	56	55	55	16	54	16	55	57	58
9 Chief Joseph	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535
10 Cushman 1	44	39	0	0	0	34	25	18	0	0	0	26	0	0
11 Cushman 2	88	88	0	0	0	88	88	88	0	0	0	88	0	0
12 Diablo	172	172	172	172	172	172	172	172	172	172	172	172	172	172
13 Dworshak	448	446	446	445	445	445	445	443	444	445	446	448	450	449
14 Faraday	43	43	43	43	43	43	43	43	43	43	43	43	43	43
15 Gorge	182	182	182	182	182	182	182	182	182	182	182	182	182	182
16 Grand Coulee	6243	6134	6249	6359	6608	6442	6192	5750	5167	4450	4526	4824	5742	6340
17 Hells Canyon	285	285	366	372	246	394	305	334	342	450	450	450	330	333
18 Hungry Horse	416	414	410	404	396	388	379	370	360	354	278	290	409	417
19 Ice Harbor	693	693	693	693	693	693	693	693	693	693	693	693	693	693
20 John Day	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484
21 Kerr	180	180	180	179	176	174	171	167	165	163	163	171	178	180
22 La Grande	64	64	64	64	64	64	64	64	64	64	64	64	64	64
23 Libby	597	596	594	592	589	583	579	577	575	574	574	577	586	592
24 Little Falls	35	35	35	35	35	35	35	35	35	35	33	32	35	35
25 Little Goose	884	884	922	928	928	928	928	928	928	922	884	884	884	884
26 Long Lake	72	72	72	72	72	69	64	64	69	72	72	72	72	72
27 Lower Baker	71	66	59	61	60	59	57	54	14	64	67	64	67	71
28 Lower Granite	912	912	912	912	918	930	930	930	930	918	912	912	912	912
29 Lower Monumental	803	907	915	922	922	922	922	922	922	915	907	907	907	907
30 Mayfield	125	125	125	125	125	169	125	125	125	125	125	84	125	125
31 McNary	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127
32 Merwin	147	146	147	133	131	128	113	113	113	113	124	124	131	148
33 Monroe Street	6.6	5.3	11	9.2	9	12	4.6	5.9	12	14	14	14	14	11
34 Mossyrock	378	370	378	365	327	252	159	134	157	196	236	0	378	378
35 Nine Mile	22	22	22	22	22	22	22	22	22	22	21	20	21	22
36 North Fork	54	54	54	54	54	54	54	54	54	54	54	54	54	54
37 Noxon	543	507	533	535	545	543	533	533	543	545	535	533	543	552
38 Oak Grove	44	44	44	44	44	44	44	44	44	44	44	44	44	44
39 Oxbow	220	220	220	220	220	220	220	220	220	220	220	220	220	220
40 Pelton	108	108	108	108	108	108	108	108	108	108	108	108	108	108
41 Pelton Rereg. Dam	11	10	10	11	11	12	11	11	12	14	15	12	12	10
42 Post Falls	16	14	16	16	16	16	16	16	16	15	14	13	15	16
43 Priest Rapids	754	754	754	754	754	754	754	754	754	754	754	754	754	754
44 River Mill	23	23	23	23	23	23	23	23	23	23	23	23	23	23
45 Rock Island PH#1	168	175	175	175	171	173	171	174	175	176	175	172	172	173
46 Rock Island PH#2	431	428	429	428	429	428	430	428	429	432	430	429	430	429
47 Rocky Reach	1301	1298	1296	1297	1300	1299	1300	1298	1297	1292	1296	1299	1299	1299
48 Ross	440	425	230	322	414	393	345	269	218	218	223	280	372	430
49 Round Butte	300	300	300	300	300	300	300	300	300	300	300	300	300	300
50 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
51 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
52 The Dalles	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074
53 Thompson Falls	85	85	85	85	85	85	85	85	85	85	85	84	81	85
54 Upper Baker	99	96	96	44	96	86	80	80	0	90	88	92	100	102
55 Upper Falls	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.4	8.8	8.7	9.3	9.8
56 Wanapum	749	749	749	749	749	749	749	749	749	749	749	749	749	749
57 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
58 Yale	132	130	129	96	130	122	108	94	94	106	106	0	133	133
Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30399	30947

-Total Regulated Hydro w/Enc.-

Continued

Table A-3: Regional Regulated Hydro Projects
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
59 Federal System	20306	20297	20459	20566	20798	20631	20368	19914	19317	18560	18507	18832	19892	20506
60 Public Entities	4874	4837	4480	4529	4604	4706	4492	4377	4208	4289	4203	4279	4832	4729
61 Investor-Owned Entities	4710	4661	4765	4598	4621	4704	4529	4538	4453	4728	4554	4677	4741	4778
62 Other Entities	934	934	934	934	934	934	934	934	934	934	934	934	934	934
63 Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30974	30323	29763	28912	28510	28197	28722	30399	30947

Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Regulated Hydro Projects-</i>														
1 Albeni Falls	50	50	50	42	32	28	28	29	28	28	26	36	48	50
2 Alder	51	43	0	0	0	44	34	28	28	30	0	43	48	52
3 Bonneville	1042	1042	1049	1048	1049	1051	1052	1052	1048	1042	1042	1042	1042	1042
4 Boundary	845	845	845	845	845	845	845	845	845	845	845	868	1016	845
5 Box Canyon	83	83	83	80	81	82	82	83	82	82	80	78	73	80
6 Brownlee	675	675	675	675	675	675	675	675	675	675	675	675	675	675
7 Cabinet Gorge	238	238	238	238	238	238	238	238	238	238	238	238	238	238
8 Chelan	58	58	57	57	57	56	55	55	16	54	16	55	57	58
9 Chief Joseph	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535
10 Cushman 1	44	39	0	0	0	34	25	18	0	0	0	26	0	0
11 Cushman 2	88	88	0	0	0	88	88	88	0	0	0	88	0	0
12 Diablo	172	172	172	172	172	172	172	172	172	172	172	172	172	172
13 Dworshak	448	446	446	445	445	445	445	443	444	445	446	448	450	449
14 Faraday	43	43	43	43	43	43	43	43	43	43	43	43	43	43
15 Gorge	182	182	182	182	182	182	182	182	182	182	182	182	182	182
16 Grand Coulee	6243	6134	6249	6359	6608	6426	6159	5714	5125	4426	4526	4824	5742	6340
17 Hells Canyon	285	285	366	372	246	394	305	334	342	450	450	450	330	333
18 Hungry Horse	416	414	410	404	396	388	379	370	360	354	278	290	409	417
19 Ice Harbor	693	693	693	693	693	693	693	693	693	693	693	693	693	693
20 John Day	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484
21 Kerr	180	180	180	179	176	174	171	167	165	163	163	171	178	180
22 La Grande	64	64	64	64	64	64	64	64	64	64	64	64	64	64
23 Libby	597	596	594	592	589	583	579	577	575	574	574	577	586	592
24 Little Falls	35	35	35	35	35	35	35	35	35	35	33	32	35	35
25 Little Goose	884	884	922	928	928	928	928	928	928	922	884	884	884	884
26 Long Lake	72	72	72	72	72	69	64	64	69	72	72	72	72	72
27 Lower Baker	71	66	59	61	60	59	57	54	14	64	67	64	67	71
28 Lower Granite	912	912	912	912	918	930	930	930	930	918	912	912	912	912
29 Lower Monumental	803	907	915	922	922	922	922	922	922	915	907	907	907	907
30 Mayfield	125	125	125	125	125	169	125	125	125	125	125	84	125	125
31 McNary	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127
32 Merwin	147	146	147	133	131	128	113	113	113	113	124	124	131	148
33 Monroe Street	6.6	5.3	11	9.2	9	12	4.6	5.9	12	14	14	14	14	11
34 Mossyrock	378	370	378	365	327	252	159	134	157	196	236	0	378	378
35 Nine Mile	22	22	22	22	22	22	22	22	22	22	21	20	21	22
36 North Fork	54	54	54	54	54	54	54	54	54	54	54	54	54	54
37 Noxon	543	507	533	535	545	543	533	533	543	545	535	533	543	552
38 Oak Grove	44	44	44	44	44	44	44	44	44	44	44	44	44	44
39 Oxbow	220	220	220	220	220	220	220	220	220	220	220	220	220	220
40 Pelton	108	108	108	108	108	108	108	108	108	108	108	108	108	108
41 Pelton Rereg. Dam	11	10	10	11	11	12	11	11	12	14	15	12	12	10
42 Post Falls	16	14	16	16	16	16	16	16	16	15	14	13	15	16
43 Priest Rapids	754	754	754	754	754	754	754	754	754	754	754	754	754	754
44 River Mill	23	23	23	23	23	23	23	23	23	23	23	23	23	23
45 Rock Island PH#1	168	175	175	175	171	173	171	174	175	177	175	172	172	173
46 Rock Island PH#2	431	428	429	428	429	428	430	428	429	433	430	429	430	429
47 Rocky Reach	1301	1298	1296	1297	1300	1299	1300	1298	1297	1290	1296	1299	1299	1299
48 Ross	440	425	230	322	414	393	345	269	218	218	223	280	372	430
49 Round Butte	300	300	300	300	300	300	300	300	300	300	300	300	300	300
50 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
51 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
52 The Dalles	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074
53 Thompson Falls	85	85	85	85	85	85	85	85	85	85	85	84	81	85
54 Upper Baker	99	96	96	44	96	86	80	80	0	90	88	92	100	102
55 Upper Falls	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.4	8.8	8.7	9.3	9.8
56 Wanapum	749	749	749	749	749	749	749	749	749	749	749	749	749	749
57 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
58 Yale	132	130	129	96	130	122	108	94	94	106	106	0	133	133
Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30958	30289	29727	28870	28486	28197	28722	30399	30947

-Total Regulated Hydro w/Enc.-

Continued

Table A-3: Regional Regulated Hydro Projects
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
59 Federal System	20306	20297	20459	20566	20798	20615	20335	19877	19275	18536	18507	18832	19892	20506
60 Public Entities	4874	4837	4480	4529	4604	4706	4492	4377	4208	4289	4203	4279	4832	4729
61 Investor-Owned Entities	4710	4661	4765	4598	4621	4704	4529	4538	4453	4728	4554	4677	4741	4778
62 Other Entities	934	934	934	934	934	934	934	934	934	934	934	934	934	934
63 Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30958	30289	29727	28870	28486	28197	28722	30399	30947

Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Regulated Hydro Projects-</i>														
1 Albeni Falls	50	50	50	42	32	28	28	29	28	28	26	36	48	50
2 Alder	51	43	0	0	0	44	34	28	28	30	0	43	48	52
3 Bonneville	1042	1042	1049	1048	1049	1051	1052	1052	1048	1042	1042	1042	1042	1042
4 Boundary	845	845	845	845	845	845	845	845	845	845	845	868	1016	845
5 Box Canyon	83	83	83	80	81	82	82	83	82	82	80	78	73	80
6 Brownlee	675	675	675	675	675	675	675	675	675	675	675	675	675	675
7 Cabinet Gorge	238	238	238	238	238	238	238	238	238	238	238	238	238	238
8 Chelan	58	58	57	57	57	56	55	55	16	54	16	55	57	58
9 Chief Joseph	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535
10 Cushman 1	44	39	0	0	0	34	25	18	0	0	0	26	0	0
11 Cushman 2	88	88	0	0	0	88	88	88	0	0	0	88	0	0
12 Diablo	172	172	172	172	172	172	172	172	172	172	172	172	172	172
13 Dworshak	448	446	446	445	445	445	445	443	444	445	446	448	450	449
14 Faraday	43	43	43	43	43	43	43	43	43	43	43	43	43	43
15 Gorge	182	182	182	182	182	182	182	182	182	182	182	182	182	182
16 Grand Coulee	6243	6134	6249	6359	6608	6368	6036	5580	4970	4339	4526	4824	5742	6340
17 Hells Canyon	285	285	366	372	246	394	305	334	342	450	450	450	330	333
18 Hungry Horse	416	414	410	404	396	388	379	370	360	354	278	290	409	417
19 Ice Harbor	693	693	693	693	693	693	693	693	693	693	693	693	693	693
20 John Day	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484
21 Kerr	180	180	180	179	176	174	171	167	165	163	163	171	178	180
22 La Grande	64	64	64	64	64	64	64	64	64	64	64	64	64	64
23 Libby	597	596	594	592	589	583	579	577	575	574	574	577	586	592
24 Little Falls	35	35	35	35	35	35	35	35	35	35	33	32	35	35
25 Little Goose	884	884	922	928	928	928	928	928	928	922	884	884	884	884
26 Long Lake	72	72	72	72	72	69	64	64	69	72	72	72	72	72
27 Lower Baker	71	66	59	61	60	59	57	54	14	64	67	64	67	71
28 Lower Granite	912	912	912	912	918	930	930	930	930	918	912	912	912	912
29 Lower Monumental	803	907	915	922	922	922	922	922	922	915	907	907	907	907
30 Mayfield	125	125	125	125	125	169	125	125	125	125	125	84	125	125
31 McNary	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127
32 Merwin	147	146	147	133	131	128	113	113	113	113	124	124	131	148
33 Monroe Street	6.6	5.3	11	9.2	9	12	4.6	5.9	12	14	14	14	14	11
34 Mossyrock	378	370	378	365	327	252	159	134	157	196	236	0	378	378
35 Nine Mile	22	22	22	22	22	22	22	22	22	22	21	20	21	22
36 North Fork	54	54	54	54	54	54	54	54	54	54	54	54	54	54
37 Noxon	543	507	533	535	545	543	533	533	543	545	535	533	543	552
38 Oak Grove	44	44	44	44	44	44	44	44	44	44	44	44	44	44
39 Oxbow	220	220	220	220	220	220	220	220	220	220	220	220	220	220
40 Pelton	108	108	108	108	108	108	108	108	108	108	108	108	108	108
41 Pelton Rereg. Dam	11	10	10	11	11	12	11	11	12	14	15	12	12	10
42 Post Falls	16	14	16	16	16	16	16	16	16	15	14	13	15	16
43 Priest Rapids	754	754	754	754	754	754	754	754	754	754	754	754	754	754
44 River Mill	23	23	23	23	23	23	23	23	23	23	23	23	23	23
45 Rock Island PH#1	168	175	175	175	171	172	171	174	175	179	175	172	172	173
46 Rock Island PH#2	431	428	429	428	429	429	430	428	429	438	430	429	430	429
47 Rocky Reach	1301	1298	1296	1297	1300	1300	1300	1298	1297	1283	1296	1299	1299	1299
48 Ross	440	425	230	322	414	393	345	269	218	218	223	280	372	430
49 Round Butte	300	300	300	300	300	300	300	300	300	300	300	300	300	300
50 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
51 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
52 The Dalles	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074
53 Thompson Falls	85	85	85	85	85	85	85	85	85	85	85	84	81	85
54 Upper Baker	99	96	96	44	96	86	80	80	0	90	88	92	100	102
55 Upper Falls	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.4	8.8	8.7	9.3	9.8
56 Wanapum	749	749	749	749	749	749	749	749	749	749	749	749	749	749
57 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
58 Yale	132	130	129	96	130	122	108	94	94	106	106	0	133	133
Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30900	30167	29593	28715	28399	28197	28722	30399	30947

-Total Regulated Hydro w/Enc.-

Continued

Table A-3: Regional Regulated Hydro Projects
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
59 Federal System	20306	20297	20459	20566	20798	20557	20212	19743	19120	18449	18507	18832	19892	20506
60 Public Entities	4874	4837	4480	4529	4604	4706	4492	4377	4208	4289	4203	4279	4832	4729
61 Investor-Owned Entities	4710	4661	4765	4598	4621	4704	4529	4538	4453	4728	4554	4677	4741	4778
62 Other Entities	934	934	934	934	934	934	934	934	934	934	934	934	934	934
63 Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30900	30167	29593	28715	28399	28197	28722	30399	30947

Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Regulated Hydro Projects-</i>														
1 Albeni Falls	50	50	50	42	32	28	28	29	28	28	26	36	48	50
2 Alder	51	43	0	0	0	44	34	28	28	30	0	43	48	52
3 Bonneville	1042	1042	1049	1048	1049	1051	1052	1052	1048	1042	1042	1042	1042	1042
4 Boundary	845	845	845	845	845	845	845	845	845	845	845	868	1016	845
5 Box Canyon	83	83	83	80	81	82	82	83	82	82	80	78	73	80
6 Brownlee	675	675	675	675	675	675	675	675	675	675	675	675	675	675
7 Cabinet Gorge	238	238	238	238	238	238	238	238	238	238	238	238	238	238
8 Chelan	58	58	57	57	57	56	55	55	16	54	16	55	57	58
9 Chief Joseph	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535
10 Cushman 1	44	39	0	0	0	34	25	18	0	0	0	26	0	0
11 Cushman 2	88	88	0	0	0	88	88	88	0	0	0	88	0	0
12 Diablo	172	172	172	172	172	172	172	172	172	172	172	172	172	172
13 Dworshak	448	446	446	445	445	445	445	443	444	445	446	448	450	449
14 Faraday	43	43	43	43	43	43	43	43	43	43	43	43	43	43
15 Gorge	182	182	182	182	182	182	182	182	182	182	182	182	182	182
16 Grand Coulee	6243	6134	6249	6359	6608	6426	6159	5714	5125	4426	4526	4824	5742	6340
17 Hells Canyon	285	285	366	372	246	394	305	334	342	450	450	450	330	333
18 Hungry Horse	416	414	410	404	396	388	379	370	360	354	278	290	409	417
19 Ice Harbor	693	693	693	693	693	693	693	693	693	693	693	693	693	693
20 John Day	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484
21 Kerr	180	180	180	179	176	174	171	167	165	163	163	171	178	180
22 La Grande	64	64	64	64	64	64	64	64	64	64	64	64	64	64
23 Libby	597	596	594	592	589	583	579	577	575	574	574	577	586	592
24 Little Falls	35	35	35	35	35	35	35	35	35	35	33	32	35	35
25 Little Goose	884	884	922	928	928	928	928	928	928	922	884	884	884	884
26 Long Lake	72	72	72	72	72	69	64	64	69	72	72	72	72	72
27 Lower Baker	71	66	59	61	60	59	57	54	14	64	67	64	67	71
28 Lower Granite	912	912	912	912	918	930	930	930	930	918	912	912	912	912
29 Lower Monumental	803	907	915	922	922	922	922	922	922	915	907	907	907	907
30 Mayfield	125	125	125	125	125	169	125	125	125	125	125	84	125	125
31 McNary	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127
32 Merwin	147	146	147	133	131	128	113	113	113	113	124	124	131	148
33 Monroe Street	6.6	5.3	11	9.2	9	12	4.6	5.9	12	14	14	14	14	11
34 Mossyrock	378	370	378	365	327	252	159	134	157	196	236	0	378	378
35 Nine Mile	22	22	22	22	22	22	22	22	22	22	21	20	21	22
36 North Fork	54	54	54	54	54	54	54	54	54	54	54	54	54	54
37 Noxon	543	507	533	535	545	543	533	533	543	545	535	533	543	552
38 Oak Grove	44	44	44	44	44	44	44	44	44	44	44	44	44	44
39 Oxbow	220	220	220	220	220	220	220	220	220	220	220	220	220	220
40 Pelton	108	108	108	108	108	108	108	108	108	108	108	108	108	108
41 Pelton Rereg. Dam	11	10	10	11	11	12	11	11	12	14	15	12	12	10
42 Post Falls	16	14	16	16	16	16	16	16	16	15	14	13	15	16
43 Priest Rapids	754	754	754	754	754	754	754	754	754	754	754	754	754	754
44 River Mill	23	23	23	23	23	23	23	23	23	23	23	23	23	23
45 Rock Island PH#1	168	175	175	175	171	173	171	174	175	177	175	172	172	173
46 Rock Island PH#2	431	428	429	428	429	428	430	428	429	433	430	429	430	429
47 Rocky Reach	1301	1298	1296	1297	1300	1299	1300	1298	1297	1290	1296	1299	1299	1299
48 Ross	440	425	230	322	414	393	345	269	218	218	223	280	372	430
49 Round Butte	300	300	300	300	300	300	300	300	300	300	300	300	300	300
50 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
51 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
52 The Dalles	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074
53 Thompson Falls	85	85	85	85	85	85	85	85	85	85	85	84	81	85
54 Upper Baker	99	96	96	44	96	86	80	80	0	90	88	92	100	102
55 Upper Falls	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.4	8.8	8.7	9.3	9.8
56 Wanapum	749	749	749	749	749	749	749	749	749	749	749	749	749	749
57 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
58 Yale	132	130	129	96	130	122	108	94	94	106	106	0	133	133
Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30958	30289	29727	28870	28486	28197	28722	30399	30947

-Total Regulated Hydro w/Enc.-

Continued

Table A-3: Regional Regulated Hydro Projects
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
59 Federal System	20306	20297	20459	20566	20798	20615	20335	19877	19275	18536	18507	18832	19892	20506
60 Public Entities	4874	4837	4480	4529	4604	4706	4492	4377	4208	4289	4203	4279	4832	4729
61 Investor-Owned Entities	4710	4661	4765	4598	4621	4704	4529	4538	4453	4728	4554	4677	4741	4778
62 Other Entities	934	934	934	934	934	934	934	934	934	934	934	934	934	934
63 Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30958	30289	29727	28870	28486	28197	28722	30399	30947

Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Regulated Hydro Projects-</i>														
1 Albeni Falls	50	50	50	42	32	28	28	29	28	28	26	36	48	50
2 Alder	51	43	0	0	0	44	34	28	28	30	0	43	48	52
3 Bonneville	1042	1042	1049	1048	1049	1051	1052	1052	1048	1042	1042	1042	1042	1042
4 Boundary	845	845	845	845	845	845	845	845	845	845	845	868	1016	845
5 Box Canyon	83	83	83	80	81	82	82	83	82	82	80	78	73	80
6 Brownlee	675	675	675	675	675	675	675	675	675	675	675	675	675	675
7 Cabinet Gorge	238	238	238	238	238	238	238	238	238	238	238	238	238	238
8 Chelan	58	58	57	57	57	56	55	55	16	54	16	55	57	58
9 Chief Joseph	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535
10 Cushman 1	44	39	0	0	0	34	25	18	0	0	0	26	0	0
11 Cushman 2	88	88	0	0	0	88	88	88	0	0	0	88	0	0
12 Diablo	172	172	172	172	172	172	172	172	172	172	172	172	172	172
13 Dworshak	448	446	446	445	445	445	445	443	444	445	446	448	450	449
14 Faraday	43	43	43	43	43	43	43	43	43	43	43	43	43	43
15 Gorge	182	182	182	182	182	182	182	182	182	182	182	182	182	182
16 Grand Coulee	6243	6134	6249	6359	6608	6368	6036	5580	4970	4339	4526	4824	5742	6340
17 Hells Canyon	285	285	366	372	246	394	305	334	342	450	450	450	330	333
18 Hungry Horse	416	414	410	404	396	388	379	370	360	354	278	290	409	417
19 Ice Harbor	693	693	693	693	693	693	693	693	693	693	693	693	693	693
20 John Day	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484
21 Kerr	180	180	180	179	176	174	171	167	165	163	163	171	178	180
22 La Grande	64	64	64	64	64	64	64	64	64	64	64	64	64	64
23 Libby	597	596	594	592	589	583	579	577	575	574	574	577	586	592
24 Little Falls	35	35	35	35	35	35	35	35	35	35	33	32	35	35
25 Little Goose	884	884	922	928	928	928	928	928	928	922	884	884	884	884
26 Long Lake	72	72	72	72	72	69	64	64	69	72	72	72	72	72
27 Lower Baker	71	66	59	61	60	59	57	54	14	64	67	64	67	71
28 Lower Granite	912	912	912	912	918	930	930	930	930	918	912	912	912	912
29 Lower Monumental	803	907	915	922	922	922	922	922	922	915	907	907	907	907
30 Mayfield	125	125	125	125	125	169	125	125	125	125	125	84	125	125
31 McNary	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127
32 Merwin	147	146	147	133	131	128	113	113	113	113	124	124	131	148
33 Monroe Street	6.6	5.3	11	9.2	9	12	4.6	5.9	12	14	14	14	14	11
34 Mossyrock	378	370	378	365	327	252	159	134	157	196	236	0	378	378
35 Nine Mile	22	22	22	22	22	22	22	22	22	22	21	20	21	22
36 North Fork	54	54	54	54	54	54	54	54	54	54	54	54	54	54
37 Noxon	543	507	533	535	545	543	533	533	543	545	535	533	543	552
38 Oak Grove	44	44	44	44	44	44	44	44	44	44	44	44	44	44
39 Oxbow	220	220	220	220	220	220	220	220	220	220	220	220	220	220
40 Pelton	108	108	108	108	108	108	108	108	108	108	108	108	108	108
41 Pelton Rereg. Dam	11	10	10	11	11	12	11	11	12	14	15	12	12	10
42 Post Falls	16	14	16	16	16	16	16	16	16	15	14	13	15	16
43 Priest Rapids	754	754	754	754	754	754	754	754	754	754	754	754	754	754
44 River Mill	23	23	23	23	23	23	23	23	23	23	23	23	23	23
45 Rock Island PH#1	168	175	175	175	171	172	171	174	175	179	175	172	172	173
46 Rock Island PH#2	431	428	429	428	429	429	430	428	429	438	430	429	430	429
47 Rocky Reach	1301	1298	1296	1297	1300	1300	1300	1298	1297	1283	1296	1299	1299	1299
48 Ross	440	425	230	322	414	393	345	269	218	218	223	280	372	430
49 Round Butte	300	300	300	300	300	300	300	300	300	300	300	300	300	300
50 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
51 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
52 The Dalles	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074
53 Thompson Falls	85	85	85	85	85	85	85	85	85	85	85	84	81	85
54 Upper Baker	99	96	96	44	96	86	80	80	0	90	88	92	100	102
55 Upper Falls	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.4	8.8	8.7	9.3	9.8
56 Wanapum	749	749	749	749	749	749	749	749	749	749	749	749	749	749
57 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
58 Yale	132	130	129	96	130	122	108	94	94	106	106	0	133	133
Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30900	30167	29593	28715	28399	28197	28722	30399	30947

-Total Regulated Hydro w/Enc.-

Continued

Table A-3: Regional Regulated Hydro Projects
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
59 Federal System	20306	20297	20459	20566	20798	20557	20212	19743	19120	18449	18507	18832	19892	20506
60 Public Entities	4874	4837	4480	4529	4604	4706	4492	4377	4208	4289	4203	4279	4832	4729
61 Investor-Owned Entities	4710	4661	4765	4598	4621	4704	4529	4538	4453	4728	4554	4677	4741	4778
62 Other Entities	934	934	934	934	934	934	934	934	934	934	934	934	934	934
63 Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30900	30167	29593	28715	28399	28197	28722	30399	30947

Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Regulated Hydro Projects-</i>														
1 Albeni Falls	50	50	50	42	32	28	28	29	28	28	26	36	48	50
2 Alder	51	43	0	0	0	44	34	28	28	30	0	43	48	52
3 Bonneville	1042	1042	1049	1048	1049	1051	1052	1052	1048	1042	1042	1042	1042	1042
4 Boundary	845	845	845	845	845	845	845	845	845	845	845	868	1016	845
5 Box Canyon	83	83	83	80	81	82	82	83	82	82	80	78	73	80
6 Brownlee	675	675	675	675	675	675	675	675	675	675	675	675	675	675
7 Cabinet Gorge	238	238	238	238	238	238	238	238	238	238	238	238	238	238
8 Chelan	58	58	57	57	57	56	55	55	16	54	16	55	57	58
9 Chief Joseph	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535
10 Cushman 1	44	39	0	0	0	34	25	18	0	0	0	26	0	0
11 Cushman 2	88	88	0	0	0	88	88	88	0	0	0	88	0	0
12 Diablo	172	172	172	172	172	172	172	172	172	172	172	172	172	172
13 Dworshak	448	446	446	445	445	445	445	443	444	445	446	448	450	449
14 Faraday	43	43	43	43	43	43	43	43	43	43	43	43	43	43
15 Gorge	182	182	182	182	182	182	182	182	182	182	182	182	182	182
16 Grand Coulee	6243	6134	6249	6359	6608	6426	6159	5714	5125	4426	4526	4824	5742	6340
17 Hells Canyon	285	285	366	372	246	394	305	334	342	450	450	450	330	333
18 Hungry Horse	416	414	410	404	396	388	379	370	360	354	278	290	409	417
19 Ice Harbor	693	693	693	693	693	693	693	693	693	693	693	693	693	693
20 John Day	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484
21 Kerr	180	180	180	179	176	174	171	167	165	163	163	171	178	180
22 La Grande	64	64	64	64	64	64	64	64	64	64	64	64	64	64
23 Libby	597	596	594	592	589	583	579	577	575	574	574	577	586	592
24 Little Falls	35	35	35	35	35	35	35	35	35	35	33	32	35	35
25 Little Goose	884	884	922	928	928	928	928	928	928	922	884	884	884	884
26 Long Lake	72	72	72	72	72	69	64	64	69	72	72	72	72	72
27 Lower Baker	71	66	59	61	60	59	57	54	14	64	67	64	67	71
28 Lower Granite	912	912	912	912	918	930	930	930	930	918	912	912	912	912
29 Lower Monumental	803	907	915	922	922	922	922	922	922	915	907	907	907	907
30 Mayfield	125	125	125	125	125	169	125	125	125	125	125	84	125	125
31 McNary	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127
32 Merwin	147	146	147	133	131	128	113	113	113	113	124	124	131	148
33 Monroe Street	6.6	5.3	11	9.2	9	12	4.6	5.9	12	14	14	14	14	11
34 Mossyrock	378	370	378	365	327	252	159	134	157	196	236	0	378	378
35 Nine Mile	22	22	22	22	22	22	22	22	22	22	21	20	21	22
36 North Fork	54	54	54	54	54	54	54	54	54	54	54	54	54	54
37 Noxon	543	507	533	535	545	543	533	533	543	545	535	533	543	552
38 Oak Grove	44	44	44	44	44	44	44	44	44	44	44	44	44	44
39 Oxbow	220	220	220	220	220	220	220	220	220	220	220	220	220	220
40 Pelton	108	108	108	108	108	108	108	108	108	108	108	108	108	108
41 Pelton Rereg. Dam	11	10	10	11	11	12	11	11	12	14	15	12	12	10
42 Post Falls	16	14	16	16	16	16	16	16	16	15	14	13	15	16
43 Priest Rapids	754	754	754	754	754	754	754	754	754	754	754	754	754	754
44 River Mill	23	23	23	23	23	23	23	23	23	23	23	23	23	23
45 Rock Island PH#1	168	175	175	175	171	173	171	174	175	177	175	172	172	173
46 Rock Island PH#2	431	428	429	428	429	428	430	428	429	433	430	429	430	429
47 Rocky Reach	1301	1298	1296	1297	1300	1299	1300	1298	1297	1290	1296	1299	1299	1299
48 Ross	440	425	230	322	414	393	345	269	218	218	223	280	372	430
49 Round Butte	300	300	300	300	300	300	300	300	300	300	300	300	300	300
50 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
51 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
52 The Dalles	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074
53 Thompson Falls	85	85	85	85	85	85	85	85	85	85	85	84	81	85
54 Upper Baker	99	96	96	44	96	86	80	80	0	90	88	92	100	102
55 Upper Falls	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.4	8.8	8.7	9.3	9.8
56 Wanapum	749	749	749	749	749	749	749	749	749	749	749	749	749	749
57 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
58 Yale	132	130	129	96	130	122	108	94	94	106	106	0	133	133
Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30958	30289	29727	28870	28486	28197	28722	30399	30947

-Total Regulated Hydro w/Enc.-

Continued

Table A-3: Regional Regulated Hydro Projects
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
59 Federal System	20306	20297	20459	20566	20798	20615	20335	19877	19275	18536	18507	18832	19892	20506
60 Public Entities	4874	4837	4480	4529	4604	4706	4492	4377	4208	4289	4203	4279	4832	4729
61 Investor-Owned Entities	4710	4661	4765	4598	4621	4704	4529	4538	4453	4728	4554	4677	4741	4778
62 Other Entities	934	934	934	934	934	934	934	934	934	934	934	934	934	934
63 Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30958	30289	29727	28870	28486	28197	28722	30399	30947

Table A-3: Regional Regulated Hydro Projects
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Regulated Hydro Projects-</i>														
1 Albeni Falls	50	50	50	42	32	28	28	29	28	28	26	36	48	50
2 Alder	51	43	0	0	0	44	34	28	28	30	0	43	48	52
3 Bonneville	1042	1042	1049	1048	1049	1051	1052	1052	1048	1042	1042	1042	1042	1042
4 Boundary	845	845	845	845	845	845	845	845	845	845	845	868	1016	845
5 Box Canyon	83	83	83	80	81	82	82	83	82	82	80	78	73	80
6 Brownlee	675	675	675	675	675	675	675	675	675	675	675	675	675	675
7 Cabinet Gorge	238	238	238	238	238	238	238	238	238	238	238	238	238	238
8 Chelan	58	58	57	57	57	56	55	55	16	54	16	55	57	58
9 Chief Joseph	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535	2535
10 Cushman 1	44	39	0	0	0	34	25	18	0	0	0	26	0	0
11 Cushman 2	88	88	0	0	0	88	88	88	0	0	0	88	0	0
12 Diablo	172	172	172	172	172	172	172	172	172	172	172	172	172	172
13 Dworshak	448	446	446	445	445	445	445	443	444	445	446	448	450	449
14 Faraday	43	43	43	43	43	43	43	43	43	43	43	43	43	43
15 Gorge	182	182	182	182	182	182	182	182	182	182	182	182	182	182
16 Grand Coulee	6243	6134	6249	6359	6608	6368	6036	5580	4970	4339	4526	4824	5742	6340
17 Hells Canyon	285	285	366	372	246	394	305	334	342	450	450	450	330	333
18 Hungry Horse	416	414	410	404	396	388	379	370	360	354	278	290	409	417
19 Ice Harbor	693	693	693	693	693	693	693	693	693	693	693	693	693	693
20 John Day	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484	2484
21 Kerr	180	180	180	179	176	174	171	167	165	163	163	171	178	180
22 La Grande	64	64	64	64	64	64	64	64	64	64	64	64	64	64
23 Libby	597	596	594	592	589	583	579	577	575	574	574	577	586	592
24 Little Falls	35	35	35	35	35	35	35	35	35	35	33	32	35	35
25 Little Goose	884	884	922	928	928	928	928	928	928	922	884	884	884	884
26 Long Lake	72	72	72	72	72	69	64	64	69	72	72	72	72	72
27 Lower Baker	71	66	59	61	60	59	57	54	14	64	67	64	67	71
28 Lower Granite	912	912	912	912	918	930	930	930	930	918	912	912	912	912
29 Lower Monumental	803	907	915	922	922	922	922	922	922	915	907	907	907	907
30 Mayfield	125	125	125	125	125	169	125	125	125	125	125	84	125	125
31 McNary	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127	1127
32 Merwin	147	146	147	133	131	128	113	113	113	113	124	124	131	148
33 Monroe Street	6.6	5.3	11	9.2	9	12	4.6	5.9	12	14	14	14	14	11
34 Mossyrock	378	370	378	365	327	252	159	134	157	196	236	0	378	378
35 Nine Mile	22	22	22	22	22	22	22	22	22	22	21	20	21	22
36 North Fork	54	54	54	54	54	54	54	54	54	54	54	54	54	54
37 Noxon	543	507	533	535	545	543	533	533	543	545	535	533	543	552
38 Oak Grove	44	44	44	44	44	44	44	44	44	44	44	44	44	44
39 Oxbow	220	220	220	220	220	220	220	220	220	220	220	220	220	220
40 Pelton	108	108	108	108	108	108	108	108	108	108	108	108	108	108
41 Pelton Rereg. Dam	11	10	10	11	11	12	11	11	12	14	15	12	12	10
42 Post Falls	16	14	16	16	16	16	16	16	16	15	14	13	15	16
43 Priest Rapids	754	754	754	754	754	754	754	754	754	754	754	754	754	754
44 River Mill	23	23	23	23	23	23	23	23	23	23	23	23	23	23
45 Rock Island PH#1	168	175	175	175	171	172	171	174	175	179	175	172	172	173
46 Rock Island PH#2	431	428	429	428	429	429	430	428	429	438	430	429	430	429
47 Rocky Reach	1301	1298	1296	1297	1300	1300	1300	1298	1297	1283	1296	1299	1299	1299
48 Ross	440	425	230	322	414	393	345	269	218	218	223	280	372	430
49 Round Butte	300	300	300	300	300	300	300	300	300	300	300	300	300	300
50 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
51 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
52 The Dalles	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074	2074
53 Thompson Falls	85	85	85	85	85	85	85	85	85	85	85	84	81	85
54 Upper Baker	99	96	96	44	96	86	80	80	0	90	88	92	100	102
55 Upper Falls	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.4	8.8	8.7	9.3	9.8
56 Wanapum	749	749	749	749	749	749	749	749	749	749	749	749	749	749
57 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
58 Yale	132	130	129	96	130	122	108	94	94	106	106	0	133	133
Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30900	30167	29593	28715	28399	28197	28722	30399	30947

-Total Regulated Hydro w/Enc.-

Continued

Table A-3: Regional Regulated Hydro Projects
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
59 Federal System	20306	20297	20459	20566	20798	20557	20212	19743	19120	18449	18507	18832	19892	20506
60 Public Entities	4874	4837	4480	4529	4604	4706	4492	4377	4208	4289	4203	4279	4832	4729
61 Investor-Owned Entities	4710	4661	4765	4598	4621	4704	4529	4538	4453	4728	4554	4677	4741	4778
62 Other Entities	934	934	934	934	934	934	934	934	934	934	934	934	934	934
63 Total Regulated Hydro w/Enc.	30824	30729	30638	30626	30957	30900	30167	29593	28715	28399	28197	28722	30399	30947

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Table A-4
Independent Hydro Projects
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2009 - 2010 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Independent Hydro Projects-</i>														
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	33	71	75	82
2 Anderson Ranch	34	34	28	38	38	38	36	35	34	34	34	37	38	36
3 Ashton	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
4 Bend Power Dam	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
5 Big Cliff	8	8	12	12	17	8	7.1	9	10	12	17	22	22	10
6 Big Fork	4.5	4.5	3.3	4.4	4.3	4.3	4.5	4.5	4.6	4.6	4.6	4.6	4.5	4.6
7 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5
8 Bliss	75	75	75	75	75	75	75	75	75	75	75	75	75	75
9 Boise River Diversion	3	3	3	3	0	0	0	0	0	0	3	3	3	3
10 Bonneville Fishway	24	24	24	24	24	24	24	24	24	24	24	24	24	24
11 Callispel Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12 Carmen-Smith	41	39	39	33	30	37	33	33	52	62	63	64	60	51
13 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0
14 Cedar Falls & Newhalem	0	0	30	30	30	30	30	30	30	30	30	30	30	0
15 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6
16 CJ Strike	85	85	85	85	85	85	85	85	85	85	85	85	85	85
17 Clear Lake	3.1	3.0	3.3	3.5	3.4	2.9	3.2	2.9	3	3.3	3.1	3.1	3.0	3.4
18 Cougar	22	20	26	26	25	6.4	4.7	7	8	23	30	30	30	12
19 Cowlitz Falls	12	10	11	16	23	23	13	17	33	48	50	64	66	29
20 Detroit	100	100	100	100	100	100	100	100	100	100	100	106	100	100
21 Dexter	11	11	7	13	18	6	3.8	7	8	10	17	18	18	7
22 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0
23 East Side	0	0	0	2.4	3.0	3	3.3	3.4	3.4	3.4	2.1	1.2	0.9	0
24 Felt	4.4	4.4	4.6	4.3	4.4	3.9	3.3	3.5	4.2	4.2	4.2	5.9	7.3	5.6
25 Foster	7	7	12	10	8	10	4.6	10	22	23	23	23	24	7
26 Gem State Hydro	20	20	16	13	14	15	15	15	22	22	22	21	21	22
27 Grace	26	26	26	26	26	26	26	26	26	26	26	26	26	26
28 Green Peter	76	76	86	79	61	32	20	5	90	92	92	88	86	55
29 Green Springs - USBR	16	16	15	17	18	18	19	19	18	18	18	18	17	16
30 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0
31 Hills Creek	10	32	23	25	30	6	6.1	7	8	23	36	36	36	16
32 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
33 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7
34 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7
35 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0
36 Island Park	4.5	4.5	4.3	4.1	4.1	3.3	3.3	4.4	4.3	4.6	4.6	4.6	4.6	4.6
37 Jackson	103	103	103	103	103	103	103	103	103	103	103	103	103	103
38 John C Boyle	0	0	82	82	82	82	82	82	82	82	82	82	82	0
39 Lake Creek	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
40 Last Chance	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
41 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10
42 Lookout Point	89	98	73	124	131	24	17	45	66	61	143	150	151	81
43 Lost Creek	56	56	55	52	51	50	19	50	53	56	56	56	56	56
44 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8
45 Lower Salmon	68	68	68	68	68	68	68	68	68	68	68	68	68	68
46 McNary Fishway	9.9	9.9	9.9	9.8	10.0	9.8	9.7	9.9	9.8	9.9	9.9	9.9	9.8	9.9
47 Mill Creek (WA)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
48 Milner	0	0	0	0	6	10	5	3.4	0	0	0	0	0	0
49 Minidoka	28	28	12	13	13	13	13	14	15	15	15	30	30	30
50 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2
51 North Umpqua	175	175	175	175	175	175	175	175	175	175	175	175	175	175
52 Oneida	30	30	30	30	30	30	30	30	30	30	30	30	30	30
53 Packwood	30	30	30	30	27	30	30	30	30	30	30	30	30	30
54 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162
55 Paris	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
56 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Reeder Gulch	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
58 Rogue	48	48	47	27	26	28	25	27	40	50	50	51	51	51
59 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13
60 Shoshone Falls	12	12	12	12	12	12	12	13	12	12	12	12	12	12
61 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9
62 Snoq. Electron & Nooksack	71	71	71	71	71	71	71	71	71	71	71	71	71	71

Table A-4: Regional Independent Hydro Projects
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
63 Soda Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
64 Soda Point Project	14	14	14	14	14	14	14	14	14	14	14	14	14	14
65 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9
66 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9
67 Strawberry Creek	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
68 Swan Falls	19	19	16	21	19	19	17	20	18	22	22	16	15	15
69 Swift Creek Hydro	0	0	0	0	0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
70 The Dalles Fishway	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.4	5.4	5.3	5.4	5.4
71 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4
72 Trail Bridge	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
73 TW Sullivan	0	0	0	0	0	15	15	15	15	15	15	15	15	15
74 Twin Falls	8.0	8.0	8	4.7	11	14	10	9.2	0	0	0	0	0	7.7
75 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0
76 Upper Salmon 1 & 2	21	21	20	22	20	20	20	20	20	23	23	20	20	20
77 Upper Salmon 3 & 4	18	18	18	19	18	18	18	18	18	20	20	18	18	18
78 Wallowa Falls	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
79 Walterville	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7
80 West Side	0	0	0	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.4	0.2	0.2	0
81 Wyochee	4.3	4.3	14	14	13	14	15	14	14	11	11	1.7	1.8	15
82 Yelm	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Total Independent Hydro w/Enc.	1631	1639	1684	1721	1671	1530	1446	1515	1703	1807	1929	2104	2164	1818
<i>-Total Independent Hydro W/Enc.-</i>														
83 Federal System	630	642	576	636	604	414	354	405	559	609	728	855	921	690
84 Public Entities	248	243	287	273	265	289	278	293	319	321	321	344	336	283
85 Investor-Owned Entities	753	753	821	812	803	826	812	816	823	876	879	903	907	844
86 Other Entities	0	0	0	0	0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
87 Total Independent Hydro w/Enc.	1631	1639	1684	1721	1671	1530	1446	1515	1703	1807	1929	2104	2164	1818

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2010 - 2011 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Independent Hydro Projects-</i>														
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	33	71	75	82
2 Anderson Ranch	34	34	28	38	38	38	36	35	34	34	34	37	38	36
3 Arrowrock Hydro	0	0	0	0	0	14	14	13	13	13	13	14	14	13
4 Ashton	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
5 Bend Power Dam	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
6 Big Cliff	8	8	12	12	17	8	7.1	9	10	12	17	22	22	10
7 Big Fork	4.5	4.5	3.3	4.4	4.3	4.3	4.5	4.5	4.6	4.6	4.6	4.6	4.5	4.6
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5
9 Bliss	75	75	75	75	75	75	75	75	75	75	75	75	75	75
10 Boise River Diversion	3	3	3	3	0	0	0	0	0	0	3	3	3	3
11 Bonneville Fishway	24	24	24	24	24	24	24	24	24	24	24	24	24	24
12 Calispel Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13 Carmen-Smith	41	39	39	33	30	37	33	33	52	62	63	64	60	51
14 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0
15 Cedar Falls & Newhalem	0	0	30	30	30	30	30	30	30	30	30	30	30	0
16 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6
17 CJ Strike	85	85	85	85	85	85	85	85	85	85	85	85	85	85
18 Clear Lake	3.1	3.0	3.3	3.5	3.4	2.9	3.2	2.9	3	3.3	3.1	3.1	3.0	3.4
19 Cougar	22	20	26	26	25	6.4	4.7	7	8	23	30	30	30	12
20 Cowlitz Falls	12	10	11	16	23	23	13	17	33	48	50	64	66	29
21 Detroit	100	100	100	100	100	100	100	100	100	100	100	106	100	100
22 Dexter	11	11	7	13	18	6	3.8	7	8	10	17	18	18	7
23 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0
24 East Side	0	0	0	2.4	3.0	3	0	0	0	0	0	0	0	0
25 Felt	4.4	4.4	4.6	4.3	4.4	3.9	3.3	3.5	4.2	4.2	4.2	5.9	7.3	5.6
26 Foster	7	7	12	10	8	10	4.6	10	22	23	23	23	24	7
27 Gem State Hydro	20	20	16	13	14	15	15	15	22	22	22	21	21	22
28 Grace	26	26	26	26	26	26	26	26	26	26	26	26	26	26
29 Green Peter	76	76	86	79	61	32	20	5	90	92	92	88	86	55
30 Green Springs - USBR	16	16	15	17	18	18	19	19	18	18	18	18	17	16
31 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0
32 Hills Creek	10	32	23	25	30	6	6.1	7	8	23	36	36	36	16
33 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
34 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7
35 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7
36 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0
37 Island Park	4.5	4.5	4.3	4.1	4.1	3.3	3.3	4.4	4.3	4.6	4.6	4.6	4.6	4.6
38 Jackson	103	103	103	103	103	103	103	103	103	103	103	103	103	103
39 John C Boyle	0	0	82	82	82	82	82	82	82	82	82	82	82	0
40 Lake Creek	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
41 Last Chance	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
42 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10
43 Lookout Point	89	98	73	124	131	24	17	45	66	61	143	150	151	81
44 Lost Creek	56	56	55	52	51	50	19	50	53	56	56	56	56	56
45 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8
46 Lower Salmon	68	68	68	68	68	68	68	68	68	68	68	68	68	68
47 McNary Fishway	9.9	9.9	9.9	9.8	10.0	9.8	9.7	9.9	9.8	9.9	9.9	9.9	9.8	9.9
48 Mill Creek (WA)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
49 Milner	0	0	0	0	6	10	5	3.4	0	0	0	0	0	0
50 Minidoka	28	28	12	13	13	13	13	14	15	15	15	30	30	30
51 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2
52 North Umpqua	175	175	175	175	175	175	175	175	175	175	175	175	175	175
53 Oneida	30	30	30	30	30	30	30	30	30	30	30	30	30	30
54 Packwood	30	30	30	30	27	30	30	30	30	30	30	30	30	30
55 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162
56 Paris	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
57 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58 Reeder Gulch	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
59 Rogue	48	48	47	27	26	28	25	27	40	50	50	51	51	51
60 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13
61 Shoshone Falls	12	12	12	12	12	12	12	13	12	12	12	12	12	12
62 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2010 - 2011 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
63 Snoq. Electron & Nooksack	71	71	71	71	71	71	71	71	71	71	71	71	71	71
64 Soda Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
65 Soda Point Project	14	14	14	14	14	14	14	14	14	14	14	14	14	14
66 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9
67 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9
68 Strawberry Creek	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
69 Swan Falls	19	19	16	21	19	19	17	20	18	22	22	16	15	15
70 Swift Creek Hydro	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
71 The Dalles Fishway	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.4	5.4	5.3	5.4	5.4
72 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4
73 Trail Bridge	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
74 TW Sullivan	14	14	14	14	14	15	15	15	15	15	15	15	15	15
75 Twin Falls	8.0	8.0	8	4.7	11	14	10	9.2	0	0	0	0	0	7.7
76 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0
77 Upper Salmon 1 & 2	21	21	20	22	20	20	20	20	20	23	23	20	20	20
78 Upper Salmon 3 & 4	18	18	18	19	18	18	18	18	18	20	20	18	18	18
79 Wallowa Falls	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80 Wallerville	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7
81 West Side	0	0	0	0.4	0.5	0.5	0	0	0	0	0	0	0	0
82 Wynochee	4.3	4.3	14	14	13	14	15	14	14	11	11	1.7	1.8	15
83 Yelm	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Total Independent Hydro w/Enc.	1647	1654	1700	1736	1686	1544	1455	1524	1712	1816	1940	2117	2178	1832
<i>-Total Independent Hydro W/Enc.-</i>														
84 Federal System	630	642	576	636	604	414	354	405	559	609	728	855	921	690
85 Public Entities	248	243	287	273	265	303	291	306	332	333	334	358	350	296
86 Investor-Owned Entities	767	767	835	826	817	826	808	812	819	872	876	902	905	844
87 Other Entities	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
88 Total Independent Hydro w/Enc.	1647	1654	1700	1736	1686	1544	1455	1524	1712	1816	1940	2117	2178	1832

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Independent Hydro Projects-</i>														
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	33	71	75	82
2 Anderson Ranch	34	34	28	38	38	38	36	35	34	34	34	37	38	36
3 Arrowrock Hydro	13	13	11	14	14	14	14	13	13	13	13	14	14	13
4 Ashton	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
5 Bend Power Dam	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
6 Big Cliff	8	8	12	12	17	8	7.1	9	10	12	17	22	22	10
7 Big Fork	4.5	4.5	3.3	4.4	4.3	4.3	4.5	4.5	4.6	4.6	4.6	4.6	4.5	4.6
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5
9 Bliss	75	75	75	75	75	75	75	75	75	75	75	75	75	75
10 Boise River Diversion	3	3	3	3	0	0	0	0	0	0	3	3	3	3
11 Bonneville Fishway	24	24	24	24	24	24	24	24	24	24	24	24	24	24
12 Calispel Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13 Carmen-Smith	41	39	39	33	30	37	33	33	52	62	63	64	60	51
14 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0
15 Cedar Falls & Newhalem	0	0	30	30	30	30	30	30	30	30	30	30	30	0
16 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6
17 CJ Strike	85	85	85	85	85	85	85	85	85	85	85	85	85	85
18 Clear Lake	3.1	3.0	3.3	3.5	3.4	2.9	3.2	2.9	3	3.3	3.1	3.1	3.0	3.4
19 Cougar	22	20	26	26	25	6.4	4.7	7	8	23	30	30	30	12
20 Cowlitz Falls	12	10	11	16	23	23	13	17	33	48	50	64	66	29
21 Detroit	100	100	100	100	100	100	100	100	100	100	100	106	100	100
22 Dexter	11	11	7	13	18	6	3.8	7	8	10	17	18	18	7
23 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0
24 East Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Felt	4.4	4.4	4.6	4.3	4.4	3.9	3.3	3.5	4.2	4.2	4.2	5.9	7.3	5.6
26 Foster	7	7	12	10	8	10	4.6	10	22	23	23	23	24	7
27 Gem State Hydro	20	20	16	13	14	15	15	15	22	22	22	21	21	22
28 Grace	26	26	26	26	26	26	26	26	26	26	26	26	26	26
29 Green Peter	76	76	86	79	61	32	20	5	90	92	92	88	86	55
30 Green Springs - USBR	16	16	15	17	18	18	19	19	18	18	18	18	17	16
31 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0
32 Hills Creek	10	32	23	25	30	6	6.1	7	8	23	36	36	36	16
33 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
34 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7
35 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7
36 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0
37 Island Park	4.5	4.5	4.3	4.1	4.1	3.3	3.3	4.4	4.3	4.6	4.6	4.6	4.6	4.6
38 Jackson	103	103	103	103	103	103	103	103	103	103	103	103	103	103
39 John C Boyle	0	0	82	82	82	82	82	82	82	82	82	82	82	0
40 Lake Creek	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
41 Last Chance	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
42 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10
43 Lookout Point	89	98	73	124	131	24	17	45	66	61	143	150	151	81
44 Lost Creek	56	56	55	52	51	50	19	50	53	56	56	56	56	56
45 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8
46 Lower Salmon	68	68	68	68	68	68	68	68	68	68	68	68	68	68
47 McNary Fishway	9.9	9.9	9.9	9.8	10.0	9.8	9.7	9.9	9.8	9.9	9.9	9.9	9.8	9.9
48 Mill Creek (WA)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
49 Milner	0	0	0	0	6	10	5	3.4	0	0	0	0	0	0
50 Minidoka	28	28	12	13	13	13	13	14	15	15	15	30	30	30
51 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2
52 North Umpqua	175	175	175	175	175	175	175	175	175	175	175	175	175	175
53 Oneida	30	30	30	30	30	30	30	30	30	30	30	30	30	30
54 Packwood	30	30	30	30	27	30	30	30	30	30	30	30	30	30
55 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162
56 Paris	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
57 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58 Reeder Gulch	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
59 Rogue	48	48	47	27	26	28	25	27	40	50	50	51	51	51
60 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13
61 Shoshone Falls	12	12	12	12	12	12	12	13	12	12	12	12	12	12
62 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9

Table A-4: Regional Independent Hydro Projects
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
63 Snoq. Electron & Nooksack	71	71	71	71	71	71	71	71	71	71	71	71	71	71
64 Soda Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
65 Soda Point Project	14	14	14	14	14	14	14	14	14	14	14	14	14	14
66 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9
67 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9
68 Strawberry Creek	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
69 Swan Falls	19	19	16	21	19	19	17	20	18	22	22	16	15	15
70 Swift Creek Hydro	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
71 The Dalles Fishway	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.4	5.4	5.3	5.4	5.4
72 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4
73 Trail Bridge	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
74 TW Sullivan	14	14	14	14	14	15	15	15	15	15	15	15	15	15
75 Twin Falls	8.0	8.0	8	4.7	11	14	10	9.2	0	0	0	0	0	7.7
76 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0
77 Upper Salmon 1 & 2	21	21	20	22	20	20	20	20	20	23	23	20	20	20
78 Upper Salmon 3 & 4	18	18	18	19	18	18	18	18	18	20	20	18	18	18
79 Wallowa Falls	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80 Wallerville	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7
81 West Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82 Wynochee	4.3	4.3	14	14	13	14	15	14	14	11	11	1.7	1.8	15
83 Yelm	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Total Independent Hydro w/Enc.	1659	1667	1710	1748	1697	1541	1455	1524	1712	1816	1940	2117	2178	1832
<i>-Total Independent Hydro W/Enc.-</i>														
84 Federal System	630	642	576	629	594	401	345	394	546	593	712	833	898	669
85 Public Entities	261	256	298	294	289	315	301	317	345	350	350	380	372	317
86 Investor-Owned Entities	767	767	835	823	813	823	808	812	819	872	876	902	905	844
87 Other Entities	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
88 Total Independent Hydro w/Enc.	1659	1667	1710	1748	1697	1541	1455	1524	1712	1816	1940	2117	2178	1832

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Independent Hydro Projects-</i>														
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	33	71	75	82
2 Anderson Ranch	34	34	28	38	38	38	36	35	34	34	34	37	38	36
3 Arrowrock Hydro	13	13	11	14	14	14	14	13	13	13	13	14	14	13
4 Ashton	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
5 Bend Power Dam	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
6 Big Cliff	8	8	12	12	17	8	7.1	9	10	12	17	22	22	10
7 Big Fork	4.5	4.5	3.3	4.4	4.3	4.3	4.5	4.5	4.6	4.6	4.6	4.6	4.5	4.6
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5
9 Bliss	75	75	75	75	75	75	75	75	75	75	75	75	75	75
10 Boise River Diversion	3	3	3	3	0	0	0	0	0	0	3	3	3	3
11 Bonneville Fishway	24	24	24	24	24	24	24	24	24	24	24	24	24	24
12 Calispel Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13 Carmen-Smith	41	39	39	33	30	37	33	33	52	62	63	64	60	51
14 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0
15 Cedar Falls & Newhalem	0	0	30	30	30	30	30	30	30	30	30	30	30	0
16 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6
17 CJ Strike	85	85	85	85	85	85	85	85	85	85	85	85	85	85
18 Clear Lake	3.1	3.0	3.3	3.5	3.4	2.9	3.2	2.9	3	3.3	3.1	3.1	3.0	3.4
19 Cougar	22	20	26	26	25	6.4	4.7	7	8	23	30	30	30	12
20 Cowlitz Falls	12	10	11	16	23	23	13	17	33	48	50	64	66	29
21 Detroit	100	100	100	100	100	100	100	100	100	100	100	106	100	100
22 Dexter	11	11	7	13	18	6	3.8	7	8	10	17	18	18	7
23 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0
24 East Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Felt	4.4	4.4	4.6	4.3	4.4	3.9	3.3	3.5	4.2	4.2	4.2	5.9	7.3	5.6
26 Foster	7	7	12	10	8	10	4.6	10	22	23	23	23	24	7
27 Gem State Hydro	20	20	16	13	14	15	15	15	22	22	22	21	21	22
28 Grace	26	26	26	26	26	26	26	26	26	26	26	26	26	26
29 Green Peter	76	76	86	79	61	32	20	5	90	92	92	88	86	55
30 Green Springs - USBR	16	16	15	17	18	18	19	19	18	18	18	18	17	16
31 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0
32 Hills Creek	10	32	23	25	30	6	6.1	7	8	23	36	36	36	16
33 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
34 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7
35 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7
36 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0
37 Island Park	4.5	4.5	4.3	4.1	4.1	3.3	3.3	4.4	4.3	4.6	4.6	4.6	4.6	4.6
38 Jackson	103	103	103	103	103	103	103	103	103	103	103	103	103	103
39 John C Boyle	0	0	82	82	82	82	82	82	82	82	82	82	82	0
40 Lake Creek	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
41 Last Chance	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
42 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10
43 Lookout Point	89	98	73	124	131	24	17	45	66	61	143	150	151	81
44 Lost Creek	56	56	55	52	51	50	19	50	53	56	56	56	56	56
45 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8
46 Lower Salmon	68	68	68	68	68	68	68	68	68	68	68	68	68	68
47 McNary Fishway	9.9	9.9	9.9	9.8	10.0	9.8	9.7	9.9	9.8	9.9	9.9	9.9	9.8	9.9
48 Mill Creek (WA)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
49 Milner	0	0	0	0	6	10	5	3.4	0	0	0	0	0	0
50 Minidoka	28	28	12	13	13	13	13	14	15	15	15	30	30	30
51 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2
52 North Umpqua	175	175	175	175	175	175	175	175	175	175	175	175	175	175
53 Oneida	30	30	30	30	30	30	30	30	30	30	30	30	30	30
54 Packwood	30	30	30	30	27	30	30	30	30	30	30	30	30	30
55 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162
56 Paris	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
57 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58 Reeder Gulch	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
59 Rogue	48	48	47	27	26	28	25	27	40	50	50	51	51	51
60 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13
61 Shoshone Falls	12	12	12	12	12	12	12	13	12	12	12	12	12	12
62 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
63 Snoq. Electron & Nooksack	71	71	71	71	71	71	71	71	71	71	71	71	71	71
64 Soda Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
65 Soda Point Project	14	14	14	14	14	14	14	14	14	14	14	14	14	14
66 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9
67 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9
68 Strawberry Creek	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
69 Swan Falls	19	19	16	21	19	19	17	20	18	22	22	16	15	15
70 Swift Creek Hydro	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
71 The Dalles Fishway	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.4	5.4	5.3	5.4	5.4
72 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4
73 Trail Bridge	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
74 TW Sullivan	14	14	14	14	14	15	15	15	15	15	15	15	15	15
75 Twin Falls	8.0	8.0	8	4.7	11	14	10	9.2	0	0	0	0	0	7.7
76 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0
77 Upper Salmon 1 & 2	21	21	20	22	20	20	20	20	20	23	23	20	20	20
78 Upper Salmon 3 & 4	18	18	18	19	18	18	18	18	18	20	20	18	18	18
79 Wallowa Falls	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80 Walterville	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7
81 West Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82 Wynochee	4.3	4.3	14	14	13	14	15	14	14	11	11	1.7	1.8	15
83 Yelm	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Total Independent Hydro w/Enc.	1659	1667	1710	1748	1697	1541	1455	1524	1712	1816	1940	2117	2178	1832
-Total Independent Hydro W/Enc.-														
84 Federal System	615	627	566	629	594	401	345	394	546	593	712	833	898	669
85 Public Entities	276	271	308	294	289	315	301	317	345	350	350	380	372	317
86 Investor-Owned Entities	767	767	835	823	813	823	808	812	819	872	876	902	905	844
87 Other Entities	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
88 Total Independent Hydro w/Enc.	1659	1667	1710	1748	1697	1541	1455	1524	1712	1816	1940	2117	2178	1832

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Independent Hydro Projects-</i>														
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	33	71	75	82
2 Anderson Ranch	34	34	28	38	38	38	36	35	34	34	34	37	38	36
3 Arrowrock Hydro	13	13	11	14	14	14	14	13	13	13	13	14	14	13
4 Ashton	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
5 Bend Power Dam	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
6 Big Cliff	8	8	12	12	17	8	7.1	9	10	12	17	22	22	10
7 Big Fork	4.5	4.5	3.3	4.4	4.3	4.3	4.5	4.5	4.6	4.6	4.6	4.6	4.5	4.6
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5
9 Bliss	75	75	75	75	75	75	75	75	75	75	75	75	75	75
10 Boise River Diversion	3	3	3	3	0	0	0	0	0	0	3	3	3	3
11 Bonneville Fishway	24	24	24	24	24	24	24	24	24	24	24	24	24	24
12 Calispel Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13 Carmen-Smith	41	39	39	33	30	37	33	33	52	62	63	64	60	51
14 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0
15 Cedar Falls & Newhalem	0	0	30	30	30	30	30	30	30	30	30	30	30	0
16 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6
17 CJ Strike	85	85	85	85	85	85	85	85	85	85	85	85	85	85
18 Clear Lake	3.1	3.0	3.3	3.5	3.4	2.9	3.2	2.9	3	3.3	3.1	3.1	3.0	3.4
19 Cougar	22	20	26	26	25	6.4	4.7	7	8	23	30	30	30	12
20 Cowlitz Falls	12	10	11	16	23	23	13	17	33	48	50	64	66	29
21 Detroit	100	100	100	100	100	100	100	100	100	100	100	106	100	100
22 Dexter	11	11	7	13	18	6	3.8	7	8	10	17	18	18	7
23 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0
24 East Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Felt	4.4	4.4	4.6	4.3	4.4	3.9	3.3	3.5	4.2	4.2	4.2	5.9	7.3	5.6
26 Foster	7	7	12	10	8	10	4.6	10	22	23	23	23	24	7
27 Gem State Hydro	20	20	16	13	14	15	15	15	22	22	22	21	21	22
28 Grace	26	26	26	26	26	26	26	26	26	26	26	26	26	26
29 Green Peter	76	76	86	79	61	32	20	5	90	92	92	88	86	55
30 Green Springs - USBR	16	16	15	17	18	18	19	19	18	18	18	18	17	16
31 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0
32 Hills Creek	10	32	23	25	30	6	6.1	7	8	23	36	36	36	16
33 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
34 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7
35 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7
36 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0
37 Island Park	4.5	4.5	4.3	4.1	4.1	3.3	3.3	4.4	4.3	4.6	4.6	4.6	4.6	4.6
38 Jackson	103	103	103	103	103	103	103	103	103	103	103	103	103	103
39 John C Boyle	0	0	82	82	82	82	82	82	82	82	82	82	82	0
40 Lake Creek	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
41 Last Chance	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
42 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10
43 Lookout Point	89	98	73	124	131	24	17	45	66	61	143	150	151	81
44 Lost Creek	56	56	55	52	51	50	19	50	53	56	56	56	56	56
45 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8
46 Lower Salmon	68	68	68	68	68	68	68	68	68	68	68	68	68	68
47 McNary Fishway	9.9	9.9	9.9	9.8	10.0	9.8	9.7	9.9	9.8	9.9	9.9	9.9	9.8	9.9
48 Mill Creek (WA)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
49 Milner	0	0	0	0	6	10	5	3.4	0	0	0	0	0	0
50 Minidoka	28	28	12	13	13	13	13	14	15	15	15	30	30	30
51 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2
52 North Umpqua	175	175	175	175	175	175	175	175	175	175	175	175	175	175
53 Oneida	30	30	30	30	30	30	30	30	30	30	30	30	30	30
54 Packwood	30	30	30	30	27	30	30	30	30	30	30	30	30	30
55 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162
56 Paris	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
57 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58 Reeder Gulch	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
59 Rogue	48	48	47	27	26	28	25	27	40	50	50	51	51	51
60 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13
61 Shoshone Falls	12	12	12	12	12	12	12	13	12	12	12	12	12	12
62 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9

Table A-4: Regional Independent Hydro Projects
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
63 Snoq. Electron & Nooksack	71	71	71	71	71	71	71	71	71	71	71	71	71	71
64 Soda Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
65 Soda Point Project	14	14	14	14	14	14	14	14	14	14	14	14	14	14
66 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9
67 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9
68 Strawberry Creek	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
69 Swan Falls	19	19	16	21	19	19	17	20	18	22	22	16	15	15
70 Swift Creek Hydro	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
71 The Dalles Fishway	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.4	5.4	5.3	5.4	5.4
72 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4
73 Trail Bridge	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
74 TW Sullivan	14	14	14	14	14	15	15	15	15	15	15	15	15	15
75 Twin Falls	8.0	8.0	8	4.7	11	14	10	9.2	0	0	0	0	0	7.7
76 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0
77 Upper Salmon 1 & 2	21	21	20	22	20	20	20	20	20	23	23	20	20	20
78 Upper Salmon 3 & 4	18	18	18	19	18	18	18	18	18	20	20	18	18	18
79 Wallowa Falls	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80 Wallerville	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7
81 West Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82 Wynochee	4.3	4.3	14	14	13	14	15	14	14	11	11	1.7	1.8	15
83 Yelm	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Total Independent Hydro w/Enc.	1659	1667	1710	1748	1697	1541	1455	1524	1712	1816	1940	2117	2178	1832
-Total Independent Hydro W/Enc.-														
84 Federal System	615	627	566	629	594	401	345	394	546	593	712	833	898	669
85 Public Entities	276	271	308	294	289	315	301	317	345	350	350	380	372	317
86 Investor-Owned Entities	767	767	835	823	813	823	808	812	819	872	876	902	905	844
87 Other Entities	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
88 Total Independent Hydro w/Enc.	1659	1667	1710	1748	1697	1541	1455	1524	1712	1816	1940	2117	2178	1832

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Independent Hydro Projects-</i>														
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	33	71	75	82
2 Anderson Ranch	34	34	28	38	38	38	36	35	34	34	34	37	38	36
3 Arrowrock Hydro	13	13	11	14	14	14	14	13	13	13	13	14	14	13
4 Ashton	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
5 Bend Power Dam	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
6 Big Cliff	8	8	12	12	17	8	7.1	9	10	12	17	22	22	10
7 Big Fork	4.5	4.5	3.3	4.4	4.3	4.3	4.5	4.5	4.6	4.6	4.6	4.6	4.5	4.6
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5
9 Bliss	75	75	75	75	75	75	75	75	75	75	75	75	75	75
10 Blue River	0	0	0	0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
11 Boise River Diversion	3	3	3	3	0	0	0	0	0	0	3	3	3	3
12 Bonneville Fishway	24	24	24	24	24	24	24	24	24	24	24	24	24	24
13 Calispel Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14 Carmen-Smith	41	39	39	33	30	37	33	33	52	62	63	64	60	51
15 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0
16 Cedar Falls & Newhalem	0	0	30	30	30	30	30	30	30	30	30	30	30	0
17 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6
18 CJ Strike	85	85	85	85	85	85	85	85	85	85	85	85	85	85
19 Clear Lake	3.1	3.0	3.3	3.5	3.4	2.9	3.2	2.9	3	3.3	3.1	3.1	3.0	3.4
20 Cougar	22	20	26	26	25	6.4	4.7	7	8	23	30	30	30	12
21 Cowlitz Falls	12	10	11	16	23	23	13	17	33	48	50	64	66	29
22 Detroit	100	100	100	100	100	100	100	100	100	100	100	106	100	100
23 Dexter	11	11	7	13	18	6	3.8	7	8	10	17	18	18	7
24 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0
25 East Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Felt	4.4	4.4	4.6	4.3	4.4	3.9	3.3	3.5	4.2	4.2	4.2	5.9	7.3	5.6
27 Foster	7	7	12	10	8	10	4.6	10	22	23	23	23	24	7
28 Gem State Hydro	20	20	16	13	14	15	15	15	22	22	22	21	21	22
29 Grace	26	26	26	26	26	26	26	26	26	26	26	26	26	26
30 Green Peter	76	76	86	79	61	32	20	5	90	92	92	88	86	55
31 Green Springs - USBR	16	16	15	17	18	18	19	19	18	18	18	18	17	16
32 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0
33 Hills Creek	10	32	23	25	30	6	6.1	7	8	23	36	36	36	16
34 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
35 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7
36 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7
37 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0
38 Island Park	4.5	4.5	4.3	4.1	4.1	3.3	3.3	4.4	4.3	4.6	4.6	4.6	4.6	4.6
39 Jackson	103	103	103	103	103	103	103	103	103	103	103	103	103	103
40 John C Boyle	0	0	82	82	82	82	82	82	82	82	82	82	82	0
41 Lake Creek	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
42 Last Chance	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
43 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10
44 Lookout Point	89	98	73	124	131	24	17	45	66	61	143	150	151	81
45 Lost Creek	56	56	55	52	51	50	19	50	53	56	56	56	56	56
46 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8
47 Lower Salmon	68	68	68	68	68	68	68	68	68	68	68	68	68	68
48 McNary Fishway	9.9	9.9	9.9	9.8	10.0	9.8	9.7	9.9	9.8	9.9	9.9	9.9	9.8	9.9
49 Mill Creek (WA)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
50 Milner	0	0	0	0	6	10	5	3.4	0	0	0	0	0	0
51 Minidoka	28	28	12	13	13	13	13	14	15	15	15	30	30	30
52 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2
53 North Umpqua	175	175	175	175	175	175	175	175	175	175	175	175	175	175
54 Oneida	30	30	30	30	30	30	30	30	30	30	30	30	30	30
55 Packwood	30	30	30	30	27	30	30	30	30	30	30	30	30	30
56 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162
57 Paris	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
58 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59 Reeder Gulch	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
60 Rogue	48	48	47	27	26	28	25	27	40	50	50	51	51	51
61 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13
62 Shoshone Falls	12	12	12	12	12	12	12	13	12	12	12	12	12	12

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
63 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9
64 Snoq. Electron & Nooksack	71	71	71	71	71	71	71	71	71	71	71	71	71	71
65 Soda Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
66 Soda Point Project	14	14	14	14	14	14	14	14	14	14	14	14	14	14
67 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9
68 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9
69 Strawberry Creek	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
70 Swan Falls	19	19	16	21	19	19	17	20	18	22	22	16	15	15
71 Swift Creek Hydro	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
72 The Dalles Fishway	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.4	5.4	5.3	5.4	5.4
73 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4
74 Trail Bridge	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
75 TW Sullivan	14	14	14	14	14	15	15	15	15	15	15	15	15	15
76 Twin Falls	8.0	8.0	8	4.7	11	14	10	9.2	0	0	0	0	0	7.7
77 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0
78 Upper Salmon 1 & 2	21	21	20	22	20	20	20	20	20	23	23	20	20	20
79 Upper Salmon 3 & 4	18	18	18	19	18	18	18	18	18	20	20	18	18	18
80 Wallowa Falls	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
81 Walterville	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7
82 West Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Wynochee	4.3	4.3	14	14	13	14	15	14	14	11	11	1.7	1.8	15
84 Yelm	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Total Independent Hydro w/Enc.	1659	1667	1710	1748	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
<i>-Total Independent Hydro W/Enc. -</i>														
85 Federal System	615	627	566	629	594	401	345	394	546	593	712	833	898	669
86 Public Entities	276	271	308	294	293	319	305	321	350	354	355	384	377	321
87 Investor-Owned Entities	767	767	835	823	813	823	808	812	819	872	876	902	905	844
88 Other Entities	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
89 Total Independent Hydro w/Enc.	1659	1667	1710	1748	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Independent Hydro Projects-</i>														
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	33	71	75	82
2 Anderson Ranch	34	34	28	38	38	38	36	35	34	34	34	37	38	36
3 Arrowrock Hydro	13	13	11	14	14	14	14	13	13	13	13	14	14	13
4 Ashton	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
5 Bend Power Dam	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
6 Big Cliff	8	8	12	12	17	8	7.1	9	10	12	17	22	22	10
7 Big Fork	4.5	4.5	3.3	4.4	4.3	4.3	4.5	4.5	4.6	4.6	4.6	4.6	4.5	4.6
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5
9 Bliss	75	75	75	75	75	75	75	75	75	75	75	75	75	75
10 Blue River	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
11 Boise River Diversion	3	3	3	3	0	0	0	0	0	0	3	3	3	3
12 Bonneville Fishway	24	24	24	24	24	24	24	24	24	24	24	24	24	24
13 Calispel Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14 Carmen-Smith	41	39	39	33	30	37	33	33	52	62	63	64	60	51
15 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0
16 Cedar Falls & Newhalem	0	0	30	30	30	30	30	30	30	30	30	30	30	0
17 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6
18 CJ Strike	85	85	85	85	85	85	85	85	85	85	85	85	85	85
19 Clear Lake	3.1	3.0	3.3	3.5	3.4	2.9	3.2	2.9	3	3.3	3.1	3.1	3.0	3.4
20 Cougar	22	20	26	26	25	6.4	4.7	7	8	23	30	30	30	12
21 Cowlitz Falls	12	10	11	16	23	23	13	17	33	48	50	64	66	29
22 Detroit	100	100	100	100	100	100	100	100	100	100	100	106	100	100
23 Dexter	11	11	7	13	18	6	3.8	7	8	10	17	18	18	7
24 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0
25 East Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Felt	4.4	4.4	4.6	4.3	4.4	3.9	3.3	3.5	4.2	4.2	4.2	5.9	7.3	5.6
27 Foster	7	7	12	10	8	10	4.6	10	22	23	23	23	24	7
28 Gem State Hydro	20	20	16	13	14	15	15	15	22	22	22	21	21	22
29 Grace	26	26	26	26	26	26	26	26	26	26	26	26	26	26
30 Green Peter	76	76	86	79	61	32	20	5	90	92	92	88	86	55
31 Green Springs - USBR	16	16	15	17	18	18	19	19	18	18	18	18	17	16
32 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0
33 Hills Creek	10	32	23	25	30	6	6.1	7	8	23	36	36	36	16
34 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
35 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7
36 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7
37 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0
38 Island Park	4.5	4.5	4.3	4.1	4.1	3.3	3.3	4.4	4.3	4.6	4.6	4.6	4.6	4.6
39 Jackson	103	103	103	103	103	103	103	103	103	103	103	103	103	103
40 John C Boyle	0	0	82	82	82	82	82	82	82	82	82	82	82	0
41 Lake Creek	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
42 Last Chance	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
43 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10
44 Lookout Point	89	98	73	124	131	24	17	45	66	61	143	150	151	81
45 Lost Creek	56	56	55	52	51	50	19	50	53	56	56	56	56	56
46 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8
47 Lower Salmon	68	68	68	68	68	68	68	68	68	68	68	68	68	68
48 McNary Fishway	9.9	9.9	9.9	9.8	10.0	9.8	9.7	9.9	9.8	9.9	9.9	9.9	9.8	9.9
49 Mill Creek (WA)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
50 Milner	0	0	0	0	6	10	5	3.4	0	0	0	0	0	0
51 Minidoka	28	28	12	13	13	13	13	14	15	15	15	30	30	30
52 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2
53 North Umpqua	175	175	175	175	175	175	175	175	175	175	175	175	175	175
54 Oneida	30	30	30	30	30	30	30	30	30	30	30	30	30	30
55 Packwood	30	30	30	30	27	30	30	30	30	30	30	30	30	30
56 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162
57 Paris	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
58 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59 Reeder Gulch	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
60 Rogue	48	48	47	27	26	28	25	27	40	50	50	51	51	51
61 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13
62 Shoshone Falls	12	12	12	12	12	12	12	13	12	12	12	12	12	12

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
63 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9
64 Snoq. Electron & Nooksack	71	71	71	71	71	71	71	71	71	71	71	71	71	71
65 Soda Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
66 Soda Point Project	14	14	14	14	14	14	14	14	14	14	14	14	14	14
67 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9
68 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9
69 Strawberry Creek	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
70 Swan Falls	19	19	16	21	19	19	17	20	18	22	22	16	15	15
71 Swift Creek Hydro	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
72 The Dalles Fishway	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.4	5.4	5.3	5.4	5.4
73 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4
74 Trail Bridge	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
75 TW Sullivan	14	14	14	14	14	15	15	15	15	15	15	15	15	15
76 Twin Falls	8.0	8.0	8	4.7	11	14	10	9.2	0	0	0	0	0	7.7
77 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0
78 Upper Salmon 1 & 2	21	21	20	22	20	20	20	20	20	23	23	20	20	20
79 Upper Salmon 3 & 4	18	18	18	19	18	18	18	18	18	20	20	18	18	18
80 Wallowa Falls	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
81 Walterville	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7
82 West Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Wynochee	4.3	4.3	14	14	13	14	15	14	14	11	11	1.7	1.8	15
84 Yelm	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Total Independent Hydro w/Enc.	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
-Total Independent Hydro W/Enc. -														
85 Federal System	615	627	566	629	594	401	345	394	546	593	712	833	898	669
86 Public Entities	280	275	312	299	293	319	305	321	350	354	355	384	377	321
87 Investor-Owned Entities	767	767	835	823	813	823	808	812	819	872	876	902	905	844
88 Other Entities	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
89 Total Independent Hydro w/Enc.	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Independent Hydro Projects-</i>														
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	33	71	75	82
2 Anderson Ranch	34	34	28	38	38	38	36	35	34	34	34	37	38	36
3 Arrowrock Hydro	13	13	11	14	14	14	14	13	13	13	13	14	14	13
4 Ashton	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
5 Bend Power Dam	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
6 Big Cliff	8	8	12	12	17	8	7.1	9	10	12	17	22	22	10
7 Big Fork	4.5	4.5	3.3	4.4	4.3	4.3	4.5	4.5	4.6	4.6	4.6	4.6	4.5	4.6
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5
9 Bliss	75	75	75	75	75	75	75	75	75	75	75	75	75	75
10 Blue River	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
11 Boise River Diversion	3	3	3	3	0	0	0	0	0	0	3	3	3	3
12 Bonneville Fishway	24	24	24	24	24	24	24	24	24	24	24	24	24	24
13 Calispel Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14 Carmen-Smith	41	39	39	33	30	37	33	33	52	62	63	64	60	51
15 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0
16 Cedar Falls & Newhalem	0	0	30	30	30	30	30	30	30	30	30	30	30	0
17 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6
18 CJ Strike	85	85	85	85	85	85	85	85	85	85	85	85	85	85
19 Clear Lake	3.1	3.0	3.3	3.5	3.4	2.9	3.2	2.9	3	3.3	3.1	3.1	3.0	3.4
20 Cougar	22	20	26	26	25	6.4	4.7	7	8	23	30	30	30	12
21 Cowlitz Falls	12	10	11	16	23	23	13	17	33	48	50	64	66	29
22 Detroit	100	100	100	100	100	100	100	100	100	100	100	106	100	100
23 Dexter	11	11	7	13	18	6	3.8	7	8	10	17	18	18	7
24 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0
25 East Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Felt	4.4	4.4	4.6	4.3	4.4	3.9	3.3	3.5	4.2	4.2	4.2	5.9	7.3	5.6
27 Foster	7	7	12	10	8	10	4.6	10	22	23	23	23	24	7
28 Gem State Hydro	20	20	16	13	14	15	15	15	22	22	22	21	21	22
29 Grace	26	26	26	26	26	26	26	26	26	26	26	26	26	26
30 Green Peter	76	76	86	79	61	32	20	5	90	92	92	88	86	55
31 Green Springs - USBR	16	16	15	17	18	18	19	19	18	18	18	18	17	16
32 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0
33 Hills Creek	10	32	23	25	30	6	6.1	7	8	23	36	36	36	16
34 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
35 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7
36 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7
37 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0
38 Island Park	4.5	4.5	4.3	4.1	4.1	3.3	3.3	4.4	4.3	4.6	4.6	4.6	4.6	4.6
39 Jackson	103	103	103	103	103	103	103	103	103	103	103	103	103	103
40 John C Boyle	0	0	82	82	82	82	82	82	82	82	82	82	82	0
41 Lake Creek	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
42 Last Chance	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
43 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10
44 Lookout Point	89	98	73	124	131	24	17	45	66	61	143	150	151	81
45 Lost Creek	56	56	55	52	51	50	19	50	53	56	56	56	56	56
46 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8
47 Lower Salmon	68	68	68	68	68	68	68	68	68	68	68	68	68	68
48 McNary Fishway	9.9	9.9	9.9	9.8	10.0	9.8	9.7	9.9	9.8	9.9	9.9	9.9	9.8	9.9
49 Mill Creek (WA)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
50 Milner	0	0	0	0	6	10	5	3.4	0	0	0	0	0	0
51 Minidoka	28	28	12	13	13	13	13	14	15	15	15	30	30	30
52 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2
53 North Umpqua	175	175	175	175	175	175	175	175	175	175	175	175	175	175
54 Oneida	30	30	30	30	30	30	30	30	30	30	30	30	30	30
55 Packwood	30	30	30	30	27	30	30	30	30	30	30	30	30	30
56 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162
57 Paris	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
58 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59 Reeder Gulch	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
60 Rogue	48	48	47	27	26	28	25	27	40	50	50	51	51	51
61 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13
62 Shoshone Falls	12	12	12	12	12	12	12	13	12	12	12	12	12	12

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
63 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9
64 Snoq. Electron & Nooksack	71	71	71	71	71	71	71	71	71	71	71	71	71	71
65 Soda Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
66 Soda Point Project	14	14	14	14	14	14	14	14	14	14	14	14	14	14
67 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9
68 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9
69 Strawberry Creek	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
70 Swan Falls	19	19	16	21	19	19	17	20	18	22	22	16	15	15
71 Swift Creek Hydro	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
72 The Dalles Fishway	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.4	5.4	5.3	5.4	5.4
73 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4
74 Trail Bridge	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
75 TW Sullivan	14	14	14	14	14	15	15	15	15	15	15	15	15	15
76 Twin Falls	8.0	8.0	8	4.7	11	14	10	9.2	0	0	0	0	0	7.7
77 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0
78 Upper Salmon 1 & 2	21	21	20	22	20	20	20	20	20	23	23	20	20	20
79 Upper Salmon 3 & 4	18	18	18	19	18	18	18	18	18	20	20	18	18	18
80 Wallowa Falls	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
81 Walterville	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7
82 West Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Wynochee	4.3	4.3	14	14	13	14	15	14	14	11	11	1.7	1.8	15
84 Yelm	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Total Independent Hydro w/Enc.	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
-Total Independent Hydro W/Enc. -														
85 Federal System	615	627	566	629	594	401	345	394	546	593	712	833	898	669
86 Public Entities	280	275	312	299	293	319	305	321	350	354	355	384	377	321
87 Investor-Owned Entities	767	767	835	823	813	823	808	812	819	872	876	902	905	844
88 Other Entities	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
89 Total Independent Hydro w/Enc.	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Independent Hydro Projects-</i>														
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	33	71	75	82
2 Anderson Ranch	34	34	28	38	38	38	36	35	34	34	34	37	38	36
3 Arrowrock Hydro	13	13	11	14	14	14	14	13	13	13	13	14	14	13
4 Ashton	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
5 Bend Power Dam	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
6 Big Cliff	8	8	12	12	17	8	7.1	9	10	12	17	22	22	10
7 Big Fork	4.5	4.5	3.3	4.4	4.3	4.3	4.5	4.5	4.6	4.6	4.6	4.6	4.5	4.6
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5
9 Bliss	75	75	75	75	75	75	75	75	75	75	75	75	75	75
10 Blue River	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
11 Boise River Diversion	3	3	3	3	0	0	0	0	0	0	3	3	3	3
12 Bonneville Fishway	24	24	24	24	24	24	24	24	24	24	24	24	24	24
13 Calispel Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14 Carmen-Smith	41	39	39	33	30	37	33	33	52	62	63	64	60	51
15 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0
16 Cedar Falls & Newhalem	0	0	30	30	30	30	30	30	30	30	30	30	30	0
17 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6
18 CJ Strike	85	85	85	85	85	85	85	85	85	85	85	85	85	85
19 Clear Lake	3.1	3.0	3.3	3.5	3.4	2.9	3.2	2.9	3	3.3	3.1	3.1	3.0	3.4
20 Cougar	22	20	26	26	25	6.4	4.7	7	8	23	30	30	30	12
21 Cowlitz Falls	12	10	11	16	23	23	13	17	33	48	50	64	66	29
22 Detroit	100	100	100	100	100	100	100	100	100	100	100	106	100	100
23 Dexter	11	11	7	13	18	6	3.8	7	8	10	17	18	18	7
24 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0
25 East Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Felt	4.4	4.4	4.6	4.3	4.4	3.9	3.3	3.5	4.2	4.2	4.2	5.9	7.3	5.6
27 Foster	7	7	12	10	8	10	4.6	10	22	23	23	23	24	7
28 Gem State Hydro	20	20	16	13	14	15	15	15	22	22	22	21	21	22
29 Grace	26	26	26	26	26	26	26	26	26	26	26	26	26	26
30 Green Peter	76	76	86	79	61	32	20	5	90	92	92	88	86	55
31 Green Springs - USBR	16	16	15	17	18	18	19	19	18	18	18	18	17	16
32 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0
33 Hills Creek	10	32	23	25	30	6	6.1	7	8	23	36	36	36	16
34 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
35 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7
36 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7
37 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0
38 Island Park	4.5	4.5	4.3	4.1	4.1	3.3	3.3	4.4	4.3	4.6	4.6	4.6	4.6	4.6
39 Jackson	103	103	103	103	103	103	103	103	103	103	103	103	103	103
40 John C Boyle	0	0	82	82	82	82	82	82	82	82	82	82	82	0
41 Lake Creek	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
42 Last Chance	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
43 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10
44 Lookout Point	89	98	73	124	131	24	17	45	66	61	143	150	151	81
45 Lost Creek	56	56	55	52	51	50	19	50	53	56	56	56	56	56
46 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8
47 Lower Salmon	68	68	68	68	68	68	68	68	68	68	68	68	68	68
48 McNary Fishway	9.9	9.9	9.9	9.8	10.0	9.8	9.7	9.9	9.8	9.9	9.9	9.9	9.8	9.9
49 Mill Creek (WA)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
50 Milner	0	0	0	0	6	10	5	3.4	0	0	0	0	0	0
51 Minidoka	28	28	12	13	13	13	13	14	15	15	15	30	30	30
52 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2
53 North Umpqua	175	175	175	175	175	175	175	175	175	175	175	175	175	175
54 Oneida	30	30	30	30	30	30	30	30	30	30	30	30	30	30
55 Packwood	30	30	30	30	27	30	30	30	30	30	30	30	30	30
56 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162
57 Paris	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
58 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59 Reeder Gulch	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
60 Rogue	48	48	47	27	26	28	25	27	40	50	50	51	51	51
61 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13
62 Shoshone Falls	12	12	12	12	12	12	12	13	12	12	12	12	12	12

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
63 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9
64 Snoq. Electron & Nooksack	71	71	71	71	71	71	71	71	71	71	71	71	71	71
65 Soda Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
66 Soda Point Project	14	14	14	14	14	14	14	14	14	14	14	14	14	14
67 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9
68 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9
69 Strawberry Creek	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
70 Swan Falls	19	19	16	21	19	19	17	20	18	22	22	16	15	15
71 Swift Creek Hydro	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
72 The Dalles Fishway	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.4	5.4	5.3	5.4	5.4
73 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4
74 Trail Bridge	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
75 TW Sullivan	14	14	14	14	14	15	15	15	15	15	15	15	15	15
76 Twin Falls	8.0	8.0	8	4.7	11	14	10	9.2	0	0	0	0	0	7.7
77 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0
78 Upper Salmon 1 & 2	21	21	20	22	20	20	20	20	20	23	23	20	20	20
79 Upper Salmon 3 & 4	18	18	18	19	18	18	18	18	18	20	20	18	18	18
80 Wallowa Falls	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
81 Walterville	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7
82 West Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Wynochee	4.3	4.3	14	14	13	14	15	14	14	11	11	1.7	1.8	15
84 Yelm	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Total Independent Hydro w/Enc.	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
<i>-Total Independent Hydro W/Enc. -</i>														
85 Federal System	615	627	566	629	594	401	345	394	546	593	712	833	898	669
86 Public Entities	280	275	312	299	293	319	305	321	350	354	355	384	377	321
87 Investor-Owned Entities	767	767	835	823	813	823	808	812	819	872	876	902	905	844
88 Other Entities	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
89 Total Independent Hydro w/Enc.	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Independent Hydro Projects-</i>														
1 American Falls	0	0	9.2	15	0	0	0	0	6.7	28	33	71	75	82
2 Anderson Ranch	34	34	28	38	38	38	36	35	34	34	34	37	38	36
3 Arrowrock Hydro	13	13	11	14	14	14	14	13	13	13	13	14	14	13
4 Ashton	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
5 Bend Power Dam	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
6 Big Cliff	8	8	12	12	17	8	7.1	9	10	12	17	22	22	10
7 Big Fork	4.5	4.5	3.3	4.4	4.3	4.3	4.5	4.5	4.6	4.6	4.6	4.6	4.5	4.6
8 Black Canyon	7.5	7.5	4	9	5.9	7.1	8.8	4.8	7.9	10	10	10	8.1	7.5
9 Bliss	75	75	75	75	75	75	75	75	75	75	75	75	75	75
10 Blue River	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
11 Boise River Diversion	3	3	3	3	0	0	0	0	0	0	3	3	3	3
12 Bonneville Fishway	24	24	24	24	24	24	24	24	24	24	24	24	24	24
13 Calispel Creek	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14 Carmen-Smith	41	39	39	33	30	37	33	33	52	62	63	64	60	51
15 Cascade	11	11	10	9.0	8.9	8.8	8.7	8.6	8.5	8.0	8.0	7.7	7.6	9.0
16 Cedar Falls & Newhalem	0	0	30	30	30	30	30	30	30	30	30	30	30	0
17 Chandler	5.2	5.2	4.1	6.7	12	13	9.5	9.3	13	10	10	8.4	8.1	4.6
18 CJ Strike	85	85	85	85	85	85	85	85	85	85	85	85	85	85
19 Clear Lake	3.1	3.0	3.3	3.5	3.4	2.9	3.2	2.9	3	3.3	3.1	3.1	3.0	3.4
20 Cougar	22	20	26	26	25	6.4	4.7	7	8	23	30	30	30	12
21 Cowlitz Falls	12	10	11	16	23	23	13	17	33	48	50	64	66	29
22 Detroit	100	100	100	100	100	100	100	100	100	100	100	106	100	100
23 Dexter	11	11	7	13	18	6	3.8	7	8	10	17	18	18	7
24 Eagle Point	0	0	0	0	0.4	0.7	0.7	0.9	0.6	0.7	0.7	0.5	0	0
25 East Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Felt	4.4	4.4	4.6	4.3	4.4	3.9	3.3	3.5	4.2	4.2	4.2	5.9	7.3	5.6
27 Foster	7	7	12	10	8	10	4.6	10	22	23	23	23	24	7
28 Gem State Hydro	20	20	16	13	14	15	15	15	22	22	22	21	21	22
29 Grace	26	26	26	26	26	26	26	26	26	26	26	26	26	26
30 Green Peter	76	76	86	79	61	32	20	5	90	92	92	88	86	55
31 Green Springs - USBR	16	16	15	17	18	18	19	19	18	18	18	18	17	16
32 Hellroaring (Big) Creek	0	0	0	0	0	1	0	0	0	0	0	0	1	0
33 Hills Creek	10	32	23	25	30	6	6.1	7	8	23	36	36	36	16
34 Hood Street	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
35 Idaho Falls - City Plant	4.9	4.9	3.3	2.1	3.1	4.0	3.1	3.4	4.2	5.3	5.3	6.8	7.1	6.7
36 Idaho Falls - Lower Plant	5.1	5.1	3.4	2.2	3.3	4.2	3.2	3.5	4.4	5.5	5.5	7.5	7.7	7
37 Idaho Falls - Upper Plant	5.2	5.2	3.6	2.4	3.4	4.3	3.4	3.7	4.6	5.6	5.6	7.3	7.4	7.0
38 Island Park	4.5	4.5	4.3	4.1	4.1	3.3	3.3	4.4	4.3	4.6	4.6	4.6	4.6	4.6
39 Jackson	103	103	103	103	103	103	103	103	103	103	103	103	103	103
40 John C Boyle	0	0	82	82	82	82	82	82	82	82	82	82	82	0
41 Lake Creek	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
42 Last Chance	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
43 Leaburg	5.3	4.2	3	0	0	7.1	4	12	12	12	12	12	13	10
44 Lookout Point	89	98	73	124	131	24	17	45	66	61	143	150	151	81
45 Lost Creek	56	56	55	52	51	50	19	50	53	56	56	56	56	56
46 Lower Malad	12	12	11	9.8	9.7	9.6	9.4	9.4	9.2	8.7	8.7	8.3	8.2	9.8
47 Lower Salmon	68	68	68	68	68	68	68	68	68	68	68	68	68	68
48 McNary Fishway	9.9	9.9	9.9	9.8	10.0	9.8	9.7	9.9	9.8	9.9	9.9	9.9	9.8	9.9
49 Mill Creek (WA)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
50 Milner	0	0	0	0	6	10	5	3.4	0	0	0	0	0	0
51 Minidoka	28	28	12	13	13	13	13	14	15	15	15	30	30	30
52 Moyie Springs	2	2	2	2	2	2	2	2	2	2	2	2	2	2
53 North Umpqua	175	175	175	175	175	175	175	175	175	175	175	175	175	175
54 Oneida	30	30	30	30	30	30	30	30	30	30	30	30	30	30
55 Packwood	30	30	30	30	27	30	30	30	30	30	30	30	30	30
56 Palisades	94	78	69	56	19	16	34	28	22	19	19	97	165	162
57 Paris	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
58 Powerdale	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59 Reeder Gulch	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
60 Rogue	48	48	47	27	26	28	25	27	40	50	50	51	51	51
61 Roza	13	13	0	3.6	0	5	4	4.3	13	13	13	13	13	13
62 Shoshone Falls	12	12	12	12	12	12	12	13	12	12	12	12	12	12

Table A-4: Regional Independent Hydro Projects
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
63 Smith Creek	0	0	0.1	1.7	1.2	0.5	0	0.7	0.9	5.7	5.7	36	28	3.9
64 Snoq. Electron & Nooksack	71	71	71	71	71	71	71	71	71	71	71	71	71	71
65 Soda Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
66 Soda Point Project	14	14	14	14	14	14	14	14	14	14	14	14	14	14
67 South Fork Tolt	9	9	6	5	5	5	5	5	5	5	5	6	8	9
68 Stone Creek	7.9	7.1	6.2	5.1	4.1	5.3	4.1	4.6	6.9	9	9	9	9	9
69 Strawberry Creek	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
70 Swan Falls	19	19	16	21	19	19	17	20	18	22	22	16	15	15
71 Swift Creek Hydro	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
72 The Dalles Fishway	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.5	5.4	5.4	5.3	5.4	5.4
73 Thousand Springs	7.9	7.9	7.2	6.4	6.3	6.2	6.1	6.1	6.0	5.6	5.6	5.4	5.4	6.4
74 Trail Bridge	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
75 TW Sullivan	14	14	14	14	14	15	15	15	15	15	15	15	15	15
76 Twin Falls	8.0	8.0	8	4.7	11	14	10	9.2	0	0	0	0	0	7.7
77 Upper Malad	7.5	7.5	6.8	6.0	5.9	5.9	5.8	5.8	5.7	5.3	5.3	5.1	5.1	6.0
78 Upper Salmon 1 & 2	21	21	20	22	20	20	20	20	20	23	23	20	20	20
79 Upper Salmon 3 & 4	18	18	18	19	18	18	18	18	18	20	20	18	18	18
80 Wallowa Falls	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
81 Walterville	3.8	3.2	2.6	0	0	5	3.1	8.7	9.5	9.5	9.5	9.5	9.5	7.7
82 West Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Wynochee	4.3	4.3	14	14	13	14	15	14	14	11	11	1.7	1.8	15
84 Yelm	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Total Independent Hydro w/Enc.	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836
<i>-Total Independent Hydro W/Enc.-</i>														
85 Federal System	615	627	566	629	594	401	345	394	546	593	712	833	898	669
86 Public Entities	280	275	312	299	293	319	305	321	350	354	355	384	377	321
87 Investor-Owned Entities	767	767	835	823	813	823	808	812	819	872	876	902	905	844
88 Other Entities	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
89 Total Independent Hydro w/Enc.	1664	1671	1715	1752	1701	1545	1460	1528	1716	1820	1944	2121	2182	1836

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Table A-5
Imports
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-5: Regional Imports
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Imports From East of Continental Divide-</i>														
1 BEPC to NWE PwrS	0	0	0	0	98	98	98	98	98	98	98	0	0	0
2 ECDMtr to Other Entities	168	168	149	149	154	165	172	159	154	141	141	143	159	175
3 Other Entities to IPC	80	80	0	0	0	0	0	0	0	0	0	0	80	80
4 PPL to BPA PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
5 Total Imports From ECD	378	378	281	416	552	661	670	592	588	576	576	305	347	385
<i>-Imports From Pacific Southwest-</i>														
6 GLEN to PGE S/Pwr/X	0	0	0	0	30	30	30	30	0	0	0	0	0	0
7 NCPA to SCL S/Pwr/X	0	0	0	0	24	46	46	46	46	12	12	0	0	0
8 PASA to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 PASA to BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PASA to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 PG&E to PSE S/Pwr/X	0	0	0	0	300	300	300	300	0	0	0	0	0	0
12 RVSD to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 RVSD to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 RVSD to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 RVSD to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 RVSD to BPA S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 RVSD to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 SEMP to PSE PwrS	75	75	75	75	75	75	75	75	75	75	75	75	75	75
19 SUISSE to PSE PwrS	50	50	50	50	50	50	50	50	50	50	50	50	50	50
20 WSPP to Other Entities	100	100	100	100	100	100	100	100	100	100	100	100	100	100
21 Total Imports From PSW	225	225	225	225	580	601	601	601	271	237	237	225	225	225
<i>-Imports From Inland Southwest-</i>														
22 SPP to BPA PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75
23 UPL to UPL PwrS	515	515	474	474	480	501	473	486	453	430	430	498	596	630
24 Total Imports From ISW	590	590	549	519	525	546	518	531	498	505	505	574	671	704
<i>-Imports From Canada-</i>														
25 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26 BCHP to SCL PwrS	142	142	142	142	97	118	149	182	208	142	142	142	142	142
27 Other Entities to PSE	2.8	2.8	2.8	3.5	4.3	4.4	5	4.3	4	3.7	3.7	3.1	2.6	2.7
28 PWRX to PSE PwrS	0	0	0	0	0	150	150	150	0	0	0	0	0	0
29 Total Imports From Canada	146	146	146	147	102	274	305	338	213	147	147	147	146	146
<i>-Imports From Other Entities-</i>														
30 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Imports-</i>														
31 Federal System	206	206	208	313	346	444	446	381	382	413	413	238	184	206
32 Public Entities	142	142	142	142	122	164	195	228	254	154	154	142	142	142
33 Investor-Owned Entities	722	722	602	602	1037	1208	1181	1193	680	657	657	627	804	837
34 Other Entities	268	268	249	249	254	265	272	259	254	241	241	243	259	275
35 Total Imports.	1339	1339	1201	1307	1759	2082	2094	2062	1570	1466	1466	1250	1389	1461

Table A-5: Regional Imports
PNW Loads and Resource Study
2010 - 2011 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Imports From East of Continental Divide-</i>														
1 ECDMkt to Other Entities	169	169	150	150	155	165	173	160	155	142	142	144	160	177
2 Other Entities to IPC	80	80	0	0	0	0	0	0	0	0	0	0	80	80
3 PPL to BPA PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
4 Total Imports From ECD	379	379	282	417	455	563	573	495	491	479	479	306	348	387
<i>-Imports From Pacific Southwest-</i>														
5 GLEN to PGE S/Pwr/X	0	0	0	0	30	30	30	30	0	0	0	0	0	0
6 NCPA to SCL S/Pwr/X	0	0	0	0	24	46	46	46	46	12	12	0	0	0
7 PASA to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 PASA to BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 PASA to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PG&E to PSE S/Pwr/X	0	0	0	0	300	300	300	300	0	0	0	0	0	0
11 RVSD to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 RVSD to BPA S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 RVSD to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 SEMP to PSE PwrS	75	75	75	75	75	75	75	75	75	75	75	75	75	75
15 SUISE to PSE PwrS	50	50	50	50	50	50	50	50	50	50	50	50	50	50
16 WSPP to Other Entities	100	100	100	100	100	100	0	0	0	0	0	0	0	0
17 Total Imports From PSW	225	225	225	225	580	601	501	501	171	137	137	125	125	125
<i>-Imports From Inland Southwest-</i>														
18 SPP to BPA PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75
19 UPL to UPL PwrS	519	519	478	478	484	505	477	490	456	434	434	503	602	635
20 Total Imports From ISW	594	594	553	523	529	550	522	535	502	508	508	578	676	710
<i>-Imports From Canada-</i>														
21 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22 BCHP to SCL PwrS	142	142	142	142	97	118	149	182	208	142	142	142	142	142
23 Other Entities to PSE	2.8	2.8	2.8	3.5	4.3	4.4	5	4.3	4	3.7	3.7	3.1	2.6	2.7
24 PWRX to PSE PwrS	0	0	0	0	0	150	150	150	0	0	0	0	0	0
25 Total Imports From Canada	146	146	146	147	102	274	305	338	213	147	147	147	146	146
<i>-Imports From Other Entities-</i>														
26 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Imports-</i>														
27 Federal System	206	206	208	313	346	444	446	381	382	413	413	238	184	206
28 Public Entities	142	142	142	142	122	164	195	228	254	154	154	142	142	142
29 Investor-Owned Entities	727	727	606	606	943	1115	1087	1099	586	562	562	631	809	843
30 Other Entities	269	269	250	250	255	265	173	160	155	142	142	144	160	177
31 Total Imports.	1344	1344	1206	1311	1666	1988	1901	1869	1376	1272	1272	1155	1296	1368

Table A-5: Regional Imports
PNW Loads and Resource Study
2011 - 2012 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Imports From East of Continental Divide-</i>														
1 ECDMkt to Other Entities	170	170	151	151	156	166	175	162	156	144	144	145	162	179
2 Other Entities to IPC	80	81	0	0	0	0	0	0	0	0	0	0	80	80
3 PPL to BPA PwrS	0	0	0	267	300	398	400	335	336	337	337	162	108	130
4 PPL to BPA PwrS	130	130	132	0	0	0	0	0	0	0	0	0	0	0
5 Total Imports From ECD	380	381	283	418	456	564	575	497	492	481	481	307	350	389
<i>-Imports From Pacific Southwest-</i>														
6 BARC to PSE PwrS	0	0	0	0	75	75	75	75	0	0	0	0	0	0
7 GLEN to PGE S/Pwr/X	0	0	0	0	30	30	30	30	0	0	0	0	0	0
8 NCPA to SCL S/Pwr/X	0	0	0	0	24	46	46	46	46	12	12	0	0	0
9 PASA to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PASA to BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 PASA to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PG&E to PSE S/Pwr/X	0	0	0	0	300	300	300	300	0	0	0	0	0	0
13 RVSD to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 RVSD to BPA S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 RVSD to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 SEMP to PSE PwrS	75	75	75	75	75	75	75	75	75	75	75	75	75	75
17 SUISSSE to PSE PwrS	50	50	50	50	50	50	50	50	50	50	50	50	50	50
18 Total Imports From PSW	125	125	125	125	554	576	576	576	171	137	137	125	125	125
<i>-Imports From Inland Southwest-</i>														
19 SPP to BPA PwrS	0	0	0	45	45	45	45	45	45	75	75	75	75	75
20 SPP to BPA PwrS	75	75	75	0	0	0	0	0	0	0	0	0	0	0
21 UPL to UPL PwrS	524	524	482	482	488	510	481	494	460	437	437	507	607	641
22 Total Imports From ISW	599	599	557	527	533	555	526	539	505	512	512	582	682	716
<i>-Imports From Canada-</i>														
23 BCHP to BPA PwrS	0	0	0	1	1	1	1	1	1	1	1	1	1	1
24 BCHP to BPA PwrS	1	1	1	0	0	0	0	0	0	0	0	0	0	0
25 BCHP to SCL PwrS	142	142	142	142	97	118	149	182	208	142	142	142	142	142
26 Other Entities to PSE	2.8	2.8	2.8	3.5	4.3	4.4	5	4.3	4	3.7	3.7	3.1	2.6	2.7
27 PWRX to PSE PwrS	0	0	0	0	0	150	150	150	0	0	0	0	0	0
28 Total Imports From Canada	146	146	146	147	102	274	305	338	213	147	147	147	146	146
<i>-Imports From Other Entities-</i>														
29 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Imports-</i>														
30 Federal System	206	206	208	313	346	444	446	381	382	413	413	238	184	206
31 Public Entities	142	142	142	142	122	164	195	228	254	154	154	142	142	142
32 Investor-Owned Entities	732	732	610	610	1022	1194	1166	1178	589	566	566	635	815	849
33 Other Entities	170	170	151	151	156	166	175	162	156	144	144	145	162	179
34 Total Imports.	1250	1251	1111	1216	1646	1969	1982	1950	1381	1277	1277	1161	1303	1376

Table A-5: Regional Imports
PNW Loads and Resource Study
2012 - 2013 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Imports From East of Continental Divide-</i>														
1 ECDMkt to Other Entities	172	172	153	152	157	168	176	164	158	145	145	147	164	181
2 Other Entities to IPC	80	80	0	0	0	0	0	0	0	0	0	0	0	0
3 PPL to BPA PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
4 Total Imports From ECD	382	382	285	419	457	566	576	499	494	482	482	309	272	311
<i>-Imports From Pacific Southwest-</i>														
5 BARC to PSE PwrS	0	0	0	0	75	75	75	75	0	0	0	0	0	0
6 NCPA to SCL S/Pwr/X	0	0	0	0	24	46	46	46	46	12	12	0	0	0
7 PASA to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 PASA to BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 PASA to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 PG&E to PSE S/Pwr/X	0	0	0	0	300	300	300	300	0	0	0	0	0	0
11 RVSD to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 RVSD to BPA S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 RVSD to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 SEMP to PSE PwrS	75	75	75	75	75	75	75	75	75	0	0	0	0	0
15 SUISE to PSE PwrS	50	50	50	50	50	50	50	50	50	0	0	0	0	0
16 Total Imports From PSW	125	125	125	125	524	546	546	546	171	12	12	0	0	0
<i>-Imports From Inland Southwest-</i>														
17 SPP to BPA PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75
18 UPL to UPL PwrS	528	528	486	486	492	514	485	498	464	440	440	511	613	647
19 Total Imports From ISW	603	603	561	531	537	559	530	543	509	515	515	586	688	722
<i>-Imports From Canada-</i>														
20 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21 BCHP to SCL PwrS	142	142	142	142	97	118	149	182	208	142	142	142	142	142
22 Other Entities to PSE	2.8	2.8	2.8	3.5	4.3	4.4	5	4.3	4	3.7	3.7	3.1	2.6	2.7
23 Total Imports From Canada	146	146	146	147	102	124	155	188	213	147	147	147	146	146
<i>-Imports From Other Entities-</i>														
24 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Imports-</i>														
25 Federal System	206	206	208	313	346	444	446	381	382	413	413	238	184	206
26 Public Entities	142	142	142	142	122	164	195	228	254	154	154	142	142	142
27 Investor-Owned Entities	736	736	614	614	996	1018	990	1002	593	444	444	514	615	650
28 Other Entities	172	172	153	152	157	168	176	164	158	145	145	147	164	181
29 Total Imports.	1257	1257	1117	1222	1621	1795	1807	1775	1387	1157	1157	1042	1106	1180

Table A-5: Regional Imports
PNW Loads and Resource Study
2013 - 2014 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Imports From East of Continental Divide-</i>														
1 ECDMkt to Other Entities	175	175	155	154	159	170	178	165	159	147	147	148	166	184
2 PPL to BPA PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
3 Total Imports From ECD	305	305	287	421	459	568	578	500	495	484	484	310	274	314
<i>-Imports From Pacific Southwest-</i>														
4 BARC to PSE PwrS	0	0	0	0	75	75	75	75	0	0	0	0	0	0
5 NCPA to SCL S/Pwr/X	0	0	0	0	24	46	46	46	46	12	12	0	0	0
6 PASA to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 PASA to BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 PASA to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 PG&E to PSE S/Pwr/X	0	0	0	0	300	300	300	300	0	0	0	0	0	0
10 RVSD to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 RVSD to BPA S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 RVSD to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Total Imports From PSW	0	0	0	0	400	421	421	421	46	12	12	0	0	0
<i>-Imports From Inland Southwest-</i>														
14 SPP to BPA PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75
15 UPL to UPL PwrS	533	533	490	490	496	518	489	502	468	444	444	516	618	653
16 Total Imports From ISW	608	608	565	535	541	564	534	547	513	519	519	591	693	728
<i>-Imports From Canada-</i>														
17 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18 BCHP to SCL PwrS	142	142	142	142	97	118	149	182	208	142	142	142	142	142
19 Other Entities to PSE	2.8	2.8	2.8	3.5	4.3	4.4	5	4.3	4	3.7	3.7	3.1	2.6	2.7
20 Total Imports From Canada	146	146	146	147	102	124	155	188	213	147	147	147	146	146
<i>-Imports From Other Entities-</i>														
21 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Imports-</i>														
22 Federal System	206	206	208	313	346	444	446	381	382	413	413	238	184	206
23 Public Entities	142	142	142	142	122	164	195	228	254	154	154	142	142	142
24 Investor-Owned Entities	536	536	493	493	875	898	869	882	472	448	448	519	621	656
25 Other Entities	175	175	155	154	159	170	178	165	159	147	147	148	166	184
26 Total Imports.	1059	1059	998	1102	1502	1676	1688	1656	1267	1162	1162	1047	1114	1188

Table A-5: Regional Imports
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Imports From East of Continental Divide-</i>														
1 ECDMkt to Other Entities	177	177	157	155	160	171	180	167	161	148	148	150	169	186
2 PPL to BPA PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
3 Total Imports From ECD	307	307	289	422	460	569	580	502	497	485	485	312	277	316
<i>-Imports From Pacific Southwest-</i>														
4 BARC to PSE PwrS	0	0	0	0	75	75	75	75	0	0	0	0	0	0
5 NCPA to SCL S/Pwr/X	0	0	0	0	24	46	46	46	46	12	12	0	0	0
6 PASA to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 PASA to BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 PASA to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 PG&E to PSE S/Pwr/X	0	0	0	0	300	300	300	300	0	0	0	0	0	0
10 RVSD to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 RVSD to BPA S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 RVSD to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Total Imports From PSW	0	0	0	0	400	421	421	421	46	12	12	0	0	0
<i>-Imports From Inland Southwest-</i>														
14 SPP to BPA PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75
15 UPL to UPL PwrS	538	538	494	494	500	523	494	507	472	447	447	520	624	660
16 Total Imports From ISW	612	612	569	539	545	568	538	552	517	522	522	595	699	734
<i>-Imports From Canada-</i>														
17 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18 BCHP to SCL PwrS	142	142	142	142	97	118	149	182	208	142	142	142	142	142
19 Other Entities to PSE	2.8	2.8	2.8	3.5	4.3	4.4	5	4.3	4	3.7	3.7	3.1	2.6	2.7
20 Total Imports From Canada	146	146	146	147	102	124	155	188	213	147	147	147	146	146
<i>-Imports From Other Entities-</i>														
21 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Imports-</i>														
22 Federal System	206	206	208	313	346	444	446	381	382	413	413	238	184	206
23 Public Entities	142	142	142	142	122	164	195	228	254	154	154	142	142	142
24 Investor-Owned Entities	540	540	497	497	880	902	874	886	476	451	451	523	627	662
25 Other Entities	177	177	157	155	160	171	180	167	161	148	148	150	169	186
26 Total Imports.	1066	1066	1004	1108	1508	1682	1694	1662	1272	1166	1166	1053	1122	1197

Table A-5: Regional Imports
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Imports From East of Continental Divide-</i>														
1 ECDMkt to Other Entities	179	179	159	156	162	173	181	168	162	149	149	151	171	189
2 PPL to BPA PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
3 Total Imports From ECD	309	309	291	423	462	571	581	503	498	486	486	313	279	319
<i>-Imports From Pacific Southwest-</i>														
4 NCPA to SCL S/Pwr/X	0	0	0	0	24	46	46	46	46	12	12	0	0	0
5 PG&E to PSE S/Pwr/X	0	0	0	0	300	300	300	300	0	0	0	0	0	0
6 RVSD to BPA XchgNrg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 RVSD to BPA S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 RVSD to BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Total Imports From PSW	0	0	0	0	324	346	346	346	46	12	12	0	0	0
<i>-Imports From Inland Southwest-</i>														
10 SPP to BPA PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75
11 UPL to UPL PwrS	542	542	498	498	504	528	498	511	476	451	451	525	630	666
12 Total Imports From ISW	617	617	573	543	550	572	543	556	520	526	526	600	705	741
<i>-Imports From Canada-</i>														
13 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14 BCHP to SCL PwrS	142	142	142	142	97	118	149	182	208	142	142	142	142	142
15 Other Entities to PSE	2.8	2.8	2.8	3.5	4.3	4.4	5	4.3	4	3.7	3.7	3.1	2.6	2.7
16 Total Imports From Canada	146	146	146	147	102	124	155	188	213	147	147	147	146	146
<i>-Imports From Other Entities-</i>														
17 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Imports-</i>														
18 Federal System	206	206	208	313	346	444	446	381	382	413	413	238	184	206
19 Public Entities	142	142	142	142	122	164	195	228	254	154	154	142	142	142
20 Investor-Owned Entities	545	545	501	502	809	832	803	815	480	455	455	528	632	668
21 Other Entities	179	179	159	156	162	173	181	168	162	149	149	151	171	189
22 Total Imports.	1073	1073	1010	1113	1438	1613	1625	1593	1278	1171	1171	1059	1130	1206

Table A-5: Regional Imports
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Imports From East of Continental Divide-</i>														
1 ECDMkt to Other Entities	182	182	161	158	163	175	183	170	164	151	151	153	173	191
2 PPL to BPA PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
3 Total Imports From ECD	312	312	293	425	463	573	583	505	500	488	488	315	281	321
<i>-Imports From Pacific Southwest-</i>														
4 NCPA to SCL S/Pwr/X	0	0	0	0	24	46	46	46	46	12	12	0	0	0
5 PG&E to PSE S/Pwr/X	0	0	0	0	300	300	300	300	0	0	0	0	0	0
6 Total Imports From PSW	0	0	0	0	324	346	346	346	46	12	12	0	0	0
<i>-Imports From Inland Southwest-</i>														
7 SPP to BPA PwrS	75	75	75	45	45	45	45	45	45	75	75	75	75	75
8 UPL to UPL PwrS	547	547	502	502	509	532	502	515	479	455	455	529	636	672
9 Total Imports From ISW	622	622	577	547	554	577	547	560	524	530	530	604	711	747
<i>-Imports From Canada-</i>														
10 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11 BCHP to SCL PwrS	142	142	142	142	97	118	149	182	208	142	142	142	142	142
12 Other Entities to PSE	2.8	2.8	2.8	3.5	4.3	4.4	5	4.3	4	3.7	3.7	3.1	2.6	2.7
13 Total Imports From Canada	146	146	146	147	102	124	155	188	213	147	147	147	146	146
<i>-Imports From Other Entities-</i>														
14 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Imports-</i>														
15 Federal System	206	206	208	313	346	444	446	381	382	413	413	238	184	206
16 Public Entities	142	142	142	142	122	164	195	228	254	154	154	142	142	142
17 Investor-Owned Entities	550	550	505	506	813	836	807	820	483	458	458	532	638	675
18 Other Entities	182	182	161	158	163	175	183	170	164	151	151	153	173	191
19 Total Imports.	1080	1080	1017	1119	1444	1619	1631	1599	1283	1177	1177	1065	1138	1215

Table A-5: Regional Imports
PNW Loads and Resource Study
2017 - 2018 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Imports From East of Continental Divide-</i>														
1 ECDMkt to Other Entities	183	183	162	159	165	176	185	171	165	152	152	154	175	193
2 PPL to BPA PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
3 Total Imports From ECD	313	313	294	426	465	574	585	506	501	489	489	316	283	323
<i>-Imports From Pacific Southwest-</i>														
4 NCPA to SCL S/Pwr/X	0	0	0	0	24	46	46	46	46	12	12	0	0	0
5 PG&E to PSE S/Pwr/X	0	0	0	0	300	300	300	300	0	0	0	0	0	0
6 Total Imports From PSW	0	0	0	0	324	346	346	346	46	12	12	0	0	0
<i>-Imports From Inland Southwest-</i>														
7 SPP to BPA PwrS	75	75	75	45	45	45	45	45	0	0	0	0	0	0
8 UPL to UPL PwrS	552	552	507	506	513	537	506	520	483	458	458	534	642	678
9 Total Imports From ISW	627	627	582	552	558	582	551	565	483	458	458	534	642	678
<i>-Imports From Canada-</i>														
10 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11 BCHP to SCL PwrS	142	142	142	142	97	118	149	182	208	142	142	142	142	142
12 Other Entities to PSE	2.8	2.8	2.8	3.5	4.3	4.4	5	4.3	4	3.7	3.7	3.1	2.6	2.7
13 Total Imports From Canada	146	146	146	147	102	124	155	188	213	147	147	147	146	146
<i>-Imports From Other Entities-</i>														
14 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Imports-</i>														
15 Federal System	206	206	208	313	346	444	446	381	337	338	338	163	109	131
16 Public Entities	142	142	142	142	122	164	195	228	254	154	154	142	142	142
17 Investor-Owned Entities	555	555	509	510	817	841	811	824	487	462	462	537	644	681
18 Other Entities	183	183	162	159	165	176	185	171	165	152	152	154	175	193
19 Total Imports.	1086	1086	1022	1125	1450	1625	1637	1605	1244	1107	1107	996	1070	1148

Table A-5: Regional Imports
PNW Loads and Resource Study
2018 - 2019 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Imports From East of Continental Divide-</i>														
1 ECDMkt to Other Entities	185	185	164	161	166	178	186	173	167	153	153	155	176	195
2 PPL to BPA PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
3 Total Imports From ECD	315	315	296	428	466	576	586	508	503	490	490	317	284	325
<i>-Imports From Pacific Southwest-</i>														
4 NCPA to SCL S/Pwr/X	0	0	0	0	24	46	46	46	46	12	12	0	0	0
5 PG&E to PSE S/Pwr/X	0	0	0	0	300	300	300	300	0	0	0	0	0	0
6 Total Imports From PSW	0	0	0	0	324	346	346	346	46	12	12	0	0	0
<i>-Imports From Inland Southwest-</i>														
7 UPL to UPL PwrS	557	557	511	511	518	541	510	524	488	462	462	538	648	685
8 Total Imports From ISW	557	557	511	511	518	541	510	524	488	462	462	538	648	685
<i>-Imports From Canada-</i>														
9 BCHP to BPA PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10 BCHP to SCL PwrS	142	142	142	142	97	118	149	182	208	142	142	142	142	142
11 Other Entities to PSE	2.8	2.8	2.8	3.5	4.3	4.4	5	4.3	4	3.7	3.7	3.1	2.6	2.7
12 Total Imports From Canada	146	146	146	147	102	124	155	188	213	147	147	147	146	146
<i>-Imports From Other Entities-</i>														
13 Total Imports From Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Imports-</i>														
14 Federal System	131	131	133	268	301	399	401	336	337	338	338	163	109	131
15 Public Entities	142	142	142	142	122	164	195	228	254	154	154	142	142	142
16 Investor-Owned Entities	560	560	514	514	822	846	816	828	492	466	466	542	650	688
17 Other Entities	185	185	164	161	166	178	186	173	167	153	153	155	176	195
18 Total Imports.	1018	1018	953	1086	1411	1587	1598	1566	1249	1112	1112	1002	1078	1156

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Table A-6
Small Thermal & Miscellaneous
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal System-</i>														
1 Bangor Base #1 Diesel Generators	8	8	8	8	8	8	8	8	8	8	8	8	8	8
2 Bangor Base #2 Diesel Generators	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3 Puget Sound Shipyards Diesel Generators	12	12	12	12	12	12	12	12	12	12	12	12	12	12
4 Total Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
<i>-Public Entities-</i>														
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
6 Crystal Mountain	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 J.E. Corette	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
<i>-Other Entities-</i>														
9 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Small Thermal and Miscellaneous-</i>														
10 Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
11 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
13 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32

Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2010 - 2011 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal System-</i>														
1 Bangor Base #1 Diesel Generators	8	8	8	8	8	8	8	8	8	8	8	8	8	8
2 Bangor Base #2 Diesel Generators	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3 Puget Sound Shipyards Diesel Generators	12	12	12	12	12	12	12	12	12	12	12	12	12	12
4 Total Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
<i>-Public Entities-</i>														
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
6 Crystal Mountain	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 J.E. Corette	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
<i>-Other Entities-</i>														
9 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Small Thermal and Miscellaneous-</i>														
10 Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
11 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
13 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32

Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2011 - 2012 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal System-</i>														
1 Bangor Base #1 Diesel Generators	8	8	8	8	8	8	8	8	8	8	8	8	8	8
2 Bangor Base #2 Diesel Generators	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3 Puget Sound Shipyards Diesel Generators	12	12	12	12	12	12	12	12	12	12	12	12	12	12
4 Total Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
<i>-Public Entities-</i>														
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
6 Crystal Mountain	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 J.E. Corette	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
<i>-Other Entities-</i>														
9 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Small Thermal and Miscellaneous-</i>														
10 Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
11 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
13 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32

Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2012 - 2013 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal System-</i>														
1 Bangor Base #1 Diesel Generators	8	8	8	8	8	8	8	8	8	8	8	8	8	8
2 Bangor Base #2 Diesel Generators	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3 Puget Sound Shipyards Diesel Generators	12	12	12	12	12	12	12	12	12	12	12	12	12	12
4 Total Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
<i>-Public Entities-</i>														
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
6 Crystal Mountain	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 J.E. Corette	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
<i>-Other Entities-</i>														
9 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Small Thermal and Miscellaneous-</i>														
10 Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
11 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
13 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32

Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2013 - 2014 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal System-</i>														
1 Bangor Base #1 Diesel Generators	8	8	8	8	8	8	8	8	8	8	8	8	8	8
2 Bangor Base #2 Diesel Generators	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3 Puget Sound Shipyards Diesel Generators	12	12	12	12	12	12	12	12	12	12	12	12	12	12
4 Total Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
<i>-Public Entities-</i>														
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
6 Crystal Mountain	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 J.E. Corette	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
<i>-Other Entities-</i>														
9 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Small Thermal and Miscellaneous-</i>														
10 Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
11 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
13 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32

Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal System-</i>														
1 Bangor Base #1 Diesel Generators	8	8	8	8	8	8	8	8	8	8	8	8	8	8
2 Bangor Base #2 Diesel Generators	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3 Puget Sound Shipyards Diesel Generators	12	12	12	12	12	12	12	12	12	12	12	12	12	12
4 Total Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
<i>-Public Entities-</i>														
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
6 Crystal Mountain	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 J.E. Corette	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
<i>-Other Entities-</i>														
9 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Small Thermal and Miscellaneous-</i>														
10 Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
11 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
13 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32

Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal System-</i>														
1 Bangor Base #1 Diesel Generators	8	8	8	8	8	8	8	8	8	8	8	8	8	8
2 Bangor Base #2 Diesel Generators	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3 Puget Sound Shipyards Diesel Generators	12	12	12	12	12	12	12	12	12	12	12	12	12	12
4 Total Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
<i>-Public Entities-</i>														
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
6 Crystal Mountain	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 J.E. Corette	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
<i>-Other Entities-</i>														
9 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Small Thermal and Miscellaneous-</i>														
10 Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
11 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
13 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32

Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal System-</i>														
1 Bangor Base #1 Diesel Generators	8	8	8	8	8	8	8	8	8	8	8	8	8	8
2 Bangor Base #2 Diesel Generators	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3 Puget Sound Shipyards Diesel Generators	12	12	12	12	12	12	12	12	12	12	12	12	12	12
4 Total Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
<i>-Public Entities-</i>														
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
6 Crystal Mountain	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 J.E. Corette	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
<i>-Other Entities-</i>														
9 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Small Thermal and Miscellaneous-</i>														
10 Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
11 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
13 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32

Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2017 - 2018 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal System-</i>														
1 Bangor Base #1 Diesel Generators	8	8	8	8	8	8	8	8	8	8	8	8	8	8
2 Bangor Base #2 Diesel Generators	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3 Puget Sound Shipyards Diesel Generators	12	12	12	12	12	12	12	12	12	12	12	12	12	12
4 Total Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
<i>-Public Entities-</i>														
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
6 Crystal Mountain	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 J.E. Corette	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
<i>-Other Entities-</i>														
9 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Small Thermal and Miscellaneous-</i>														
10 Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
11 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
13 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32

Table A-6: Regional Small Thermal and Miscellaneous
PNW Loads and Resource Study
2018 - 2019 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal System-</i>														
1 Bangor Base #1 Diesel Generators	8	8	8	8	8	8	8	8	8	8	8	8	8	8
2 Bangor Base #2 Diesel Generators	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3 Puget Sound Shipyards Diesel Generators	12	12	12	12	12	12	12	12	12	12	12	12	12	12
4 Total Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
<i>-Public Entities-</i>														
5 Total Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
6 Crystal Mountain	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 J.E. Corette	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Total Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
<i>-Other Entities-</i>														
9 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Small Thermal and Miscellaneous-</i>														
10 Federal System	30	30	30	30	30	30	30	30	30	30	30	30	30	30
11 Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
13 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Total Small Thermal & Misc.	32	32	32	32	32	32	32	32	32	32	32	32	32	32

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Table A-7
Combustion Turbines
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-														
2 Boundary CT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	125	125	125	125	125	125	125	125	125	125	125	125	125	125
5 Olympic View Generating Station	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
6 Pasco Harbor Generating Station	44	44	44	44	44	44	44	44	44	44	44	0	44	44
7 River Road	0	0	215	230	235	235	235	235	230	225	225	0	220	205
8 Springfield Gen Farm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Wauna Peaking Project (Loki)	11	11	11	11	11	11	11	11	11	11	11	0	11	11
10 Total Public Entities	187	187	402	417	422	422	422	422	417	412	412	132	407	392
-Investor-Owned Entities-														
11 Basin Creek Project	50	50	50	50	50	50	50	50	50	50	50	50	50	50
12 Beaver	487	487	494	504	514	521	521	518	0	508	508	501	494	487
13 Beaver 8	24	24	24	24	24	24	24	24	24	24	24	24	24	24
14 Bennett Mountain	168	168	170	175	177	178	180	178	176	174	174	172	168	165
15 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	25	25
16 Chehalis Generation Facility CCCT	484	484	490	500	509	513	514	511	508	503	503	496	0	484
17 Danskin 1	87	87	88	89	91	92	93	92	90	88	88	88	87	86
18 Danskin 2	168	168	170	175	177	178	180	178	176	174	174	172	168	165
19 Encogen	163	163	166	171	175	178	179	176	175	172	172	169	166	163
20 Frederickson 1&2	143	143	149	154	159	159	159	159	154	154	154	149	149	149
21 Frederickson CT	124	124	124	124	124	124	124	124	124	124	124	124	124	124
22 Fredonia 1&2	208	208	208	215	222	222	222	222	215	215	215	215	208	208
23 Fredonia 3&4	107	107	107	112	117	117	117	117	112	112	112	112	107	107
24 Goldendale Energy Center	264	264	270	277	284	290	289	286	281	277	277	0	268	264
25 Kettle Falls (CT)	9.6	9.6	9.6	10	10	11	11	11	11	10.0	10.0	10.0	9.3	9.6
26 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	281	279	277	275	275	0	267	264
27 Mint Farm Energy Center	286	286	289	295	300	303	303	301	299	297	297	0	290	287
28 Northeastern 1 & 2	53	53	53	59	59	62	62	62	62	56	56	56	56	53
29 Port Westward CCCT	379	379	385	391	396	401	402	399	395	393	393	0	386	381
30 Rathdrum-Boekel Rd. #2	83	83	83	83	83	83	83	83	83	83	83	83	83	83
31 Rathdrum- Boekel Rd. #1	83	83	83	83	83	83	83	83	83	83	0	83	83	83
32 Whitehorn 2 & 3	149	149	149	154	159	159	159	159	154	154	154	154	149	149
33 Total Investor-Owned Entities	3544	3544	3585	3669	3739	3774	4061	4037	3479	3952	3869	2682	3360	3810
-Other Entities-														
34 Big Hanaford CCCT	248	248	248	248	248	248	248	248	248	248	248	0	248	248
35 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Klamath Peaking Unit	100	100	100	100	100	100	100	100	100	0	0	0	0	100
38 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Longview Fibre CT	45	45	45	45	45	45	45	45	45	45	45	45	45	45
40 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Satsop	650	650	650	650	650	650	650	650	650	650	650	0	650	650
42 Total Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
-Combustion Turbines-														
43 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Public Entities	187	187	402	417	422	422	422	422	417	412	412	132	407	392
45 Investor-Owned Entities	3544	3544	3585	3669	3739	3774	4061	4037	3479	3952	3869	2682	3360	3810
46 Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
47 Total Combustion Turbines	4774	4774	5030	5129	5204	5239	5526	5502	4939	5307	5224	2859	4710	5245

Table A-7: Regional Combustion Turbines
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-														
2 Boundary CT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	125	125	125	125	125	125	125	125	125	125	125	125	125	125
5 Olympic View Generating Station	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
6 Pasco Harbor Generating Station	44	44	44	44	44	44	44	44	44	44	44	0	44	44
7 River Road	0	0	215	230	235	235	235	235	230	225	225	0	220	205
8 Springfield Gen Farm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Wauna Peaking Project (Loki)	11	11	11	11	11	11	11	11	11	11	11	0	11	11
10 Total Public Entities	187	187	402	417	422	422	422	422	417	412	412	132	407	392
-Investor-Owned Entities-														
11 Basin Creek Project	50	50	50	50	50	50	50	50	50	50	50	50	50	50
12 Beaver	487	487	494	504	514	521	521	518	0	508	508	501	494	487
13 Beaver 8	24	24	24	24	24	24	24	24	24	24	24	24	24	24
14 Bennett Mountain	168	168	170	175	177	178	180	178	176	174	174	172	168	165
15 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	25	25
16 Chehalis Generation Facility CCCT	484	484	490	500	509	513	514	511	508	503	503	496	0	484
17 Danskin 1	87	87	88	89	91	92	93	92	90	88	88	88	87	86
18 Danskin 2	168	168	170	175	177	178	180	178	176	174	174	172	168	165
19 Encogen	163	163	166	171	175	178	179	176	175	172	172	169	166	163
20 Frederickson 1&2	143	143	149	154	159	159	159	159	154	154	154	149	149	149
21 Frederickson CT	124	124	124	124	124	124	124	124	124	124	124	124	124	124
22 Fredonia 1&2	208	208	208	215	222	222	222	222	215	215	215	215	208	208
23 Fredonia 3&4	107	107	107	112	117	117	117	117	112	112	112	112	107	107
24 Goldendale Energy Center	264	264	270	277	284	290	289	286	281	277	277	0	268	264
25 Kettle Falls (CT)	9.6	9.6	9.6	10	10	11	11	11	11	10.0	10.0	10.0	0	9.6
26 Lancaster Power Project (Rathdrum)	264	264	270	275	279	280	281	279	277	275	275	271	267	264
27 Mint Farm Energy Center	286	286	289	295	300	303	303	301	299	297	297	0	290	287
28 Northeastern 1 & 2	53	53	53	59	59	62	62	62	62	56	56	56	56	53
29 Port Westward CCCT	379	379	385	391	396	401	402	399	395	393	393	0	386	381
30 Rathdrum-Boekel Rd. #2	83	83	83	83	83	83	83	83	83	83	83	83	83	83
31 Rathdrum- Boekel Rd. #1	83	83	83	83	83	83	83	83	83	83	0	83	83	83
32 Whitehorn 2 & 3	149	149	149	154	159	159	159	159	154	154	154	154	149	149
33 Total Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3952	3869	2953	3351	3810
-Other Entities-														
34 Big Hanaford CCCT	248	248	248	248	248	248	248	248	248	248	248	0	248	248
35 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Klamath Peaking Unit	100	100	100	100	100	100	100	100	100	0	0	0	0	100
38 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Longview Fibre CT	45	45	45	45	45	45	45	45	45	45	45	45	45	45
40 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Satsop	650	650	650	650	650	650	650	650	650	650	650	0	650	650
42 Total Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
-Combustion Turbines-														
43 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Public Entities	187	187	402	417	422	422	422	422	417	412	412	132	407	392
45 Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3952	3869	2953	3351	3810
46 Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
47 Total Combustion Turbines	5038	5038	5300	5404	5483	5519	5526	5502	4939	5307	5224	3130	4701	5245

Table A-7: Regional Combustion Turbines
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-														
2 Boundary CT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	125	125	125	125	125	125	125	125	125	125	125	125	125	125
5 Olympic View Generating Station	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
6 Pasco Harbor Generating Station	44	44	44	44	44	44	44	44	44	44	44	0	44	44
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205
8 Springfield Gen Farm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Wauna Peaking Project (Loki)	11	11	11	11	11	11	11	11	11	11	11	0	11	11
10 Total Public Entities	392	392	402	417	422	422	422	422	417	412	412	132	407	392
-Investor-Owned Entities-														
11 Basin Creek Project	50	50	50	50	50	50	50	50	50	50	50	50	50	50
12 Beaver	487	487	494	504	514	521	521	518	0	0	0	501	494	487
13 Beaver 8	24	24	24	24	24	24	24	24	24	24	24	24	24	24
14 Bennett Mountain	168	168	170	175	177	178	180	178	176	174	174	172	168	165
15 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	25	25
16 Chehalis Generation Facility CCCT	484	484	490	500	509	513	514	511	508	503	503	496	0	484
17 Danskin 1	87	87	88	89	91	92	93	92	90	88	88	88	87	86
18 Danskin 2	168	168	170	175	177	178	180	178	176	174	174	172	168	165
19 Encogen	163	163	166	171	175	178	179	176	175	172	172	169	166	163
20 Frederickson 1&2	143	143	149	154	159	159	159	159	154	154	154	149	149	149
21 Frederickson CT	124	124	124	124	124	124	124	124	124	124	124	124	124	124
22 Fredonia 1&2	208	208	208	215	222	222	222	222	215	215	215	215	208	208
23 Fredonia 3&4	107	107	107	112	117	117	117	117	117	112	112	112	107	107
24 Goldendale Energy Center	264	264	270	277	284	290	289	286	281	277	277	0	268	264
25 Kettle Falls (CT)	9.6	9.6	9.6	10	10	11	11	11	11	10.0	10.0	10.0	0	9.6
26 Lancaster Power Project (Rathdrum)	264	264	270	275	279	280	281	279	277	275	275	0	267	264
27 Mint Farm Energy Center	286	286	289	295	300	303	303	301	299	297	297	0	290	287
28 Northeastern 1 & 2	53	53	53	59	59	62	62	62	62	56	56	56	56	53
29 Port Westward CCCT	379	379	385	391	396	401	402	399	395	393	393	0	386	381
30 Rathdrum-Boekel Rd. #2	83	83	83	83	83	83	83	83	83	83	83	83	83	83
31 Rathdrum- Boekel Rd. #1	83	83	83	83	83	83	83	83	83	83	0	83	83	83
32 Whitehorn 2 & 3	149	149	149	154	159	159	159	159	154	154	154	154	149	149
33 Total Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2682	3351	3810
-Other Entities-														
34 Big Hanaford CCCT	248	248	248	248	248	248	248	248	248	248	248	0	248	248
35 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Klamath Peaking Unit	100	100	100	100	100	100	100	100	100	0	0	0	0	100
38 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Longview Fibre CT	45	45	45	45	45	45	45	45	45	45	45	45	45	45
40 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Satsop	650	650	650	650	650	650	650	650	650	650	650	0	650	650
42 Total Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
-Combustion Turbines-														
43 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Public Entities	392	392	402	417	422	422	422	422	417	412	412	132	407	392
45 Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2682	3351	3810
46 Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
47 Total Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	2859	4701	5245

Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2012 - 2013 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal System-</i>														
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Public Entities-</i>														
2 Boundary CT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	125	125	125	125	125	125	125	125	125	125	125	125	125	125
5 Olympic View Generating Station	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
6 Pasco Harbor Generating Station	44	44	44	44	44	44	44	44	44	44	44	0	44	44
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205
8 Springfield Gen Farm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Wauna Peaking Project (Loki)	11	11	11	11	11	11	11	11	11	11	11	0	11	11
10 Total Public Entities	392	392	402	417	422	422	422	422	417	412	412	132	407	392
<i>-Investor-Owned Entities-</i>														
11 Basin Creek Project	50	50	50	50	50	50	50	50	50	50	50	50	50	50
12 Beaver	487	487	494	504	514	521	521	518	0	0	0	501	494	487
13 Beaver 8	24	24	24	24	24	24	24	24	24	24	24	24	24	24
14 Bennett Mountain	168	168	170	175	177	178	180	178	176	174	174	172	168	165
15 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	25	25
16 Chehalis Generation Facility CCCT	484	484	490	500	509	513	514	511	508	503	503	496	0	484
17 Danskin 1	87	87	88	89	91	92	93	92	90	88	88	88	87	86
18 Danskin 2	168	168	170	175	177	178	180	178	176	174	174	172	168	165
19 Encogen	163	163	166	171	175	178	179	176	175	172	172	169	166	163
20 Frederickson 1&2	143	143	149	154	159	159	159	159	154	154	154	149	149	149
21 Frederickson CT	124	124	124	124	124	124	124	124	124	124	124	124	124	124
22 Fredonia 1&2	208	208	208	215	222	222	222	222	215	215	215	215	208	208
23 Fredonia 3&4	107	107	107	112	117	117	117	117	112	112	112	112	107	107
24 Goldendale Energy Center	264	264	270	277	284	290	289	286	281	277	277	0	268	264
25 Kettle Falls (CT)	9.6	9.6	9.6	10	10	11	11	11	11	10.0	10.0	10.0	0	9.6
26 Lancaster Power Project (Rathdrum)	264	264	270	275	279	280	281	279	277	275	275	271	267	264
27 Mint Farm Energy Center	286	286	289	295	300	303	303	301	299	297	297	0	290	287
28 Northeastern 1 & 2	53	53	53	59	59	62	62	62	62	56	56	56	56	53
29 Port Westward CCCT	379	379	385	391	396	401	402	399	395	393	393	0	386	381
30 Rathdrum-Boekel Rd. #2	83	83	83	83	83	83	83	83	83	83	83	83	83	83
31 Rathdrum- Boekel Rd. #1	83	83	83	83	83	83	83	83	83	83	0	83	83	83
32 Whitehorn 2 & 3	149	149	149	154	159	159	159	159	154	154	154	154	149	149
33 Total Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2953	3351	3810
<i>-Other Entities-</i>														
34 Big Hanaford CCCT	248	248	248	248	248	248	248	248	248	248	248	0	248	248
35 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Klamath Peaking Unit	100	100	100	100	100	100	100	100	100	0	0	0	0	100
38 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Longview Fibre CT	45	45	45	45	45	45	45	45	45	45	45	45	45	45
40 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Satsop	650	650	650	650	650	650	650	650	650	650	650	0	650	650
42 Total Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
<i>-Combustion Turbines-</i>														
43 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Public Entities	392	392	402	417	422	422	422	422	417	412	412	132	407	392
45 Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2953	3351	3810
46 Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
47 Total Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	3130	4701	5245

Table A-7: Regional Combustion Turbines
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-														
2 Boundary CT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	125	125	125	125	125	125	125	125	125	125	125	125	125	125
5 Olympic View Generating Station	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
6 Pasco Harbor Generating Station	44	44	44	44	44	44	44	44	44	44	44	0	44	44
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205
8 Springfield Gen Farm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Wauna Peaking Project (Loki)	11	11	11	11	11	11	11	11	11	11	11	0	11	11
10 Total Public Entities	392	392	402	417	422	422	422	422	417	412	412	132	407	392
-Investor-Owned Entities-														
11 Basin Creek Project	50	50	50	50	50	50	50	50	50	50	50	50	50	50
12 Beaver	487	487	494	504	514	521	521	518	0	0	0	501	494	487
13 Beaver 8	24	24	24	24	24	24	24	24	24	24	24	24	24	24
14 Bennett Mountain	168	168	170	175	177	178	180	178	176	174	174	172	168	165
15 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	25	25
16 Chehalis Generation Facility CCCT	484	484	490	500	509	513	514	511	508	503	503	496	0	484
17 Danskin 1	87	87	88	89	91	92	93	92	90	88	88	88	87	86
18 Danskin 2	168	168	170	175	177	178	180	178	176	174	174	172	168	165
19 Encogen	163	163	166	171	175	178	179	176	175	172	172	169	166	163
20 Frederickson 1&2	143	143	149	154	159	159	159	159	154	154	154	149	149	149
21 Frederickson CT	124	124	124	124	124	124	124	124	124	124	124	124	124	124
22 Fredonia 1&2	208	208	208	215	222	222	222	222	215	215	215	215	208	208
23 Fredonia 3&4	107	107	107	112	117	117	117	117	117	112	112	112	107	107
24 Goldendale Energy Center	264	264	270	277	284	290	289	286	281	277	277	0	268	264
25 Kettle Falls (CT)	9.6	9.6	9.6	10	10	11	11	11	11	10.0	10.0	10.0	9.3	9.6
26 Lancaster Power Project (Rathdrum)	264	264	270	275	279	280	281	279	277	275	275	0	267	264
27 Mint Farm Energy Center	286	286	289	295	300	303	303	301	299	297	297	0	290	287
28 Northeastern 1 & 2	53	53	53	59	59	62	62	62	62	56	56	56	56	53
29 Port Westward CCCT	379	379	385	391	396	401	402	399	395	393	393	0	386	381
30 Rathdrum-Boekel Rd. #2	83	83	83	83	83	83	83	83	83	83	83	83	83	83
31 Rathdrum- Boekel Rd. #1	83	83	83	83	83	83	83	83	83	83	0	83	83	83
32 Whitehorn 2 & 3	149	149	149	154	159	159	159	159	154	154	154	154	149	149
33 Total Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2682	3360	3810
-Other Entities-														
34 Big Hanaford CCCT	248	248	248	248	248	248	248	248	248	248	248	0	248	248
35 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Klamath Peaking Unit	100	100	100	100	100	100	100	100	100	0	0	0	0	100
38 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Longview Fibre CT	45	45	45	45	45	45	45	45	45	45	45	45	45	45
40 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Satsop	650	650	650	650	650	650	650	650	650	650	650	0	650	650
42 Total Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
-Combustion Turbines-														
43 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Public Entities	392	392	402	417	422	422	422	422	417	412	412	132	407	392
45 Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2682	3360	3810
46 Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
47 Total Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	2859	4710	5245

Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-														
2 Boundary CT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	125	125	125	125	125	125	125	125	125	125	125	125	125	125
5 Olympic View Generating Station	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
6 Pasco Harbor Generating Station	44	44	44	44	44	44	44	44	44	44	44	0	44	44
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205
8 Springfield Gen Farm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Wauna Peaking Project (Loki)	11	11	11	11	11	11	11	11	11	11	11	0	11	11
10 Total Public Entities	392	392	402	417	422	422	422	422	417	412	412	132	407	392
-Investor-Owned Entities-														
11 Basin Creek Project	50	50	50	50	50	50	50	50	50	50	50	50	50	50
12 Beaver	487	487	494	504	514	521	521	518	0	0	0	501	494	487
13 Beaver 8	24	24	24	24	24	24	24	24	24	24	24	24	24	24
14 Bennett Mountain	168	168	170	175	177	178	180	178	176	174	174	172	168	165
15 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	25	25
16 Chehalis Generation Facility CCCT	484	484	490	500	509	513	514	511	508	503	503	496	0	484
17 Danskin 1	87	87	88	89	91	92	93	92	90	88	88	88	87	86
18 Danskin 2	168	168	170	175	177	178	180	178	176	174	174	172	168	165
19 Encogen	163	163	166	171	175	178	179	176	175	172	172	169	166	163
20 Frederickson 1&2	143	143	149	154	159	159	159	159	154	154	154	149	149	149
21 Frederickson CT	124	124	124	124	124	124	124	124	124	124	124	124	124	124
22 Fredonia 1&2	208	208	208	215	222	222	222	222	215	215	215	215	208	208
23 Fredonia 3&4	107	107	107	112	117	117	117	117	112	112	112	112	107	107
24 Goldendale Energy Center	264	264	270	277	284	290	289	286	281	277	277	0	268	264
25 Kettle Falls (CT)	9.6	9.6	9.6	10	10	11	11	11	11	10.0	10.0	10.0	0	9.6
26 Lancaster Power Project (Rathdrum)	264	264	270	275	279	280	281	279	277	275	275	271	267	264
27 Mint Farm Energy Center	286	286	289	295	300	303	303	301	299	297	297	0	290	287
28 Northeastern 1 & 2	53	53	53	59	59	62	62	62	62	56	56	56	56	53
29 Port Westward CCCT	379	379	385	391	396	401	402	399	395	393	393	0	386	381
30 Rathdrum-Boekel Rd. #2	83	83	83	83	83	83	83	83	83	83	83	83	83	83
31 Rathdrum- Boekel Rd. #1	83	83	83	83	83	83	83	83	83	83	0	83	83	83
32 Whitehorn 2 & 3	149	149	149	154	159	159	159	159	154	154	154	154	149	149
33 Total Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2953	3351	3810
-Other Entities-														
34 Big Hanaford CCCT	248	248	248	248	248	248	248	248	248	248	248	0	248	248
35 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Klamath Peaking Unit	100	100	100	100	100	100	100	100	100	0	0	0	0	100
38 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Longview Fibre CT	45	45	45	45	45	45	45	45	45	45	45	45	45	45
40 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Satsop	650	650	650	650	650	650	650	650	650	650	650	0	650	650
42 Total Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
-Combustion Turbines-														
43 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Public Entities	392	392	402	417	422	422	422	422	417	412	412	132	407	392
45 Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2953	3351	3810
46 Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
47 Total Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	3130	4701	5245

Table A-7: Regional Combustion Turbines
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-														
2 Boundary CT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	125	125	125	125	125	125	125	125	125	125	125	125	125	125
5 Olympic View Generating Station	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
6 Pasco Harbor Generating Station	44	44	44	44	44	44	44	44	44	44	44	0	44	44
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205
8 Springfield Gen Farm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Wauna Peaking Project (Loki)	11	11	11	11	11	11	11	11	11	11	11	0	11	11
10 Total Public Entities	392	392	402	417	422	422	422	422	417	412	412	132	407	392
-Investor-Owned Entities-														
11 Basin Creek Project	50	50	50	50	50	50	50	50	50	50	50	50	50	50
12 Beaver	487	487	494	504	514	521	521	518	0	0	0	501	494	487
13 Beaver 8	24	24	24	24	24	24	24	24	24	24	24	24	24	24
14 Bennett Mountain	168	168	170	175	177	178	180	178	176	174	174	172	168	165
15 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	25	25
16 Chehalis Generation Facility CCCT	484	484	490	500	509	513	514	511	508	503	503	496	0	484
17 Danskin 1	87	87	88	89	91	92	93	92	90	88	88	88	87	86
18 Danskin 2	168	168	170	175	177	178	180	178	176	174	174	172	168	165
19 Encogen	163	163	166	171	175	178	179	176	175	172	172	169	166	163
20 Frederickson 1&2	143	143	149	154	159	159	159	159	154	154	154	149	149	149
21 Frederickson CT	124	124	124	124	124	124	124	124	124	124	124	124	124	124
22 Fredonia 1&2	208	208	208	215	222	222	222	222	215	215	215	215	208	208
23 Fredonia 3&4	107	107	107	112	117	117	117	117	112	112	112	112	107	107
24 Goldendale Energy Center	264	264	270	277	284	290	289	286	281	277	277	0	268	264
25 Kettle Falls (CT)	9.6	9.6	9.6	10	10	11	11	11	11	10.0	10.0	10.0	0	9.6
26 Lancaster Power Project (Rathdrum)	264	264	270	275	279	280	281	279	277	275	275	0	267	264
27 Mint Farm Energy Center	286	286	289	295	300	303	303	301	299	297	297	0	290	287
28 Northeastern 1 & 2	53	53	53	59	59	62	62	62	62	56	56	56	56	53
29 Port Westward CCCT	379	379	385	391	396	401	402	399	395	393	393	0	386	381
30 Rathdrum-Boekel Rd. #2	83	83	83	83	83	83	83	83	83	83	83	83	83	83
31 Rathdrum- Boekel Rd. #1	83	83	83	83	83	83	83	83	83	83	0	83	83	83
32 Whitehorn 2 & 3	149	149	149	154	159	159	159	159	154	154	154	154	149	149
33 Total Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2682	3351	3810
-Other Entities-														
34 Big Hanaford CCCT	248	248	248	248	248	248	248	248	248	248	248	0	248	248
35 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Klamath Peaking Unit	100	100	100	100	100	100	100	100	100	0	0	0	0	100
38 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Longview Fibre CT	45	45	45	45	45	45	45	45	45	45	45	45	45	45
40 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Satsop	650	650	650	650	650	650	650	650	650	650	650	0	650	650
42 Total Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
-Combustion Turbines-														
43 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Public Entities	392	392	402	417	422	422	422	422	417	412	412	132	407	392
45 Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2682	3351	3810
46 Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
47 Total Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	2859	4701	5245

Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal System-</i>														
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Public Entities-</i>														
2 Boundary CT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	125	125	125	125	125	125	125	125	125	125	125	125	125	125
5 Olympic View Generating Station	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
6 Pasco Harbor Generating Station	44	44	44	44	44	44	44	44	44	44	44	0	44	44
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205
8 Springfield Gen Farm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Wauna Peaking Project (Loki)	11	11	11	11	11	11	11	11	11	11	11	0	11	11
10 Total Public Entities	392	392	402	417	422	422	422	422	417	412	412	132	407	392
<i>-Investor-Owned Entities-</i>														
11 Basin Creek Project	50	50	50	50	50	50	50	50	50	50	50	50	50	50
12 Beaver	487	487	494	504	514	521	521	518	0	0	0	501	494	487
13 Beaver 8	24	24	24	24	24	24	24	24	24	24	24	24	24	24
14 Bennett Mountain	168	168	170	175	177	178	180	178	176	174	174	172	168	165
15 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	25	25
16 Chehalis Generation Facility CCCT	484	484	490	500	509	513	514	511	508	503	503	496	0	484
17 Danskin 1	87	87	88	89	91	92	93	92	90	88	88	88	87	86
18 Danskin 2	168	168	170	175	177	178	180	178	176	174	174	172	168	165
19 Encogen	163	163	166	171	175	178	179	176	175	172	172	169	166	163
20 Frederickson 1&2	143	143	149	154	159	159	159	159	154	154	154	149	149	149
21 Frederickson CT	124	124	124	124	124	124	124	124	124	124	124	124	124	124
22 Fredonia 1&2	208	208	208	215	222	222	222	222	215	215	215	215	208	208
23 Fredonia 3&4	107	107	107	112	117	117	117	117	112	112	112	112	107	107
24 Goldendale Energy Center	264	264	270	277	284	290	289	286	281	277	277	0	268	264
25 Kettle Falls (CT)	9.6	9.6	9.6	10	10	11	11	11	11	10.0	10.0	10.0	9.3	9.6
26 Lancaster Power Project (Rathdrum)	264	264	270	275	279	280	281	279	277	275	275	271	267	264
27 Mint Farm Energy Center	286	286	289	295	300	303	303	301	299	297	297	0	290	287
28 Northeastern 1 & 2	53	53	53	59	59	62	62	62	62	56	56	56	56	53
29 Port Westward CCCT	379	379	385	391	396	401	402	399	395	393	393	0	386	381
30 Rathdrum-Boekel Rd. #2	83	83	83	83	83	83	83	83	83	83	83	83	83	83
31 Rathdrum- Boekel Rd. #1	83	83	83	83	83	83	83	83	83	83	0	83	83	83
32 Whitehorn 2 & 3	149	149	149	154	159	159	159	159	154	154	154	154	149	149
33 Total Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2953	3360	3810
<i>-Other Entities-</i>														
34 Big Hanaford CCCT	248	248	248	248	248	248	248	248	248	248	248	0	248	248
35 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Klamath Peaking Unit	100	100	100	100	100	100	100	100	100	0	0	0	0	100
38 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Longview Fibre CT	45	45	45	45	45	45	45	45	45	45	45	45	45	45
40 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Satsop	650	650	650	650	650	650	650	650	650	650	650	0	650	650
42 Total Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
<i>-Combustion Turbines-</i>														
43 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Public Entities	392	392	402	417	422	422	422	422	417	412	412	132	407	392
45 Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2953	3360	3810
46 Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
47 Total Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	3130	4710	5245

Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2017 - 2018 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-														
2 Boundary CT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	125	125	125	125	125	125	125	125	125	125	125	125	125	125
5 Olympic View Generating Station	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
6 Pasco Harbor Generating Station	44	44	44	44	44	44	44	44	44	44	44	0	44	44
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205
8 Springfield Gen Farm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Wauna Peaking Project (Loki)	11	11	11	11	11	11	11	11	11	11	11	0	11	11
10 Total Public Entities	392	392	402	417	422	422	422	422	417	412	412	132	407	392
-Investor-Owned Entities-														
11 Basin Creek Project	50	50	50	50	50	50	50	50	50	50	50	50	50	50
12 Beaver	487	487	494	504	514	521	521	518	0	0	0	501	494	487
13 Beaver 8	24	24	24	24	24	24	24	24	24	24	24	24	24	24
14 Bennett Mountain	168	168	170	175	177	178	180	178	176	174	174	172	168	165
15 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	25	25
16 Chehalis Generation Facility CCCT	484	484	490	500	509	513	514	511	508	503	503	496	0	484
17 Danskin 1	87	87	88	89	91	92	93	92	90	88	88	88	87	86
18 Danskin 2	168	168	170	175	177	178	180	178	176	174	174	172	168	165
19 Encogen	163	163	166	171	175	178	179	176	175	172	172	169	166	163
20 Frederickson 1&2	143	143	149	154	159	159	159	159	154	154	154	149	149	149
21 Frederickson CT	124	124	124	124	124	124	124	124	124	124	124	124	124	124
22 Fredonia 1&2	208	208	208	215	222	222	222	222	215	215	215	215	208	208
23 Fredonia 3&4	107	107	107	112	117	117	117	117	112	112	112	112	107	107
24 Goldendale Energy Center	264	264	270	277	284	290	289	286	281	277	277	0	268	264
25 Kettle Falls (CT)	9.6	9.6	9.6	10	10	11	11	11	11	10.0	10.0	10.0	9.3	9.6
26 Lancaster Power Project (Rathdrum)	264	264	270	275	279	280	281	279	277	275	275	0	267	264
27 Mint Farm Energy Center	286	286	289	295	300	303	303	301	299	297	297	0	290	287
28 Northeastern 1 & 2	53	53	53	59	59	62	62	62	62	56	56	56	56	53
29 Port Westward CCCT	379	379	385	391	396	401	402	399	395	393	393	0	386	381
30 Rathdrum-Boekel Rd. #2	83	83	83	83	83	83	83	83	83	83	83	83	83	83
31 Rathdrum- Boekel Rd. #1	83	83	83	83	83	83	83	83	83	83	0	83	83	83
32 Whitehorn 2 & 3	149	149	149	154	159	159	159	159	154	154	154	154	149	149
33 Total Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2682	3360	3810
-Other Entities-														
34 Big Hanaford CCCT	248	248	248	248	248	248	248	248	248	248	248	0	248	248
35 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Klamath Peaking Unit	100	100	100	100	100	100	100	100	100	0	0	0	0	100
38 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Longview Fibre CT	45	45	45	45	45	45	45	45	45	45	45	45	45	45
40 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Satsop	650	650	650	650	650	650	650	650	650	650	650	0	650	650
42 Total Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
-Combustion Turbines-														
43 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Public Entities	392	392	402	417	422	422	422	422	417	412	412	132	407	392
45 Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2682	3360	3810
46 Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
47 Total Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	2859	4710	5245

Table A-7: Regional Combustion Turbines
PNW Loads and Resource Study
2018 - 2019 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-														
2 Boundary CT	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3 Finley CT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Frederickson CT	125	125	125	125	125	125	125	125	125	125	125	125	125	125
5 Olympic View Generating Station	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
6 Pasco Harbor Generating Station	44	44	44	44	44	44	44	44	44	44	44	44	44	44
7 River Road	205	205	215	230	235	235	235	235	230	225	225	0	220	205
8 Springfield Gen Farm	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Wauna Peaking Project (Loki)	11	11	11	11	11	11	11	11	11	11	11	0	11	11
10 Total Public Entities	392	392	402	417	422	422	422	422	417	412	412	176	407	392
-Investor-Owned Entities-														
11 Basin Creek Project	50	50	50	50	50	50	50	50	50	50	50	50	50	50
12 Beaver	487	487	494	504	514	521	521	518	0	0	0	501	494	487
13 Beaver 8	24	24	24	24	24	24	24	24	24	24	24	24	24	24
14 Bennett Mountain	168	168	170	175	177	178	180	178	176	174	174	172	168	165
15 Boulder Park	25	25	25	25	25	25	25	25	25	25	25	25	25	25
16 Chehalis Generation Facility CCCT	484	484	490	500	509	513	514	511	508	503	503	496	0	484
17 Danskin 1	87	87	88	89	91	92	93	92	90	88	88	88	87	86
18 Danskin 2	168	168	170	175	177	178	180	178	176	174	174	172	168	165
19 Encogen	163	163	166	171	175	178	179	176	175	172	172	169	166	163
20 Frederickson 1&2	143	143	149	154	159	159	159	159	154	154	154	149	149	149
21 Frederickson CT	124	124	124	124	124	124	124	124	124	124	124	124	124	124
22 Fredonia 1&2	208	208	208	215	222	222	222	222	215	215	215	215	208	208
23 Fredonia 3&4	107	107	107	112	117	117	117	117	112	112	112	112	107	107
24 Goldendale Energy Center	264	264	270	277	284	290	289	286	281	277	277	0	268	264
25 Kettle Falls (CT)	9.6	9.6	9.6	10	10	11	11	11	11	10.0	10.0	10.0	0	9.6
26 Lancaster Power Project (Rathdrum)	264	264	270	275	279	280	281	279	277	275	275	271	267	264
27 Mint Farm Energy Center	286	286	289	295	300	303	303	301	299	297	297	0	290	287
28 Northeastern 1 & 2	53	53	53	59	59	62	62	62	62	56	56	56	56	53
29 Port Westward CCCT	379	379	385	391	396	401	402	399	395	393	393	0	386	381
30 Rathdrum-Boekel Rd. #2	83	83	83	83	83	83	83	83	83	83	83	83	83	83
31 Rathdrum- Boekel Rd. #1	83	83	83	83	83	83	83	83	83	83	0	83	83	83
32 Whitehorn 2 & 3	149	149	149	154	159	159	159	159	154	154	154	154	149	149
33 Total Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2953	3351	3810
-Other Entities-														
34 Big Hanaford CCCT	248	248	248	248	248	248	248	248	248	248	248	0	248	248
35 Chehalis Generation Facility CCCT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Frederickson CT	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Klamath Peaking Unit	100	100	100	100	100	100	100	100	100	0	0	0	0	100
38 Lancaster Power Project (Rathdrum)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Longview Fibre CT	45	45	45	45	45	45	45	45	45	45	45	45	45	45
40 Mint Farm Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Satsop	650	650	650	650	650	650	650	650	650	650	650	0	650	650
42 Total Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
-Combustion Turbines-														
43 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Public Entities	392	392	402	417	422	422	422	422	417	412	412	176	407	392
45 Investor-Owned Entities	3808	3808	3855	3944	4018	4054	4061	4037	3479	3444	3361	2953	3351	3810
46 Other Entities	1043	1043	1043	1043	1043	1043	1043	1043	1043	943	943	45	943	1043
47 Total Combustion Turbines	5243	5243	5300	5404	5483	5519	5526	5502	4939	4799	4716	3174	4701	5245

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Table A-8
Renewable Resources
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Condon Wind Project	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2 Foote Creek 1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
3 Foote Creek 2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4 Foote Creek 4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
5 Klondike I	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
6 Klondike III	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 Stateline Wind Project	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
8 Total Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
-Public Entities-														
9 Big Horn	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
10 Coffin Butte	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
11 Foote Creek 1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
12 Hay Canyon Wind	5	5	5	5	5	5	5	5	5	5	5	5	5	5
13 Klondike III	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
14 Nine Canyon Wind Project	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 Pebble Springs Wind Project	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
16 Roosevelt Landfill (H.W. Hill)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17 Short Mountain	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
18 Stateline Wind Project	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
19 Tuolumne Wind	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
20 Wheatfield Wind	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
21 White Creek	10	10	10	10	10	10	10	10	10	10	10	10	10	10
22 Willow Creek Wind	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
23 Total Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
-Investor-Owned Entities-														
24 Bennett Creek Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25 Biglow Canyon Phase I	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
26 Biglow Canyon Phase II	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Cassia Farms Wind	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
28 Cassia Gulch Wind	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
29 Elkhorn Valley Wind Farm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
30 Eurus Combine Hills	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
31 Foote Creek 1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
32 Fossil Gulch Wind Project	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
33 Goodnoe Hills	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
34 Hopkins Ridge I	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
35 Hopkins Ridge II	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
36 Horseshoe Bend Wind Park	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
37 Hot Springs Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
38 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
39 Klondike II	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
40 Klondike III	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
41 Klondike IIIa	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
42 Leaning Juniper	5	5	5	5	5	5	5	5	5	5	5	5	5	5
43 Marengo I Wind Project	7	7	7	7	7	7	7	7	7	7	7	7	7	7
44 Marengo II Wind Project	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
45 Rattlesnake Road Wind Farm	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
46 Rock River I Wind	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
47 Stateline Wind Project	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
48 Vansycle Wind	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
49 Wild Horse I	11	11	11	11	11	11	11	11	11	11	11	11	11	11
50 Wolverine Creek	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
51 Total Investor-Owned Entities	134	134	134	134	134	134	134	134	134	134	134	134	134	134
-Other Entities-														
52 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54 Stateline Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 White Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Continued

Table A-8: Regional Renewable Resources
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
56 Total Other Entities	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
-Renewable Resources-														
57 Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
58 Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
59 Investor-Owned Entities	134	134	134	134	134	134	134	134	134	134	134	134	134	134
60 Other Entities	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
61 Total Renewable Resources	226	226	226	226	226	226	226	226	226	226	226	226	226	226

Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2010 - 2011 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Condon Wind Project	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2 Foote Creek 1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
3 Foote Creek 2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4 Foote Creek 4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
5 Klondike I	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
6 Klondike III	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 Stateline Wind Project	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
8 Total Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
-Public Entities-														
9 Big Horn	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
10 Coffin Butte	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
11 Foote Creek 1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
12 Hay Canyon Wind	5	5	5	5	5	5	5	5	5	5	5	5	5	5
13 Klondike III	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
14 Nine Canyon Wind Project	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 Pebble Springs Wind Project	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
16 Roosevelt Landfill (H.W. Hill)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17 Short Mountain	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
18 Stateline Wind Project	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
19 Tuolumne Wind	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
20 Wheatfield Wind	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
21 White Creek	10	10	10	10	10	10	10	10	10	10	10	10	10	10
22 Willow Creek Wind	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
23 Total Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
-Investor-Owned Entities-														
24 Bennett Creek Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25 Biglow Canyon Phase I	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
26 Biglow Canyon Phase II	0	0	0	0	0	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
27 Biglow Canyon Phase III	0	0	0	0	0	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
28 Cassia Farms Wind	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
29 Cassia Gulch Wind	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
30 Elkhorn Valley Wind Farm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
31 Eurus Combine Hills	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
32 Foote Creek 1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
33 Fossil Gulch Wind Project	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
34 Goodnoe Hills	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
35 Hopkins Ridge I	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
36 Hopkins Ridge II	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Horseshoe Bend Wind Park	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
38 Hot Springs Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
39 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
40 Klondike II	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
41 Klondike III	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
42 Klondike IIIa	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
43 Leaning Juniper	5	5	5	5	5	5	5	5	5	5	5	5	5	5
44 Marengo I Wind Project	7	7	7	7	7	7	7	7	7	7	7	7	7	7
45 Marengo II Wind Project	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
46 Rattlesnake Road Wind Farm	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
47 Rock River I Wind	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
48 Stateline Wind Project	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
49 Vansycle Wind	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
50 Wild Horse I	11	11	11	11	11	11	11	11	11	11	11	11	11	11
51 Wild Horse II	0	0	0	0	0	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
52 Wolverine Creek	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
53 Total Investor-Owned Entities	134	134	134	134	134	153	153	153	153	153	153	153	153	153
-Other Entities-														
54 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56 Stateline Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Continued

Table A-8: Regional Renewable Resources
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
57 White Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
58 Total Other Entities	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
<i>-Renewable Resources-</i>														
59 Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
60 Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
61 Investor-Owned Entities	134	134	134	134	134	153	153	153	153	153	153	153	153	153
62 Other Entities	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
63 Total Renewable Resources	226	226	226	226	226	244	244	244	244	244	244	244	244	244

Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2011 - 2012 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal System-</i>														
1 Condon Wind Project	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2 Foote Creek 1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
3 Foote Creek 2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4 Foote Creek 4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
5 Klondike I	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
6 Klondike III	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 Stateline Wind Project	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
8 Total Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>-Public Entities-</i>														
9 Big Horn	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
10 Coffin Butte	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
11 Foote Creek 1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
12 Hay Canyon Wind	5	5	5	5	5	5	5	5	5	5	5	5	5	5
13 Klondike III	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
14 Nine Canyon Wind Project	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 Pebble Springs Wind Project	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
16 Roosevelt Landfill (H.W. Hill)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17 Short Mountain	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
18 Stateline Wind Project	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
19 Tuolumne Wind	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
20 Wheatfield Wind	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
21 White Creek	10	10	10	10	10	10	10	10	10	10	10	10	10	10
22 Willow Creek Wind	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
23 Total Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
<i>-Investor-Owned Entities-</i>														
24 Bennett Creek Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25 Biglow Canyon Phase I	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
26 Biglow Canyon Phase II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
27 Biglow Canyon Phase III	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
28 Cassia Farms Wind	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
29 Cassia Gulch Wind	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
30 Elkhorn Valley Wind Farm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
31 Eurus Combine Hills	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
32 Foote Creek 1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
33 Fossil Gulch Wind Project	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
34 Goodnoe Hills	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
35 Hopkins Ridge I	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
36 Hopkins Ridge II	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Horseshoe Bend Wind Park	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
38 Hot Springs Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
39 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
40 Klondike II	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
41 Klondike III	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
42 Klondike IIIa	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
43 Leaning Juniper	5	5	5	5	5	5	5	5	5	5	5	5	5	5
44 Marengo I Wind Project	7	7	7	7	7	7	7	7	7	7	7	7	7	7
45 Marengo II Wind Project	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
46 Rattlesnake Road Wind Farm	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
47 Rock River I Wind	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
48 Stateline Wind Project	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0	0	0	0	0
49 Vansycle Wind	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
50 Wild Horse I	11	11	11	11	11	11	11	11	11	11	11	11	11	11
51 Wild Horse II	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
52 Wolverine Creek	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
53 Total Investor-Owned Entities	153	153	153	153	153	153	153	153	153	151	151	151	151	151
<i>-Other Entities-</i>														
54 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56 Stateline Wind Project	0	0	0	0	0	0	0	0	0	1.8	1.8	1.8	1.8	1.8

Continued

Table A-8: Regional Renewable Resources
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
57 White Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
58 Total Other Entities	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.9	1.9	1.9	1.9	1.9
<i>-Renewable Resources-</i>														
59 Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
60 Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
61 Investor-Owned Entities	153	153	153	153	153	153	153	153	153	151	151	151	151	151
62 Other Entities	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.9	1.9	1.9	1.9	1.9
63 Total Renewable Resources	244	244	244	244	244	244	244	244	244	244	244	244	244	244

Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2012 - 2013 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Condon Wind Project	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2 Foote Creek 1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
3 Foote Creek 2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4 Foote Creek 4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
5 Klondike I	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
6 Klondike III	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 Stateline Wind Project	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
8 Total Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
-Public Entities-														
9 Big Horn	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
10 Coffin Butte	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
11 Foote Creek 1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
12 Hay Canyon Wind	5	5	5	5	5	5	5	5	5	5	5	5	5	5
13 Klondike III	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
14 Nine Canyon Wind Project	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 Pebble Springs Wind Project	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
16 Roosevelt Landfill (H.W. Hill)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17 Short Mountain	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
18 Stateline Wind Project	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
19 Tuolumne Wind	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
20 Wheatfield Wind	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
21 White Creek	10	10	10	10	10	10	10	10	10	10	10	10	10	10
22 Willow Creek Wind	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
23 Total Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
-Investor-Owned Entities-														
24 Bennett Creek Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25 Biglow Canyon Phase I	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
26 Biglow Canyon Phase II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
27 Biglow Canyon Phase III	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
28 Cassia Farms Wind	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
29 Cassia Gulch Wind	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
30 Elkhorn Valley Wind Farm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
31 Eurus Combine Hills	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
32 Foote Creek 1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
33 Fossil Gulch Wind Project	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
34 Goodnoe Hills	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
35 Hopkins Ridge I	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
36 Hopkins Ridge II	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Horseshoe Bend Wind Park	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
38 Hot Springs Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
39 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
40 Klondike II	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
41 Klondike III	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
42 Klondike IIIa	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
43 Leaning Juniper	5	5	5	5	5	5	5	5	5	5	5	5	5	5
44 Marengo I Wind Project	7	7	7	7	7	7	7	7	7	7	7	7	7	7
45 Marengo II Wind Project	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
46 Rattlesnake Road Wind Farm	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
47 Rock River I Wind	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
48 Stateline Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49 Vansycle Wind	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
50 Wild Horse I	11	11	11	11	11	11	11	11	11	11	11	11	11	11
51 Wild Horse II	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
52 Wolverine Creek	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
53 Total Investor-Owned Entities	151	151	151	151	151	151	151	151	151	151	151	151	151	151
-Other Entities-														
54 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56 Stateline Wind Project	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8

Continued

Table A-8: Regional Renewable Resources
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
57 White Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
58 Total Other Entities	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
<i>-Renewable Resources-</i>														
59 Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
60 Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
61 Investor-Owned Entities	151	151	151	151	151	151	151	151	151	151	151	151	151	151
62 Other Entities	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
63 Total Renewable Resources	244	244	244	244	244	244	244	244	244	244	244	244	244	244

Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2013 - 2014 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Condon Wind Project	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2 Foote Creek 1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
3 Foote Creek 2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4 Foote Creek 4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
5 Klondike I	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
6 Klondike III	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 Stateline Wind Project	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
8 Total Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
-Public Entities-														
9 Big Horn	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
10 Coffin Butte	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
11 Foote Creek 1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
12 Hay Canyon Wind	5	5	5	5	5	5	5	5	5	5	5	5	5	5
13 Klondike III	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
14 Nine Canyon Wind Project	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 Pebble Springs Wind Project	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
16 Roosevelt Landfill (H.W. Hill)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17 Short Mountain	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
18 Stateline Wind Project	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
19 Tuolumne Wind	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
20 Wheatfield Wind	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
21 White Creek	10	10	10	10	10	10	10	10	10	10	10	10	10	10
22 Willow Creek Wind	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
23 Total Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
-Investor-Owned Entities-														
24 Bennett Creek Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25 Biglow Canyon Phase I	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
26 Biglow Canyon Phase II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
27 Biglow Canyon Phase III	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
28 Cassia Farms Wind	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
29 Cassia Gulch Wind	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
30 Elkhorn Valley Wind Farm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
31 Eurus Combine Hills	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
32 Foote Creek 1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
33 Fossil Gulch Wind Project	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
34 Goodnoe Hills	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
35 Hopkins Ridge I	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
36 Hopkins Ridge II	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Horseshoe Bend Wind Park	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
38 Hot Springs Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
39 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
40 Klondike II	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
41 Klondike III	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
42 Klondike IIIa	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
43 Leaning Juniper	5	5	5	5	5	5	5	5	5	5	5	5	5	5
44 Marengo I Wind Project	7	7	7	7	7	7	7	7	7	7	7	7	7	7
45 Marengo II Wind Project	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
46 Rattlesnake Road Wind Farm	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
47 Rock River I Wind	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
48 Stateline Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49 Vansycle Wind	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
50 Wild Horse I	11	11	11	11	11	11	11	11	11	11	11	11	11	11
51 Wild Horse II	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
52 Wolverine Creek	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
53 Total Investor-Owned Entities	151	151	151	151	151	151	151	151	151	151	151	151	151	151
-Other Entities-														
54 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56 Stateline Wind Project	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8

Continued

Table A-8: Regional Renewable Resources
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
57 White Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
58 Total Other Entities	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
<i>-Renewable Resources-</i>														
59 Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
60 Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
61 Investor-Owned Entities	151	151	151	151	151	151	151	151	151	151	151	151	151	151
62 Other Entities	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
63 Total Renewable Resources	244	244	244	244	244	244	244	244	244	244	244	244	244	244

Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Condon Wind Project	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2 Foote Creek 1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
3 Foote Creek 2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4 Foote Creek 4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
5 Klondike I	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
6 Klondike III	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 Stateline Wind Project	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
8 Total Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
-Public Entities-														
9 Big Horn	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
10 Coffin Butte	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
11 Foote Creek 1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
12 Hay Canyon Wind	5	5	5	5	5	5	5	5	5	5	5	5	5	5
13 Klondike III	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
14 Nine Canyon Wind Project	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 Pebble Springs Wind Project	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
16 Roosevelt Landfill (H.W. Hill)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17 Short Mountain	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
18 Stateline Wind Project	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
19 Tuolumne Wind	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
20 Wheatfield Wind	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
21 White Creek	10	10	10	10	10	10	10	10	10	10	10	10	10	10
22 Willow Creek Wind	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
23 Total Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
-Investor-Owned Entities-														
24 Bennett Creek Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25 Biglow Canyon Phase I	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
26 Biglow Canyon Phase II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
27 Biglow Canyon Phase III	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
28 Cassia Farms Wind	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
29 Cassia Gulch Wind	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
30 Elkhorn Valley Wind Farm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
31 Eurus Combine Hills	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
32 Foote Creek 1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
33 Fossil Gulch Wind Project	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
34 Goodnoe Hills	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
35 Hopkins Ridge I	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
36 Hopkins Ridge II	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Horseshoe Bend Wind Park	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
38 Hot Springs Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
39 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
40 Klondike II	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
41 Klondike III	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
42 Klondike IIIa	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
43 Leaning Juniper	5	5	5	5	5	5	5	5	5	5	5	5	5	5
44 Marengo I Wind Project	7	7	7	7	7	7	7	7	7	7	7	7	7	7
45 Marengo II Wind Project	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
46 Rattlesnake Road Wind Farm	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
47 Rock River I Wind	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
48 Stateline Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49 Vansycle Wind	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
50 Wild Horse I	11	11	11	11	11	11	11	11	11	11	11	11	11	11
51 Wild Horse II	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
52 Wolverine Creek	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
53 Total Investor-Owned Entities	151	151	151	151	151	151	151	151	151	151	151	151	151	151
-Other Entities-														
54 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56 Stateline Wind Project	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8

Continued

Table A-8: Regional Renewable Resources
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
57 White Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
58 Total Other Entities	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
<i>-Renewable Resources-</i>														
59 Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
60 Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
61 Investor-Owned Entities	151	151	151	151	151	151	151	151	151	151	151	151	151	151
62 Other Entities	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
63 Total Renewable Resources	244	244	244	244	244	244	244	244	244	244	244	244	244	244

Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Condon Wind Project	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2 Foote Creek 1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
3 Foote Creek 2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4 Foote Creek 4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
5 Klondike I	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
6 Klondike III	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 Stateline Wind Project	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
8 Total Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
-Public Entities-														
9 Big Horn	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
10 Coffin Butte	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
11 Foote Creek 1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
12 Hay Canyon Wind	5	5	5	5	5	5	5	5	5	5	5	5	5	5
13 Klondike III	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
14 Nine Canyon Wind Project	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 Pebble Springs Wind Project	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
16 Roosevelt Landfill (H.W. Hill)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17 Short Mountain	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
18 Stateline Wind Project	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
19 Tuolumne Wind	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
20 Wheatfield Wind	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
21 White Creek	10	10	10	10	10	10	10	10	10	10	10	10	10	10
22 Willow Creek Wind	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
23 Total Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
-Investor-Owned Entities-														
24 Bennett Creek Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25 Biglow Canyon Phase I	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
26 Biglow Canyon Phase II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
27 Biglow Canyon Phase III	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
28 Cassia Farms Wind	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
29 Cassia Gulch Wind	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
30 Elkhorn Valley Wind Farm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
31 Eurus Combine Hills	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
32 Foote Creek 1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
33 Fossil Gulch Wind Project	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
34 Goodnoe Hills	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
35 Hopkins Ridge I	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
36 Hopkins Ridge II	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Horseshoe Bend Wind Park	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
38 Hot Springs Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
39 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
40 Klondike II	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
41 Klondike III	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
42 Klondike IIIa	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
43 Leaning Juniper	5	5	5	5	5	5	5	5	5	5	5	5	5	5
44 Marengo I Wind Project	7	7	7	7	7	7	7	7	7	7	7	7	7	7
45 Marengo II Wind Project	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
46 Rattlesnake Road Wind Farm	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
47 Rock River I Wind	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
48 Stateline Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49 Vansycle Wind	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
50 Wild Horse I	11	11	11	11	11	11	11	11	11	11	11	11	11	11
51 Wild Horse II	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
52 Wolverine Creek	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
53 Total Investor-Owned Entities	151	151	151	151	151	151	151	151	151	151	151	151	151	151
-Other Entities-														
54 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56 Stateline Wind Project	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8

Continued

Table A-8: Regional Renewable Resources
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
57 White Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
58 Total Other Entities	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
<i>-Renewable Resources-</i>														
59 Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
60 Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
61 Investor-Owned Entities	151	151	151	151	151	151	151	151	151	151	151	151	151	151
62 Other Entities	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
63 Total Renewable Resources	244	244	244	244	244	244	244	244	244	244	244	244	244	244

Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal System-</i>														
1 Condon Wind Project	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2 Foote Creek 1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
3 Foote Creek 2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4 Foote Creek 4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
5 Klondike I	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
6 Klondike III	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 Stateline Wind Project	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
8 Total Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>-Public Entities-</i>														
9 Big Horn	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
10 Coffin Butte	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
11 Foote Creek 1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
12 Hay Canyon Wind	5	5	5	5	5	5	5	5	5	5	5	5	5	5
13 Klondike III	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
14 Nine Canyon Wind Project	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 Pebble Springs Wind Project	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
16 Roosevelt Landfill (H.W. Hill)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17 Short Mountain	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
18 Stateline Wind Project	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
19 Tuolumne Wind	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
20 Wheatfield Wind	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
21 White Creek	10	10	10	10	10	10	10	10	10	10	10	10	10	10
22 Willow Creek Wind	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
23 Total Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
<i>-Investor-Owned Entities-</i>														
24 Bennett Creek Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25 Biglow Canyon Phase I	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
26 Biglow Canyon Phase II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
27 Biglow Canyon Phase III	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
28 Cassia Farms Wind	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
29 Cassia Gulch Wind	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
30 Elkhorn Valley Wind Farm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
31 Eurus Combine Hills	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
32 Foote Creek 1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
33 Fossil Gulch Wind Project	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
34 Goodnoe Hills	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
35 Hopkins Ridge I	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
36 Hopkins Ridge II	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Horseshoe Bend Wind Park	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
38 Hot Springs Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
39 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
40 Klondike II	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
41 Klondike III	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
42 Klondike IIIa	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
43 Leaning Juniper	5	5	5	5	5	5	5	5	5	5	5	5	5	5
44 Marengo I Wind Project	7	7	7	7	7	7	7	7	7	7	7	7	7	7
45 Marengo II Wind Project	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
46 Rattlesnake Road Wind Farm	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
47 Rock River I Wind	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
48 Stateline Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49 Vansycle Wind	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
50 Wild Horse I	11	11	11	11	11	11	11	11	11	11	11	11	11	11
51 Wild Horse II	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
52 Wolverine Creek	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
53 Total Investor-Owned Entities	151	151	151	151	151	151	151	151	151	151	151	151	151	151
<i>-Other Entities-</i>														
54 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56 Stateline Wind Project	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8

Continued

Table A-8: Regional Renewable Resources
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
57 White Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
58 Total Other Entities	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
<i>-Renewable Resources-</i>														
59 Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
60 Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
61 Investor-Owned Entities	151	151	151	151	151	151	151	151	151	151	151	151	151	151
62 Other Entities	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
63 Total Renewable Resources	244	244	244	244	244	244	244	244	244	244	244	244	244	244

Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2017 - 2018 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Condon Wind Project	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2 Foote Creek 1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
3 Foote Creek 2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4 Foote Creek 4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
5 Klondike I	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
6 Klondike III	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 Stateline Wind Project	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
8 Total Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
-Public Entities-														
9 Big Horn	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
10 Coffin Butte	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
11 Foote Creek 1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
12 Hay Canyon Wind	5	5	5	5	5	5	5	5	5	5	5	5	5	5
13 Klondike III	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
14 Nine Canyon Wind Project	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 Pebble Springs Wind Project	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
16 Roosevelt Landfill (H.W. Hill)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17 Short Mountain	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
18 Stateline Wind Project	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
19 Tuolumne Wind	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
20 Wheatfield Wind	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
21 White Creek	10	10	10	10	10	10	10	10	10	10	10	10	10	10
22 Willow Creek Wind	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
23 Total Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
-Investor-Owned Entities-														
24 Bennett Creek Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25 Biglow Canyon Phase I	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
26 Biglow Canyon Phase II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
27 Biglow Canyon Phase III	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
28 Cassia Farms Wind	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
29 Cassia Gulch Wind	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
30 Elkhorn Valley Wind Farm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
31 Eurus Combine Hills	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
32 Foote Creek 1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
33 Fossil Gulch Wind Project	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
34 Goodnoe Hills	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
35 Hopkins Ridge I	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
36 Hopkins Ridge II	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Horseshoe Bend Wind Park	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
38 Hot Springs Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
39 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
40 Klondike II	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
41 Klondike III	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
42 Klondike IIIa	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
43 Leaning Juniper	5	5	5	5	5	5	5	5	5	5	5	5	5	5
44 Marengo I Wind Project	7	7	7	7	7	7	7	7	7	7	7	7	7	7
45 Marengo II Wind Project	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
46 Rattlesnake Road Wind Farm	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
47 Rock River I Wind	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
48 Stateline Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49 Vansycle Wind	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
50 Wild Horse I	11	11	11	11	11	11	11	11	11	11	11	11	11	11
51 Wild Horse II	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
52 Wolverine Creek	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
53 Total Investor-Owned Entities	151	151	151	151	151	151	151	151	151	151	151	151	151	151
-Other Entities-														
54 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56 Stateline Wind Project	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8

Continued

Table A-8: Regional Renewable Resources
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
57 White Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
58 Total Other Entities	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
<i>-Renewable Resources-</i>														
59 Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
60 Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
61 Investor-Owned Entities	151	151	151	151	151	151	151	151	151	151	151	151	151	151
62 Other Entities	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
63 Total Renewable Resources	244	244	244	244	244	244	244	244	244	244	244	244	244	244

Table A-8: Regional Renewable Resources
PNW Loads and Resource Study
2018 - 2019 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Condon Wind Project	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2 Foote Creek 1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
3 Foote Creek 2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4 Foote Creek 4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
5 Klondike I	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
6 Klondike III	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
7 Stateline Wind Project	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
8 Total Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
-Public Entities-														
9 Big Horn	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
10 Coffin Butte	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
11 Foote Creek 1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
12 Hay Canyon Wind	5	5	5	5	5	5	5	5	5	5	5	5	5	5
13 Klondike III	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
14 Nine Canyon Wind Project	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 Pebble Springs Wind Project	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
16 Roosevelt Landfill (H.W. Hill)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
17 Short Mountain	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
18 Stateline Wind Project	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
19 Tuolumne Wind	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
20 Wheatfield Wind	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
21 White Creek	10	10	10	10	10	10	10	10	10	10	10	10	10	10
22 Willow Creek Wind	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
23 Total Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
-Investor-Owned Entities-														
24 Bennett Creek Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
25 Biglow Canyon Phase I	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
26 Biglow Canyon Phase II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
27 Biglow Canyon Phase III	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
28 Cassia Farms Wind	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
29 Cassia Gulch Wind	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
30 Elkhorn Valley Wind Farm	5	5	5	5	5	5	5	5	5	5	5	5	5	5
31 Eurus Combine Hills	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
32 Foote Creek 1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
33 Fossil Gulch Wind Project	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
34 Goodnoe Hills	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
35 Hopkins Ridge I	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
36 Hopkins Ridge II	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
37 Horseshoe Bend Wind Park	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
38 Hot Springs Wind	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
39 Kettle Falls (biomass)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
40 Klondike II	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
41 Klondike III	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
42 Klondike IIIa	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
43 Leaning Juniper	5	5	5	5	5	5	5	5	5	5	5	5	5	5
44 Marengo I Wind Project	7	7	7	7	7	7	7	7	7	7	7	7	7	7
45 Marengo II Wind Project	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
46 Rattlesnake Road Wind Farm	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
47 Rock River I Wind	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
48 Stateline Wind Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49 Vansycle Wind	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
50 Wild Horse I	11	11	11	11	11	11	11	11	11	11	11	11	11	11
51 Wild Horse II	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
52 Wolverine Creek	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
53 Total Investor-Owned Entities	151	151	151	151	151	151	151	151	151	151	151	151	151	151
-Other Entities-														
54 Klondike III	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 Klondike IIIa	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56 Stateline Wind Project	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8

Continued

Table A-8: Regional Renewable Resources
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
57 White Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
58 Total Other Entities	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
<i>-Renewable Resources-</i>														
59 Federal System	12	12	12	12	12	12	12	12	12	12	12	12	12	12
60 Public Entities	79	79	79	79	79	79	79	79	79	79	79	79	79	79
61 Investor-Owned Entities	151	151	151	151	151	151	151	151	151	151	151	151	151	151
62 Other Entities	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
63 Total Renewable Resources	244	244	244	244	244	244	244	244	244	244	244	244	244	244

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Table A-9
Cogeneration
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Georgia-Pacific Paper (Wauna)	25	25	25	27	29	30	32	31	30	29	29	27	26	24
2 Total Federal System	25	25	25	27	29	30	32	31	30	29	29	27	26	24
-Public Entities-														
3 Grays Harbor Paper (Grays Harbor Paper)	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
5 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Sierra Pacific Aberdeen (Sierra Pacific)	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7 Sierra Pacific Burlington	28	28	28	28	28	28	28	28	28	28	28	28	28	28
8 Simpson Tacoma CoGen	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 WEYCO Energy Center	22	22	22	0	22	22	22	22	22	22	22	22	22	22
10 Total Public Entities	139	139	139	117	139	139	139	139	139	139	139	139	139	139
-Investor-Owned Entities-														
11 Coyote Springs #1	217	217	222	230	236	241	242	239	235	230	230	0	220	216
12 Coyote Springs #2	279	279	279	288	288	291	291	291	291	284	284	284	0	279
13 Georgia-Pacific Paper (Camas)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Hermiston Cogeneration	472	472	472	472	472	472	472	472	472	472	472	0	472	472
15 Sumas Energy	125	125	125	125	125	125	125	125	125	125	125	0	125	125
16 Tenaska Gas Cogen	245	245	245	245	245	245	245	245	245	245	245	0	245	245
17 Thompson River Co-Gen	12	12	12	12	12	12	12	12	12	12	12	12	12	12
18 Total Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	1368	1368	296	1074	1349
-Other Entities-														
19 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Georgia Pacific Toledo	24	24	24	24	24	24	24	24	24	24	24	24	24	24
21 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Hermiston Power Project	630	630	630	630	630	630	630	630	0	630	630	630	630	630
23 Klamath Cogeneration Project	484	484	484	484	484	484	484	484	484	484	484	484	484	484
24 Longview Fibre Cogen 1-7	45	45	46	40	43	36	33	33	34	35	35	35	35	35
25 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104
27 Wah Chang (Albany, OR)	14	14	14	14	14	14	14	14	14	14	14	14	14	14
28 WEYCO Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Weyerhaeuser Albany (Weyerhaeuser)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
30 Weyerhaeuser Longview (Weyerhaeuser)	44	44	44	44	44	44	44	44	44	44	44	44	44	44
31 Total Other Entities	1392	1392	1393	1387	1390	1383	1380	1380	750	1382	1382	1382	1382	1382
-Cogeneration-														
32 Federal System	25	25	25	27	29	30	32	31	30	29	29	27	26	24
33 Public Entities	139	139	139	117	139	139	139	139	139	139	139	139	139	139
34 Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	1368	1368	296	1074	1349
35 Other Entities	1392	1392	1393	1387	1390	1383	1380	1380	750	1382	1382	1382	1382	1382
36 Total Cogeneration	2905	2905	2912	2903	2935	2939	2938	2934	2300	2919	2919	1845	2621	2895

Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2010 - 2011 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Georgia-Pacific Paper (Wauna)	25	25	25	27	29	30	32	31	30	29	29	27	26	24
2 Total Federal System	25	25	25	27	29	30	32	31	30	29	29	27	26	24
-Public Entities-														
3 Grays Harbor Paper (Grays Harbor Paper)	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
5 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Sierra Pacific Aberdeen (Sierra Pacific)	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7 Sierra Pacific Burlington	28	28	28	28	28	28	28	28	28	28	28	28	28	28
8 Simpson Tacoma CoGen	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 WEYCO Energy Center	22	22	22	22	22	22	22	22	22	22	22	22	22	22
10 Total Public Entities	139	139	139	139	139	139	139	139	139	139	139	139	139	139
-Investor-Owned Entities-														
11 Coyote Springs #1	217	217	222	230	236	241	242	239	235	230	230	0	220	216
12 Coyote Springs #2	279	279	279	288	288	291	291	291	291	284	284	284	0	279
13 Georgia-Pacific Paper (Camas)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Hermiston Cogeneration	472	472	472	472	472	472	472	472	472	472	472	472	472	472
15 Sumas Energy	125	125	125	125	125	125	125	125	125	125	125	0	125	125
16 Tenaska Gas Cogen	245	245	245	245	245	245	245	245	245	245	245	0	245	245
17 Thompson River Co-Gen	12	12	12	12	12	12	12	12	12	12	12	12	12	12
18 Total Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	1368	1368	768	1074	1349
-Other Entities-														
19 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Georgia Pacific Toledo	24	24	24	24	24	24	24	24	24	24	24	24	24	24
21 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Hermiston Power Project	630	630	630	630	630	630	630	630	0	630	630	630	630	630
23 Klamath Cogeneration Project	484	484	484	484	484	484	484	484	484	484	484	484	484	484
24 Longview Fibre Cogen 1-7	36	36	37	40	43	36	33	33	34	35	35	35	35	35
25 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104
27 Wah Chang (Albany, OR)	14	14	14	14	14	14	14	14	14	14	14	14	14	14
28 WEYCO Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Weyerhaeuser Albany (Weyerhaeuser)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
30 Weyerhaeuser Longview (Weyerhaeuser)	44	44	44	44	44	44	44	44	44	44	44	44	44	44
31 Total Other Entities	1382	1382	1384	1387	1390	1383	1380	1380	750	1382	1382	1382	1382	1382
-Cogeneration-														
32 Federal System	25	25	25	27	29	30	32	31	30	29	29	27	26	24
33 Public Entities	139	139	139	139	139	139	139	139	139	139	139	139	139	139
34 Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	1368	1368	768	1074	1349
35 Other Entities	1382	1382	1384	1387	1390	1383	1380	1380	750	1382	1382	1382	1382	1382
36 Total Cogeneration	2896	2896	2904	2925	2935	2939	2938	2934	2300	2919	2919	2317	2621	2895

Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2011 - 2012 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Georgia-Pacific Paper (Wauna)	25	25	25	27	29	30	32	31	30	29	29	27	26	24
2 Total Federal System	25	25	25	27	29	30	32	31	30	29	29	27	26	24
-Public Entities-														
3 Grays Harbor Paper (Grays Harbor Paper)	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
5 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Sierra Pacific Aberdeen (Sierra Pacific)	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7 Sierra Pacific Burlington	28	28	28	28	28	28	28	28	28	28	28	28	28	28
8 Simpson Tacoma CoGen	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 WEYCO Energy Center	22	22	22	22	22	22	22	22	22	22	22	22	22	22
10 Total Public Entities	139	139	139	139	139	139	139	139	139	139	139	139	139	139
-Investor-Owned Entities-														
11 Coyote Springs #1	217	217	222	230	236	241	242	239	235	230	230	0	220	216
12 Coyote Springs #2	279	279	279	288	288	291	291	291	291	284	284	0	284	279
13 Georgia-Pacific Paper (Camas)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Hermiston Cogeneration	472	472	472	472	472	472	472	472	472	472	472	472	472	472
15 Sumas Energy	125	125	125	125	125	125	125	125	125	125	125	0	125	125
16 Tenaska Gas Cogen	245	245	245	245	245	245	245	245	245	245	245	0	245	245
17 Thompson River Co-Gen	12	12	12	12	12	12	12	12	12	12	12	12	12	12
18 Total Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	1368	1368	484	1358	1349
-Other Entities-														
19 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Georgia Pacific Toledo	24	24	24	24	24	24	24	24	24	24	24	24	24	24
21 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Hermiston Power Project	630	630	630	630	630	630	630	630	0	630	630	630	630	630
23 Klamath Cogeneration Project	484	484	484	484	484	484	484	484	484	484	484	484	484	484
24 Longview Fibre Cogen 1-7	36	36	37	46	49	48	48	48	47	45	45	45	47	47
25 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104
27 Wah Chang (Albany, OR)	14	14	14	14	14	14	14	14	14	14	14	14	14	14
28 WEYCO Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Weyerhaeuser Albany (Weyerhaeuser)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
30 Weyerhaeuser Longview (Weyerhaeuser)	44	44	44	44	44	44	44	44	44	44	44	44	44	44
31 Total Other Entities	1382	1382	1384	1393	1396	1395	1395	1395	764	1392	1392	1392	1394	1394
-Cogeneration-														
32 Federal System	25	25	25	27	29	30	32	31	30	29	29	27	26	24
33 Public Entities	139	139	139	139	139	139	139	139	139	139	139	139	139	139
34 Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	1368	1368	484	1358	1349
35 Other Entities	1382	1382	1384	1393	1396	1395	1395	1395	764	1392	1392	1392	1394	1394
36 Total Cogeneration	2896	2896	2904	2931	2942	2951	2953	2950	2313	2929	2929	2043	2918	2906

Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2012 - 2013 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Georgia-Pacific Paper (Wauna)	25	25	25	27	29	30	32	31	30	29	29	27	26	24
2 Total Federal System	25	25	25	27	29	30	32	31	30	29	29	27	26	24
-Public Entities-														
3 Grays Harbor Paper (Grays Harbor Paper)	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
5 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Sierra Pacific Aberdeen (Sierra Pacific)	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7 Sierra Pacific Burlington	28	28	28	28	28	28	28	28	28	28	28	28	28	28
8 Simpson Tacoma CoGen	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 WEYCO Energy Center	22	22	22	22	22	22	22	22	22	22	22	22	22	22
10 Total Public Entities	139	139	139	139	139	139	139	139	139	139	139	139	139	139
-Investor-Owned Entities-														
11 Coyote Springs #1	217	217	222	230	236	241	242	239	235	230	230	0	220	216
12 Coyote Springs #2	279	279	279	288	288	291	291	291	291	284	284	284	0	279
13 Georgia-Pacific Paper (Camas)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Hermiston Cogeneration	472	472	472	472	472	472	472	472	472	0	0	472	472	472
15 Sumas Energy	125	125	125	125	125	125	125	125	125	125	125	0	125	125
16 Tenaska Gas Cogen	245	245	245	245	245	245	245	245	245	245	245	0	245	245
17 Thompson River Co-Gen	12	12	12	12	12	12	12	12	12	12	12	12	12	12
18 Total Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	896	896	768	1074	1349
-Other Entities-														
19 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Georgia Pacific Toledo	24	24	24	24	24	24	24	24	24	24	24	24	24	24
21 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Hermiston Power Project	630	630	630	630	630	630	630	630	0	630	630	630	630	630
23 Klamath Cogeneration Project	484	484	484	484	484	484	484	484	484	484	484	484	484	484
24 Longview Fibre Cogen 1-7	48	48	46	46	49	48	48	48	47	45	45	45	47	47
25 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104
27 Wah Chang (Albany, OR)	14	14	14	14	14	14	14	14	14	14	14	14	14	14
28 WEYCO Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Weyerhaeuser Albany (Weyerhaeuser)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
30 Weyerhaeuser Longview (Weyerhaeuser)	44	44	44	44	44	44	44	44	44	44	44	44	44	44
31 Total Other Entities	1395	1395	1393	1393	1396	1395	1395	1395	764	1392	1392	1392	1394	1394
-Cogeneration-														
32 Federal System	25	25	25	27	29	30	32	31	30	29	29	27	26	24
33 Public Entities	139	139	139	139	139	139	139	139	139	139	139	139	139	139
34 Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	896	896	768	1074	1349
35 Other Entities	1395	1395	1393	1393	1396	1395	1395	1395	764	1392	1392	1392	1394	1394
36 Total Cogeneration	2908	2908	2912	2931	2942	2951	2953	2950	2313	2457	2457	2327	2634	2906

Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2013 - 2014 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Georgia-Pacific Paper (Wauna)	25	25	25	27	29	30	32	31	30	29	29	27	26	24
2 Total Federal System	25	25	25	27	29	30	32	31	30	29	29	27	26	24
-Public Entities-														
3 Grays Harbor Paper (Grays Harbor Paper)	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
5 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Sierra Pacific Aberdeen (Sierra Pacific)	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7 Sierra Pacific Burlington	28	28	28	28	28	28	28	28	28	28	28	28	28	28
8 Simpson Tacoma CoGen	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 WEYCO Energy Center	22	22	22	22	22	22	22	22	22	22	22	22	22	22
10 Total Public Entities	139	139	139	139	139	139	139	139	139	139	139	139	139	139
-Investor-Owned Entities-														
11 Coyote Springs #1	217	217	222	230	236	241	242	239	235	230	230	0	220	216
12 Coyote Springs #2	279	279	279	288	288	291	291	291	291	284	284	284	0	279
13 Georgia-Pacific Paper (Camas)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Hermiston Cogeneration	472	472	472	472	472	472	472	472	472	472	0	472	472	472
15 Sumas Energy	125	125	125	125	125	125	125	125	125	125	125	0	125	125
16 Tenaska Gas Cogen	245	245	245	245	245	245	245	245	245	245	245	0	245	245
17 Thompson River Co-Gen	12	12	12	12	12	12	12	12	12	12	12	12	12	12
18 Total Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	1368	896	768	1074	1349
-Other Entities-														
19 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Georgia Pacific Toledo	24	24	24	24	24	24	24	24	24	24	24	24	24	24
21 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Hermiston Power Project	630	630	630	630	630	630	630	630	0	630	630	630	630	630
23 Klamath Cogeneration Project	484	484	484	484	484	484	484	484	484	484	484	484	484	484
24 Longview Fibre Cogen 1-7	48	48	46	46	49	48	48	48	47	45	45	45	47	47
25 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104
27 Wah Chang (Albany, OR)	14	14	14	14	14	14	14	14	14	14	14	14	14	14
28 WEYCO Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Weyerhaeuser Albany (Weyerhaeuser)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
30 Weyerhaeuser Longview (Weyerhaeuser)	44	44	44	44	44	44	44	44	44	44	44	44	44	44
31 Total Other Entities	1395	1395	1393	1393	1396	1395	1395	1395	764	1392	1392	1392	1394	1394
-Cogeneration-														
32 Federal System	25	25	25	27	29	30	32	31	30	29	29	27	26	24
33 Public Entities	139	139	139	139	139	139	139	139	139	139	139	139	139	139
34 Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	1368	896	768	1074	1349
35 Other Entities	1395	1395	1393	1393	1396	1395	1395	1395	764	1392	1392	1392	1394	1394
36 Total Cogeneration	2908	2908	2912	2931	2942	2951	2953	2950	2313	2929	2457	2327	2634	2906

Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Georgia-Pacific Paper (Wauna)	25	25	25	27	29	30	32	31	30	29	29	27	26	24
2 Total Federal System	25	25	25	27	29	30	32	31	30	29	29	27	26	24
-Public Entities-														
3 Grays Harbor Paper (Grays Harbor Paper)	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
5 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Sierra Pacific Aberdeen (Sierra Pacific)	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7 Sierra Pacific Burlington	28	28	28	28	28	28	28	28	28	28	28	28	28	28
8 Simpson Tacoma CoGen	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 WEYCO Energy Center	22	22	22	22	22	22	22	22	22	22	22	22	22	22
10 Total Public Entities	139	139	139	139	139	139	139	139	139	139	139	139	139	139
-Investor-Owned Entities-														
11 Coyote Springs #1	217	217	222	230	236	241	242	239	235	230	230	0	220	216
12 Coyote Springs #2	279	279	279	288	288	291	291	291	291	284	284	284	0	279
13 Georgia-Pacific Paper (Camas)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Hermiston Cogeneration	472	472	472	472	472	472	472	472	472	472	0	472	472	472
15 Sumas Energy	125	125	125	125	125	125	125	125	125	125	125	0	125	125
16 Tenaska Gas Cogen	245	245	245	245	245	245	245	245	245	245	245	0	245	245
17 Thompson River Co-Gen	12	12	12	12	12	12	12	12	12	12	12	12	12	12
18 Total Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	1368	896	768	1074	1349
-Other Entities-														
19 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Georgia Pacific Toledo	24	24	24	24	24	24	24	24	24	24	24	24	24	24
21 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Hermiston Power Project	630	630	630	630	630	630	630	630	0	630	630	630	630	630
23 Klamath Cogeneration Project	484	484	484	484	484	484	484	484	484	484	484	484	484	484
24 Longview Fibre Cogen 1-7	48	48	46	46	49	48	48	48	47	45	45	45	47	47
25 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104
27 Wah Chang (Albany, OR)	14	14	14	14	14	14	14	14	14	14	14	14	14	14
28 WEYCO Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Weyerhaeuser Albany (Weyerhaeuser)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
30 Weyerhaeuser Longview (Weyerhaeuser)	44	44	44	44	44	44	44	44	44	44	44	44	44	44
31 Total Other Entities	1395	1395	1393	1393	1396	1395	1395	1395	764	1392	1392	1392	1394	1394
-Cogeneration-														
32 Federal System	25	25	25	27	29	30	32	31	30	29	29	27	26	24
33 Public Entities	139	139	139	139	139	139	139	139	139	139	139	139	139	139
34 Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	1368	896	768	1074	1349
35 Other Entities	1395	1395	1393	1393	1396	1395	1395	1395	764	1392	1392	1392	1394	1394
36 Total Cogeneration	2908	2908	2912	2931	2942	2951	2953	2950	2313	2929	2457	2327	2634	2906

Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Georgia-Pacific Paper (Wauna)	25	25	25	27	29	30	32	31	30	0	0	0	0	0
2 Total Federal System	25	25	25	27	29	30	32	31	30	0	0	0	0	0
-Public Entities-														
3 Grays Harbor Paper (Grays Harbor Paper)	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
5 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Sierra Pacific Aberdeen (Sierra Pacific)	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7 Sierra Pacific Burlington	28	28	28	28	28	28	28	28	28	28	28	28	28	28
8 Simpson Tacoma CoGen	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 WEYCO Energy Center	22	22	22	22	22	22	22	22	22	22	22	22	22	22
10 Total Public Entities	139	139	139	139	139	139	139	139	139	139	139	139	139	139
-Investor-Owned Entities-														
11 Coyote Springs #1	217	217	222	230	236	241	242	239	235	230	230	0	220	216
12 Coyote Springs #2	279	279	279	288	288	291	291	291	291	284	284	284	0	279
13 Georgia-Pacific Paper (Camas)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Hermiston Cogeneration	472	472	472	472	472	472	472	472	472	0	0	472	472	472
15 Sumas Energy	125	125	125	125	125	125	125	125	125	125	125	0	125	125
16 Tenaska Gas Cogen	245	245	245	245	245	245	245	245	245	245	245	0	245	245
17 Thompson River Co-Gen	12	12	12	12	12	12	12	12	12	12	12	12	12	12
18 Total Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	896	896	768	1074	1349
-Other Entities-														
19 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Georgia Pacific Toledo	24	24	24	24	24	24	24	24	24	24	24	24	24	24
21 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	29	29	27	26	24
22 Hermiston Power Project	630	630	630	630	630	630	630	630	0	630	630	630	630	630
23 Klamath Cogeneration Project	484	484	484	484	484	484	484	484	484	484	484	484	484	484
24 Longview Fibre Cogen 1-7	48	48	46	46	49	48	48	48	47	45	45	45	47	47
25 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104
27 Wah Chang (Albany, OR)	14	14	14	14	14	14	14	14	14	14	14	14	14	14
28 WEYCO Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Weyerhaeuser Albany (Weyerhaeuser)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
30 Weyerhaeuser Longview (Weyerhaeuser)	44	44	44	44	44	44	44	44	44	44	44	44	44	44
31 Total Other Entities	1395	1395	1393	1393	1396	1395	1395	1395	764	1422	1422	1420	1420	1418
-Cogeneration-														
32 Federal System	25	25	25	27	29	30	32	31	30	0	0	0	0	0
33 Public Entities	139	139	139	139	139	139	139	139	139	139	139	139	139	139
34 Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	896	896	768	1074	1349
35 Other Entities	1395	1395	1393	1393	1396	1395	1395	1395	764	1422	1422	1420	1420	1418
36 Total Cogeneration	2908	2908	2912	2931	2942	2951	2953	2950	2313	2457	2457	2327	2634	2906

Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-														
3 Grays Harbor Paper (Grays Harbor Paper)	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Hampton Lumber Mill (Darrington)	3.5	3.5	3.5	3.5	3.5	3.5	0	0	0	0	0	0	0	0
5 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Sierra Pacific Aberdeen (Sierra Pacific)	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7 Sierra Pacific Burlington	28	28	28	28	28	28	28	28	28	28	28	28	28	28
8 Simpson Tacoma CoGen	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 WEYCO Energy Center	22	22	22	22	22	22	22	22	22	22	22	22	22	22
10 Total Public Entities	139	139	139	139	139	139	136	136	136	136	136	136	136	136
-Investor-Owned Entities-														
11 Coyote Springs #1	217	217	222	230	236	241	242	239	235	230	230	0	220	216
12 Coyote Springs #2	279	279	279	288	288	291	291	291	291	284	0	284	284	279
13 Georgia-Pacific Paper (Camas)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Hermiston Cogeneration	472	472	472	472	472	472	472	472	472	472	0	472	472	472
15 Sumas Energy	125	125	125	125	125	125	125	125	125	125	125	0	125	125
16 Tenaska Gas Cogen	245	245	245	245	245	245	245	245	245	245	245	0	245	245
17 Thompson River Co-Gen	12	12	12	12	12	12	12	12	12	12	12	12	12	12
18 Total Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	1368	612	768	1358	1349
-Other Entities-														
19 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 Georgia Pacific Toledo	24	24	24	24	24	24	24	24	24	24	24	24	24	24
21 Georgia-Pacific Paper (Wauna)	25	25	25	27	29	30	32	31	30	29	29	27	26	24
22 Hermiston Power Project	630	630	630	630	630	630	630	630	0	630	630	630	630	630
23 Klamath Cogeneration Project	484	484	484	484	484	484	484	484	484	484	484	484	484	484
24 Longview Fibre Cogen 1-7	48	48	46	46	49	48	48	48	47	45	45	45	47	47
25 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104
27 Wah Chang (Albany, OR)	14	14	14	14	14	14	14	14	14	14	14	14	14	14
28 WEYCO Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 Weyerhaeuser Albany (Weyerhaeuser)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
30 Weyerhaeuser Longview (Weyerhaeuser)	44	44	44	44	44	44	44	44	44	44	44	44	44	44
31 Total Other Entities	1420	1420	1418	1420	1425	1426	1427	1427	795	1422	1422	1420	1420	1418
-Cogeneration-														
32 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Public Entities	139	139	139	139	139	139	136	136	136	136	136	136	136	136
34 Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	1368	612	768	1358	1349
35 Other Entities	1420	1420	1418	1420	1425	1426	1427	1427	795	1422	1422	1420	1420	1418
36 Total Cogeneration	2908	2908	2912	2931	2942	2951	2950	2946	2310	2926	2170	2323	2914	2903

Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2017 - 2018 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-														
3 Grays Harbor Paper (Grays Harbor Paper)	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Sierra Pacific Aberdeen (Sierra Pacific)	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6 Sierra Pacific Burlington	28	28	28	28	28	28	28	28	28	28	28	28	28	28
7 Simpson Tacoma CoGen	55	55	55	55	55	55	55	55	55	55	55	55	55	55
8 WEYCO Energy Center	22	22	22	22	22	22	22	22	22	22	22	22	22	22
9 Total Public Entities	136	136	136	136	136	136	136	136	136	136	136	136	136	136
-Investor Owned Entities-														
10 Coyote Springs #1	217	217	222	230	236	241	242	239	235	230	230	0	220	216
11 Coyote Springs #2	279	279	279	288	288	291	291	291	291	0	0	284	284	279
12 Georgia-Pacific Paper (Camas)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Hermiston Cogeneration	472	472	472	472	472	472	472	472	472	472	0	472	472	472
14 Sumas Energy	125	125	125	125	125	125	125	125	125	125	125	0	125	125
15 Tenaska Gas Cogen	245	245	245	245	245	245	245	245	245	245	245	0	245	245
16 Thompson River Co-Gen	12	12	12	12	12	12	12	12	12	12	12	12	12	12
17 Total Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	1084	612	768	1358	1349
-Other Entities-														
18 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Georgia Pacific Toledo	24	24	24	24	24	24	24	24	24	24	24	24	24	24
20 Georgia-Pacific Paper (Wauna)	25	25	25	27	29	30	32	31	30	29	29	27	26	24
21 Hermiston Power Project	630	630	630	630	630	630	630	630	0	630	630	630	630	630
22 Klamath Cogeneration Project	484	484	484	484	484	484	484	484	484	484	484	484	484	484
23 Longview Fibre Cogen 1-7	48	48	46	46	49	48	48	48	47	45	45	45	47	47
24 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104
26 Wah Chang (Albany, OR)	14	14	14	14	14	14	14	14	14	14	14	14	14	14
27 WEYCO Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Weyerhaeuser Albany (Weyerhaeuser)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
29 Weyerhaeuser Longview (Weyerhaeuser)	44	44	44	44	44	44	44	44	44	44	44	44	44	44
30 Total Other Entities	1420	1420	1418	1420	1425	1426	1427	1427	795	1422	1422	1420	1420	1418
-Cogeneration-														
31 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Public Entities	136	136	136	136	136	136	136	136	136	136	136	136	136	136
33 Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	1084	612	768	1358	1349
34 Other Entities	1420	1420	1418	1420	1425	1426	1427	1427	795	1422	1422	1420	1420	1418
35 Total Cogeneration	2905	2905	2909	2927	2939	2948	2950	2946	2310	2642	2170	2323	2914	2903

Table A-9: Regional Cogeneration
PNW Loads and Resource Study
2018 - 2019 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Federal System-														
1 Georgia-Pacific Paper (Wauna)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Total Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Public Entities-														
3 Grays Harbor Paper (Grays Harbor Paper)	16	16	16	16	16	16	16	16	16	16	16	16	16	16
4 Klamath Cogeneration Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Sierra Pacific Aberdeen (Sierra Pacific)	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6 Sierra Pacific Burlington	28	28	28	28	28	28	28	28	28	28	28	28	28	28
7 Simpson Tacoma CoGen	55	55	55	55	55	55	55	55	55	55	55	55	55	55
8 WEYCO Energy Center	22	22	22	22	22	22	22	22	22	22	22	22	22	22
9 Total Public Entities	136	136	136	136	136	136	136	136	136	136	136	136	136	136
-Investor Owned Entities-														
10 Coyote Springs #1	217	217	222	230	236	241	242	239	235	230	230	0	220	216
11 Coyote Springs #2	279	279	279	288	288	291	291	291	291	284	284	284	0	279
12 Georgia-Pacific Paper (Camas)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Hermiston Cogeneration	472	472	472	472	472	472	472	472	472	0	0	472	472	472
14 Sumas Energy	125	125	125	125	125	125	125	125	125	125	125	0	125	125
15 Tenaska Gas Cogen	245	245	245	245	245	245	245	245	245	245	245	0	245	245
16 Thompson River Co-Gen	12	12	12	12	12	12	12	12	12	12	12	12	12	12
17 Total Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	896	896	768	1074	1349
-Other Entities-														
18 Coyote Springs #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Georgia Pacific Toledo	24	24	24	24	24	24	24	24	24	24	24	24	24	24
20 Georgia-Pacific Paper (Wauna)	25	25	25	27	29	30	32	31	30	29	29	27	26	24
21 Hermiston Power Project	630	630	630	630	630	630	630	630	0	630	630	630	630	630
22 Klamath Cogeneration Project	484	484	484	484	484	484	484	484	484	484	484	484	484	484
23 Longview Fibre Cogen 1-7	48	48	46	46	49	48	48	48	47	45	45	45	47	47
24 Simpson Tacoma CoGen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 SP Newsprint Cogen	104	104	104	104	104	104	104	104	104	104	104	104	104	104
26 Wah Chang (Albany, OR)	14	14	14	14	14	14	14	14	14	14	14	14	14	14
27 WEYCO Energy Center	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Weyerhaeuser Albany (Weyerhaeuser)	47	47	47	47	47	47	47	47	47	47	47	47	47	47
29 Weyerhaeuser Longview (Weyerhaeuser)	44	44	44	44	44	44	44	44	44	44	44	44	44	44
30 Total Other Entities	1420	1420	1418	1420	1425	1426	1427	1427	795	1422	1422	1420	1420	1418
-Cogeneration-														
31 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Public Entities	136	136	136	136	136	136	136	136	136	136	136	136	136	136
33 Investor-Owned Entities	1349	1349	1355	1371	1378	1386	1387	1384	1380	896	896	768	1074	1349
34 Other Entities	1420	1420	1418	1420	1425	1426	1427	1427	795	1422	1422	1420	1420	1418
35 Total Cogeneration	2905	2905	2909	2927	2939	2948	2950	2946	2310	2454	2454	2323	2630	2903

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Table A-10
Large Thermal
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Boardman: Coal-														
1 Idaho Power Company	58	58	58	58	58	58	58	58	58	58	58	0	58	58
2 Portland General Electric	378	378	378	378	378	378	378	378	378	378	378	0	378	378
3 San Diego Gas & Electric	86	86	86	86	86	86	86	86	86	86	86	0	86	86
4 Turlock Irrigation District	58	58	58	58	58	58	58	58	58	58	58	0	58	58
5 Boardman: Regional Total	580	580	580	580	580	580	580	580	580	580	580	0	580	580
-Centralia #1: Coal-														
6 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	0	0	670	670	670
7 Centralia #1: Regional Total	670	670	670	670	670	670	670	670	670	0	0	670	670	670
-Centralia #2: Coal-														
8 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	670	670	670
9 Centralia #2: Regional Total	670	670	670	670	670	670	670	670	670	670	670	670	670	670
-Colstrip #1: Coal-														
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
12 Colstrip #1: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #2: Coal-														
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
15 Colstrip #2: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #3: Coal-														
16 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
19 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
20 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
21 Colstrip #3: Regional Total	518	518	518	518	518	518	518	518	518	518	518	518	518	518
-Colstrip #4: Coal-														
22 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
23 Northwestern Energy LLC (MPC)	222	222	222	222	222	222	222	222	222	222	222	222	222	222
24 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
25 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
26 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
27 Colstrip #4: Regional Total	740	740	740	740	740	740	740	740	740	740	740	740	740	740
-Columbia Generating Station: Uranium-														
28 BPA - Power Business	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
29 Columbia Generating Station: Regional Total	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
-Jim Bridger #1: Coal-														
30 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	0	0	177	177
31 Pacific Power	353	353	353	353	353	353	353	353	353	353	0	0	353	353
32 Jim Bridger #1: Regional Total	530	530	530	530	530	530	530	530	530	530	0	0	530	530
-Jim Bridger #2: Coal-														
33 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
34 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
35 Jim Bridger #2: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
-Jim Bridger #3: Coal-														
36 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
37 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
38 Jim Bridger #3: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530

Continued

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Jim Bridger #4: Coal-</i>														
39 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
40 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
41 Jim Bridger #4: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
<i>-Valmy #1: Coal-</i>														
42 Idaho Power Company	127	127	127	127	127	127	127	127	127	127	127	127	127	127
43 Valmy #1: Regional Total	127	127	127	127	127	127	127	127	127	127	127	127	127	127
<i>-Valmy #2: Coal-</i>														
44 Idaho Power Company	134	134	134	134	134	134	134	134	134	134	134	134	134	134
45 Valmy #2: Regional Total	134	134	134	134	134	134	134	134	134	134	134	134	134	134
<i>-Total Large Thermal-</i>														
46 Federal System	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
47 Public Entities	58	58	58	58	58	58	58	58	58	58	58	0	58	58
48 Investor-Owned Entities	4468	4468	4468	4468	4468	4468	4468	4468	4468	4468	3938	3416	4468	4468
49 Other Entities	1340	1340	1340	1340	1340	1340	1340	1340	1340	670	670	1340	1340	1340
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	6346	5816	5906	7016	7016

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2010 - 2011 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Boardman: Coal-														
1 Idaho Power Company	58	58	58	58	58	58	58	58	58	58	0	0	58	58
2 Portland General Electric	378	378	378	378	378	378	378	378	378	378	0	0	378	378
3 San Diego Gas & Electric	86	86	86	86	86	86	86	86	86	86	0	0	86	86
4 Turlock Irrigation District	58	58	58	58	58	58	58	58	58	58	0	0	58	58
5 Boardman: Regional Total	580	580	580	580	580	580	580	580	580	580	0	0	580	580
-Centralia #1: Coal-														
6 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	670	670	670
7 Centralia #1: Regional Total	670	670	670	670	670	670	670	670	670	670	670	670	670	670
-Centralia #2: Coal-														
8 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	0	0	670	670	670
9 Centralia #2: Regional Total	670	670	670	670	670	670	670	670	670	0	0	670	670	670
-Colstrip #1: Coal-														
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
12 Colstrip #1: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #2: Coal-														
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
15 Colstrip #2: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #3: Coal-														
16 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
19 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
20 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
21 Colstrip #3: Regional Total	518	518	518	518	518	518	518	518	518	518	518	518	518	518
-Colstrip #4: Coal-														
22 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
23 Northwestern Energy LLC (MPC)	222	222	222	222	222	222	222	222	222	222	222	222	222	222
24 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
25 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
26 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
27 Colstrip #4: Regional Total	740	740	740	740	740	740	740	740	740	740	740	740	740	740
-Columbia Generating Station: Uranium-														
28 BPA - Power Business	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	0	1150
29 Columbia Generating Station: Regional Total	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	0	1150
-Jim Bridger #1: Coal-														
30 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
31 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
32 Jim Bridger #1: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
-Jim Bridger #2: Coal-														
33 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
34 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
35 Jim Bridger #2: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
-Jim Bridger #3: Coal-														
36 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
37 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
38 Jim Bridger #3: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530

Continued

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2010 - 2011 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Jim Bridger #4: Coal-</i>														
39 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
40 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
41 Jim Bridger #4: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
<i>-Valmy #1: Coal-</i>														
42 Idaho Power Company	127	127	127	127	127	127	127	127	127	127	127	127	127	127
43 Valmy #1: Regional Total	127	127	127	127	127	127	127	127	127	127	127	127	127	127
<i>-Valmy #2: Coal-</i>														
44 Idaho Power Company	134	134	134	134	134	134	134	134	134	134	134	134	134	134
45 Valmy #2: Regional Total	134	134	134	134	134	134	134	134	134	134	134	134	134	134
<i>-Total Large Thermal-</i>														
46 Federal System	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	0	1150
47 Public Entities	58	58	58	58	58	58	58	58	58	58	0	0	58	58
48 Investor-Owned Entities	4468	4468	4468	4468	4468	4468	4468	4468	4468	4468	3946	3946	4468	4468
49 Other Entities	1340	1340	1340	1340	1340	1340	1340	1340	1340	670	670	1340	1340	1340
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	6346	4616	5286	5866	7016

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2011 - 2012 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Boardman: Coal-														
1 Idaho Power Company	58	58	58	58	58	58	58	58	58	58	0	0	58	58
2 Portland General Electric	378	378	378	378	378	378	378	378	378	378	0	0	378	378
3 San Diego Gas & Electric	86	86	86	86	86	86	86	86	86	86	0	0	86	86
4 Turlock Irrigation District	58	58	58	58	58	58	58	58	58	58	0	0	58	58
5 Boardman: Regional Total	580	580	580	580	580	580	580	580	580	580	0	0	580	580
-Centralia #1: Coal-														
6 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	0	670	670
7 Centralia #1: Regional Total	670	670	670	670	670	670	670	670	670	670	670	0	670	670
-Centralia #2: Coal-														
8 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	670	670	670
9 Centralia #2: Regional Total	670	670	670	670	670	670	670	670	670	670	670	670	670	670
-Colstrip #1: Coal-														
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
12 Colstrip #1: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #2: Coal-														
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
15 Colstrip #2: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #3: Coal-														
16 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
19 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
20 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
21 Colstrip #3: Regional Total	518	518	518	518	518	518	518	518	518	518	518	518	518	518
-Colstrip #4: Coal-														
22 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	0	0	111	111	111
23 Northwestern Energy LLC (MPC)	222	222	222	222	222	222	222	222	222	0	0	222	222	222
24 Pacific Power	74	74	74	74	74	74	74	74	74	0	0	74	74	74
25 Portland General Electric	148	148	148	148	148	148	148	148	148	0	0	148	148	148
26 Puget Sound Energy	185	185	185	185	185	185	185	185	185	0	0	185	185	185
27 Colstrip #4: Regional Total	740	740	740	740	740	740	740	740	740	0	0	740	740	740
-Columbia Generating Station: Uranium-														
28 BPA - Power Business	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
29 Columbia Generating Station: Regional Total	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
-Jim Bridger #1: Coal-														
30 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
31 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
32 Jim Bridger #1: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
-Jim Bridger #2: Coal-														
33 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
34 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
35 Jim Bridger #2: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
-Jim Bridger #3: Coal-														
36 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
37 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
38 Jim Bridger #3: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530

Continued

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2011 - 2012 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Jim Bridger #4: Coal-</i>														
39 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	0	0	177	177
40 Pacific Power	353	353	353	353	353	353	353	353	353	353	0	0	353	353
41 Jim Bridger #4: Regional Total	530	530	530	530	530	530	530	530	530	530	0	0	530	530
<i>-Valmy #1: Coal-</i>														
42 Idaho Power Company	127	127	127	127	127	127	127	127	127	127	127	127	127	127
43 Valmy #1: Regional Total	127	127	127	127	127	127	127	127	127	127	127	127	127	127
<i>-Valmy #2: Coal-</i>														
44 Idaho Power Company	134	134	134	134	134	134	134	134	134	134	134	134	134	134
45 Valmy #2: Regional Total	134	134	134	134	134	134	134	134	134	134	134	134	134	134
<i>-Total Large Thermal-</i>														
46 Federal System	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
47 Public Entities	58	58	58	58	58	58	58	58	58	58	0	0	58	58
48 Investor-Owned Entities	4468	4468	4468	4468	4468	4468	4468	4468	4468	3728	2676	3416	4468	4468
49 Other Entities	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	670	1340	1340
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	6276	5166	5236	7016	7016

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2012 - 2013 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Boardman: Coal-														
1 Idaho Power Company	58	58	58	58	58	58	58	58	58	58	0	0	58	58
2 Portland General Electric	378	378	378	378	378	378	378	378	378	378	0	0	378	378
3 San Diego Gas & Electric	86	86	86	86	86	86	86	86	86	86	0	0	86	86
4 Turlock Irrigation District	58	58	58	58	58	58	58	58	58	58	0	0	58	58
5 Boardman: Regional Total	580	580	580	580	580	580	580	580	580	580	0	0	580	580
-Centralia #1: Coal-														
6 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	670	670	670
7 Centralia #1: Regional Total	670	670	670	670	670	670	670	670	670	670	670	670	670	670
-Centralia #2: Coal-														
8 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	0	670	670
9 Centralia #2: Regional Total	670	670	670	670	670	670	670	670	670	670	670	0	670	670
-Colstrip #1: Coal-														
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
12 Colstrip #1: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #2: Coal-														
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
15 Colstrip #2: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #3: Coal-														
16 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
19 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
20 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
21 Colstrip #3: Regional Total	518	518	518	518	518	518	518	518	518	518	518	518	518	518
-Colstrip #4: Coal-														
22 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
23 Northwestern Energy LLC (MPC)	222	222	222	222	222	222	222	222	222	222	222	222	222	222
24 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
25 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
26 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
27 Colstrip #4: Regional Total	740	740	740	740	740	740	740	740	740	740	740	740	740	740
-Columbia Generating Station: Uranium-														
28 BPA - Power Business	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
29 Columbia Generating Station: Regional Total	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
-Jim Bridger #1: Coal-														
30 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
31 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
32 Jim Bridger #1: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
-Jim Bridger #2: Coal-														
33 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	0	177	177	177
34 Pacific Power	353	353	353	353	353	353	353	353	353	353	0	353	353	353
35 Jim Bridger #2: Regional Total	530	530	530	530	530	530	530	530	530	530	0	530	530	530
-Jim Bridger #3: Coal-														
36 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
37 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
38 Jim Bridger #3: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530

Continued

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2012 - 2013 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Jim Bridger #4: Coal-</i>														
39 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
40 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
41 Jim Bridger #4: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
<i>-Valmy #1: Coal-</i>														
42 Idaho Power Company	127	127	127	127	127	127	127	127	127	127	127	127	127	127
43 Valmy #1: Regional Total	127	127	127	127	127	127	127	127	127	127	127	127	127	127
<i>-Valmy #2: Coal-</i>														
44 Idaho Power Company	134	134	134	134	134	134	134	134	134	134	134	134	134	134
45 Valmy #2: Regional Total	134	134	134	134	134	134	134	134	134	134	134	134	134	134
<i>-Total Large Thermal-</i>														
46 Federal System	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
47 Public Entities	58	58	58	58	58	58	58	58	58	58	58	0	0	58
48 Investor-Owned Entities	4468	4468	4468	4468	4468	4468	4468	4468	4468	4468	3416	3946	4468	4468
49 Other Entities	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	670	1340	1340
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	7016	5906	4616	5866	7016

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2013 - 2014 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Boardman: Coal-														
1 Idaho Power Company	58	58	58	58	58	58	58	58	58	58	0	0	58	58
2 Portland General Electric	378	378	378	378	378	378	378	378	378	378	0	0	378	378
3 San Diego Gas & Electric	86	86	86	86	86	86	86	86	86	86	0	0	86	86
4 Turlock Irrigation District	58	58	58	58	58	58	58	58	58	58	0	0	58	58
5 Boardman: Regional Total	580	580	580	580	580	580	580	580	580	580	0	0	580	580
-Centralia #1: Coal-														
6 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	0	670	670
7 Centralia #1: Regional Total	670	670	670	670	670	670	670	670	670	670	670	0	670	670
-Centralia #2: Coal-														
8 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	670	670	670
9 Centralia #2: Regional Total	670	670	670	670	670	670	670	670	670	670	670	670	670	670
-Colstrip #1: Coal-														
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
12 Colstrip #1: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #2: Coal-														
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
15 Colstrip #2: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #3: Coal-														
16 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
19 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
20 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
21 Colstrip #3: Regional Total	518	518	518	518	518	518	518	518	518	518	518	518	518	518
-Colstrip #4: Coal-														
22 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
23 Northwestern Energy LLC (MPC)	222	222	222	222	222	222	222	222	222	222	222	222	222	222
24 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
25 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
26 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
27 Colstrip #4: Regional Total	740	740	740	740	740	740	740	740	740	740	740	740	740	740
-Columbia Generating Station: Uranium-														
28 BPA - Power Business	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
29 Columbia Generating Station: Regional Total	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
-Jim Bridger #1: Coal-														
30 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	0	0	177	177
31 Pacific Power	353	353	353	353	353	353	353	353	353	353	0	0	353	353
32 Jim Bridger #1: Regional Total	530	530	530	530	530	530	530	530	530	530	0	0	530	530
-Jim Bridger #2: Coal-														
33 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
34 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
35 Jim Bridger #2: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
-Jim Bridger #3: Coal-														
36 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
37 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
38 Jim Bridger #3: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530

Continued

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2013 - 2014 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Jim Bridger #4: Coal-</i>														
39 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
40 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
41 Jim Bridger #4: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
<i>-Valmy #1: Coal-</i>														
42 Idaho Power Company	127	127	127	127	127	127	127	127	127	127	127	127	127	127
43 Valmy #1: Regional Total	127	127	127	127	127	127	127	127	127	127	127	127	127	127
<i>-Valmy #2: Coal-</i>														
44 Idaho Power Company	134	134	134	134	134	134	134	134	134	134	134	134	134	134
45 Valmy #2: Regional Total	134	134	134	134	134	134	134	134	134	134	134	134	134	134
<i>-Total Large Thermal-</i>														
46 Federal System	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
47 Public Entities	58	58	58	58	58	58	58	58	58	58	0	0	58	58
48 Investor-Owned Entities	4468	4468	4468	4468	4468	4468	4468	4468	4468	4468	3416	3416	4468	4468
49 Other Entities	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	670	1340	1340
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	7016	5906	5236	7016	7016

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Boardman: Coal-														
1 Idaho Power Company	58	58	58	58	58	58	58	58	58	58	0	0	58	58
2 Portland General Electric	378	378	378	378	378	378	378	378	378	378	0	0	378	378
3 San Diego Gas & Electric	86	86	86	86	86	86	86	86	86	86	0	0	86	86
4 Turlock Irrigation District	58	58	58	58	58	58	58	58	58	58	0	0	58	58
5 Boardman: Regional Total	580	580	580	580	580	580	580	580	580	580	0	0	580	580
-Centralia #1: Coal-														
6 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	670	670	670
7 Centralia #1: Regional Total	670	670	670	670	670	670	670	670	670	670	670	670	670	670
-Centralia #2: Coal-														
8 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	0	670	670
9 Centralia #2: Regional Total	670	670	670	670	670	670	670	670	670	670	670	0	670	670
-Colstrip #1: Coal-														
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
12 Colstrip #1: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #2: Coal-														
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
15 Colstrip #2: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #3: Coal-														
16 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
19 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
20 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
21 Colstrip #3: Regional Total	518	518	518	518	518	518	518	518	518	518	518	518	518	518
-Colstrip #4: Coal-														
22 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	0	0	111	111	111
23 Northwestern Energy LLC (MPC)	222	222	222	222	222	222	222	222	222	0	0	222	222	222
24 Pacific Power	74	74	74	74	74	74	74	74	74	0	0	74	74	74
25 Portland General Electric	148	148	148	148	148	148	148	148	148	0	0	148	148	148
26 Puget Sound Energy	185	185	185	185	185	185	185	185	185	0	0	185	185	185
27 Colstrip #4: Regional Total	740	740	740	740	740	740	740	740	740	0	0	740	740	740
-Columbia Generating Station: Uranium-														
28 BPA - Power Business	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
29 Columbia Generating Station: Regional Total	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
-Jim Bridger #1: Coal-														
30 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
31 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
32 Jim Bridger #1: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
-Jim Bridger #2: Coal-														
33 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
34 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
35 Jim Bridger #2: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
-Jim Bridger #3: Coal-														
36 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
37 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
38 Jim Bridger #3: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530

Continued

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Jim Bridger #4: Coal-</i>														
39 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
40 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
41 Jim Bridger #4: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
<i>-Valmy #1: Coal-</i>														
42 Idaho Power Company	127	127	127	127	127	127	127	127	127	127	127	127	127	127
43 Valmy #1: Regional Total	127	127	127	127	127	127	127	127	127	127	127	127	127	127
<i>-Valmy #2: Coal-</i>														
44 Idaho Power Company	134	134	134	134	134	134	134	134	134	134	134	134	134	134
45 Valmy #2: Regional Total	134	134	134	134	134	134	134	134	134	134	134	134	134	134
<i>-Total Large Thermal-</i>														
46 Federal System	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
47 Public Entities	58	58	58	58	58	58	58	58	58	58	58	0	0	58
48 Investor-Owned Entities	4468	4468	4468	4468	4468	4468	4468	4468	4468	3728	3206	3946	4468	4468
49 Other Entities	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	670	1340	1340
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	6276	5696	4616	5866	7016

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Boardman: Coal-														
1 Idaho Power Company	58	58	58	58	58	58	58	58	58	58	0	0	58	58
2 Portland General Electric	378	378	378	378	378	378	378	378	378	378	0	0	378	378
3 San Diego Gas & Electric	86	86	86	86	86	86	86	86	86	86	0	0	86	86
4 Turlock Irrigation District	58	58	58	58	58	58	58	58	58	58	0	0	58	58
5 Boardman: Regional Total	580	580	580	580	580	580	580	580	580	580	0	0	580	580
-Centralia #1: Coal-														
6 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	0	0	670	670	670
7 Centralia #1: Regional Total	670	670	670	670	670	670	670	670	670	0	0	670	670	670
-Centralia #2: Coal-														
8 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	670	670	670
9 Centralia #2: Regional Total	670	670	670	670	670	670	670	670	670	670	670	670	670	670
-Colstrip #1: Coal-														
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
12 Colstrip #1: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #2: Coal-														
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
15 Colstrip #2: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #3: Coal-														
16 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
19 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
20 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
21 Colstrip #3: Regional Total	518	518	518	518	518	518	518	518	518	518	518	518	518	518
-Colstrip #4: Coal-														
22 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
23 Northwestern Energy LLC (MPC)	222	222	222	222	222	222	222	222	222	222	222	222	222	222
24 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
25 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
26 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
27 Colstrip #4: Regional Total	740	740	740	740	740	740	740	740	740	740	740	740	740	740
-Columbia Generating Station: Uranium-														
28 BPA - Power Business	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
29 Columbia Generating Station: Regional Total	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
-Jim Bridger #1: Coal-														
30 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	0	177	177	177
31 Pacific Power	353	353	353	353	353	353	353	353	353	353	0	353	353	353
32 Jim Bridger #1: Regional Total	530	530	530	530	530	530	530	530	530	530	0	530	530	530
-Jim Bridger #2: Coal-														
33 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
34 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
35 Jim Bridger #2: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
-Jim Bridger #3: Coal-														
36 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
37 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
38 Jim Bridger #3: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530

Continued

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Jim Bridger #4: Coal-</i>														
39 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	0	177	177	177
40 Pacific Power	353	353	353	353	353	353	353	353	353	353	0	353	353	353
41 Jim Bridger #4: Regional Total	530	530	530	530	530	530	530	530	530	530	0	530	530	530
<i>-Valmy #1: Coal-</i>														
42 Idaho Power Company	127	127	127	127	127	127	127	127	127	127	127	127	127	127
43 Valmy #1: Regional Total	127	127	127	127	127	127	127	127	127	127	127	127	127	127
<i>-Valmy #2: Coal-</i>														
44 Idaho Power Company	134	134	134	134	134	134	134	134	134	134	134	134	134	134
45 Valmy #2: Regional Total	134	134	134	134	134	134	134	134	134	134	134	134	134	134
<i>-Total Large Thermal-</i>														
46 Federal System	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
47 Public Entities	58	58	58	58	58	58	58	58	58	58	0	0	58	58
48 Investor-Owned Entities	4468	4468	4468	4468	4468	4468	4468	4468	4468	4468	2886	3946	4468	4468
49 Other Entities	1340	1340	1340	1340	1340	1340	1340	1340	1340	670	670	1340	1340	1340
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	6346	4706	6436	7016	7016

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Boardman: Coal-														
1 Idaho Power Company	58	58	58	58	58	58	58	58	58	58	0	0	58	58
2 Portland General Electric	378	378	378	378	378	378	378	378	378	378	0	0	378	378
3 San Diego Gas & Electric	86	86	86	86	86	86	86	86	86	86	0	0	86	86
4 Turlock Irrigation District	58	58	58	58	58	58	58	58	58	58	0	0	58	58
5 Boardman: Regional Total	580	580	580	580	580	580	580	580	580	580	0	0	580	580
-Centralia #1: Coal-														
6 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	670	670	670
7 Centralia #1: Regional Total	670	670	670	670	670	670	670	670	670	670	670	670	670	670
-Centralia #2: Coal-														
8 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	0	0	670	670	670
9 Centralia #2: Regional Total	670	670	670	670	670	670	670	670	670	0	0	670	670	670
-Colstrip #1: Coal-														
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
12 Colstrip #1: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #2: Coal-														
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
15 Colstrip #2: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #3: Coal-														
16 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
19 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
20 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
21 Colstrip #3: Regional Total	518	518	518	518	518	518	518	518	518	518	518	518	518	518
-Colstrip #4: Coal-														
22 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
23 Northwestern Energy LLC (MPC)	222	222	222	222	222	222	222	222	222	222	222	222	222	222
24 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
25 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
26 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
27 Colstrip #4: Regional Total	740	740	740	740	740	740	740	740	740	740	740	740	740	740
-Columbia Generating Station: Uranium-														
28 BPA - Power Business	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
29 Columbia Generating Station: Regional Total	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
-Jim Bridger #1: Coal-														
30 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
31 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
32 Jim Bridger #1: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
-Jim Bridger #2: Coal-														
33 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	0	177	177
34 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	0	353	353
35 Jim Bridger #2: Regional Total	530	530	530	530	530	530	530	530	530	530	530	0	530	530
-Jim Bridger #3: Coal-														
36 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
37 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
38 Jim Bridger #3: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530

Continued

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Jim Bridger #4: Coal-</i>														
39 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
40 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
41 Jim Bridger #4: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
<i>-Valmy #1: Coal-</i>														
42 Idaho Power Company	127	127	127	127	127	127	127	127	127	127	127	127	127	127
43 Valmy #1: Regional Total	127	127	127	127	127	127	127	127	127	127	127	127	127	127
<i>-Valmy #2: Coal-</i>														
44 Idaho Power Company	134	134	134	134	134	134	134	134	134	134	134	134	134	134
45 Valmy #2: Regional Total	134	134	134	134	134	134	134	134	134	134	134	134	134	134
<i>-Total Large Thermal-</i>														
46 Federal System	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
47 Public Entities	58	58	58	58	58	58	58	58	58	58	58	0	0	58
48 Investor-Owned Entities	4468	4468	4468	4468	4468	4468	4468	4468	4468	4468	3946	3416	4468	4468
49 Other Entities	1340	1340	1340	1340	1340	1340	1340	1340	1340	670	670	1340	1340	1340
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	6346	5766	4756	5866	7016

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2017 - 2018 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Boardman: Coal-														
1 Idaho Power Company	58	58	58	58	58	58	58	58	58	58	0	0	58	58
2 Portland General Electric	378	378	378	378	378	378	378	378	378	378	0	0	378	378
3 San Diego Gas & Electric	86	86	86	86	86	86	86	86	86	86	0	0	86	86
4 Turlock Irrigation District	58	58	58	58	58	58	58	58	58	58	0	0	58	58
5 Boardman: Regional Total	580	580	580	580	580	580	580	580	580	580	0	0	580	580
-Centralia #1: Coal-														
6 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	0	670	670
7 Centralia #1: Regional Total	670	670	670	670	670	670	670	670	670	670	670	0	670	670
-Centralia #2: Coal-														
8 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	670	670	670
9 Centralia #2: Regional Total	670	670	670	670	670	670	670	670	670	670	670	670	670	670
-Colstrip #1: Coal-														
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
12 Colstrip #1: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #2: Coal-														
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
15 Colstrip #2: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #3: Coal-														
16 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
19 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
20 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
21 Colstrip #3: Regional Total	518	518	518	518	518	518	518	518	518	518	518	518	518	518
-Colstrip #4: Coal-														
22 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	0	0	111	111	111
23 Northwestern Energy LLC (MPC)	222	222	222	222	222	222	222	222	222	0	0	222	222	222
24 Pacific Power	74	74	74	74	74	74	74	74	74	0	0	74	74	74
25 Portland General Electric	148	148	148	148	148	148	148	148	148	0	0	148	148	148
26 Puget Sound Energy	185	185	185	185	185	185	185	185	185	0	0	185	185	185
27 Colstrip #4: Regional Total	740	740	740	740	740	740	740	740	740	0	0	740	740	740
-Columbia Generating Station: Uranium-														
28 BPA - Power Business	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
29 Columbia Generating Station: Regional Total	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
-Jim Bridger #1: Coal-														
30 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	0	177	177
31 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	0	353	353
32 Jim Bridger #1: Regional Total	530	530	530	530	530	530	530	530	530	530	530	0	530	530
-Jim Bridger #2: Coal-														
33 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
34 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
35 Jim Bridger #2: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
-Jim Bridger #3: Coal-														
36 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
37 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
38 Jim Bridger #3: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530

Continued

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2017 - 2018 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Jim Bridger #4: Coal-</i>														
39 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	0	177	177	177
40 Pacific Power	353	353	353	353	353	353	353	353	353	353	0	353	353	353
41 Jim Bridger #4: Regional Total	530	530	530	530	530	530	530	530	530	530	0	530	530	530
<i>-Valmy #1: Coal-</i>														
42 Idaho Power Company	127	127	127	127	127	127	127	127	127	127	127	127	127	127
43 Valmy #1: Regional Total	127	127	127	127	127	127	127	127	127	127	127	127	127	127
<i>-Valmy #2: Coal-</i>														
44 Idaho Power Company	134	134	134	134	134	134	134	134	134	134	134	134	134	134
45 Valmy #2: Regional Total	134	134	134	134	134	134	134	134	134	134	134	134	134	134
<i>-Total Large Thermal-</i>														
46 Federal System	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150
47 Public Entities	58	58	58	58	58	58	58	58	58	58	0	0	58	58
48 Investor-Owned Entities	4468	4468	4468	4468	4468	4468	4468	4468	4468	3728	2676	3416	4468	4468
49 Other Entities	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	670	1340	1340
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	6276	5166	5236	7016	7016

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Boardman: Coal-														
1 Idaho Power Company	58	58	58	58	58	58	58	58	58	58	0	0	58	58
2 Portland General Electric	378	378	378	378	378	378	378	378	378	378	0	0	378	378
3 San Diego Gas & Electric	86	86	86	86	86	86	86	86	86	86	0	0	86	86
4 Turlock Irrigation District	58	58	58	58	58	58	58	58	58	58	0	0	58	58
5 Boardman: Regional Total	580	580	580	580	580	580	580	580	580	580	0	0	580	580
-Centralia #1: Coal-														
6 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	670	670	670
7 Centralia #1: Regional Total	670	670	670	670	670	670	670	670	670	670	670	670	670	670
-Centralia #2: Coal-														
8 TransAlta Energy Marketing	670	670	670	670	670	670	670	670	670	670	670	0	670	670
9 Centralia #2: Regional Total	670	670	670	670	670	670	670	670	670	670	670	0	670	670
-Colstrip #1: Coal-														
10 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
12 Colstrip #1: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #2: Coal-														
13 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Puget Sound Energy	154	154	154	154	154	154	154	154	154	154	154	154	154	154
15 Colstrip #2: Regional Total	154	154	154	154	154	154	154	154	154	154	154	154	154	154
-Colstrip #3: Coal-														
16 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
17 Northwestern Energy LLC (MPC)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
19 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
20 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
21 Colstrip #3: Regional Total	518	518	518	518	518	518	518	518	518	518	518	518	518	518
-Colstrip #4: Coal-														
22 Avista Corp (WWP Division)	111	111	111	111	111	111	111	111	111	111	111	111	111	111
23 Northwestern Energy LLC (MPC)	222	222	222	222	222	222	222	222	222	222	222	222	222	222
24 Pacific Power	74	74	74	74	74	74	74	74	74	74	74	74	74	74
25 Portland General Electric	148	148	148	148	148	148	148	148	148	148	148	148	148	148
26 Puget Sound Energy	185	185	185	185	185	185	185	185	185	185	185	185	185	185
27 Colstrip #4: Regional Total	740	740	740	740	740	740	740	740	740	740	740	740	740	740
-Columbia Generating Station: Uranium-														
28 BPA - Power Business	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
29 Columbia Generating Station: Regional Total	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
-Jim Bridger #1: Coal-														
30 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
31 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
32 Jim Bridger #1: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
-Jim Bridger #2: Coal-														
33 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	0	177	177	177
34 Pacific Power	353	353	353	353	353	353	353	353	353	353	0	353	353	353
35 Jim Bridger #2: Regional Total	530	530	530	530	530	530	530	530	530	530	0	530	530	530
-Jim Bridger #3: Coal-														
36 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
37 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
38 Jim Bridger #3: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530

Continued

Table A-10: Regional Large Thermal
PNW Loads and Resource Study
2018 - 2019 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Jim Bridger #4: Coal-</i>														
39 Idaho Power Company	177	177	177	177	177	177	177	177	177	177	177	177	177	177
40 Pacific Power	353	353	353	353	353	353	353	353	353	353	353	353	353	353
41 Jim Bridger #4: Regional Total	530	530	530	530	530	530	530	530	530	530	530	530	530	530
<i>-Valmy #1: Coal-</i>														
42 Idaho Power Company	127	127	127	127	127	127	127	127	127	127	127	127	127	127
43 Valmy #1: Regional Total	127	127	127	127	127	127	127	127	127	127	127	127	127	127
<i>-Valmy #2: Coal-</i>														
44 Idaho Power Company	134	134	134	134	134	134	134	134	134	134	134	134	134	134
45 Valmy #2: Regional Total	134	134	134	134	134	134	134	134	134	134	134	134	134	134
<i>-Total Large Thermal-</i>														
46 Federal System	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	0	0	1150
47 Public Entities	58	58	58	58	58	58	58	58	58	58	58	0	0	58
48 Investor-Owned Entities	4468	4468	4468	4468	4468	4468	4468	4468	4468	4468	3416	3946	4468	4468
49 Other Entities	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	670	1340	1340
50 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 Total Large Thermal	7016	7016	7016	7016	7016	7016	7016	7016	7016	7016	5906	4616	5866	7016

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Table A-15
Canadian Entitlement Return for Canada
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-BPA Canada-</i>														
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Priest Rapids CER for Canada-</i>														
2 AVWP to BPA	1.7	1.7	1.7	1.7	2.8	2.8	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0
3 COPD to BPA	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
4 EWEB to BPA	0.1	0.1	0.1	0.1	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6 GCPD to BPA	32	32	32	32	25	25	31	31	31	32	32	32	32	32
7 KITD to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
9 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10 PGE to BPA	3.3	3.3	3.3	3.3	5.9	5.9	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.5
11 PNWMtr to BPA	12	12	12	12	11	11	10	10	10	11	11	11	11	11
12 PPL to BPA	0.5	0.5	0.5	0.5	2.4	2.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
13 PSE to BPA	0.3	0.3	0.3	0.3	1.4	1.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
14 SCL to BPA	0.3	0.3	0.3	0.3	0.6	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15 TPU to BPA	0.3	0.3	0.3	0.3	0.6	0.6	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
16 Priest Rapids: Regional Totals	51	51	51	51	51	51	51	51	51	52	52	52	52	52
<i>-Wanapum CER for Canada-</i>														
17 AVWP to BPA	4	4	4	4	2.6	2.6	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
18 COPD to BPA	1.3	1.3	1.3	1.3	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
19 EWEB to BPA	1.1	1.1	1.1	1.1	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20 FGRV to BPA	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
21 GCPD to BPA	18	18	18	18	24	24	30	30	30	31	31	31	31	31
22 KITD to BPA	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23 MCMN to BPA	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
24 MTRF to BPA	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25 PGE to BPA	9.2	9.2	9.2	9.2	5.7	5.7	4.2	4.2	4.2	4.3	4.3	4.3	4.3	4.3
26 PNWMtr to BPA	0	0	0	0	10	10	9.9	9.9	9.9	10	10	10	10	10
27 PPL to BPA	9.2	9.2	9.2	9.2	2.3	2.3	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
28 PSE to BPA	5.3	5.3	5.3	5.3	1.4	1.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
29 SCL to BPA	0	0	0	0	0.6	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 TPU to BPA	0	0	0	0	0.6	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Wanapum: Regional Totals	49	49	49	49	49	49	49	49	49	50	50	50	50	50
<i>-Rock Island P.H. #1 CER for Canada-</i>														
32 APGI to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 CHPD to BPA	9	9	9	9	9	9	9	9	9	9.5	9.5	9.5	9.5	9.5
34 PSE to BPA	9	9	9	9	9	9	9	9	9	9.5	9.5	9.5	9.5	9.5
35 Rock Island P.H. #1: Regional Totals	18	18	18	18	18	18	18	18	18	19	19	19	19	19
<i>-Rock Island P.H. #2 CER for Canada-</i>														
36 APGI to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 CHPD to BPA	6	6	6	6	6	6	6	6	6	6	6	6	6	6
38 PSE to BPA	6	6	6	6	6	6	6	6	6	6	6	6	6	6
39 Rock Island P.H. #2: Regional Totals	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>-Rocky Reach CER for Canada-</i>														
40 APGI to BPA	15	15	15	15	15	15	15	15	15	16	16	16	16	16
41 AVWP to BPA	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0
42 CHPD to BPA	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	10	10	10	10	10
43 DOPD to BPA	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
44 PGE to BPA	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.2	8.2	8.2	8.2	8.2
45 PPL to BPA	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.6	3.6	3.6	3.6	3.6
46 PSE to BPA	25	25	25	25	25	25	25	25	25	26	26	26	26	26
47 Rocky Reach: Regional Totals	65	65	65	65	65	65	65	65	65	68	68	68	68	68
<i>-Wells CER for Canada-</i>														
48 AVWP to BPA	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

Table A-15: Canadian Entitlement Return For Canada
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
49 COLV to BPA	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9
50 DOPD to BPA	12	12	12	12	12	12	12	12	12	12	12	12	12	12
51 OKPD to BPA	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.3	3.3	3.3	3.3	3.3
52 PGE to BPA	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	8.3	8.3	8.3	8.3	8.3
53 PPL to BPA	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.8
54 PSE to BPA	12	12	12	12	12	12	12	12	12	13	13	13	13	13
55 Wells: Regional Totals	41	41	41	41	41	41	41	41	41	43	43	43	43	43
<i>-Total CER For Canada-</i>														
56 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Public Entities	98	98	98	98	98	98	109	109	109	112	112	112	112	112
58 Investor-Owned Entities	111	111	111	111	102	102	92	92	92	96	96	96	96	96
59 Other Entities	26	26	26	26	36	36	35	35	35	36	36	36	36	36
60 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 Total CER For Canada	236	236	236	236	236	236	236	236	236	244	244	244	244	244

Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2010 - 2011 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-BPA Canada-</i>														
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Priest Rapids CER for Canada-</i>														
2 AVWP to BPA	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3 COPD to BPA	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
4 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6 GCPD to BPA	32	32	32	32	32	32	32	32	32	32	32	32	32	32
7 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
9 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10 PGE to BPA	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
11 PNWMtr to BPA	11	11	11	11	11	11	11	11	11	11	11	11	11	11
12 PPL to BPA	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
13 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
14 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15 TPU to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
16 Priest Rapids: Regional Totals	52	52	52	52	52	52	52	52	52	52	52	52	52	52
<i>-Wanapum CER for Canada-</i>														
17 AVWP to BPA	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
18 COPD to BPA	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
19 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
21 GCPD to BPA	31	31	31	31	31	31	31	31	31	31	31	31	31	31
22 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
24 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25 PGE to BPA	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
26 PNWMtr to BPA	10	10	10	10	10	10	10	10	10	10	10	10	10	10
27 PPL to BPA	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
28 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
29 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Wanapum: Regional Totals	50	50	50	50	50	50	50	50	50	50	50	50	50	50
<i>-Rock Island P.H. #1 CER for Canada-</i>														
32 APGI to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 CHPD to BPA	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9	9	9	9	9
34 PSE to BPA	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9	9	9	9	9
35 Rock Island P.H. #1: Regional Totals	19	19	19	19	19	19	19	19	19	18	18	18	18	18
<i>-Rock Island P.H. #2 CER for Canada-</i>														
36 APGI to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37 CHPD to BPA	6	6	6	6	6	6	6	6	6	6	6	6	6	6
38 PSE to BPA	6	6	6	6	6	6	6	6	6	6	6	6	6	6
39 Rock Island P.H. #2: Regional Totals	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>-Rocky Reach CER for Canada-</i>														
40 APGI to BPA	16	16	16	16	16	16	16	16	16	15	15	15	15	15
41 AVWP to BPA	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9
42 CHPD to BPA	10	10	10	10	10	10	10	10	10	10	10	10	10	10
43 DOPD to BPA	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
44 PGE to BPA	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.1	8.1	8.1	8.1	8.1
45 PPL to BPA	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
46 PSE to BPA	26	26	26	26	26	26	26	26	26	26	26	26	26	26
47 Rocky Reach: Regional Totals	68	68	68	68	68	68	68	68	68	67	67	67	67	67
<i>-Wells CER for Canada-</i>														
48 AVWP to BPA	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

Table A-15: Canadian Entitlement Return For Canada
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
49 COLV to BPA	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
50 DOPD to BPA	12	12	12	12	12	12	12	12	12	12	12	12	12	12
51 OKPD to BPA	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
52 PGE to BPA	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
53 PPL to BPA	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
54 PSE to BPA	13	13	13	13	13	13	13	13	13	13	13	13	13	13
55 Wells: Regional Totals	43	43	43	43	43	43	43	43	43	43	43	43	43	43
<i>-Total CER For Canada-</i>														
56 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Public Entities	112	112	112	112	112	112	112	112	112	111	111	111	111	111
58 Investor-Owned Entities	96	96	96	96	96	96	96	96	96	95	95	95	95	95
59 Other Entities	36	36	36	36	36	36	36	36	36	36	36	36	36	36
60 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 Total CER For Canada	244	244	244	244	244	244	244	244	244	242	242	242	242	242

Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2011 - 2012 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-BPA Canada-</i>														
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Priest Rapids CER for Canada-</i>														
2 AVWP to BPA	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9
3 COPD to BPA	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
4 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6 GCPD to BPA	32	32	32	32	32	32	32	32	32	31	31	31	31	31
7 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
9 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10 PGE to BPA	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.4
11 PNWMtr to BPA	11	11	11	11	11	11	11	11	11	10	10	10	10	10
12 PPL to BPA	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
13 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
14 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15 TPU to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
16 Priest Rapids: Regional Totals	52	52	52	52	52	52	52	52	52	51	51	51	51	51
<i>-Wanapum CER for Canada-</i>														
17 AVWP to BPA	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
18 COPD to BPA	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
19 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
21 GCPD to BPA	31	31	31	31	31	31	31	31	31	30	30	30	30	30
22 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
24 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25 PGE to BPA	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.2	4.2	4.2	4.2	4.2
26 PNWMtr to BPA	10	10	10	10	10	10	10	10	10	9.9	9.9	9.9	9.9	9.9
27 PPL to BPA	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5
28 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
29 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Wanapum: Regional Totals	50	50	50	50	50	50	50	50	50	49	49	49	49	49
<i>-Rock Island P.H. #1 CER for Canada-</i>														
32 APGI to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	4.7
33 CHPD to BPA	9	9	9	9	9	9	9	9	9	9	9	9	9	8.8
34 PSE to BPA	9	9	9	9	9	9	9	9	9	9	9	9	9	4.5
35 Rock Island P.H. #1: Regional Totals	18	18	18	18	18	18	18	18	18	18	18	18	18	18
<i>-Rock Island P.H. #2 CER for Canada-</i>														
36 APGI to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	3.1
37 CHPD to BPA	6	6	6	6	6	6	6	6	6	6	6	6	6	5.9
38 PSE to BPA	6	6	6	6	6	6	6	6	6	6	6	6	6	3
39 Rock Island P.H. #2: Regional Totals	12	12	12	12	12	12	12	12	12	12	12	12	12	12
<i>-Rocky Reach CER for Canada-</i>														
40 APGI to BPA	15	15	15	15	18	18	18	18	18	18	18	18	18	17
41 AVWP to BPA	1.9	1.9	1.9	1.9	0	0	0	0	0	0	0	0	0	0
42 CHPD to BPA	10	10	10	10	28	28	28	28	28	28	28	28	28	29
43 DOPD to BPA	1.8	1.8	1.8	1.8	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
44 PGE to BPA	8.1	8.1	8.1	8.1	0	0	0	0	0	0	0	0	0	0
45 PPL to BPA	3.6	3.6	3.6	3.6	0	0	0	0	0	0	0	0	0	0
46 PSE to BPA	26	26	26	26	17	17	17	17	17	16	16	16	16	16
47 Rocky Reach: Regional Totals	67	67	67	67	67	67	67	67	67	66	66	66	66	66
<i>-Wells CER for Canada-</i>														
48 AVWP to BPA	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

Table A-15: Canadian Entitlement Return For Canada
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
49 COLV to BPA	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
50 DOPD to BPA	12	12	12	12	12	12	12	12	12	12	12	12	12	12
51 OKPD to BPA	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.2	3.2
52 PGE to BPA	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.1	8.1	8.1	8.1	8.1
53 PPL to BPA	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
54 PSE to BPA	13	13	13	13	13	13	13	13	13	13	13	13	13	13
55 Wells: Regional Totals	43	43	43	43	43	43	43	43	43	42	42	42	42	42
<i>-Total CER For Canada-</i>														
56 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Public Entities	111	111	111	111	131	131	131	131	131	129	129	129	129	130
58 Investor-Owned Entities	95	95	95	95	72	72	72	72	72	71	71	71	71	63
59 Other Entities	36	36	36	36	39	39	39	39	39	38	38	38	38	45
60 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 Total CER For Canada	242	242	242	242	242	242	242	242	242	238	238	238	238	238

Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2012 - 2013 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-BPA Canada-</i>														
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Priest Rapids CER for Canada-</i>														
2 AVWP to BPA	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
3 COPD to BPA	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
4 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6 GCPD to BPA	31	31	31	31	31	31	31	31	31	31	31	31	31	31
7 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
9 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10 PGE to BPA	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.3	4.3	4.3	4.3	4.3
11 PNWMktr to BPA	10	10	10	10	10	10	10	10	10	10	10	10	10	10
12 PPL to BPA	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
13 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
14 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16 Priest Rapids: Regional Totals	51	51	51	51	51	51	51	51	51	50	50	50	50	50
<i>-Wanapum CER for Canada-</i>														
17 AVWP to BPA	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8
18 COPD to BPA	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
19 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
21 GCPD to BPA	30	30	30	30	30	30	30	30	30	30	30	30	30	30
22 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
24 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25 PGE to BPA	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.1	4.1	4.1	4.1	4.1
26 PNWMktr to BPA	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.7	9.7	9.7	9.7	9.7
27 PPL to BPA	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
28 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
29 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Wanapum: Regional Totals	49	49	49	49	49	49	49	49	49	48	48	48	48	48
<i>-Rock Island P.H. #1 CER for Canada-</i>														
32 APGI to BPA	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
33 CHPD to BPA	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
34 PSE to BPA	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
35 Rock Island P.H. #1: Regional Totals	18	18	18	18	18	18	18	18	18	18	18	18	18	18
<i>-Rock Island P.H. #2 CER for Canada-</i>														
36 APGI to BPA	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.9	2.9	2.9	2.9	2.9
37 CHPD to BPA	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.4	5.4	5.4	5.4	5.4
38 PSE to BPA	3	3	3	3	3	3	3	3	3	2.8	2.8	2.8	2.8	2.8
39 Rock Island P.H. #2: Regional Totals	12	12	12	12	12	12	12	12	12	11	11	11	11	11
<i>-Rocky Reach CER for Canada-</i>														
40 APGI to BPA	17	17	17	17	17	17	17	17	17	17	17	17	17	17
41 AVWP to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 CHPD to BPA	29	29	29	29	29	29	29	29	29	28	28	28	28	28
43 DOPD to BPA	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.6	3.6	3.6	3.6	3.6
44 PGE to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 PPL to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46 PSE to BPA	16	16	16	16	16	16	16	16	16	16	16	16	16	16
47 Rocky Reach: Regional Totals	66	66	66	66	66	66	66	66	66	65	65	65	65	65
<i>-Wells CER for Canada-</i>														
48 AVWP to BPA	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

Table A-15: Canadian Entitlement Return For Canada
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
49 COLV to BPA	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
50 DOPD to BPA	12	12	12	12	12	12	12	12	12	12	12	12	12	12
51 OKPD to BPA	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
52 PGE to BPA	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
53 PPL to BPA	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
54 PSE to BPA	13	13	13	13	13	13	13	13	13	13	13	13	13	13
55 Wells: Regional Totals	42	42	42	42	42	42	42	42	42	42	42	42	42	42
<i>-Total CER For Canada-</i>														
56 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Public Entities	130	130	130	130	130	130	130	130	130	127	127	127	127	127
58 Investor-Owned Entities	63	63	63	63	63	63	63	63	63	62	62	62	62	62
59 Other Entities	45	45	45	45	45	45	45	45	45	44	44	44	44	44
60 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 Total CER For Canada	238	238	238	238	238	238	238	238	238	234	234	234	234	234

Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2013 - 2014 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-BPA Canada-</i>														
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Priest Rapids CER for Canada-</i>														
2 AVWP to BPA	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
3 COPD to BPA	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
4 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6 GCPD to BPA	31	31	31	31	31	31	31	31	31	31	31	31	31	31
7 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
9 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10 PGE to BPA	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
11 PNWMktr to BPA	10	10	10	10	10	10	10	10	10	10	10	10	10	10
12 PPL to BPA	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
13 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
14 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16 Priest Rapids: Regional Totals	50	50	50	50	50	50	50	50	50	50	50	50	50	50
<i>-Wanapum CER for Canada-</i>														
17 AVWP to BPA	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
18 COPD to BPA	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
19 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
21 GCPD to BPA	30	30	30	30	30	30	30	30	30	30	30	30	30	30
22 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
24 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25 PGE to BPA	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
26 PNWMktr to BPA	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
27 PPL to BPA	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
28 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
29 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Wanapum: Regional Totals	48	48	48	48	48	48	48	48	48	48	48	48	48	48
<i>-Rock Island P.H. #1 CER for Canada-</i>														
32 APGI to BPA	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
33 CHPD to BPA	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
34 PSE to BPA	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
35 Rock Island P.H. #1: Regional Totals	18	18	18	18	18	18	18	18	18	18	18	18	18	18
<i>-Rock Island P.H. #2 CER for Canada-</i>														
36 APGI to BPA	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
37 CHPD to BPA	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
38 PSE to BPA	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
39 Rock Island P.H. #2: Regional Totals	11	11	11	11	11	11	11	11	11	11	11	11	11	11
<i>-Rocky Reach CER for Canada-</i>														
40 APGI to BPA	17	17	17	17	17	17	17	17	17	17	17	17	17	17
41 AVWP to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 CHPD to BPA	28	28	28	28	28	28	28	28	28	28	28	28	28	28
43 DOPD to BPA	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
44 PGE to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 PPL to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46 PSE to BPA	16	16	16	16	16	16	16	16	16	16	16	16	16	16
47 Rocky Reach: Regional Totals	65	65	65	65	65	65	65	65	65	65	65	65	65	65
<i>-Wells CER for Canada-</i>														
48 AVWP to BPA	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

Table A-15: Canadian Entitlement Return For Canada
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
49 COLV to BPA	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8
50 DOPD to BPA	12	12	12	12	12	12	12	12	12	12	12	12	12	12
51 OKPD to BPA	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.1	3.1
52 PGE to BPA	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	7.9	7.9	7.9	7.9	7.9
53 PPL to BPA	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7
54 PSE to BPA	13	13	13	13	13	13	13	13	13	12	12	12	12	12
55 Wells: Regional Totals	42	42	42	42	42	42	42	42	42	41	41	41	41	41
<i>-Total CER For Canada-</i>														
56 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Public Entities	127	127	127	127	127	127	127	127	127	127	127	127	127	127
58 Investor-Owned Entities	62	62	62	62	62	62	62	62	62	62	62	62	62	62
59 Other Entities	44	44	44	44	44	44	44	44	44	44	44	44	44	44
60 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 Total CER For Canada	234	234	234	234	234	234	234	234	234	233	233	233	233	233

Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-BPA Canada-</i>														
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Priest Rapids CER for Canada-</i>														
2 AVWP to BPA	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
3 COPD to BPA	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
4 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6 GCPD to BPA	31	31	31	31	31	31	31	31	31	31	31	31	31	31
7 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
9 MTFR to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10 PGE to BPA	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
11 PNWMktr to BPA	10	10	10	10	10	10	10	10	10	10	10	10	10	10
12 PPL to BPA	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
13 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
14 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16 Priest Rapids: Regional Totals	50	50	50	50	50	50	50	50	50	50	50	50	50	50
<i>-Wanapum CER for Canada-</i>														
17 AVWP to BPA	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
18 COPD to BPA	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8
19 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
21 GCPD to BPA	30	30	30	30	30	30	30	30	30	29	29	29	29	29
22 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
24 MTFR to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25 PGE to BPA	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
26 PNWMktr to BPA	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.5	9.5	9.5	9.5	9.5
27 PPL to BPA	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
28 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
29 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Wanapum: Regional Totals	48	48	48	48	48	48	48	48	48	47	47	47	47	47
<i>-Rock Island P.H. #1 CER for Canada-</i>														
32 APGI to BPA	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
33 CHPD to BPA	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
34 PSE to BPA	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
35 Rock Island P.H. #1: Regional Totals	18	18	18	18	18	18	18	18	18	18	18	18	18	18
<i>-Rock Island P.H. #2 CER for Canada-</i>														
36 APGI to BPA	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
37 CHPD to BPA	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
38 PSE to BPA	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
39 Rock Island P.H. #2: Regional Totals	11	11	11	11	11	11	11	11	11	11	11	11	11	11
<i>-Rocky Reach CER for Canada-</i>														
40 APGI to BPA	17	17	17	17	17	17	17	17	17	17	17	17	17	17
41 AVWP to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 CHPD to BPA	28	28	28	28	28	28	28	28	28	28	28	28	28	28
43 DOPD to BPA	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
44 PGE to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 PPL to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46 PSE to BPA	16	16	16	16	16	16	16	16	16	16	16	16	16	16
47 Rocky Reach: Regional Totals	65	65	65	65	65	65	65	65	65	65	65	65	65	65
<i>-Wells CER for Canada-</i>														
48 AVWP to BPA	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.3

Table A-15: Canadian Entitlement Return For Canada
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
49 COLV to BPA	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
50 DOPD to BPA	12	12	12	12	12	12	12	12	12	11	11	11	11	11
51 OKPD to BPA	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
52 PGE to BPA	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.8	7.8	7.8	7.8	7.8
53 PPL to BPA	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.6
54 PSE to BPA	12	12	12	12	12	12	12	12	12	12	12	12	12	12
55 Wells: Regional Totals	41	41	41	41	41	41	41	41	41	40	40	40	40	40
<i>-Total CER For Canada-</i>														
56 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Public Entities	127	127	127	127	127	127	127	127	127	126	126	126	126	126
58 Investor-Owned Entities	62	62	62	62	62	62	62	62	62	61	61	61	61	61
59 Other Entities	44	44	44	44	44	44	44	44	44	44	44	44	44	44
60 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 Total CER For Canada	233	233	233	233	233	233	233	233	233	231	231	231	231	231

Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-BPA Canada-</i>														
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Priest Rapids CER for Canada-</i>														
2 AVWP to BPA	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8
3 COPD to BPA	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
4 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6 GCPD to BPA	31	31	31	31	31	31	31	31	31	30	30	30	30	30
7 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
9 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10 PGE to BPA	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.1	4.1	4.1	4.1	4.1
11 PNWMtr to BPA	10	10	10	10	10	10	10	10	10	9.7	9.7	9.7	9.7	9.7
12 PPL to BPA	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5
13 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
14 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16 Priest Rapids: Regional Totals	50	50	50	50	50	50	50	50	50	48	48	48	48	48
<i>-Wanapum CER for Canada-</i>														
17 AVWP to BPA	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7
18 COPD to BPA	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
19 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
21 GCPD to BPA	29	29	29	29	29	29	29	29	29	28	28	28	28	28
22 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
24 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25 PGE to BPA	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.0	4.0	4.0	4.0	4.0
26 PNWMtr to BPA	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.3	9.3	9.3	9.3	9.3
27 PPL to BPA	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
28 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
29 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Wanapum: Regional Totals	47	47	47	47	47	47	47	47	47	46	46	46	46	46
<i>-Rock Island P.H. #1 CER for Canada-</i>														
32 APGI to BPA	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.4	4.4	4.4	4.4	4.4
33 CHPD to BPA	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.3	8.3	8.3	8.3	8.3
34 PSE to BPA	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.3	4.3	4.3	4.3	4.3
35 Rock Island P.H. #1: Regional Totals	18	18	18	18	18	18	18	18	18	17	17	17	17	17
<i>-Rock Island P.H. #2 CER for Canada-</i>														
36 APGI to BPA	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
37 CHPD to BPA	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
38 PSE to BPA	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
39 Rock Island P.H. #2: Regional Totals	11	11	11	11	11	11	11	11	11	11	11	11	11	11
<i>-Rocky Reach CER for Canada-</i>														
40 APGI to BPA	17	17	17	17	17	17	17	17	17	16	16	16	16	16
41 AVWP to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 CHPD to BPA	28	28	28	28	28	28	28	28	28	27	27	27	27	27
43 DOPD to BPA	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5	3.5
44 PGE to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 PPL to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46 PSE to BPA	16	16	16	16	16	16	16	16	16	16	16	16	16	16
47 Rocky Reach: Regional Totals	65	65	65	65	65	65	65	65	65	63	63	63	63	63
<i>-Wells CER for Canada-</i>														
48 AVWP to BPA	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3

Table A-15: Canadian Entitlement Return For Canada
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
49 COLV to BPA	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
50 DOPD to BPA	11	11	11	11	11	11	11	11	11	11	11	11	11	11
51 OKPD to BPA	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
52 PGE to BPA	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
53 PPL to BPA	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
54 PSE to BPA	12	12	12	12	12	12	12	12	12	12	12	12	12	12
55 Wells: Regional Totals	40	40	40	40	40	40	40	40	40	40	40	40	40	40
<i>-Total CER For Canada-</i>														
56 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Public Entities	126	126	126	126	126	126	126	126	126	123	123	123	123	123
58 Investor-Owned Entities	61	61	61	61	61	61	61	61	61	60	60	60	60	60
59 Other Entities	44	44	44	44	44	44	44	44	44	43	43	43	43	43
60 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 Total CER For Canada	231	231	231	231	231	231	231	231	231	225	225	225	225	225

Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-BPA Canada-</i>														
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Priest Rapids CER for Canada-</i>														
2 AVWP to BPA	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
3 COPD to BPA	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
4 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6 GCPD to BPA	30	30	30	30	30	30	30	30	30	30	30	30	30	30
7 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
9 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10 PGE to BPA	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
11 PNWMktr to BPA	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
12 PPL to BPA	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
13 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
14 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16 Priest Rapids: Regional Totals	48	48	48	48	48	48	48	48	48	48	48	48	48	48
<i>-Wanapum CER for Canada-</i>														
17 AVWP to BPA	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
18 COPD to BPA	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
19 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
21 GCPD to BPA	28	28	28	28	28	28	28	28	28	28	28	28	28	28
22 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
24 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25 PGE to BPA	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.9	3.9	3.9	3.9	3.9
26 PNWMktr to BPA	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.1	9.1	9.1	9.1	9.1
27 PPL to BPA	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
28 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
29 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Wanapum: Regional Totals	46	46	46	46	46	46	46	46	46	45	45	45	45	45
<i>-Rock Island P.H. #1 CER for Canada-</i>														
32 APGI to BPA	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
33 CHPD to BPA	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
34 PSE to BPA	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
35 Rock Island P.H. #1: Regional Totals	17	17	17	17	17	17	17	17	17	17	17	17	17	17
<i>-Rock Island P.H. #2 CER for Canada-</i>														
36 APGI to BPA	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
37 CHPD to BPA	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
38 PSE to BPA	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
39 Rock Island P.H. #2: Regional Totals	11	11	11	11	11	11	11	11	11	11	11	11	11	11
<i>-Rocky Reach CER for Canada-</i>														
40 APGI to BPA	16	16	16	16	16	16	16	16	16	16	16	16	16	16
41 AVWP to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 CHPD to BPA	27	27	27	27	27	27	27	27	27	27	27	27	27	27
43 DOPD to BPA	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
44 PGE to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 PPL to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46 PSE to BPA	16	16	16	16	16	16	16	16	16	16	16	16	16	16
47 Rocky Reach: Regional Totals	63	63	63	63	63	63	63	63	63	63	63	63	63	63
<i>-Wells CER for Canada-</i>														
48 AVWP to BPA	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3

Table A-15: Canadian Entitlement Return For Canada
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
49 COLV to BPA	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
50 DOPD to BPA	11	11	11	11	11	11	11	11	11	11	11	11	11	11
51 OKPD to BPA	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0
52 PGE to BPA	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.6	7.6	7.6	7.6	7.6
53 PPL to BPA	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
54 PSE to BPA	12	12	12	12	12	12	12	12	12	12	12	12	12	12
55 Wells: Regional Totals	40	40	40	40	40	40	40	40	40	39	39	39	39	39
-Total CER For Canada-														
56 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Public Entities	123	123	123	123	123	123	123	123	123	121	121	121	121	121
58 Investor-Owned Entities	60	60	60	60	60	60	60	60	60	59	59	59	59	59
59 Other Entities	43	43	43	43	43	43	43	43	43	43	43	43	43	43
60 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 Total CER For Canada	225	225	225	225	225	225	225	225	225	223	223	223	223	223

Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2017 - 2018 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-BPA Canada-</i>														
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Priest Rapids CER for Canada-</i>														
2 AVWP to BPA	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
3 COPD to BPA	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8
4 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6 GCPD to BPA	30	30	30	30	30	30	30	30	30	29	29	29	29	29
7 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
9 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10 PGE to BPA	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
11 PNWMktr to BPA	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.5	9.5	9.5	9.5	9.5
12 PPL to BPA	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
13 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
14 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16 Priest Rapids: Regional Totals	48	48	48	48	48	48	48	48	48	47	47	47	47	47
<i>-Wanapum CER for Canada-</i>														
17 AVWP to BPA	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
18 COPD to BPA	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
19 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
21 GCPD to BPA	28	28	28	28	28	28	28	28	28	28	28	28	28	28
22 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
24 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25 PGE to BPA	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
26 PNWMktr to BPA	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
27 PPL to BPA	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
28 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
29 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Wanapum: Regional Totals	45	45	45	45	45	45	45	45	45	45	45	45	45	45
<i>-Rock Island P.H. #1 CER for Canada-</i>														
32 APGI to BPA	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.7	4.7	4.7	4.7	4.7
33 CHPD to BPA	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.8	8.8	8.8	8.8	8.8
34 PSE to BPA	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.5	4.5	4.5	4.5	4.5
35 Rock Island P.H. #1: Regional Totals	17	17	17	17	17	17	17	17	17	18	18	18	18	18
<i>-Rock Island P.H. #2 CER for Canada-</i>														
36 APGI to BPA	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.6	2.6	2.6	2.6	2.6
37 CHPD to BPA	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	4.9	4.9	4.9	4.9	4.9
38 PSE to BPA	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.5	2.5	2.5	2.5	2.5
39 Rock Island P.H. #2: Regional Totals	11	11	11	11	11	11	11	11	11	10	10	10	10	10
<i>-Rocky Reach CER for Canada-</i>														
40 APGI to BPA	16	16	16	16	16	16	16	16	16	16	16	16	16	16
41 AVWP to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 CHPD to BPA	27	27	27	27	27	27	27	27	27	27	27	27	27	27
43 DOPD to BPA	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.4	3.4	3.4	3.4
44 PGE to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 PPL to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46 PSE to BPA	16	16	16	16	16	16	16	16	16	16	16	16	16	16
47 Rocky Reach: Regional Totals	63	63	63	63	63	63	63	63	63	62	62	62	62	62
<i>-Wells CER for Canada-</i>														
48 AVWP to BPA	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3

Table A-15: Canadian Entitlement Return For Canada
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
49 COLV to BPA	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
50 DOPD to BPA	11	11	11	11	11	11	11	11	11	11	11	11	11	11
51 OKPD to BPA	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
52 PGE to BPA	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
53 PPL to BPA	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
54 PSE to BPA	12	12	12	12	12	12	12	12	12	12	12	12	12	12
55 Wells: Regional Totals	39	39	39	39	39	39	39	39	39	39	39	39	39	39
<i>-Total CER For Canada-</i>														
56 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Public Entities	121	121	121	121	121	121	121	121	121	120	120	120	120	120
58 Investor-Owned Entities	59	59	59	59	59	59	59	59	59	59	59	59	59	59
59 Other Entities	43	43	43	43	43	43	43	43	43	42	42	42	42	42
60 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 Total CER For Canada	223	223	223	223	223	223	223	223	223	221	221	221	221	221

Table A-15: Canadian Entitlement Return For Canada
PNW Loads and Resource Study
2018 - 2019 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-BPA Canada-</i>														
1 BPA: Regional Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Priest Rapids CER for Canada-</i>														
2 AVWP to BPA	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
3 COPD to BPA	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
4 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6 GCPD to BPA	29	29	29	29	29	29	29	29	29	29	29	29	29	29
7 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
9 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
10 PGE to BPA	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
11 PNWMktr to BPA	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
12 PPL to BPA	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
13 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
14 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16 Priest Rapids: Regional Totals	47	47	47	47	47	47	47	47	47	47	47	47	47	47
<i>-Wanapum CER for Canada-</i>														
17 AVWP to BPA	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
18 COPD to BPA	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
19 EWEB to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20 FGRV to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
21 GCPD to BPA	28	28	28	28	28	28	28	28	28	28	28	28	28	28
22 KITT to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23 MCMN to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
24 MTRF to BPA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25 PGE to BPA	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
26 PNWMktr to BPA	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
27 PPL to BPA	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
28 PSE to BPA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
29 SCL to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 TPU to BPA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Wanapum: Regional Totals	45	45	45	45	45	45	45	45	45	45	45	45	45	45
<i>-Rock Island P.H. #1 CER for Canada-</i>														
32 APGI to BPA	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.4	4.4	4.4	4.4	4.4
33 CHPD to BPA	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.3	8.3	8.3	8.3	8.3
34 PSE to BPA	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.3	4.3	4.3	4.3	4.3
35 Rock Island P.H. #1: Regional Totals	18	18	18	18	18	18	18	18	18	17	17	17	17	17
<i>-Rock Island P.H. #2 CER for Canada-</i>														
36 APGI to BPA	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
37 CHPD to BPA	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
38 PSE to BPA	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
39 Rock Island P.H. #2: Regional Totals	10	10	10	10	10	10	10	10	10	10	10	10	10	10
<i>-Rocky Reach CER for Canada-</i>														
40 APGI to BPA	16	16	16	16	16	16	16	16	16	16	16	16	16	16
41 AVWP to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 CHPD to BPA	27	27	27	27	27	27	27	27	27	27	27	27	27	27
43 DOPD to BPA	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
44 PGE to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 PPL to BPA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46 PSE to BPA	16	16	16	16	16	16	16	16	16	15	15	15	15	15
47 Rocky Reach: Regional Totals	62	62	62	62	62	62	62	62	62	61	61	61	61	61
<i>-Wells CER for Canada-</i>														
48 AVWP to BPA	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3

Table A-15: Canadian Entitlement Return For Canada
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
49 COLV to BPA	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
50 DOPD to BPA	11	11	11	11	11	11	11	11	11	11	11	11	11	11
51 OKPD to BPA	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
52 PGE to BPA	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
53 PPL to BPA	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
54 PSE to BPA	12	12	12	12	12	12	12	12	12	12	12	12	12	12
55 Wells: Regional Totals	39	39	39	39	39	39	39	39	39	39	39	39	39	39
<i>-Total CER For Canada-</i>														
56 Federal System	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57 Public Entities	120	120	120	120	120	120	120	120	120	119	119	119	119	119
58 Investor-Owned Entities	59	59	59	59	59	59	59	59	59	58	58	58	58	58
59 Other Entities	42	42	42	42	42	42	42	42	42	42	42	42	42	42
60 Non-NW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 Total CER For Canada	221	221	221	221	221	221	221	221	221	219	219	219	219	219

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Table A-16
Intra-Regional Transfers
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Intra-Regional Transfers-</i>														
1 APGI To PPL C/N/X	99	99	99	99	99	99	99	99	99	99	99	99	99	99
2 AVWP To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 AVWP To PGE CapS	150	150	150	150	150	150	150	150	150	150	150	150	150	150
4 BPA To AVWP WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
5 BPA To CCPD SFIBlk	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 BPA To Other Entities	605	605	400	0	0	0	0	0	0	0	0	230	0	0
7 BPA To PPL PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
8 BPA To PPL CapS	575	575	575	575	575	575	575	575	575	575	575	575	575	575
9 BPA To PPL S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	35	34
10 BPA To PPL S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 BPA To PSE WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
12 BPA To PSE PwrS	0	0	0	0	7	7	7	0	0	0	0	0	0	0
13 CCPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 CHPD To PGE S/N/X	50	50	50	0	0	0	0	0	0	0	0	0	50	50
15 CIDF To UPL PwrS	15	15	0.3	0	0	0	0	0	0	0	0	12	19	20
16 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 EWEB To PGE CapS	10	10	10	10	10	10	10	10	10	10	10	10	10	10
18 GCPD To AVWP PwrS	20	20	19	19	19	19	17	17	18	26	26	32	31	27
19 GCPD To EWEB PwrS	5.5	5.5	5.3	5.3	5.4	5.4	4.9	4.9	4.9	7.3	7.3	8.9	8.8	7.7
20 GCPD To FGRV PwrS	2	2	2	2	1	1	1	1	1	2	2	2	2	2
21 GCPD To FREC PwrS	1	1	1	0	1	1	0	0	0	1	1	1	1	1
22 GCPD To KITT PwrS	1	1	1	1	1	1	0	0	0	1	1	1	1	1
23 GCPD To KOOT PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24 GCPD To LVE PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25 GCPD To LVE PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 GCPD To MCMN PwrS	2	2	2	2	1	1	1	1	1	2	2	2	2	2
27 GCPD To MTRF PwrS	2	2	2	2	1	1	1	1	1	2	2	2	2	2
28 GCPD To PGE PwrS	45	45	43	43	44	44	40	40	40	59	59	72	72	62
29 GCPD To PPL PwrS	45	45	43	43	44	44	40	40	40	59	59	72	72	62
30 GCPD To PPL PwrS	14	14	14	14	14	14	14	14	14	14	14	14	14	14
31 GCPD To PSE PwrS	26	26	25	25	25	25	23	23	23	34	34	42	41	36
32 GCPD To TPU PwrS	21	21	20	20	11	11	9.7	9.8	9.8	15	15	18	18	15
33 GHPD To GHP PwrS	16	16	16	16	16	16	16	16	16	16	16	16	16	16
34 NWCP To PSE PwrS	4	4	4.7	4.9	4.9	4.5	4	4	4.8	4	4	4.4	4.3	4.7
35 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11
36 NWE To PSE PwrS	97	97	97	97	97	97	97	97	97	97	97	97	97	97
37 Other Entities To AVWP	100	100	100	100	100	100	100	100	100	100	100	100	100	100
38 Other Entities To BPA	528	528	224	96	397	398	322	321	313	312	312	15	17	16
39 Other Entities To DOPD	19	19	19	29	51	51	51	51	29	19	19	19	19	19
40 Other Entities To PGE	150	150	150	150	450	550	525	525	425	425	425	125	125	125
41 PGE To AVWP PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 PGE To CHPD S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 PGE To EWEB PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 PGE To PPL Cove Repl	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
45 PPL To APGI C/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46 PPL To APGI C/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47 PPL To BPA S/Pwr/X	0	0	23	23	23	0	0	0	0	0	0	0	0	0
48 PPL To BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49 PPL To BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50 PSE To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 SCL To POPD PwrS	48	48	48	48	48	48	48	48	48	48	48	48	48	48
52 SHPD To PSE PwrS	12	12	12	12	12	12	12	12	0	0	0	0	0	0
53 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104
54 TAUC To AVWP PwrS	201	201	201	201	201	201	201	201	201	100	100	201	201	201
55 Total Contracts	3110	3110	2607	2171	2986	3161	3046	2975	2754	2716	2716	2248	2056	2047
<i>-Total Contracts Out-</i>														
56 Federal System	1310	1310	1107	842	1046	1144	1146	1074	993	994	994	967	718	739
57 Public Entities	355	355	332	276	269	269	252	253	242	310	310	368	426	395
58 Investor-Owned Entities	772	772	795	595	641	618	618	618	611	515	515	565	565	565
59 Other Entities	672	672	372	457	1029	1129	1029	1029	907	897	897	347	347	347
60 Total Contracts Out	3110	3110	2607	2171	2986	3161	3046	2975	2754	2716	2716	2248	2056	2047

Table A-16: Regional Intra-Regional Transfers
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Total Contracts In-</i>														
61 Federal System	539	539	258	130	427	405	329	329	321	323	323	26	29	27
62 Public Entities	308	308	102	111	122	122	119	119	97	99	99	334	103	100
63 Investor-Owned Entities	2248	2248	2231	1915	2421	2619	2583	2512	2321	2278	2278	1873	1909	1904
64 Other Entities	16	16	16	16	16	16	16	16	16	16	16	16	16	16
65 Total Contracts In	3110	3110	2607	2171	2986	3161	3046	2975	2754	2716	2716	2248	2056	2047

Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2010 - 2011 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Intra-Regional Transfers-</i>														
1 APGI To PPL C/N/X	99	99	99	99	99	99	99	99	99	99	99	99	99	0
2 AVWP To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 AVWP To PGE CapS	150	150	150	150	150	150	150	150	150	150	150	150	150	150
4 BPA To AVWP WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
5 BPA To CCPD SFIBlk	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 BPA To Other Entities	188	188	0	0	0	0	0	0	0	0	0	230	0	0
7 BPA To PPL PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
8 BPA To PPL CapS	575	575	575	575	575	575	575	575	575	575	575	575	575	575
9 BPA To PPL S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	35	34
10 BPA To PPL S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 BPA To PSE WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
12 BPA To PSE PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 CCPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 CHPD To PGE S/N/X	50	50	50	50	0	0	0	0	0	0	0	0	0	0
15 CIDF To UPL PwrS	14	14	0.5	0	0	0	0	0	0	0	0	12	19	20
16 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 EWEB To PGE CapS	10	10	10	10	10	10	10	10	10	10	10	10	10	10
18 GCPD To AVWP PwrS	20	20	19	19	19	19	17	17	18	26	26	32	31	27
19 GCPD To EWEB PwrS	5.5	5.5	5.3	5.2	5.4	5.4	4.9	4.9	4.9	7.3	7.3	8.9	8.8	7.7
20 GCPD To FGRV PwrS	2	2	1	1	1	1	1	1	1	2	2	2	2	2
21 GCPD To FREC PwrS	1	1	1	0	1	1	0	0	0	1	1	1	1	1
22 GCPD To KITT PwrS	1	1	0	0	1	1	0	0	0	1	1	1	1	1
23 GCPD To KOOT PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24 GCPD To LVE PwrS	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25 GCPD To LVE PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 GCPD To MCMN PwrS	2	2	1	1	1	1	1	1	1	2	2	2	2	2
27 GCPD To MTRF PwrS	2	2	1	1	1	1	1	1	1	2	2	2	2	2
28 GCPD To PGE PwrS	45	45	43	42	44	44	40	40	40	59	59	72	72	62
29 GCPD To PPL PwrS	45	45	43	42	44	44	40	40	40	59	59	72	72	62
30 GCPD To PPL PwrS	14	14	14	14	14	14	14	14	14	14	14	14	14	14
31 GCPD To PSE PwrS	26	26	25	24	25	25	23	23	23	34	34	42	41	36
32 GCPD To TPU PwrS	11	11	11	10	11	11	9.7	9.8	9.8	15	15	18	18	15
33 GHPD To GHP PwrS	16	16	16	16	16	16	16	16	16	16	16	16	16	16
34 NWCP To PSE PwrS	4	4	4.7	4.9	4.9	4.5	4	4	4.8	4	4	4.4	4.3	4.7
35 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11
36 NWE To PSE PwrS	97	97	97	97	97	97	0	0	0	0	0	0	0	0
37 Other Entities To AVWP	100	100	100	100	100	100	0	0	0	0	0	0	0	0
38 Other Entities To BPA	17	17	14	12	312	313	312	312	311	310	310	12	13	13
39 Other Entities To DOPD	21	21	21	32	56	56	56	56	32	21	21	21	21	21
40 Other Entities To PGE	125	125	125	125	425	425	425	425	425	425	425	125	125	125
41 PGE To AVWP PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 PGE To CHPD S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 PGE To EWEB PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 PGE To PPL Cove Repl	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
45 PPL To APGI C/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46 PPL To APGI C/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47 PPL To BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48 PPL To BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49 PPL To BPA S/Pwr/X	0	0	23	23	23	0	0	0	0	0	0	0	0	0
50 PSE To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51 SCL To POPD PwrS	48	48	48	48	48	48	48	48	48	48	48	48	48	48
52 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104
53 TAUC To AVWP PwrS	201	201	201	201	201	201	201	201	201	201	100	100	201	201
54 Total Contracts	2137	2137	1948	2089	2862	2938	2726	2662	2557	2620	2519	1949	1807	1699
<i>-Total Contracts Out-</i>														
55 Federal System	893	893	707	842	1039	1137	1139	1074	993	994	994	967	718	739
56 Public Entities	329	329	304	298	254	255	238	239	240	308	308	365	371	342
57 Investor-Owned Entities	565	565	588	588	634	611	514	514	514	518	418	368	468	468
58 Other Entities	349	349	349	360	934	934	834	834	810	799	799	249	249	150
59 Total Contracts Out	2137	2137	1948	2089	2862	2938	2726	2662	2557	2620	2519	1949	1807	1699

Table A-16: Regional Intra-Regional Transfers
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Total Contracts In-</i>														
60 Federal System	28	28	48	46	343	320	320	319	319	321	321	23	24	24
61 Public Entities	283	283	91	101	127	127	124	124	100	101	101	336	105	102
62 Investor-Owned Entities	1810	1810	1794	1927	2377	2475	2267	2203	2124	2182	2081	1575	1662	1557
63 Other Entities	16	16	16	16	16	16	16	16	16	16	16	16	16	16
64 Total Contracts In	2137	2137	1948	2089	2862	2938	2726	2662	2557	2620	2519	1949	1807	1699

Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2011 - 2012 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Intra-Regional Transfers-</i>														
1 AVWP To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 AVWP To PGE CapS	150	150	150	150	150	150	150	150	150	150	150	150	150	150
3 BPA To AVWP WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 BPA To AVWP WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
5 BPA To CCPD SFIBlk	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 BPA To Other Entities	19	19	0	0	0	0	0	0	0	0	0	0	0	0
7 BPA To PPL PwrS	130	130	132	0	0	0	0	0	0	0	0	0	0	0
8 BPA To PPL PwrS	0	0	0	267	300	398	400	335	336	337	337	162	108	130
9 BPA To PPL S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 BPA To PPL S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	35	34
11 BPA To PPL S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 BPA To PPL S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 BPA To PPL CapS	575	575	0	0	0	0	0	0	0	0	0	0	0	0
14 BPA To PSE WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 BPA To PSE WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
16 CCPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 CIDF To UPL PwrS	14	14	0.5	0	0	0	0	0	0	0	0	12	18	20
18 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 EWEB To PGE CapS	10	10	10	10	10	10	10	10	10	10	10	10	10	10
20 GCPD To AVWP PwrS	20	20	19	0	0	0	0	0	0	0	0	0	0	0
21 GCPD To EWEB PwrS	5.5	5.5	5.3	0	0	0	0	0	0	0	0	0	0	0
22 GCPD To FGRV PwrS	2	2	1	0	0	0	0	0	0	0	0	0	0	0
23 GCPD To FREC PwrS	1	1	1	0	0	0	0	0	0	0	0	0	0	0
24 GCPD To KITT PwrS	1	1	0	0	0	0	0	0	0	0	0	0	0	0
25 GCPD To KOOT PwrS	1	1	1	0	0	0	0	0	0	0	0	0	0	0
26 GCPD To LVE PwrS	1	1	1	0	0	0	0	0	0	0	0	0	0	0
27 GCPD To LVE PwrS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 GCPD To MCMN PwrS	2	2	1	0	0	0	0	0	0	0	0	0	0	0
29 GCPD To MTFR PwrS	2	2	1	0	0	0	0	0	0	0	0	0	0	0
30 GCPD To PGE PwrS	45	45	43	0	0	0	0	0	0	0	0	0	0	0
31 GCPD To PPL PwrS	45	45	43	0	0	0	0	0	0	0	0	0	0	0
32 GCPD To PPL PwrS	14	14	14	14	14	14	14	14	14	14	14	14	14	14
33 GCPD To PSE PwrS	26	26	25	0	0	0	0	0	0	0	0	0	0	0
34 GCPD To TPU PwrS	11	11	11	0	0	0	0	0	0	0	0	0	0	0
35 GHPD To GHP PwrS	16	16	16	16	16	16	16	16	16	16	16	16	16	16
36 NWCP To PSE PwrS	4	4	4.7	4.9	4.9	4.5	4	4	4.8	4	4	4.4	4.3	4.7
37 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11
38 Other Entities To BPA	14	14	12	4.5	305	305	305	305	305	305	305	4.5	4.5	4.5
39 Other Entities To DOPD	12	12	12	19	33	33	33	33	19	12	12	12	12	12
40 Other Entities To PGE	125	125	125	100	100	100	100	100	100	100	100	100	100	100
41 PGE To AVWP PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 PGE To EWEB PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 PGE To PPL Cove Repl	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
44 PPL To BPA S/Pwr/X	0	0	23	0	0	0	0	0	0	0	0	0	0	0
45 PPL To BPA S/Pwr/X	0	0	0	23	23	0	0	0	0	0	0	0	0	0
46 PPL To BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47 PPL To BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48 PPL To BPA PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49 PSE To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50 SCL To POPD PwrS	48	48	48	48	48	48	48	48	48	48	48	48	48	48
51 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104
52 TAUC To AVWP PwrS	201	201	201	201	201	201	201	201	201	201	201	100	201	201
53 Total Contracts	1609	1609	1016	974	1481	1555	1557	1492	1398	1395	1395	750	837	860
<i>-Total Contracts Out-</i>														
54 Federal System	724	724	132	267	464	562	564	499	418	419	419	162	143	164
55 Public Entities	276	276	251	92	92	92	92	92	92	92	92	104	110	112
56 Investor-Owned Entities	468	468	491	491	537	514	514	514	514	518	518	368	468	468
57 Other Entities	141	141	141	123	387	387	387	387	373	366	366	116	116	116
58 Total Contracts Out	1609	1609	1016	974	1481	1555	1557	1492	1398	1395	1395	750	837	860
<i>-Total Contracts In-</i>														

Continued

Table A-16: Regional Intra-Regional Transfers
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
59 Federal System	25	25	46	39	335	312	312	312	312	316	316	16	16	16
60 Public Entities	105	105	82	67	81	81	81	81	67	60	60	60	60	60
61 Investor-Owned Entities	1463	1463	872	852	1049	1147	1148	1084	1003	1004	1004	658	746	769
62 Other Entities	16	16	16	16	16	16	16	16	16	16	16	16	16	16
63 Total Contracts In	1609	1609	1016	974	1481	1555	1557	1492	1398	1395	1395	750	837	860

Table A-16: Regional Intra-Regional Transfers
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Intra-Regional Transfers-</i>														
1 AVWP To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 AVWP To PGE CapS	150	150	150	150	150	150	150	150	150	150	150	150	150	150
3 BPA To AVWP WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
4 BPA To PPL PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
5 BPA To PPL S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	35	34
6 BPA To PPL S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 BPA To PSE WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
8 CIDF To UPL PwrS	14	14	0.5	0	0	0	0	0	0	0	0	12	18	20
9 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 EWEB To PGE CapS	10	10	10	10	10	10	10	10	10	10	10	10	10	10
11 GCPD To PPL PwrS	14	14	14	14	14	14	14	14	14	14	14	14	14	14
12 GHPD To GHP PwrS	16	16	16	16	16	16	16	16	16	16	16	16	16	16
13 NWCP To PSE PwrS	4	4	4.7	4.9	4.9	4.5	0	0	0	0	0	0	0	0
14 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11
15 Other Entities To BPA	4.5	4.5	4.5	4.5	305	305	305	305	305	305	305	4.5	4.5	4.5
16 Other Entities To DOPD	14	14	14	22	39	39	39	39	22	14	14	14	14	14
17 Other Entities To PGE	100	100	100	100	100	100	100	100	100	100	100	100	100	100
18 PGE To AVWP PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 PGE To EWEB PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 PGE To PPL Cove Repl	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
21 PPL To BPA S/Pwr/X	0	0	23	23	23	0	0	0	0	0	0	0	0	0
22 PPL To BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 PSE To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 SCL To POPD PwrS	48	48	48	48	48	48	48	48	48	48	48	48	48	48
25 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104
26 TAUC To AVWP PwrS	201	201	201	201	201	201	201	201	201	201	201	201	100	201
27 Total Contracts	822	822	834	977	1487	1561	1559	1494	1396	1393	1393	848	734	858
<i>-Total Contracts Out-</i>														
28 Federal System	130	130	132	267	464	562	564	499	418	419	419	162	143	164
29 Public Entities	106	106	93	92	92	92	88	88	88	88	88	100	106	107
30 Investor-Owned Entities	468	468	491	491	537	514	514	514	514	518	518	468	368	468
31 Other Entities	118	118	118	126	393	393	393	393	376	368	368	118	118	118
32 Total Contracts Out	822	822	834	977	1487	1561	1559	1494	1396	1393	1393	848	734	858
<i>-Total Contracts In-</i>														
33 Federal System	16	16	39	39	335	312	312	312	312	316	316	16	16	16
34 Public Entities	62	62	62	70	87	87	87	87	70	62	62	62	62	62
35 Investor-Owned Entities	729	729	718	852	1049	1147	1144	1080	998	1000	1000	755	641	764
36 Other Entities	16	16	16	16	16	16	16	16	16	16	16	16	16	16
37 Total Contracts In	822	822	834	977	1487	1561	1559	1494	1396	1393	1393	848	734	858

Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2013 - 2014 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Intra-Regional Transfers-</i>														
1 AVWP To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 AVWP To PGE CapS	150	150	150	150	150	150	150	150	150	150	150	150	150	150
3 BPA To AVWP WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
4 BPA To PPL PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
5 BPA To PPL S/Pwr/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 BPA To PPL S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 BPA To PSE WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
8 CIDF To UPL PwrS	15	15	0.3	0	0	0	0	0	0	0	0	12	18	20
9 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 EWEB To PGE CapS	10	10	10	10	10	10	10	10	10	10	10	10	0	0
11 GCPD To PPL PwrS	14	14	14	14	14	14	14	14	14	14	14	14	14	14
12 GHPD To GHP PwrS	16	16	16	16	16	16	16	16	16	16	16	16	16	16
13 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11
14 Other Entities To BPA	4.5	4.5	4.5	4.5	255	255	255	255	255	255	255	4.5	4.5	4.5
15 Other Entities To DOPD	16	16	16	24	42	42	42	42	24	16	16	16	16	16
16 Other Entities To PGE	100	100	100	100	100	100	100	100	100	100	100	100	100	100
17 PGE To AVWP PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 PGE To EWEB PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 PGE To PPL Cove Repl	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
20 PPL To BPA S/Pwr/X	0	0	23	23	23	0	0	0	0	0	0	0	0	0
21 PPL To BPA S/N/X	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 PSE To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 SCL To POPD PwrS	48	48	48	48	48	48	48	48	48	48	48	48	48	48
24 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104
25 TAUC To AVWP PwrS	201	201	201	201	201	201	201	201	201	201	201	100	201	201
26 Total Contracts	820	820	831	974	1435	1510	1512	1447	1348	1345	1345	749	792	816
<i>-Total Contracts Out-</i>														
27 Federal System	130	130	132	267	464	562	564	499	418	419	419	162	108	130
28 Public Entities	102	102	88	88	88	88	88	88	88	88	88	99	96	97
29 Investor-Owned Entities	468	468	491	491	537	514	514	514	514	518	518	368	468	468
30 Other Entities	120	120	120	128	346	346	346	346	328	320	320	120	120	120
31 Total Contracts Out	820	820	831	974	1435	1510	1512	1447	1348	1345	1345	749	792	816
<i>-Total Contracts In-</i>														
32 Federal System	16	16	39	39	285	262	262	262	262	266	266	16	16	16
33 Public Entities	64	64	64	72	90	90	90	90	72	64	64	64	64	64
34 Investor-Owned Entities	725	725	713	848	1044	1142	1144	1080	998	1000	1000	654	697	720
35 Other Entities	16	16	16	16	16	16	16	16	16	16	16	16	16	16
36 Total Contracts In	820	820	831	974	1435	1510	1512	1447	1348	1345	1345	749	792	816

Table A-16: Regional Intra-Regional Transfers
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Intra-Regional Transfers-</i>														
1 AVWP To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 AVWP To PGE CapS	150	150	150	150	150	150	150	150	150	150	150	150	150	150
3 BPA To AVWP WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
4 BPA To PPL PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
5 BPA To PSE WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
6 CIDF To UPL PwrS	15	15	0	0	0	0	0	0	0	0	0	12	19	20
7 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 GCPD To PPL PwrS	14	14	14	14	14	14	14	14	14	14	14	14	14	14
9 GHPD To GHP PwrS	16	16	16	16	16	16	16	16	16	16	16	16	16	16
10 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11
11 Other Entities To BPA	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
12 Other Entities To DOPD	18	18	18	27	47	47	47	47	27	18	18	18	18	18
13 Other Entities To PGE	100	100	100	100	100	100	100	100	100	100	100	100	100	100
14 PGE To AVWP PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 PGE To PPL Cove Repl	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
16 PSE To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 SCL To POPD PwrS	48	48	48	48	48	48	48	48	48	48	48	48	48	48
18 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104
19 TAUC To AVWP PwrS	201	201	201	201	201	201	201	201	201	201	201	201	100	201
20 Total Contracts	813	813	800	944	1157	1255	1257	1192	1091	1087	1087	842	694	818
<i>-Total Contracts Out-</i>														
21 Federal System	130	130	132	267	464	562	564	499	418	419	419	162	108	130
22 Public Entities	92	92	78	78	78	78	78	78	78	78	78	89	96	97
23 Investor-Owned Entities	468	468	468	468	464	464	464	464	464	468	468	468	368	468
24 Other Entities	122	122	122	131	151	151	151	151	131	122	122	122	122	122
25 Total Contracts Out	813	813	800	944	1157	1255	1257	1192	1091	1087	1087	842	694	818
<i>-Total Contracts In-</i>														
26 Federal System	16	16	16	16	12	12	12	12	12	16	16	16	16	16
27 Public Entities	66	66	66	75	95	95	95	95	75	66	66	66	66	66
28 Investor-Owned Entities	715	715	702	838	1034	1132	1134	1070	988	990	990	744	597	720
29 Other Entities	16	16	16	16	16	16	16	16	16	16	16	16	16	16
30 Total Contracts In	813	813	800	944	1157	1255	1257	1192	1091	1087	1087	842	694	818

Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Intra-Regional Transfers-</i>														
1 AVWP To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 AVWP To PGE CapS	150	150	150	150	150	150	150	150	150	150	150	150	150	150
3 BPA To AVWP WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
4 BPA To PPL PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
5 BPA To PSE WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
6 CIDF To UPL PwrS	15	15	0.3	0	0	0	0	0	0	0	0	12	19	20
7 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 GCPD To PPL PwrS	14	14	14	14	14	14	14	14	14	14	14	14	14	14
9 GHPD To GHP PwrS	16	16	16	16	16	16	16	16	16	16	16	16	16	16
10 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11
11 Other Entities To BPA	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
12 Other Entities To DOPD	20	20	20	30	53	53	53	53	30	20	20	20	20	20
13 Other Entities To PGE	100	100	100	100	100	100	100	100	100	100	100	100	100	100
14 PGE To AVWP PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 PGE To PPL Cove Repl	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
16 PSE To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 SCL To POPD PwrS	48	48	48	48	48	48	48	48	48	48	48	48	48	48
18 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104
19 TAUC To AVWP PwrS	201	201	201	201	201	201	201	201	201	100	100	201	201	201
20 Total Contracts	814	814	802	947	1163	1261	1263	1198	1094	988	988	844	796	819
<i>-Total Contracts Out-</i>														
21 Federal System	130	130	132	267	464	562	564	499	418	419	419	162	108	130
22 Public Entities	92	92	78	78	78	78	78	78	78	78	78	89	96	97
23 Investor-Owned Entities	468	468	468	468	464	464	464	464	464	368	368	468	468	468
24 Other Entities	124	124	124	134	157	157	157	157	134	124	124	124	124	124
25 Total Contracts Out	814	814	802	947	1163	1261	1263	1198	1094	988	988	844	796	819
<i>-Total Contracts In-</i>														
26 Federal System	16	16	16	16	12	12	12	12	12	16	16	16	16	16
27 Public Entities	68	68	68	78	101	101	101	101	78	68	68	68	68	68
28 Investor-Owned Entities	715	715	703	838	1034	1132	1134	1070	988	889	889	744	697	720
29 Other Entities	16	16	16	16	16	16	16	16	16	16	16	16	16	16
30 Total Contracts In	814	814	802	947	1163	1261	1263	1198	1094	988	988	844	796	819

Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Intra-Regional Transfers-</i>														
1 AVWP To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 AVWP To PGE CapS	150	150	150	150	150	150	0	0	0	0	0	0	0	0
3 BPA To AVWP WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
4 BPA To PPL PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
5 BPA To PSE WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
6 CIDF To UPL PwrS	15	15	0.3	0	0	0	0	0	0	0	0	12	19	20
7 DOPD To Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 GCPD To PPL PwrS	14	14	14	14	14	14	14	14	14	14	14	14	14	14
9 GHPD To GHP PwrS	16	16	16	16	16	16	16	16	16	16	16	16	16	16
10 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11
11 Other Entities To BPA	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
12 Other Entities To DOPD	7	7	7	11	19	19	19	19	11	7	7	7	7	7
13 Other Entities To PGE	100	100	100	0	0	0	0	0	0	0	0	0	0	0
14 PGE To AVWP PkRepl	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 PGE To PPL Cove Repl	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
16 PSE To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 SCL To POPD PwrS	48	48	48	48	48	48	48	48	48	48	48	48	48	48
18 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104
19 TAUC To AVWP PwrS	201	201	201	201	201	201	201	201	201	201	201	201	201	201
20 Total Contracts	801	801	789	828	1029	1127	979	914	825	826	826	581	533	556
<i>-Total Contracts Out-</i>														
21 Federal System	130	130	132	267	464	562	564	499	418	419	419	162	108	130
22 Public Entities	92	92	78	78	78	78	78	78	78	78	78	89	96	97
23 Investor-Owned Entities	468	468	468	368	364	364	214	214	214	218	218	218	218	218
24 Other Entities	111	111	111	115	123	123	123	123	115	111	111	111	111	111
25 Total Contracts Out	801	801	789	828	1029	1127	979	914	825	826	826	581	533	556
<i>-Total Contracts In-</i>														
26 Federal System	16	16	16	16	12	12	12	12	12	16	16	16	16	16
27 Public Entities	55	55	55	59	67	67	67	67	59	55	55	55	55	55
28 Investor-Owned Entities	715	715	703	738	934	1032	884	820	738	740	740	494	447	470
29 Other Entities	16	16	16	16	16	16	16	16	16	16	16	16	16	16
30 Total Contracts In	801	801	789	828	1029	1127	979	914	825	826	826	581	533	556

Table A-16: Regional Intra-Regional Transfers
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Intra-Regional Transfers-</i>														
1 BPA To PPL PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
2 BPA To PSE WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
3 CIDF To UPL PwrS	15	15	0.3	0	0	0	0	0	0	0	0	12	19	20
4 GCPD To PPL PwrS	14	14	14	14	14	14	14	14	14	14	14	14	14	14
5 GHPD To GHP PwrS	16	16	16	16	16	16	16	16	16	16	16	16	16	16
6 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11
7 Other Entities To BPA	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
8 PGE To PPL Cove Repl	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
9 PSE To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 SCL To POPD PwrS	48	48	48	48	48	48	48	48	48	48	48	48	48	48
11 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104
12 TAUC To AVWP PwrS	201	201	201	201	201	201	201	201	201	201	201	201	201	201
13 Total Contracts	544	544	532	667	778	876	878	813	773	778	778	574	526	549
<i>-Total Contracts Out-</i>														
14 Federal System	130	130	132	267	382	480	482	417	377	378	378	162	108	130
15 Public Entities	92	92	78	78	78	78	78	78	78	78	78	89	96	97
16 Investor-Owned Entities	218	218	218	218	214	214	214	214	214	218	218	218	218	218
17 Other Entities	104	104	104	104	104	104	104	104	104	104	104	104	104	104
18 Total Contracts Out	544	544	532	667	778	876	878	813	773	778	778	574	526	549
<i>-Total Contracts In-</i>														
19 Federal System	16	16	16	16	12	12	12	12	12	16	16	16	16	16
20 Public Entities	48	48	48	48	48	48	48	48	48	48	48	48	48	48
21 Investor-Owned Entities	465	465	453	588	702	800	802	738	698	698	698	494	447	470
22 Other Entities	16	16	16	16	16	16	16	16	16	16	16	16	16	16
23 Total Contracts In	544	544	532	667	778	876	878	813	773	778	778	574	526	549

Table A-16: Regional Intra-Regional Transfers
PNW Loads and Resource Study
2018 - 2019 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Intra-Regional Transfers-</i>														
1 BPA To PPL PwrS	130	130	132	267	300	398	400	335	336	337	337	162	108	130
2 BPA To PSE WP3Set	0	0	0	0	82	82	82	82	41	41	41	0	0	0
3 CIDF To UPL PwrS	15	15	0.3	0	0	0	0	0	0	0	0	12	19	20
4 GCPD To PPL PwrS	14	14	14	14	14	14	14	14	14	14	14	14	14	14
5 GHPD To GHP PwrS	16	16	16	16	16	16	16	16	16	16	16	16	16	16
6 NWE To MVP PwrS	11	11	11	11	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11
7 Other Entities To BPA	4.5	4.5	4.5	4.5	4.5	4.5	4.5	0	0	0	0	0	0	0
8 PGE To PPL Cove Repl	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
9 PSE To BPA WP3Set	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 SCL To POPD PwrS	48	48	48	48	48	48	48	48	48	48	48	48	48	48
11 SPN To PGE PwrS	104	104	104	104	104	104	104	104	104	104	104	104	104	104
12 TAUC To AVWP PwrS	201	201	201	201	201	201	0	0	0	0	0	0	0	0
13 Total Contracts	544	544	532	667	778	876	677	607	567	572	572	368	321	344
<i>-Total Contracts Out-</i>														
14 Federal System	130	130	132	267	382	480	482	417	377	378	378	162	108	130
15 Public Entities	92	92	78	78	78	78	78	78	78	78	78	89	96	97
16 Investor-Owned Entities	218	218	218	218	214	214	13	9.0	9.0	13	13	13	13	13
17 Other Entities	104	104	104	104	104	104	104	104	104	104	104	104	104	104
18 Total Contracts Out	544	544	532	667	778	876	677	607	567	572	572	368	321	344
<i>-Total Contracts In-</i>														
19 Federal System	16	16	16	16	12	12	12	7.5	7.5	11	11	11	11	11
20 Public Entities	48	48	48	48	48	48	48	48	48	48	48	48	48	48
21 Investor-Owned Entities	465	465	453	588	702	800	602	536	496	498	498	293	246	269
22 Other Entities	16	16	16	16	16	16	16	16	16	16	16	16	16	16
23 Total Contracts In	544	544	532	667	778	876	677	607	567	572	572	368	321	344

Table A-17
Capacity Reserves
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2009 - 2010 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Hydro Reserves														
-Federal Entities-														
1 BPA - Power Business	523	523	526	530	535	526	518	508	497	479	481	492	520	530
2 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Total Federal Entities	523	523	526	530	535	526	518	508	497	479	481	492	520	530
-Generating Public Entities-														
4 Chelan County PUD #1	14	14	14	14	14	14	14	14	13	14	13	14	14	14
5 Clark County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cowlitz County PUD #1	3.4	3.4	3.4	2.7	3.7	3.3	3.1	3.1	3.2	3.3	1.7	3.7	3.9	3.9
7 Douglas County PUD #1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
8 Eugene Water & Electric Board	2.4	2.3	2.2	1.9	2.1	2.6	2.2	2.5	3.1	3.5	3.5	4.3	4	3.1
9 Grant County PUD #2	19	19	19	19	18	18	23	23	23	23	23	23	23	23
10 Grays Harbor PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Okanogan County PUD #1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
12 Pend Oreille County PUD #1	2.1	2.1	2.1	2	2.1	2.1	2.1	2.1	2.1	2.1	2	2.0	1.9	2
13 Seattle City Light	43	43	39	41	43	43	41	39	38	38	38	40	46	43
14 Snohomish County PUD #1	3.3	3.3	3.3	3.3	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
15 Tacoma Public Utilities	21	20	16	16	15	19	15	14	12	13	13	9.6	17	18
16 Total Generating Public Entities	116	115	107	108	110	114	112	110	106	108	106	109	122	118
-Non-Generating Public Entities-														
17 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Bonners Ferry, City of	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19 Centralia, City of	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
20 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Colville Tribes	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
22 Consumers Power	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Emerald County PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Energy Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Fall River Elec Coop	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
26 Forest Grove, City of	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
27 Idaho Falls Power	0	0	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0	0	0	0	0
28 Kittitas County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
29 Klickitat County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Lower Valley Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 McMinnville, City of	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
34 Milton-Freewater, City of	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
35 Northern Lights	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
36 Northern Wasco County PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
37 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38 Soda Springs, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Total Non-Generating Public Entities	3.0	3.0	3.2	3.2	3.5	3.5	3.5	3.6	3.7	3.3	3.3	3.3	3.3	3.3
-Investor-Owned Entities-														
42 Avista Corp (WWP Division)	29	28	29	29	31	30	29	29	30	30	30	30	30	30
43 Idaho Power Company	38	38	40	41	37	41	39	39	39	43	43	43	41	41
44 Pacific Power	29	29	31	27	32	31	28	28	28	29	25	28	32	30
45 Portland General Electric	27	27	27	27	31	31	30	30	30	30	30	30	30	30
46 PPL Montana, LLC	6.6	6.6	6.6	6.6	6.5	6.5	6.4	6.3	6.2	6.2	6.2	6.4	6.5	6.6
47 Puget Sound Energy	36	36	36	35	37	37	36	36	33	37	37	37	37	37
48 Utah Power	2.5	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.6	2.5	2.5	2.6
49 Total Investor-Owned Entities	168	167	171	167	177	179	171	171	169	177	173	177	178	178
-Other Entities-														
50 Alcoa Power Generating Inc	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.5	7.5	7.5
51 Colockum Transmission Company	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2009 - 2010 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
52 Longview Fibre	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53 Unknown Entity	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54 UnKnown PNW Marketer	4.3	4.3	4.3	4.3	7.9	7.9	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
55 Warm Springs Power Enterprise	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
56 Total Other Entities	15	15	15	15	19	19	18	18	18	18	18	18	18	18
Small Thermal & Misc. Reserves														
-Federal Entities-														
57 BPA - Power Business	1.8	1.8	1.4	1.8	2	1.9	1.9	1.9	1.9	1.8	1.8	2.2	1.8	1.6
58 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59 U.S. Naval Station, Everett (Jim Creek)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
60 U.S. Naval Submarine Base, Bangor	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
61 Total Federal Entities	2.5	2.5	2.1	2.6	2.8	2.6	2.7	2.7	2.6	2.6	2.6	3.0	2.5	2.4
-Generating Public Entities-														
62 Burbank, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63 Chelan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 Clark County PUD #1	0	0	5.4	5.8	5.9	5.9	5.9	5.9	5.8	5.6	5.6	0	5.5	5.1
65 Cowlitz County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
66 Douglas County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 Eugene Water & Electric Board	0.6	0.6	0.6	0.1	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
68 Glendale, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69 Grant County PUD #2	0.4	0.4	0.3	0.2	0	0	0	0	0.2	0.3	0.3	0.4	0.4	0.4
70 Grays Harbor PUD #1	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.9	2.5	2.5
71 Los Angeles Dept of Water	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
72 M-S-R	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
73 Okanogan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74 Sacramento Municipal Utility District	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
75 Seattle City Light	2.4	2.3	1.6	0.8	0.3	0.4	0.4	0.4	0.5	1.5	1.5	3.2	3.6	3.6
76 Snohomish County PUD #1	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.5	1.8	1.8	1.8	1.8	1.8
77 Springfield Utility Board	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78 Tacoma Public Utilities	1.3	1.3	0.8	0.4	0	0	0	0	0.1	0.9	0.9	1.2	1.4	1.5
79 Turlock Irrigation District	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
80 Total Generating Public Entities	12	12	16	14	14	14	14	14	13	16	16	12	18	18
-Non-Generating Public Entities-														
81 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82 Benton County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
83 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84 Clatskanie PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0	0.3	0.3
85 Consumers Power	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
86 Emerald County PUD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87 Energy Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Fall River Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Franklin County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.8	1.3	1.3
90 Klamath Falls, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91 Klickitat County PUD #1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
92 Lakeview L & P (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
93 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95 Mason County PUD #3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
96 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
97 Portland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98 Spokane, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101 Total Non-Generating Public Entities	3.6	3.6	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	2.8	3.6	3.5
-Investor-Owned Entities-														
102 Avista Corp (WWP Division)	17	17	17	17	17	18	25	25	25	24	22	17	17	24
103 Idaho Power Company	15	15	15	14	14	14	14	14	14	15	15	16	16	15
104 Northwestern Energy LLC (MPC)	2.3	2.3	2.3	2.4	2.2	2.3	2.3	2.2	2.2	2.1	2.1	2.5	2.6	2.4

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2009 - 2010 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
105 Pacific Gas & Electric	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
106 Pacific Power	26	26	26	27	27	27	27	27	27	27	27	15	14	26
107 Portland General Electric	28	28	29	30	30	31	31	31	17	30	30	14	29	28
108 Puget Sound Energy	51	51	52	53	54	54	54	54	53	53	53	29	52	52
109 Utah Power	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3
110 Total Investor-Owned Entities	141	141	142	144	145	146	153	153	139	151	149	94	131	148
-Other Entities-														
111 Avista Energy Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112 Boise Cascade Corporation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113 Chehalis Power Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Covanta Energy Corporation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115 Frederickson Power LP,	0	0	0	0	0	0	0	0	0	0	0	0	0	0
116 Georgia-Pacific West, Inc.	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
117 Grays Harbor Energy LLC	16	16	16	16	16	16	16	16	16	16	16	0	16	16
118 Hermiston Power Partnership	16	16	16	16	16	16	16	16	0	16	16	16	16	16
119 Iberdrola Renewables	12	12	12	12	12	12	12	12	12	12	12	12	12	12
120 King County Property Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121 Longview Fibre	2.3	2.3	2.3	2.1	2.2	2	1.9	1.9	2.0	2	2	2	2.0	2
122 Macquarie Cook Power, Inc.	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0.2	0.2	0.2	0.2
123 Mirant Americas Energy Marketing, L.P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124 Oremet - Wah Chang	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
125 Pacific Klamath Energy	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	2.5
126 SP Newsprint	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
127 TransAlta Energy Marketing	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	0	6.2	6.2
128 Wayzata Investment Partners	0	0	0	0	0	0	0	0	0	0	0	0	0	0
129 Weyerhaeuser Company	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
130 White Creek LLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131 Total Other Entities	61	61	61	61	61	61	61	61	45	58	58	36	58	61
Large Thermal Reserves														
-Federal Entities-														
132 BPA - Power Business	40	40	40	40	40	40	40	40	40	40	40	40	40	40
133 Total Federal Entities	40	40	40	40	40	40	40	40	40	40	40	40	40	40
-Generating Public Entities-														
134 Turlock Irrigation District	2	2	2	2	2	2	2	2	2	2	2	0	2	2
135 Total Generating Public Entities	2	2	2	2	2	2	2	2	2	2	2	0	2	2
-Non-Generating Public Entities-														
136 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-														
137 Avista Corp (WWP Division)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
138 Idaho Power Company	36	36	36	36	36	36	36	36	36	36	30	28	36	36
139 Northwestern Energy LLC (MPC)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
140 Pacific Power	55	55	55	55	55	55	55	55	55	55	42	42	55	55
141 Portland General Electric	24	24	24	24	24	24	24	24	24	24	24	10	24	24
142 Puget Sound Energy	24	24	24	24	24	24	24	24	24	24	24	24	24	24
143 San Diego Gas & Electric	3	3	3	3	3	3	3	3	3	3	3	0	3	3
144 Total Investor-Owned Entities	156	156	156	156	156	156	156	156	156	156	138	120	156	156
-Other Entities-														
145 TransAlta Energy Marketing	47	47	47	47	47	47	47	47	47	23	23	47	47	47
146 Total Other Entities	47	47	47	47	47	47	47	47	47	23	23	47	47	47
Contract Reserves														
-Federal Entities-														
147 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Continued

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
148 Seattle City Light	0	0	0	0	0	0	0	0	0	0	0	0	0	0
149 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Non-Generating Public Entities-</i>														
150 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
151 Avista Corp (WWP Division)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
152 Total Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
<i>-Other Entities-</i>														
153 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Capacity Reserves-</i>														
154 Total Hydro Reserves	826	823	822	823	844	841	823	811	794	787	782	799	843	848
155 Total Small Thermal & Misc Reserves	220	220	224	225	226	227	234	233	203	232	230	148	214	233
156 Total Large Thermal Reserves	246	246	246	246	246	246	246	246	246	222	204	207	246	246
157 Total Contract Reserves	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
158 Total Capacity Reserves	1294	1291	1295	1296	1319	1316	1305	1292	1245	1243	1218	1156	1304	1329

**Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2010 - 2011 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)**

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Hydro Reserves														
-Federal Entities-														
1 BPA - Power Business	523	523	526	530	535	526	518	508	497	479	481	492	520	530
2 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Total Federal Entities	523	523	526	530	535	526	518	508	497	479	481	492	520	530
-Generating Public Entities-														
4 Chelan County PUD #1	14	14	14	14	14	14	14	14	13	14	13	14	14	14
5 Clark County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cowlitz County PUD #1	3.8	3.8	3.8	3.2	3.7	3.3	3.1	3.1	3.2	3.3	1.7	3.7	3.9	3.9
7 Douglas County PUD #1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
8 Eugene Water & Electric Board	2.5	2.4	2.3	2	1.9	2.4	2.2	2.5	3.1	3.5	3.5	4.3	4	3.1
9 Grant County PUD #2	23	23	23	23	23	23	23	23	23	23	23	23	23	23
10 Grays Harbor PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Okanogan County PUD #1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
12 Pend Oreille County PUD #1	2.1	2.1	2.1	2	2.1	2.1	2.1	2.1	2.1	2.1	2	2.0	1.9	2
13 Seattle City Light	43	43	39	41	43	43	41	39	38	38	38	40	46	43
14 Snohomish County PUD #1	3.3	3.3	3.3	3.3	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
15 Tacoma Public Utilities	21	20	16	16	15	19	15	14	12	13	13	9.6	17	18
16 Total Generating Public Entities	121	120	112	113	115	118	112	110	106	108	106	109	122	118
-Non-Generating Public Entities-														
17 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Bonners Ferry, City of	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19 Centralia, City of	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
20 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Clatskanie PUD	0	0	0	0	0	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
22 Colville Tribes	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
23 Consumers Power	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Emerald County PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Energy Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Fall River Elec Coop	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27 Forest Grove, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
28 Idaho Falls Power	0	0	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0	0	0	0	0
29 Kittitas County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 Klickitat County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Lower Valley Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 McMinnville, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
35 Milton-Freewater, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
36 Northern Lights	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Northern Wasco County PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
38 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Soda Springs, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Generating Public Entities	3.3	3.3	3.6	3.5	3.5	3.9	3.9	3.9	4.0	3.7	3.7	3.7	3.7	3.7
-Investor-Owned Entities-														
43 Avista Corp (WWP Division)	30	29	30	30	30	30	29	29	30	30	30	30	30	30
44 Idaho Power Company	38	38	40	41	37	41	39	39	39	43	43	43	41	41
45 Pacific Power	30	30	32	28	30	29	28	27	28	29	25	28	32	30
46 Portland General Electric	30	30	30	30	30	30	30	30	30	30	30	30	30	30
47 PPL Montana, LLC	6.6	6.6	6.6	6.6	6.5	6.5	6.4	6.3	6.2	6.2	6.2	6.4	6.5	6.6
48 Puget Sound Energy	37	37	37	35	37	36	36	36	33	37	37	37	37	37
49 Utah Power	2.5	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.6	2.5	2.5	2.6
50 Total Investor-Owned Entities	174	173	177	173	173	175	171	171	169	177	173	177	178	178
-Other Entities-														
51 Alcoa Power Generating Inc	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.5	7.5	7.5

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2010 - 2011 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
52 Colockum Transmission Company	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53 Longview Fibre	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54 Unknown Entity	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 UnKnown PNW Marketer	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
56 Warm Springs Power Enterprise	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
57 Total Other Entities	19	18	18	18	18	18	18	18	18	18	18	18	18	18
Small Thermal & Misc. Reserves														
-Federal Entities-														
58 BPA - Power Business	1.8	1.8	1.4	1.8	2	1.9	1.9	1.9	1.9	1.8	1.8	2.2	1.8	1.6
59 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60 U.S. Naval Station, Everett (Jim Creek)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
61 U.S. Naval Submarine Base, Bangor	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
62 Total Federal Entities	2.5	2.5	2.1	2.6	2.8	2.6	2.7	2.7	2.6	2.6	2.6	3.0	2.5	2.4
-Generating Public Entities-														
63 Burbank, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 Chelan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Clark County PUD #1	0	0	5.4	5.8	5.9	5.9	5.9	5.9	5.8	5.6	5.6	0	5.5	5.1
66 Cowlitz County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
67 Douglas County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 Eugene Water & Electric Board	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
69 Glendale, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Grant County PUD #2	0.4	0.4	0.3	0.2	0	0	0	0	0.2	0.3	0.3	0.4	0.4	0.4
71 Grays Harbor PUD #1	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.9	2.5	2.5
72 Los Angeles Dept of Water	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
73 M-S-R	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
74 Okanogan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75 Sacramento Municipal Utility District	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
76 Seattle City Light	2.4	2.3	1.6	0.8	0.3	0.4	0.4	0.4	0.5	1.5	1.5	3.2	3.6	3.6
77 Snohomish County PUD #1	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.5	1.8	1.8	1.8	1.8	1.8
78 Springfield Utility Board	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79 Tacoma Public Utilities	1.3	1.3	0.8	0.4	0	0	0	0	0.1	0.9	0.9	1.2	1.4	1.5
80 Turlock Irrigation District	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
81 Total Generating Public Entities	12	12	16	15	14	14	14	14	13	16	16	12	18	18
-Non-Generating Public Entities-														
82 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Benton County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
84 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 Clatskanie PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0	0.3	0.3
86 Consumers Power	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87 Emerald County PUD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
88 Energy Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Fall River Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Franklin County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.8	1.3	1.3
91 Klamath Falls, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Klickitat County PUD #1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
93 Lakeview L & P (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mason County PUD #3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98 Portland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99 Spokane, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102 Total Non-Generating Public Entities	3.6	3.6	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	2.8	3.6	3.5
-Investor-Owned Entities-														
103 Avista Corp (WWP Division)	24	24	24	24	24	25	25	25	25	24	22	24	17	24
104 Idaho Power Company	15	15	15	14	14	14	14	14	14	15	15	16	16	15

**Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2010 - 2011 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)**

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
105 Northwestern Energy LLC (MPC)	2.3	2.3	2.3	2.4	2.4	2.5	2.5	2.4	2.4	2.3	2.3	2.5	2.4	2.4
106 Pacific Gas & Electric	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
107 Pacific Power	26	26	26	27	27	27	27	27	27	27	27	27	14	26
108 Portland General Electric	28	28	29	30	30	31	31	31	18	30	30	15	29	29
109 Puget Sound Energy	51	51	52	53	54	54	54	54	53	53	53	29	52	52
110 Utah Power	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3
111 Total Investor-Owned Entities	148	148	149	151	152	154	154	153	140	152	150	113	131	149
-Other Entities-														
112 Avista Energy Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113 Boise Cascade Corporation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Chehalis Power Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115 Covanta Energy Corporation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
116 Frederickson Power LP,	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117 Georgia-Pacific West, Inc.	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
118 Grays Harbor Energy LLC	16	16	16	16	16	16	16	16	16	16	16	0	16	16
119 Hermiston Power Partnership	16	16	16	16	16	16	16	16	0	16	16	16	16	16
120 Iberdrola Renewables	12	12	12	12	12	12	12	12	12	12	12	12	12	12
121 King County Property Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122 Longview Fibre	2	2	2.1	2.1	2.2	2	1.9	1.9	2.0	2	2	2	2.0	2
123 Macquarie Cook Power, Inc.	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0.2	0.2	0.2	0.2
124 Mirant Americas Energy Marketing, L.P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125 Oremet - Wah Chang	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
126 Pacific Klamath Energy	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	2.5
127 SP Newsprint	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
128 TransAlta Energy Marketing	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	0	6.2	6.2
129 Wayzata Investment Partners	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Weyerhaeuser Company	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
131 White Creek LLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132 Total Other Entities	61	61	61	61	61	61	61	61	45	58	58	36	58	61
Large Thermal Reserves														
-Federal Entities-														
133 BPA - Power Business	40	40	40	40	40	40	40	40	40	40	0	0	0	40
134 Total Federal Entities	40	40	40	40	40	40	40	40	40	40	0	0	0	40
-Generating Public Entities-														
135 Turlock Irrigation District	2	2	2	2	2	2	2	2	2	2	0	0	2	2
136 Total Generating Public Entities	2	2	2	2	2	2	2	2	2	2	0	0	2	2
-Non-Generating Public Entities-														
137 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-														
138 Avista Corp (WWP Division)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
139 Idaho Power Company	36	36	36	36	36	36	36	36	36	36	34	34	36	36
140 Northwestern Energy LLC (MPC)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
141 Pacific Power	55	55	55	55	55	55	55	55	55	55	55	55	55	55
142 Portland General Electric	24	24	24	24	24	24	24	24	24	24	10	10	24	24
143 Puget Sound Energy	24	24	24	24	24	24	24	24	24	24	24	24	24	24
144 San Diego Gas & Electric	3	3	3	3	3	3	3	3	3	3	0	0	3	3
145 Total Investor-Owned Entities	156	156	156	156	156	156	156	156	156	156	138	138	156	156
-Other Entities-														
146 TransAlta Energy Marketing	47	47	47	47	47	47	47	47	47	23	23	47	47	47
147 Total Other Entities	47	47	47	47	47	47	47	47	47	23	23	47	47	47
Contract Reserves														
-Federal Entities-														
148 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Continued

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
149 Seattle City Light	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Non-Generating Public Entities-</i>														
151 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
152 Avista Corp (WWP Division)	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	0	0	0	0
153 Total Investor-Owned Entities	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
154 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Capacity Reserves-</i>														
155 Total Hydro Reserves	840	838	837	838	845	842	823	811	794	787	782	800	843	848
156 Total Small Thermal & Misc Reserves	226	226	231	232	234	234	234	234	204	232	230	167	214	234
157 Total Large Thermal Reserves	246	246	246	246	246	246	246	246	246	222	162	185	205	246
158 Total Contract Reserves	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	0	0	0	0
159 Total Capacity Reserves	1315	1313	1316	1318	1326	1324	1303	1290	1243	1241	1174	1152	1262	1328

**Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)**

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Hydro Reserves														
-Federal Entities-														
1 BPA - Power Business	523	523	526	530	535	526	518	508	497	479	480	492	520	529
2 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Total Federal Entities	523	523	526	530	535	526	518	508	497	479	480	492	520	529
-Generating Public Entities-														
4 Chelan County PUD #1	14	14	14	14	23	23	23	23	22	23	22	23	23	23
5 Clark County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cowlitz County PUD #1	3.8	3.8	3.8	3.2	3.7	3.3	3.1	3.1	3.2	3.3	1.7	3.7	3.9	3.9
7 Douglas County PUD #1	6.9	6.9	6.9	6.9	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
8 Eugene Water & Electric Board	2.5	2.4	2.3	2	1.9	2.4	2.2	2.5	3.1	3.5	3.5	4.3	4	3.1
9 Grant County PUD #2	23	23	23	23	23	23	23	23	23	23	23	23	23	23
10 Grays Harbor PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Okanogan County PUD #1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
12 Pend Oreille County PUD #1	2.1	2.1	2.1	2	2.1	2.1	2.1	2.1	2.1	2.1	2	2.0	1.9	2
13 Seattle City Light	43	43	39	41	43	43	41	39	38	38	38	40	46	43
14 Snohomish County PUD #1	3.3	3.3	3.3	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
15 Tacoma Public Utilities	21	20	16	16	15	19	15	14	12	13	13	9.6	17	18
16 Total Generating Public Entities	121	120	112	112	124	127	121	119	115	117	115	118	131	128
-Non-Generating Public Entities-														
17 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Bonners Ferry, City of	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19 Centralia, City of	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
20 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Clatskanie PUD	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
22 Colville Tribes	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
23 Consumers Power	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Emerald County PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Energy Northwest	0	0	0	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
26 Fall River Elec Coop	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27 Forest Grove, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
28 Idaho Falls Power	0	0	0.2	0.4	0.5	0.5	0.5	0.5	0.7	0.4	0.4	0.5	0.6	0.5
29 Kittitas County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 Klickitat County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Lower Valley Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 McMinnville, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
35 Milton-Freewater, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
36 Northern Lights	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Northern Wasco County PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
38 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Soda Springs, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Generating Public Entities	3.7	3.7	3.8	4.8	4.8	4.9	4.9	4.9	5.1	4.8	4.8	5.0	5	4.9
-Investor-Owned Entities-														
43 Avista Corp (WWP Division)	30	29	30	30	29	29	28	28	29	29	29	29	29	29
44 Idaho Power Company	38	38	40	41	37	41	39	39	39	43	43	43	41	41
45 Pacific Power	30	30	32	28	29	27	26	26	26	27	23	26	30	28
46 Portland General Electric	30	30	30	30	26	26	26	26	26	26	26	26	26	26
47 PPL Montana, LLC	6.6	6.6	6.6	6.6	6.5	6.5	6.4	6.3	6.2	6.2	6.2	6.4	6.5	6.6
48 Puget Sound Energy	37	37	37	35	32	32	32	32	29	32	32	32	32	29
49 Utah Power	2.5	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.6	2.5	2.5	2.6
50 Total Investor-Owned Entities	174	173	177	173	162	164	159	160	158	166	162	165	167	163
-Other Entities-														
51 Alcoa Power Generating Inc	7.5	7.5	7.5	7.5	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	12

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
52 Colockum Transmission Company	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53 Longview Fibre	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54 Unknown Entity	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 UnKnown PNW Marketer	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
56 Warm Springs Power Enterprise	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
57 Total Other Entities	19	18	18	18	20	20	20	20	20	20	20	20	20	23
Small Thermal & Misc. Reserves														
-Federal Entities-														
58 BPA - Power Business	1.8	1.8	1.4	1.8	2	1.9	1.6	1.2	1.1	1.1	1.1	1.1	1	1.0
59 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60 U.S. Naval Station, Everett (Jim Creek)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
61 U.S. Naval Submarine Base, Bangor	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
62 Total Federal Entities	2.5	2.5	2.1	2.6	2.8	2.6	2.3	1.9	1.9	1.9	1.9	1.8	1.8	1.7
-Generating Public Entities-														
63 Burbank, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 Chelan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Clark County PUD #1	5.1	5.1	5.4	5.8	5.9	5.9	5.9	5.9	5.8	5.6	5.6	0	5.5	5.1
66 Cowlitz County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
67 Douglas County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 Eugene Water & Electric Board	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
69 Glendale, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Grant County PUD #2	0.4	0.4	0.3	0.2	0	0	0	0	0.2	0.3	0.3	0.4	0.4	0.4
71 Grays Harbor PUD #1	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.9	2.5	2.5
72 Los Angeles Dept of Water	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
73 M-S-R	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
74 Okanogan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75 Sacramento Municipal Utility District	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
76 Seattle City Light	2.4	2.3	1.6	0.8	0.3	0.4	0.4	0.4	0.5	1.5	1.5	3.2	3.6	3.6
77 Snohomish County PUD #1	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.5	1.8	1.8	1.8	1.8	1.8
78 Springfield Utility Board	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79 Tacoma Public Utilities	1.3	1.3	0.8	0.4	0	0	0	0	0.1	0.9	0.9	1.2	1.4	1.5
80 Turlock Irrigation District	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
81 Total Generating Public Entities	17	17	16	15	14	14	14	14	13	16	16	12	18	18
-Non-Generating Public Entities-														
82 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Benton County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
84 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 Clatskanie PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0	0.3	0.3
86 Consumers Power	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87 Emerald County PUD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
88 Energy Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Fall River Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Franklin County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.8	1.3	1.3
91 Klamath Falls, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Klickitat County PUD #1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
93 Lakeview L & P (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mason County PUD #3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98 Portland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99 Spokane, City of	0	0	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
100 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102 Total Non-Generating Public Entities	3.6	3.6	3.5	3.6	3.6	3.6	4.1	4.1	4.1	4.1	4.1	3.3	4.1	4.1
-Investor-Owned Entities-														
103 Avista Corp (WWP Division)	24	24	24	24	24	25	25	25	25	24	22	10	24	24
104 Idaho Power Company	15	15	15	14	14	14	14	14	14	15	15	16	16	15

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
105 Northwestern Energy LLC (MPC)	2.3	2.3	2.3	2.4	2.4	2.5	2.5	2.5	2.4	2.3	2.3	2.5	2.4	2.4
106 Pacific Gas & Electric	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
107 Pacific Power	26	26	26	27	27	27	27	27	27	27	27	27	14	26
108 Portland General Electric	29	29	29	30	31	31	31	31	18	18	18	15	29	29
109 Puget Sound Energy	51	51	52	53	54	54	54	53	53	52	52	29	51	51
110 Utah Power	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3
111 Total Investor-Owned Entities	148	148	149	151	153	154	153	153	139	139	137	99	137	148
<i>-Other Entities-</i>														
112 Avista Energy Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113 Boise Cascade Corporation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Chehalis Power Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115 Covanta Energy Corporation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
116 Frederickson Power LP,	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117 Georgia-Pacific West, Inc.	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
118 Grays Harbor Energy LLC	16	16	16	16	16	16	16	16	16	16	16	0	16	16
119 Hermiston Power Partnership	16	16	16	16	16	16	16	16	0	16	16	16	16	16
120 Iberdrola Renewables	12	12	12	12	12	12	12	12	12	12	12	12	12	12
121 King County Property Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122 Longview Fibre	2	2	2.1	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
123 Macquarie Cook Power, Inc.	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0.2	0.2	0.2	0.2
124 Mirant Americas Energy Marketing, L.P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125 Oremet - Wah Chang	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
126 Pacific Klamath Energy	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	2.5
127 SP Newsprint	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
128 TransAlta Energy Marketing	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	0	6.2	6.2
129 Wayzata Investment Partners	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Weyerhaeuser Company	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
131 White Creek LLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132 Total Other Entities	61	61	61	61	61	61	61	61	45	58	59	36	59	61
<u>Large Thermal Reserves</u>														
<i>-Federal Entities-</i>														
133 BPA - Power Business	40	40	40	40	40	40	40	40	40	40	40	40	40	40
134 Total Federal Entities	40	40	40	40	40	40	40	40	40	40	40	40	40	40
<i>-Generating Public Entities-</i>														
135 Turlock Irrigation District	2	2	2	2	2	2	2	2	2	2	0	0	2	2
136 Total Generating Public Entities	2	2	2	2	2	2	2	2	2	2	0	0	2	2
<i>-Non-Generating Public Entities-</i>														
137 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
138 Avista Corp (WWP Division)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	3.9	3.9	7.8	7.8	7.8
139 Idaho Power Company	36	36	36	36	36	36	36	36	36	36	28	28	36	36
140 Northwestern Energy LLC (MPC)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	0	0	7.8	7.8	7.8
141 Pacific Power	55	55	55	55	55	55	55	55	55	52	40	42	55	55
142 Portland General Electric	24	24	24	24	24	24	24	24	24	18	5.2	10	24	24
143 Puget Sound Energy	24	24	24	24	24	24	24	24	24	17	17	24	24	24
144 San Diego Gas & Electric	3	3	3	3	3	3	3	3	3	3	0	0	3	3
145 Total Investor-Owned Entities	156	156	156	156	156	156	156	156	156	130	94	120	156	156
<i>-Other Entities-</i>														
146 TransAlta Energy Marketing	47	47	47	47	47	47	47	47	47	47	47	23	47	47
147 Total Other Entities	47	47	47	47	47	47	47	47	47	47	47	23	47	47
<u>Contract Reserves</u>														
<i>-Federal Entities-</i>														
148 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Continued

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
149 Seattle City Light	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Non-Generating Public Entities-</i>														
151 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
152 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
153 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Capacity Reserves-</i>														
154 Total Hydro Reserves	841	839	837	838	845	842	823	811	794	787	782	800	843	848
155 Total Small Thermal & Misc Reserves	232	232	231	233	234	235	235	234	203	219	217	152	220	233
156 Total Large Thermal Reserves	246	246	246	246	246	246	246	246	246	220	181	183	246	246
157 Total Contract Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158 Total Capacity Reserves	1318	1316	1314	1317	1325	1322	1303	1290	1243	1226	1180	1135	1309	1327

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Hydro Reserves														
-Federal Entities-														
1 BPA - Power Business	523	523	526	530	535	526	518	508	497	479	480	492	520	529
2 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Total Federal Entities	523	523	526	530	535	526	518	508	497	479	480	492	520	529
-Generating Public Entities-														
4 Chelan County PUD #1	23	23	23	23	23	23	23	23	22	23	22	23	23	23
5 Clark County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cowlitz County PUD #1	3.8	3.8	3.8	3.2	3.7	3.3	3.1	3.1	3.2	3.3	1.7	3.7	3.9	3.9
7 Douglas County PUD #1	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
8 Eugene Water & Electric Board	2.5	2.4	2.3	2	1.9	2.4	2.2	2.5	3.1	3.5	3.5	4.3	4	3.1
9 Grant County PUD #2	23	23	23	23	23	23	23	23	23	23	23	23	23	23
10 Grays Harbor PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Okanogan County PUD #1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
12 Pend Oreille County PUD #1	2.1	2.1	2.1	2	2.1	2.1	2.1	2.1	2.1	2.1	2	2.0	1.9	2
13 Seattle City Light	43	43	39	41	43	43	41	39	38	38	38	40	46	43
14 Snohomish County PUD #1	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
15 Tacoma Public Utilities	21	20	16	16	15	19	15	14	12	13	13	9.6	17	18
16 Total Generating Public Entities	130	129	121	122	124	127	121	119	115	118	115	118	132	128
-Non-Generating Public Entities-														
17 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Bonners Ferry, City of	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19 Centralia, City of	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
20 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Clatskanie PUD	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
22 Colville Tribes	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
23 Consumers Power	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Emerald County PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Energy Northwest	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
26 Fall River Elec Coop	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27 Forest Grove, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
28 Idaho Falls Power	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.7	0.4	0.4	0.5	0.6	0.5
29 Kittitas County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 Klickitat County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Lower Valley Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 McMinnville, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
35 Milton-Freewater, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
36 Northern Lights	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Northern Wasco County PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
38 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Soda Springs, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Generating Public Entities	4.8	4.8	4.9	4.8	4.8	4.9	4.9	4.9	5.1	4.8	4.8	5.0	5	4.9
-Investor-Owned Entities-														
43 Avista Corp (WWP Division)	29	28	29	29	29	29	28	28	29	29	29	29	29	29
44 Idaho Power Company	38	38	40	41	37	41	39	39	39	43	43	43	41	41
45 Pacific Power	28	28	30	26	29	27	26	26	26	27	23	26	30	28
46 Portland General Electric	26	26	26	26	26	26	26	26	26	26	26	26	26	26
47 PPL Montana, LLC	6.6	6.6	6.6	6.6	6.5	6.5	6.4	6.3	6.2	6.2	6.2	6.4	6.5	6.6
48 Puget Sound Energy	29	28	28	27	28	28	28	28	25	28	28	28	29	29
49 Utah Power	2.5	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.6	2.5	2.5	2.6
50 Total Investor-Owned Entities	159	158	162	158	158	160	156	156	154	162	158	162	163	163
-Other Entities-														
51 Alcoa Power Generating Inc	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
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Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
52 Colockum Transmission Company	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53 Longview Fibre	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54 Unknown Entity	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 UnKnown PNW Marketer	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
56 Warm Springs Power Enterprise	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
57 Total Other Entities	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Small Thermal & Misc. Reserves														
-Federal Entities-														
58 BPA - Power Business	1	1	1	1.1	1.1	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1	1.0
59 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60 U.S. Naval Station, Everett (Jim Creek)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
61 U.S. Naval Submarine Base, Bangor	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
62 Total Federal Entities	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.7
-Generating Public Entities-														
63 Burbank, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 Chelan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Clark County PUD #1	5.1	5.1	5.4	5.8	5.9	5.9	5.9	5.9	5.8	5.6	5.6	0	5.5	5.1
66 Cowlitz County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
67 Douglas County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 Eugene Water & Electric Board	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
69 Glendale, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Grant County PUD #2	0.4	0.4	0.3	0.2	0	0	0	0	0.2	0.3	0.3	0.4	0.4	0.4
71 Grays Harbor PUD #1	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.9	2.5	2.5
72 Los Angeles Dept of Water	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
73 M-S-R	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
74 Okanogan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75 Sacramento Municipal Utility District	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
76 Seattle City Light	2.4	2.3	1.6	0.8	0.3	0.4	0.4	0.4	0.5	1.5	1.5	3.2	3.6	3.6
77 Snohomish County PUD #1	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.5	1.8	1.8	1.8	1.8	1.8
78 Springfield Utility Board	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79 Tacoma Public Utilities	1.3	1.3	0.8	0.4	0	0	0	0	0.1	0.9	0.9	1.2	1.4	1.5
80 Turlock Irrigation District	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
81 Total Generating Public Entities	17	17	16	15	14	14	14	14	13	16	16	12	18	18
-Non-Generating Public Entities-														
82 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Benton County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
84 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 Clatskanie PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0	0.3	0.3
86 Consumers Power	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87 Emerald County PUD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
88 Energy Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Fall River Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Franklin County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.8	1.3	1.3
91 Klamath Falls, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Klickitat County PUD #1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
93 Lakeview L & P (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mason County PUD #3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98 Portland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99 Spokane, City of	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
100 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102 Total Non-Generating Public Entities	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	3.3	4.1	4.1
-Investor-Owned Entities-														
103 Avista Corp (WWP Division)	24	24	24	24	24	25	25	25	24	24	22	24	17	24
104 Idaho Power Company	15	15	15	14	14	14	14	14	14	15	15	16	16	15

**Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)**

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
105 Northwestern Energy LLC (MPC)	2.3	2.3	2.3	2.4	2.4	2.5	2.5	2.5	2.4	2.3	2.3	2.6	2.7	2.4
106 Pacific Gas & Electric	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
107 Pacific Power	26	26	26	27	27	27	27	27	27	15	15	27	14	26
108 Portland General Electric	29	29	29	30	31	31	31	31	18	18	18	15	29	29
109 Puget Sound Energy	51	51	51	52	53	54	54	53	53	52	52	29	51	51
110 Utah Power	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3
111 Total Investor-Owned Entities	148	148	149	150	152	153	153	153	139	127	125	113	130	148
<i>-Other Entities-</i>														
112 Avista Energy Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113 Boise Cascade Corporation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Chehalis Power Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115 Covanta Energy Corporation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
116 Frederickson Power LP,	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117 Georgia-Pacific West, Inc.	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
118 Grays Harbor Energy LLC	16	16	16	16	16	16	16	16	16	16	16	0	16	16
119 Hermiston Power Partnership	16	16	16	16	16	16	16	16	0	16	16	16	16	16
120 Iberdrola Renewables	12	12	12	12	12	12	12	12	12	12	12	12	12	12
121 King County Property Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122 Longview Fibre	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
123 Macquarie Cook Power, Inc.	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0.2	0.2	0.2	0.2
124 Mirant Americas Energy Marketing, L.P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125 Oremet - Wah Chang	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
126 Pacific Klamath Energy	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	2.5
127 SP Newsprint	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
128 TransAlta Energy Marketing	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	0	6.2	6.2
129 Wayzata Investment Partners	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Weyerhaeuser Company	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
131 White Creek LLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132 Total Other Entities	61	61	61	61	61	61	61	61	45	58	59	36	59	61
<u>Large Thermal Reserves</u>														
<i>-Federal Entities-</i>														
133 BPA - Power Business	40	40	40	40	40	40	40	40	40	40	40	0	0	40
134 Total Federal Entities	40	40	40	40	40	40	40	40	40	40	40	0	0	40
<i>-Generating Public Entities-</i>														
135 Turlock Irrigation District	2	2	2	2	2	2	2	2	2	2	0	0	2	2
136 Total Generating Public Entities	2	2	2	2	2	2	2	2	2	2	0	0	2	2
<i>-Non-Generating Public Entities-</i>														
137 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
138 Avista Corp (WWP Division)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
139 Idaho Power Company	36	36	36	36	36	36	36	36	36	36	28	34	36	36
140 Northwestern Energy LLC (MPC)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
141 Pacific Power	55	55	55	55	55	55	55	55	55	55	42	55	55	55
142 Portland General Electric	24	24	24	24	24	24	24	24	24	24	10	10	24	24
143 Puget Sound Energy	24	24	24	24	24	24	24	24	24	24	24	24	24	24
144 San Diego Gas & Electric	3	3	3	3	3	3	3	3	3	3	0	0	3	3
145 Total Investor-Owned Entities	156	156	156	156	156	156	156	156	156	156	120	138	156	156
<i>-Other Entities-</i>														
146 TransAlta Energy Marketing	47	47	47	47	47	47	47	47	47	47	47	23	47	47
147 Total Other Entities	47	47	47	47	47	47	47	47	47	47	47	23	47	47
<u>Contract Reserves</u>														
<i>-Federal Entities-</i>														
148 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Continued

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
149 Seattle City Light	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Non-Generating Public Entities-</i>														
151 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
152 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
153 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Capacity Reserves-</i>														
154 Total Hydro Reserves	841	839	837	838	845	842	823	811	794	787	782	800	843	848
155 Total Small Thermal & Misc Reserves	232	232	231	232	233	234	234	234	203	207	205	166	214	233
156 Total Large Thermal Reserves	246	246	246	246	246	246	246	246	246	246	207	162	205	246
157 Total Contract Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158 Total Capacity Reserves	1318	1316	1314	1316	1324	1321	1303	1290	1243	1240	1194	1127	1262	1327

**Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)**

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Hydro Reserves														
-Federal Entities-														
1 BPA - Power Business	523	523	526	530	535	525	517	507	496	478	480	492	520	529
2 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Total Federal Entities	523	523	526	530	535	525	517	507	496	478	480	492	520	529
-Generating Public Entities-														
4 Chelan County PUD #1	23	23	23	23	23	23	23	23	22	23	22	23	23	23
5 Clark County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cowlitz County PUD #1	3.8	3.8	3.8	3.2	3.7	3.3	3.1	3.1	3.2	3.3	1.7	3.7	3.9	3.9
7 Douglas County PUD #1	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
8 Eugene Water & Electric Board	2.5	2.4	2.3	2	1.9	2.4	2.2	2.5	3.1	3.5	3.5	4.3	4	3.1
9 Grant County PUD #2	23	23	23	23	23	23	23	23	23	23	23	23	23	23
10 Grays Harbor PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Okanogan County PUD #1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
12 Pend Oreille County PUD #1	2.1	2.1	2.1	2	2.1	2.1	2.1	2.1	2.1	2.1	2	2.0	1.9	2
13 Seattle City Light	43	43	39	41	43	43	41	39	38	38	38	40	46	43
14 Snohomish County PUD #1	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
15 Tacoma Public Utilities	21	20	16	16	15	19	15	14	12	13	13	9.6	17	18
16 Total Generating Public Entities	130	129	121	122	124	127	121	119	115	118	115	118	132	128
-Non-Generating Public Entities-														
17 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Bonners Ferry, City of	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19 Centralia, City of	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
20 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Clatskanie PUD	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
22 Colville Tribes	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
23 Consumers Power	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Emerald County PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Energy Northwest	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
26 Fall River Elec Coop	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27 Forest Grove, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
28 Idaho Falls Power	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.7	0.4	0.4	0.5	0.6	0.5
29 Kittitas County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 Klickitat County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Lower Valley Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 McMinnville, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
35 Milton-Freewater, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
36 Northern Lights	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Northern Wasco County PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
38 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Soda Springs, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Generating Public Entities	4.8	4.8	4.9	4.8	4.8	4.9	4.9	4.9	5.1	4.8	4.8	5.0	5	4.9
-Investor-Owned Entities-														
43 Avista Corp (WWP Division)	29	28	29	29	29	29	28	28	29	29	29	29	29	29
44 Idaho Power Company	38	38	40	41	37	41	39	39	39	43	43	43	41	41
45 Pacific Power	28	28	30	26	29	27	26	26	26	27	23	26	30	28
46 Portland General Electric	26	26	26	26	26	26	26	26	26	26	26	26	26	26
47 PPL Montana, LLC	6.6	6.6	6.6	6.6	6.5	6.5	6.4	6.3	6.2	6.2	6.2	6.4	6.5	6.6
48 Puget Sound Energy	29	28	28	27	28	28	28	28	25	28	28	28	29	29
49 Utah Power	2.5	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.6	2.5	2.5	2.6
50 Total Investor-Owned Entities	159	158	162	158	158	160	156	156	154	162	158	162	163	163
-Other Entities-														
51 Alcoa Power Generating Inc	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
52 Colockum Transmission Company	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53 Longview Fibre	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54 Unknown Entity	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 UnKnown PNW Marketer	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
56 Warm Springs Power Enterprise	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
57 Total Other Entities	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Small Thermal & Misc. Reserves														
-Federal Entities-														
58 BPA - Power Business	1	1	1	1.1	1.1	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1	1.0
59 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60 U.S. Naval Station, Everett (Jim Creek)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
61 U.S. Naval Submarine Base, Bangor	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
62 Total Federal Entities	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.7
-Generating Public Entities-														
63 Burbank, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 Chelan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Clark County PUD #1	5.1	5.1	5.4	5.8	5.9	5.9	5.9	5.9	5.8	5.6	5.6	0	5.5	5.1
66 Cowlitz County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
67 Douglas County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 Eugene Water & Electric Board	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
69 Glendale, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Grant County PUD #2	0.4	0.4	0.3	0.2	0	0	0	0	0.2	0.3	0.3	0.4	0.4	0.4
71 Grays Harbor PUD #1	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.9	2.5	2.5
72 Los Angeles Dept of Water	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
73 M-S-R	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
74 Okanogan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75 Sacramento Municipal Utility District	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
76 Seattle City Light	2.4	2.3	1.6	0.8	0.3	0.4	0.4	0.4	0.5	1.5	1.5	3.2	3.6	3.6
77 Snohomish County PUD #1	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.5	1.8	1.8	1.8	1.8	1.8
78 Springfield Utility Board	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79 Tacoma Public Utilities	1.3	1.3	0.8	0.4	0	0	0	0	0.1	0.9	0.9	1.2	1.4	1.5
80 Turlock Irrigation District	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
81 Total Generating Public Entities	17	17	16	15	14	14	14	14	13	16	16	12	18	18
-Non-Generating Public Entities-														
82 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Benton County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
84 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 Clatskanie PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0	0.3	0.3
86 Consumers Power	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87 Emerald County PUD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
88 Energy Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Fall River Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Franklin County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.8	1.3	1.3
91 Klamath Falls, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Klickitat County PUD #1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
93 Lakeview L & P (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mason County PUD #3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98 Portland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99 Spokane, City of	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
100 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102 Total Non-Generating Public Entities	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	3.3	4.1	4.1
-Investor-Owned Entities-														
103 Avista Corp (WWP Division)	24	24	24	24	24	25	25	25	24	24	22	17	17	24
104 Idaho Power Company	15	15	15	14	14	14	14	14	14	15	15	16	16	15

**Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)**

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
105 Northwestern Energy LLC (MPC)	2.3	2.3	2.3	2.4	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.6	2.5	2.4
106 Pacific Gas & Electric	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
107 Pacific Power	26	26	26	27	27	27	27	27	27	27	15	27	14	26
108 Portland General Electric	29	29	29	30	31	31	31	31	18	18	18	15	29	28
109 Puget Sound Energy	51	51	51	52	53	54	54	53	53	52	52	29	51	51
110 Utah Power	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3
111 Total Investor-Owned Entities	148	148	149	150	152	153	153	153	139	139	125	106	130	148
-Other Entities-														
112 Avista Energy Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113 Boise Cascade Corporation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Chehalis Power Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115 Covanta Energy Corporation	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3
116 Frederickson Power LP,	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117 Georgia-Pacific West, Inc.	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
118 Grays Harbor Energy LLC	16	16	16	16	16	16	16	16	16	16	16	0	16	16
119 Hermiston Power Partnership	16	16	16	16	16	16	16	16	0	16	16	16	16	16
120 Iberdrola Renewables	12	12	12	12	12	12	12	12	12	12	12	12	12	12
121 King County Property Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122 Longview Fibre	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
123 Macquarie Cook Power, Inc.	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0.2	0.2	0.2	0.2
124 Mirant Americas Energy Marketing, L.P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125 Oremet - Wah Chang	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
126 Pacific Klamath Energy	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	2.5
127 SP Newsprint	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
128 TransAlta Energy Marketing	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	0	6.2	6.2
129 Wayzata Investment Partners	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Weyerhaeuser Company	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
131 White Creek LLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132 Total Other Entities	61	61	61	61	61	61	61	61	45	58	59	36	59	62
Large Thermal Reserves														
-Federal Entities-														
133 BPA - Power Business	40	40	40	40	40	40	40	40	40	40	40	40	40	40
134 Total Federal Entities	40	40	40	40	40	40	40	40	40	40	40	40	40	40
-Generating Public Entities-														
135 Turlock Irrigation District	2	2	2	2	2	2	2	2	2	2	0	0	2	2
136 Total Generating Public Entities	2	2	2	2	2	2	2	2	2	2	0	0	2	2
-Non-Generating Public Entities-														
137 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-														
138 Avista Corp (WWP Division)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
139 Idaho Power Company	36	36	36	36	36	36	36	36	36	36	28	28	36	36
140 Northwestern Energy LLC (MPC)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
141 Pacific Power	55	55	55	55	55	55	55	55	55	55	42	42	55	55
142 Portland General Electric	24	24	24	24	24	24	24	24	24	24	10	10	24	24
143 Puget Sound Energy	24	24	24	24	24	24	24	24	24	24	24	24	24	24
144 San Diego Gas & Electric	3	3	3	3	3	3	3	3	3	3	0	0	3	3
145 Total Investor-Owned Entities	156	156	156	156	156	156	156	156	156	156	120	120	156	156
-Other Entities-														
146 TransAlta Energy Marketing	47	47	47	47	47	47	47	47	47	47	47	23	47	47
147 Total Other Entities	47	47	47	47	47	47	47	47	47	47	47	23	47	47
Contract Reserves														
-Federal Entities-														
148 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Continued

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
149 Seattle City Light	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Non-Generating Public Entities-</i>														
151 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
152 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
153 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Capacity Reserves-</i>														
154 Total Hydro Reserves	841	839	837	838	845	841	822	810	793	786	782	800	843	848
155 Total Small Thermal & Misc Reserves	232	232	231	232	233	234	234	234	203	219	205	159	214	233
156 Total Large Thermal Reserves	246	246	246	246	246	246	246	246	246	246	207	183	246	246
157 Total Contract Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158 Total Capacity Reserves	1318	1316	1314	1316	1324	1321	1302	1289	1242	1251	1194	1142	1302	1327

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Hydro Reserves														
-Federal Entities-														
1 BPA - Power Business	523	523	526	530	535	524	514	503	492	476	480	492	520	529
2 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Total Federal Entities	523	523	526	530	535	524	514	503	492	476	480	492	520	529
-Generating Public Entities-														
4 Chelan County PUD #1	23	23	23	23	23	23	23	23	22	23	22	23	23	23
5 Clark County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cowlitz County PUD #1	3.8	3.8	3.8	3.2	3.7	3.3	3.1	3.1	3.2	3.3	1.7	3.7	3.9	3.9
7 Douglas County PUD #1	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
8 Eugene Water & Electric Board	2.5	2.4	2.3	2	2	2.5	2.3	2.6	3.2	3.6	3.6	4.4	4.1	3.2
9 Grant County PUD #2	23	23	23	23	23	23	23	23	23	23	23	23	23	23
10 Grays Harbor PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Okanogan County PUD #1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
12 Pend Oreille County PUD #1	2.1	2.1	2.1	2	2.1	2.1	2.1	2.1	2.1	2.1	2	2.0	1.9	2
13 Seattle City Light	43	43	39	41	43	43	41	39	38	38	38	40	46	43
14 Snohomish County PUD #1	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
15 Tacoma Public Utilities	21	20	16	16	15	19	15	14	12	13	13	9.6	17	18
16 Total Generating Public Entities	130	129	121	122	124	127	122	119	115	118	116	118	132	128
-Non-Generating Public Entities-														
17 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Bonners Ferry, City of	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19 Centralia, City of	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
20 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Clatskanie PUD	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
22 Colville Tribes	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
23 Consumers Power	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Emerald County PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Energy Northwest	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
26 Fall River Elec Coop	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27 Forest Grove, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
28 Idaho Falls Power	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.7	0.4	0.4	0.5	0.6	0.5
29 Kittitas County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 Klickitat County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Lower Valley Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 McMinnville, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
35 Milton-Freewater, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
36 Northern Lights	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Northern Wasco County PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
38 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Soda Springs, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Generating Public Entities	4.8	4.8	4.9	4.8	4.8	4.9	4.9	4.9	5.1	4.8	4.8	5.0	5	4.9
-Investor-Owned Entities-														
43 Avista Corp (WWP Division)	29	28	29	29	29	29	28	28	29	29	29	29	29	29
44 Idaho Power Company	38	38	40	41	37	41	39	39	39	43	43	43	41	41
45 Pacific Power	28	28	30	26	29	27	26	26	26	27	23	26	30	28
46 Portland General Electric	26	26	26	26	26	26	26	26	26	26	26	26	26	26
47 PPL Montana, LLC	6.6	6.6	6.6	6.6	6.5	6.5	6.4	6.3	6.2	6.2	6.2	6.4	6.5	6.6
48 Puget Sound Energy	29	28	28	27	28	28	28	28	25	28	28	28	29	29
49 Utah Power	2.5	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.6	2.5	2.5	2.6
50 Total Investor-Owned Entities	159	158	162	158	158	160	156	156	154	162	158	162	163	163
-Other Entities-														
51 Alcoa Power Generating Inc	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
52 Colockum Transmission Company	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53 Longview Fibre	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54 Unknown Entity	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 UnKnown PNW Marketer	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
56 Warm Springs Power Enterprise	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
57 Total Other Entities	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Small Thermal & Misc. Reserves														
-Federal Entities-														
58 BPA - Power Business	1	1	1	1.1	1.1	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1	1.0
59 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60 U.S. Naval Station, Everett (Jim Creek)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
61 U.S. Naval Submarine Base, Bangor	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
62 Total Federal Entities	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.7
-Generating Public Entities-														
63 Burbank, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 Chelan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Clark County PUD #1	5.1	5.1	5.4	5.8	5.9	5.9	5.9	5.9	5.8	5.6	5.6	0	5.5	5.1
66 Cowlitz County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
67 Douglas County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 Eugene Water & Electric Board	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
69 Glendale, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Grant County PUD #2	0.4	0.4	0.3	0.2	0	0	0	0	0.2	0.3	0.3	0.4	0.4	0.4
71 Grays Harbor PUD #1	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.9	2.5	2.5
72 Los Angeles Dept of Water	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
73 M-S-R	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
74 Okanogan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75 Sacramento Municipal Utility District	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
76 Seattle City Light	2.4	2.3	1.6	0.8	0.3	0.4	0.4	0.4	0.5	1.5	1.5	3.2	3.6	3.6
77 Snohomish County PUD #1	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	0.4	1.7	1.7	1.7	1.7	1.7
78 Springfield Utility Board	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79 Tacoma Public Utilities	1.3	1.3	0.8	0.4	0	0	0	0	0.1	0.9	0.9	1.2	1.4	1.5
80 Turlock Irrigation District	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
81 Total Generating Public Entities	17	17	16	15	14	14	14	14	13	16	16	12	18	18
-Non-Generating Public Entities-														
82 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Benton County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
84 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 Clatskanie PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0	0.3	0.3
86 Consumers Power	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87 Emerald County PUD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
88 Energy Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Fall River Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Franklin County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.8	1.3	1.3
91 Klamath Falls, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Klickitat County PUD #1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
93 Lakeview L & P (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mason County PUD #3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98 Portland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99 Spokane, City of	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
100 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102 Total Non-Generating Public Entities	4.1	4.1	4.1	4.1	4.1	4.1	4.2	4.2	4.2	4.2	4.2	3.4	4.2	4.2
-Investor-Owned Entities-														
103 Avista Corp (WWP Division)	24	24	24	24	24	25	25	25	24	24	22	24	17	24
104 Idaho Power Company	15	15	15	14	14	14	14	14	14	15	15	16	16	16

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
105 Northwestern Energy LLC (MPC)	2.3	2.3	2.3	2.4	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.6	2.5	2.4
106 Pacific Gas & Electric	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
107 Pacific Power	26	26	26	27	27	27	27	27	27	27	15	27	14	26
108 Portland General Electric	28	28	29	30	30	31	31	31	17	17	17	14	29	28
109 Puget Sound Energy	51	51	51	52	53	54	54	53	53	52	52	29	51	51
110 Utah Power	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3
111 Total Investor-Owned Entities	147	147	148	150	152	153	153	152	139	139	125	112	130	148
-Other Entities-														
112 Avista Energy Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113 Boise Cascade Corporation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Chehalis Power Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115 Covanta Energy Corporation	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
116 Frederickson Power LP,	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117 Georgia-Pacific West, Inc.	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
118 Grays Harbor Energy LLC	16	16	16	16	16	16	16	16	16	16	16	0	16	16
119 Hermiston Power Partnership	16	16	16	16	16	16	16	16	0	16	16	16	16	16
120 Iberdrola Renewables	12	12	12	12	12	12	12	12	12	12	12	12	12	12
121 King County Property Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122 Longview Fibre	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
123 Macquarie Cook Power, Inc.	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0.2	0.2	0.2	0.2
124 Mirant Americas Energy Marketing, L.P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125 Oremet - Wah Chang	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
126 Pacific Klamath Energy	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	2.5
127 SP Newsprint	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
128 TransAlta Energy Marketing	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	0	6.2	6.2
129 Wayzata Investment Partners	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Weyerhaeuser Company	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
131 White Creek LLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132 Total Other Entities	62	62	62	62	61	61	61	61	46	59	59	37	59	62
Large Thermal Reserves														
-Federal Entities-														
133 BPA - Power Business	40	40	40	40	40	40	40	40	40	40	40	0	0	40
134 Total Federal Entities	40	40	40	40	40	40	40	40	40	40	40	0	0	40
-Generating Public Entities-														
135 Turlock Irrigation District	2	2	2	2	2	2	2	2	2	2	0	0	2	2
136 Total Generating Public Entities	2	2	2	2	2	2	2	2	2	2	0	0	2	2
-Non-Generating Public Entities-														
137 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-														
138 Avista Corp (WWP Division)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	3.9	3.9	7.8	7.8	7.8
139 Idaho Power Company	36	36	36	36	36	36	36	36	36	36	34	34	36	36
140 Northwestern Energy LLC (MPC)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	0	0	7.8	7.8	7.8
141 Pacific Power	55	55	55	55	55	55	55	55	55	52	52	55	55	55
142 Portland General Electric	24	24	24	24	24	24	24	24	24	18	5.2	10	24	24
143 Puget Sound Energy	24	24	24	24	24	24	24	24	24	17	17	24	24	24
144 San Diego Gas & Electric	3	3	3	3	3	3	3	3	3	3	0	0	3	3
145 Total Investor-Owned Entities	156	156	156	156	156	156	156	156	156	130	112	138	156	156
-Other Entities-														
146 TransAlta Energy Marketing	47	47	47	47	47	47	47	47	47	47	47	23	47	47
147 Total Other Entities	47	47	47	47	47	47	47	47	47	47	47	23	47	47
Contract Reserves														
-Federal Entities-														
148 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Continued

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
149 Seattle City Light	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Non-Generating Public Entities-</i>														
151 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
152 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
153 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Capacity Reserves-</i>														
154 Total Hydro Reserves	841	839	837	838	845	840	819	807	789	784	782	800	843	848
155 Total Small Thermal & Misc Reserves	232	232	231	232	233	234	234	234	203	219	205	166	213	233
156 Total Large Thermal Reserves	246	246	246	246	246	246	246	246	246	220	199	162	205	246
157 Total Contract Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158 Total Capacity Reserves	1318	1316	1314	1316	1324	1320	1299	1286	1238	1223	1187	1127	1262	1327

**Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)**

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Hydro Reserves														
-Federal Entities-														
1 BPA - Power Business	523	523	526	530	535	525	517	507	496	478	480	492	520	529
2 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Total Federal Entities	523	523	526	530	535	525	517	507	496	478	480	492	520	529
-Generating Public Entities-														
4 Chelan County PUD #1	23	23	23	23	23	23	23	23	22	23	22	23	23	23
5 Clark County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cowlitz County PUD #1	3.8	3.8	3.8	3.2	3.7	3.3	3.1	3.1	3.2	3.3	1.7	3.7	3.9	3.9
7 Douglas County PUD #1	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
8 Eugene Water & Electric Board	2.6	2.5	2.4	2.2	2	2.5	2.3	2.6	3.2	3.6	3.6	4.4	4.1	3.2
9 Grant County PUD #2	23	23	23	23	23	23	23	23	23	23	23	23	23	23
10 Grays Harbor PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Okanogan County PUD #1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
12 Pend Oreille County PUD #1	2.1	2.1	2.1	2	2.1	2.1	2.1	2.1	2.1	2.1	2	2.0	1.9	2
13 Seattle City Light	43	43	39	41	43	43	41	39	38	38	38	40	46	43
14 Snohomish County PUD #1	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
15 Tacoma Public Utilities	21	20	16	16	15	19	15	14	12	13	13	9.6	17	18
16 Total Generating Public Entities	131	129	121	122	124	127	122	119	115	118	116	118	132	128
-Non-Generating Public Entities-														
17 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Bonners Ferry, City of	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19 Centralia, City of	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
20 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Clatskanie PUD	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
22 Colville Tribes	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
23 Consumers Power	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Emerald County PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Energy Northwest	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
26 Fall River Elec Coop	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27 Forest Grove, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
28 Idaho Falls Power	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.7	0.4	0.4	0.5	0.6	0.5
29 Kittitas County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 Klickitat County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Lower Valley Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 McMinnville, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
35 Milton-Freewater, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
36 Northern Lights	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Northern Wasco County PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
38 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Soda Springs, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Generating Public Entities	4.8	4.8	4.9	4.8	4.8	4.9	4.9	4.9	5.1	4.8	4.8	5.0	5	4.9
-Investor-Owned Entities-														
43 Avista Corp (WWP Division)	29	28	29	29	29	29	28	28	29	29	29	29	29	29
44 Idaho Power Company	38	38	40	41	37	41	39	39	39	43	43	43	41	41
45 Pacific Power	28	28	30	26	29	27	26	26	26	27	23	26	30	28
46 Portland General Electric	26	26	26	26	26	26	26	26	26	26	26	26	26	26
47 PPL Montana, LLC	6.6	6.6	6.6	6.6	6.5	6.5	6.4	6.3	6.2	6.2	6.2	6.4	6.5	6.6
48 Puget Sound Energy	29	28	28	27	28	28	28	28	25	28	28	28	29	29
49 Utah Power	2.5	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.6	2.5	2.5	2.6
50 Total Investor-Owned Entities	159	158	162	158	158	160	156	156	154	162	158	162	163	163
-Other Entities-														
51 Alcoa Power Generating Inc	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
52 Colockum Transmission Company	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53 Longview Fibre	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54 Unknown Entity	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 UnKnown PNW Marketer	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
56 Warm Springs Power Enterprise	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
57 Total Other Entities	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Small Thermal & Misc. Reserves														
-Federal Entities-														
58 BPA - Power Business	1	1	1	2.3	2.3	2.4	2.4	2.4	2.4	1.6	1.6	1.6	1.6	1.6
59 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60 U.S. Naval Station, Everett (Jim Creek)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
61 U.S. Naval Submarine Base, Bangor	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
62 Total Federal Entities	1.8	1.8	1.8	3.1	3.1	3.1	3.2	3.2	3.1	2.4	2.4	2.4	2.4	2.4
-Generating Public Entities-														
63 Burbank, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 Chelan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Clark County PUD #1	5.1	5.1	5.4	5.8	5.9	5.9	5.9	5.9	5.8	5.6	5.6	0	5.5	5.1
66 Cowlitz County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
67 Douglas County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 Eugene Water & Electric Board	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
69 Glendale, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Grant County PUD #2	0.4	0.4	0.3	0.2	0	0	0	0	0.2	0.3	0.3	0.4	0.4	0.4
71 Grays Harbor PUD #1	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.9	2.5	2.5
72 Los Angeles Dept of Water	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
73 M-S-R	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
74 Okanogan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75 Sacramento Municipal Utility District	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
76 Seattle City Light	2.4	2.3	1.6	0.8	0.3	0.4	0.4	0.4	0.5	1.5	1.5	3.2	3.6	3.6
77 Snohomish County PUD #1	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	0.4	1.7	1.7	1.7	1.7	1.7
78 Springfield Utility Board	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79 Tacoma Public Utilities	1.3	1.3	0.8	0.4	0	0	0	0	0.1	0.9	0.9	1.2	1.4	1.5
80 Turlock Irrigation District	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
81 Total Generating Public Entities	17	17	16	15	14	14	14	14	13	16	16	12	18	18
-Non-Generating Public Entities-														
82 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Benton County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
84 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 Clatskanie PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0	0.3	0.3
86 Consumers Power	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87 Emerald County PUD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
88 Energy Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Fall River Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Franklin County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.8	1.3	1.3
91 Klamath Falls, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Klickitat County PUD #1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
93 Lakeview L & P (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mason County PUD #3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98 Portland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99 Spokane, City of	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
100 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102 Total Non-Generating Public Entities	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.4	4.2	4.2
-Investor-Owned Entities-														
103 Avista Corp (WWP Division)	24	24	24	24	24	25	25	25	24	24	22	17	17	24
104 Idaho Power Company	15	15	15	14	14	14	14	14	14	15	15	16	16	16

**Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)**

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
105 Northwestern Energy LLC (MPC)	2.3	2.3	2.3	2.4	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.6	2.5	2.4
106 Pacific Gas & Electric	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
107 Pacific Power	26	26	26	27	27	27	27	27	27	15	15	27	14	26
108 Portland General Electric	28	28	29	30	30	31	31	31	17	17	17	14	29	28
109 Puget Sound Energy	51	51	51	52	53	54	54	53	53	52	52	29	51	51
110 Utah Power	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3
111 Total Investor-Owned Entities	147	147	148	150	152	153	153	152	139	127	125	106	130	148
-Other Entities-														
112 Avista Energy Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113 Boise Cascade Corporation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Chehalis Power Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115 Covanta Energy Corporation	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
116 Frederickson Power LP,	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117 Georgia-Pacific West, Inc.	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.3	1.3	1.3	1.2	1.2
118 Grays Harbor Energy LLC	16	16	16	16	16	16	16	16	16	16	16	0	16	16
119 Hermiston Power Partnership	16	16	16	16	16	16	16	16	0	16	16	16	16	16
120 Iberdrola Renewables	12	12	12	12	12	12	12	12	12	12	12	12	12	12
121 King County Property Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122 Longview Fibre	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
123 Macquarie Cook Power, Inc.	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0.2	0.2	0.2	0.2
124 Mirant Americas Energy Marketing, L.P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125 Oremet - Wah Chang	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
126 Pacific Klamath Energy	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	2.5
127 SP Newsprint	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
128 TransAlta Energy Marketing	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	0	6.2	6.2
129 Wayzata Investment Partners	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Weyerhaeuser Company	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
131 White Creek LLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132 Total Other Entities	62	62	62	62	61	61	61	61	46	60	60	37	60	62
Large Thermal Reserves														
-Federal Entities-														
133 BPA - Power Business	40	40	40	40	40	40	40	40	40	40	40	40	40	40
134 Total Federal Entities	40	40	40	40	40	40	40	40	40	40	40	40	40	40
-Generating Public Entities-														
135 Turlock Irrigation District	2	2	2	2	2	2	2	2	2	2	0	0	2	2
136 Total Generating Public Entities	2	2	2	2	2	2	2	2	2	2	0	0	2	2
-Non-Generating Public Entities-														
137 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-														
138 Avista Corp (WWP Division)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
139 Idaho Power Company	36	36	36	36	36	36	36	36	36	36	21	34	36	36
140 Northwestern Energy LLC (MPC)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
141 Pacific Power	55	55	55	55	55	55	55	55	55	55	30	55	55	55
142 Portland General Electric	24	24	24	24	24	24	24	24	24	24	10	10	24	24
143 Puget Sound Energy	24	24	24	24	24	24	24	24	24	24	24	24	24	24
144 San Diego Gas & Electric	3	3	3	3	3	3	3	3	3	3	0	0	3	3
145 Total Investor-Owned Entities	156	156	156	156	156	156	156	156	156	156	101	138	156	156
-Other Entities-														
146 TransAlta Energy Marketing	47	47	47	47	47	47	47	47	47	23	23	47	47	47
147 Total Other Entities	47	47	47	47	47	47	47	47	47	23	23	47	47	47
Contract Reserves														
-Federal Entities-														
148 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Continued

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
149 Seattle City Light	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Non-Generating Public Entities-</i>														
151 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
152 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
153 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Capacity Reserves-</i>														
154 Total Hydro Reserves	841	839	837	838	845	841	822	810	793	786	782	800	843	848
155 Total Small Thermal & Misc Reserves	232	232	231	234	235	235	235	235	205	209	207	161	215	235
156 Total Large Thermal Reserves	246	246	246	246	246	246	246	246	246	222	165	225	246	246
157 Total Contract Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158 Total Capacity Reserves	1318	1316	1314	1317	1325	1322	1303	1291	1243	1217	1154	1186	1303	1329

**Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)**

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Hydro Reserves														
-Federal Entities-														
1 BPA - Power Business	523	523	526	530	535	524	514	503	492	476	480	492	520	529
2 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Total Federal Entities	523	523	526	530	535	524	514	503	492	476	480	492	520	529
-Generating Public Entities-														
4 Chelan County PUD #1	23	23	23	23	23	23	23	23	22	23	22	23	23	23
5 Clark County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cowlitz County PUD #1	3.8	3.8	3.8	3.2	3.7	3.3	3.1	3.1	3.2	3.3	1.7	3.7	3.9	3.9
7 Douglas County PUD #1	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
8 Eugene Water & Electric Board	2.6	2.5	2.4	2.2	2	2.5	2.3	2.6	3.2	3.6	3.6	4.4	4.1	3.2
9 Grant County PUD #2	23	23	23	23	23	23	23	23	23	23	23	23	23	23
10 Grays Harbor PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Okanogan County PUD #1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
12 Pend Oreille County PUD #1	2.1	2.1	2.1	2	2.1	2.1	2.1	2.1	2.1	2.1	2	2.0	1.9	2
13 Seattle City Light	43	43	39	41	43	43	41	39	38	38	38	40	46	43
14 Snohomish County PUD #1	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
15 Tacoma Public Utilities	21	20	16	16	15	19	15	14	12	13	13	9.6	17	18
16 Total Generating Public Entities	131	129	121	122	124	127	122	119	115	118	116	118	132	128
-Non-Generating Public Entities-														
17 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Bonners Ferry, City of	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19 Centralia, City of	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
20 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Clatskanie PUD	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
22 Colville Tribes	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
23 Consumers Power	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Emerald County PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Energy Northwest	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
26 Fall River Elec Coop	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27 Forest Grove, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
28 Idaho Falls Power	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.7	0.4	0.4	0.5	0.6	0.5
29 Kittitas County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 Klickitat County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Lower Valley Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 McMinnville, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
35 Milton-Freewater, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
36 Northern Lights	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Northern Wasco County PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
38 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Soda Springs, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Generating Public Entities	4.8	4.8	4.9	4.8	4.8	4.9	4.9	4.9	5.1	4.8	4.8	5.0	5	4.9
-Investor-Owned Entities-														
43 Avista Corp (WWP Division)	29	28	29	29	29	29	28	28	29	29	29	29	29	29
44 Idaho Power Company	38	38	40	41	37	41	39	39	39	43	43	43	41	41
45 Pacific Power	28	28	30	26	29	27	26	26	26	27	23	26	30	28
46 Portland General Electric	26	26	26	26	26	26	26	26	26	26	26	26	26	26
47 PPL Montana, LLC	6.6	6.6	6.6	6.6	6.5	6.5	6.4	6.3	6.2	6.2	6.2	6.4	6.5	6.6
48 Puget Sound Energy	29	28	28	27	28	28	28	28	25	28	28	28	29	29
49 Utah Power	2.5	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.6	2.5	2.5	2.6
50 Total Investor-Owned Entities	159	158	162	158	158	160	156	156	154	162	158	162	163	163
-Other Entities-														
51 Alcoa Power Generating Inc	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
52 Colockum Transmission Company	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53 Longview Fibre	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54 Unknown Entity	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 UnKnown PNW Marketer	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
56 Warm Springs Power Enterprise	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
57 Total Other Entities	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Small Thermal & Misc. Reserves														
-Federal Entities-														
58 BPA - Power Business	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
59 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60 U.S. Naval Station, Everett (Jim Creek)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
61 U.S. Naval Submarine Base, Bangor	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
62 Total Federal Entities	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
-Generating Public Entities-														
63 Burbank, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 Chelan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Clark County PUD #1	5.1	5.1	5.4	5.8	5.9	5.9	5.9	5.9	5.8	5.6	5.6	0	5.5	5.1
66 Cowlitz County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
67 Douglas County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 Eugene Water & Electric Board	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
69 Glendale, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Grant County PUD #2	0.4	0.4	0.3	0.2	0	0	0	0	0.2	0.3	0.3	0.4	0.4	0.4
71 Grays Harbor PUD #1	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.9	2.5	2.5
72 Los Angeles Dept of Water	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
73 M-S-R	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
74 Okanogan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75 Sacramento Municipal Utility District	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
76 Seattle City Light	2.4	2.3	1.6	0.8	0.3	0.4	0.4	0.4	0.5	1.5	1.5	3.2	3.6	3.6
77 Snohomish County PUD #1	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	0.3	1.6	1.6	1.6	1.6	1.6
78 Springfield Utility Board	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79 Tacoma Public Utilities	1.3	1.3	0.8	0.4	0	0	0	0	0.1	0.9	0.9	1.2	1.4	1.5
80 Turlock Irrigation District	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
81 Total Generating Public Entities	17	17	16	15	14	14	14	14	13	16	16	12	18	18
-Non-Generating Public Entities-														
82 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Benton County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
84 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 Clatskanie PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0	0.3	0.3
86 Consumers Power	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87 Emerald County PUD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
88 Energy Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Fall River Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Franklin County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.8	1.3	1.3
91 Klamath Falls, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Klickitat County PUD #1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
93 Lakeview L & P (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mason County PUD #3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98 Portland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99 Spokane, City of	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
100 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102 Total Non-Generating Public Entities	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.4	4.2	4.2
-Investor-Owned Entities-														
103 Avista Corp (WWP Division)	24	24	24	24	24	25	25	25	24	24	15	24	24	24
104 Idaho Power Company	15	15	15	14	14	14	14	14	14	15	15	16	16	16

7/22/2009

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Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
149 Seattle City Light	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Non-Generating Public Entities-</i>														
151 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
152 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
153 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Capacity Reserves-</i>														
154 Total Hydro Reserves	841	839	837	838	845	840	819	807	789	784	782	800	843	848
155 Total Small Thermal & Misc Reserves	233	233	233	234	235	235	235	235	204	220	199	167	222	235
156 Total Large Thermal Reserves	246	246	246	246	246	246	246	246	246	222	202	166	205	246
157 Total Contract Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158 Total Capacity Reserves	1319	1317	1316	1317	1325	1321	1300	1287	1239	1227	1184	1133	1270	1328

**Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)**

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Hydro Reserves														
-Federal Entities-														
1 BPA - Power Business	523	523	526	530	535	525	517	507	496	478	480	492	520	529
2 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Total Federal Entities	523	523	526	530	535	525	517	507	496	478	480	492	520	529
-Generating Public Entities-														
4 Chelan County PUD #1	23	23	23	23	23	23	23	23	22	23	22	23	23	23
5 Clark County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cowlitz County PUD #1	3.8	3.8	3.8	3.2	3.7	3.3	3.1	3.1	3.2	3.3	1.7	3.7	3.9	3.9
7 Douglas County PUD #1	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
8 Eugene Water & Electric Board	2.6	2.5	2.4	2.2	2	2.5	2.3	2.6	3.2	3.6	3.6	4.4	4.1	3.2
9 Grant County PUD #2	23	23	23	23	23	23	23	23	23	23	23	23	23	23
10 Grays Harbor PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Okanogan County PUD #1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
12 Pend Oreille County PUD #1	2.1	2.1	2.1	2	2.1	2.1	2.1	2.1	2.1	2.1	2	2.0	1.9	2
13 Seattle City Light	43	43	39	41	43	43	41	39	38	38	38	40	46	43
14 Snohomish County PUD #1	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
15 Tacoma Public Utilities	21	20	16	16	15	19	15	14	12	13	13	9.6	17	18
16 Total Generating Public Entities	131	129	121	122	124	127	122	119	115	118	116	118	132	128
-Non-Generating Public Entities-														
17 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Bonners Ferry, City of	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19 Centralia, City of	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
20 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Clatskanie PUD	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
22 Colville Tribes	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
23 Consumers Power	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Emerald County PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Energy Northwest	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
26 Fall River Elec Coop	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27 Forest Grove, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
28 Idaho Falls Power	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.7	0.4	0.4	0.5	0.6	0.5
29 Kittitas County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 Klickitat County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Lower Valley Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 McMinnville, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
35 Milton-Freewater, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
36 Northern Lights	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Northern Wasco County PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
38 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Soda Springs, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Generating Public Entities	4.8	4.8	4.9	4.8	4.8	4.9	4.9	4.9	5.1	4.8	4.8	5.0	5	4.9
-Investor-Owned Entities-														
43 Avista Corp (WWP Division)	29	28	29	29	29	29	28	28	29	29	29	29	29	29
44 Idaho Power Company	38	38	40	41	37	41	39	39	39	43	43	43	41	41
45 Pacific Power	28	28	30	26	29	27	26	26	26	27	23	26	30	28
46 Portland General Electric	26	26	26	26	26	26	26	26	26	26	26	26	26	26
47 PPL Montana, LLC	6.6	6.6	6.6	6.6	6.5	6.5	6.4	6.3	6.2	6.2	6.2	6.4	6.5	6.6
48 Puget Sound Energy	29	28	28	27	28	28	28	28	25	28	28	28	29	29
49 Utah Power	2.5	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.6	2.5	2.5	2.6
50 Total Investor-Owned Entities	159	158	162	158	158	160	156	156	154	162	158	162	163	163
-Other Entities-														
51 Alcoa Power Generating Inc	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
52 Colockum Transmission Company	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53 Longview Fibre	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54 Unknown Entity	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 UnKnown PNW Marketer	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
56 Warm Springs Power Enterprise	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
57 Total Other Entities	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Small Thermal & Misc. Reserves														
-Federal Entities-														
58 BPA - Power Business	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
59 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60 U.S. Naval Station, Everett (Jim Creek)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
61 U.S. Naval Submarine Base, Bangor	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
62 Total Federal Entities	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
-Generating Public Entities-														
63 Burbank, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 Chelan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Clark County PUD #1	5.1	5.1	5.4	5.8	5.9	5.9	5.9	5.9	5.8	5.6	5.6	0	5.5	5.1
66 Cowlitz County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
67 Douglas County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 Eugene Water & Electric Board	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
69 Glendale, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Grant County PUD #2	0.4	0.4	0.3	0.2	0	0	0	0	0.2	0.3	0.3	0.4	0.4	0.4
71 Grays Harbor PUD #1	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.9	2.5	2.5
72 Los Angeles Dept of Water	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
73 M-S-R	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
74 Okanogan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75 Sacramento Municipal Utility District	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
76 Seattle City Light	3.0	2.9	2.2	1.4	0.9	0.9	0.9	1.0	1.1	2.1	2.1	3.8	4.2	4.2
77 Snohomish County PUD #1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.3	1.6	1.6	1.6	1.6	1.6
78 Springfield Utility Board	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79 Tacoma Public Utilities	1.3	1.3	0.8	0.4	0	0	0	0	0.1	0.9	0.9	1.2	1.4	1.5
80 Turlock Irrigation District	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
81 Total Generating Public Entities	17	17	16	15	14	14	14	14	13	16	16	12	18	18
-Non-Generating Public Entities-														
82 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Benton County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
84 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 Clatskanie PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0	0.3	0.3
86 Consumers Power	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87 Emerald County PUD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
88 Energy Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Fall River Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Franklin County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.8	1.3	1.3
91 Klamath Falls, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Klickitat County PUD #1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
93 Lakeview L & P (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mason County PUD #3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98 Portland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99 Spokane, City of	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
100 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102 Total Non-Generating Public Entities	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.4	4.2	4.2
-Investor-Owned Entities-														
103 Avista Corp (WWP Division)	24	24	24	24	24	25	25	25	24	17	15	17	24	24
104 Idaho Power Company	15	15	15	14	14	14	14	14	14	15	15	16	16	16

**Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)**

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
105 Northwestern Energy LLC (MPC)	2.3	2.3	2.3	2.4	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.6	2.5	2.4
106 Pacific Gas & Electric	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
107 Pacific Power	26	26	26	27	27	27	27	27	27	27	15	27	14	26
108 Portland General Electric	28	28	29	30	30	31	31	31	17	17	17	14	29	28
109 Puget Sound Energy	51	51	51	52	53	54	54	53	53	52	52	29	51	51
110 Utah Power	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3
111 Total Investor-Owned Entities	147	147	148	150	152	153	153	152	139	131	117	106	137	148
-Other Entities-														
112 Avista Energy Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113 Boise Cascade Corporation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Chehalis Power Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115 Covanta Energy Corporation	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
116 Frederickson Power LP,	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117 Georgia-Pacific West, Inc.	1.2	1.2	1.2	1.3	1.3	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.2	1.2
118 Grays Harbor Energy LLC	16	16	16	16	16	16	16	16	16	16	16	0	16	16
119 Hermiston Power Partnership	16	16	16	16	16	16	16	16	0	16	16	16	16	16
120 Iberdrola Renewables	12	12	12	12	12	12	12	12	12	12	12	12	12	12
121 King County Property Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122 Longview Fibre	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
123 Macquarie Cook Power, Inc.	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0.2	0.2	0.2	0.2
124 Mirant Americas Energy Marketing, L.P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125 Oremet - Wah Chang	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
126 Pacific Klamath Energy	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	2.5
127 SP Newsprint	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
128 TransAlta Energy Marketing	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	0	6.2	6.2
129 Wayzata Investment Partners	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Weyerhaeuser Company	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
131 White Creek LLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132 Total Other Entities	62	62	62	62	62	62	62	62	46	60	60	37	60	62
Large Thermal Reserves														
-Federal Entities-														
133 BPA - Power Business	40	40	40	40	40	40	40	40	40	40	40	40	40	40
134 Total Federal Entities	40	40	40	40	40	40	40	40	40	40	40	40	40	40
-Generating Public Entities-														
135 Turlock Irrigation District	2	2	2	2	2	2	2	2	2	2	0	0	2	2
136 Total Generating Public Entities	2	2	2	2	2	2	2	2	2	2	0	0	2	2
-Non-Generating Public Entities-														
137 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-														
138 Avista Corp (WWP Division)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	3.9	3.9	7.8	7.8	7.8
139 Idaho Power Company	36	36	36	36	36	36	36	36	36	36	28	28	36	36
140 Northwestern Energy LLC (MPC)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	0	0	7.8	7.8	7.8
141 Pacific Power	55	55	55	55	55	55	55	55	55	52	40	42	55	55
142 Portland General Electric	24	24	24	24	24	24	24	24	24	18	5.2	10	24	24
143 Puget Sound Energy	24	24	24	24	24	24	24	24	24	17	17	24	24	24
144 San Diego Gas & Electric	3	3	3	3	3	3	3	3	3	3	0	0	3	3
145 Total Investor-Owned Entities	156	156	156	156	156	156	156	156	156	130	94	120	156	156
-Other Entities-														
146 TransAlta Energy Marketing	47	47	47	47	47	47	47	47	47	47	47	23	47	47
147 Total Other Entities	47	47	47	47	47	47	47	47	47	47	47	23	47	47
Contract Reserves														
-Federal Entities-														
148 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Continued

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
149 Seattle City Light	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Non-Generating Public Entities-</i>														
151 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
152 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
153 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Capacity Reserves-</i>														
154 Total Hydro Reserves	841	839	837	838	845	841	822	810	793	786	782	800	843	848
155 Total Small Thermal & Misc Reserves	233	233	233	234	234	235	235	235	204	213	199	160	222	235
156 Total Large Thermal Reserves	246	246	246	246	246	246	246	246	246	220	181	183	246	246
157 Total Contract Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158 Total Capacity Reserves	1319	1317	1316	1317	1325	1322	1303	1291	1243	1219	1163	1143	1311	1328

**Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)**

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Hydro Reserves														
-Federal Entities-														
1 BPA - Power Business	523	523	526	530	535	524	514	503	492	476	480	492	520	529
2 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Total Federal Entities	523	523	526	530	535	524	514	503	492	476	480	492	520	529
-Generating Public Entities-														
4 Chelan County PUD #1	23	23	23	23	23	23	23	23	22	23	22	23	23	23
5 Clark County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Cowlitz County PUD #1	3.8	3.8	3.8	3.2	3.7	3.3	2.1	2.1	2.2	2.2	0.7	2.7	2.8	2.8
7 Douglas County PUD #1	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
8 Eugene Water & Electric Board	2.6	2.5	2.4	2.2	2	2.5	1.4	1.7	2.3	2.7	2.7	3.5	3.2	2.3
9 Grant County PUD #2	23	23	23	23	23	23	23	23	23	23	23	23	23	23
10 Grays Harbor PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Okanogan County PUD #1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
12 Pend Oreille County PUD #1	2.1	2.1	2.1	2	2.1	2.1	2.1	2.1	2.1	2.1	2	2.0	1.9	2
13 Seattle City Light	43	43	39	41	43	43	40	38	36	36	37	39	45	41
14 Snohomish County PUD #1	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
15 Tacoma Public Utilities	21	20	16	16	15	19	13	12	9.8	11	11	7.8	16	16
16 Total Generating Public Entities	131	129	121	122	124	127	116	113	110	112	110	113	126	122
-Non-Generating Public Entities-														
17 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Bonners Ferry, City of	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19 Centralia, City of	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
20 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 Clatskanie PUD	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
22 Colville Tribes	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
23 Consumers Power	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 Emerald County PUD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Energy Northwest	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
26 Fall River Elec Coop	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27 Forest Grove, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
28 Idaho Falls Power	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.7	0.4	0.4	0.5	0.6	0.5
29 Kittitas County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30 Klickitat County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
31 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Lower Valley Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34 McMinnville, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
35 Milton-Freewater, City of	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
36 Northern Lights	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Northern Wasco County PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
38 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Soda Springs, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Total Non-Generating Public Entities	4.8	4.8	4.9	4.8	4.8	4.9	4.0	4.0	4.2	3.9	3.9	4.1	4.1	4
-Investor-Owned Entities-														
43 Avista Corp (WWP Division)	29	28	29	29	29	29	25	25	26	26	26	25	26	26
44 Idaho Power Company	38	38	40	41	37	41	39	39	39	43	43	43	41	41
45 Pacific Power	28	28	30	26	29	27	19	18	19	20	16	19	23	21
46 Portland General Electric	26	26	26	26	26	26	19	19	19	19	19	19	19	19
47 PPL Montana, LLC	6.6	6.6	6.6	6.6	6.5	6.5	6.4	6.3	6.2	6.2	6.2	6.4	6.5	6.6
48 Puget Sound Energy	29	28	28	27	28	28	24	24	21	24	24	24	24	25
49 Utah Power	2.5	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.6	2.5	2.5	2.6
50 Total Investor-Owned Entities	159	158	162	158	158	160	133	134	132	140	136	139	141	141
-Other Entities-														
51 Alcoa Power Generating Inc	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
52 Colockum Transmission Company	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53 Longview Fibre	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54 Unknown Entity	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55 UnKnown PNW Marketer	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
56 Warm Springs Power Enterprise	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
57 Total Other Entities	23	23	23	23	23	23	23	23	23	23	23	23	23	23
Small Thermal & Misc. Reserves														
-Federal Entities-														
58 BPA - Power Business	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
59 Mission Valley	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60 U.S. Naval Station, Everett (Jim Creek)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
61 U.S. Naval Submarine Base, Bangor	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
62 Total Federal Entities	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
-Generating Public Entities-														
63 Burbank, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64 Chelan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Clark County PUD #1	5.1	5.1	5.4	5.8	5.9	5.9	5.9	5.9	5.8	5.6	5.6	0	5.5	5.1
66 Cowlitz County PUD #1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
67 Douglas County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68 Eugene Water & Electric Board	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
69 Glendale, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 Grant County PUD #2	0.4	0.4	0.3	0.2	0	0	0	0	0.2	0.3	0.3	0.4	0.4	0.4
71 Grays Harbor PUD #1	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
72 Los Angeles Dept of Water	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
73 M-S-R	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
74 Okanogan County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75 Sacramento Municipal Utility District	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
76 Seattle City Light	3.0	2.9	2.2	1.4	0.9	0.9	0.9	1.0	1.1	2.1	2.1	3.8	4.2	4.2
77 Snohomish County PUD #1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.3	1.6	1.6	1.6	1.6	1.6
78 Springfield Utility Board	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79 Tacoma Public Utilities	1.3	1.3	0.8	0.4	0	0	0	0	0.1	0.9	0.9	1.2	1.4	1.5
80 Turlock Irrigation District	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
81 Total Generating Public Entities	17	17	16	15	14	14	14	14	13	16	16	12	18	18
-Non-Generating Public Entities-														
82 Ashland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83 Benton County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
84 Clallam County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85 Clatskanie PUD	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0	0.3	0.3
86 Consumers Power	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87 Emerald County PUD	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
88 Energy Northwest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89 Fall River Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Franklin County PUD #1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
91 Klamath Falls, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Klickitat County PUD #1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
93 Lakeview L & P (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Lewis County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95 Mason County PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96 Mason County PUD #3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 Oregon Trail Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98 Portland, City of	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99 Spokane, City of	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
100 Tanner Elec Coop	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101 Tillamook PUD #1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102 Total Non-Generating Public Entities	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.0	4.2	4.2
-Investor-Owned Entities-														
103 Avista Corp (WWP Division)	24	24	24	24	24	25	25	25	24	24	22	24	17	24
104 Idaho Power Company	15	15	15	14	14	14	14	14	14	15	15	16	16	16

Table A-17: Regional Capacity Reserves
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
105 Northwestern Energy LLC (MPC)	2.3	2.3	2.3	2.4	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.6	2.5	2.4
106 Pacific Gas & Electric	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
107 Pacific Power	26	26	26	27	27	27	27	27	27	15	15	27	14	26
108 Portland General Electric	28	28	29	30	30	31	31	31	17	17	17	14	29	28
109 Puget Sound Energy	51	51	51	52	53	54	54	53	53	52	52	29	51	51
110 Utah Power	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
111 Total Investor-Owned Entities	147	147	148	150	152	153	153	152	139	127	125	113	130	148
-Other Entities-														
112 Avista Energy Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113 Boise Cascade Corporation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114 Chehalis Power Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115 Covanta Energy Corporation	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
116 Frederickson Power LP,	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117 Georgia-Pacific West, Inc.	1.2	1.2	1.2	1.3	1.3	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.2	1.2
118 Grays Harbor Energy LLC	16	16	16	16	16	16	16	16	16	16	16	0	16	16
119 Hermiston Power Partnership	16	16	16	16	16	16	16	16	0	16	16	16	16	16
120 Iberdrola Renewables	12	12	12	12	12	12	12	12	12	12	12	12	12	12
121 King County Property Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122 Longview Fibre	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
123 Macquarie Cook Power, Inc.	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0.2	0.2	0.2	0.2
124 Mirant Americas Energy Marketing, L.P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125 Oremet - Wah Chang	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
126 Pacific Klamath Energy	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	2.5
127 SP Newsprint	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
128 TransAlta Energy Marketing	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	0	6.2	6.2
129 Wayzata Investment Partners	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130 Weyerhaeuser Company	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
131 White Creek LLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132 Total Other Entities	62	62	62	62	62	62	62	62	46	60	60	37	60	62
Large Thermal Reserves														
-Federal Entities-														
133 BPA - Power Business	40	40	40	40	40	40	40	40	40	40	40	0	0	40
134 Total Federal Entities	40	40	40	40	40	40	40	40	40	40	40	0	0	40
-Generating Public Entities-														
135 Turlock Irrigation District	2	2	2	2	2	2	2	2	2	2	0	0	2	2
136 Total Generating Public Entities	2	2	2	2	2	2	2	2	2	2	0	0	2	2
-Non-Generating Public Entities-														
137 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Investor-Owned Entities-														
138 Avista Corp (WWP Division)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
139 Idaho Power Company	36	36	36	36	36	36	36	36	36	36	28	34	36	36
140 Northwestern Energy LLC (MPC)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
141 Pacific Power	55	55	55	55	55	55	55	55	55	55	42	55	55	55
142 Portland General Electric	24	24	24	24	24	24	24	24	24	24	10	10	24	24
143 Puget Sound Energy	24	24	24	24	24	24	24	24	24	24	24	24	24	24
144 San Diego Gas & Electric	3	3	3	3	3	3	3	3	3	3	0	0	3	3
145 Total Investor-Owned Entities	156	156	156	156	156	156	156	156	156	156	120	138	156	156
-Other Entities-														
146 TransAlta Energy Marketing	47	47	47	47	47	47	47	47	47	47	47	23	47	47
147 Total Other Entities	47	47	47	47	47	47	47	47	47	47	47	23	47	47
Contract Reserves														
-Federal Entities-														
148 Total Federal Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Continued

Table A-17: Regional Capacity Reserves
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
149 Seattle City Light	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150 Total Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Non-Generating Public Entities-</i>														
151 Total Non-Generating Public Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Investor-Owned Entities-</i>														
152 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
153 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Total Capacity Reserves-</i>														
154 Total Hydro Reserves	841	839	837	838	845	840	791	778	761	755	754	771	815	820
155 Total Small Thermal & Misc Reserves	233	233	233	234	234	235	235	235	205	209	207	168	215	235
156 Total Large Thermal Reserves	246	246	246	246	246	246	246	246	246	246	207	162	205	246
157 Total Contract Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158 Total Capacity Reserves	1319	1317	1316	1317	1325	1321	1272	1259	1211	1210	1167	1101	1234	1300

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Table A-18
Wells & Chelan Allocation
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-18: Wells and Chelan Allocation
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wells-														
1 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
2 Wells Before Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Wells-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COLV Share	38	38	38	38	38	38	38	38	38	38	38	38	38	38
5 DOPD Share	241	241	241	241	241	241	241	241	241	241	241	241	241	241
6 OKPD Share	64	64	64	64	64	64	64	64	64	64	64	64	64	64
7 PGE Share	163	163	163	163	163	163	163	163	163	163	163	163	163	163
8 PPL Share	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 PSE Share	251	251	251	251	251	251	251	251	251	251	251	251	251	251
10 Wells After Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Chelan-														
11 Chelan	54	54	53	53	53	52	51	51	12	50	12	51	53	54
12 Chelan Before Enc	54	54	53	53	53	52	51	51	12	50	12	51	53	54
-Chelan-														
13 CHPD Share	58	58	57	57	57	56	55	55	16	54	16	55	57	58
14 Chelan After Enc	58	58	57	57	57	56	55	55	16	54	16	55	57	58

Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2010 - 2011 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wells-														
1 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
2 Wells Before Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Wells-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COLV Share	38	38	38	38	38	38	38	38	38	38	38	38	38	38
5 DOPD Share	241	241	241	241	241	241	241	241	241	241	241	241	241	241
6 OKPD Share	64	64	64	64	64	64	64	64	64	64	64	64	64	64
7 PGE Share	163	163	163	163	163	163	163	163	163	163	163	163	163	163
8 PPL Share	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 PSE Share	251	251	251	251	251	251	251	251	251	251	251	251	251	251
10 Wells After Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Chelan-														
11 Chelan	54	54	53	53	53	52	51	51	12	50	12	51	53	54
12 Chelan Before Enc	54	54	53	53	53	52	51	51	12	50	12	51	53	54
-Chelan-														
13 CHPD Share	58	58	57	57	57	56	55	55	16	54	16	55	57	58
14 Chelan After Enc	58	58	57	57	57	56	55	55	16	54	16	55	57	58

Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wells-														
1 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
2 Wells Before Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Wells-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COLV Share	38	38	38	38	38	38	38	38	38	38	38	38	38	38
5 DOPD Share	241	241	241	241	241	241	241	241	241	241	241	241	241	241
6 OKPD Share	64	64	64	64	64	64	64	64	64	64	64	64	64	64
7 PGE Share	163	163	163	163	163	163	163	163	163	163	163	163	163	163
8 PPL Share	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 PSE Share	251	251	251	251	251	251	251	251	251	251	251	251	251	251
10 Wells After Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Chelan-														
11 Chelan	54	54	53	53	53	52	51	51	12	50	12	51	53	54
12 Chelan Before Enc	54	54	53	53	53	52	51	51	12	50	12	51	53	54
-Chelan-														
13 CHPD Share	58	58	57	57	57	56	55	55	16	54	16	55	57	58
14 Chelan After Enc	58	58	57	57	57	56	55	55	16	54	16	55	57	58

Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wells-														
1 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
2 Wells Before Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Wells-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COLV Share	38	38	38	38	38	38	38	38	38	38	38	38	38	38
5 DOPD Share	241	241	241	241	241	241	241	241	241	241	241	241	241	241
6 OKPD Share	64	64	64	64	64	64	64	64	64	64	64	64	64	64
7 PGE Share	163	163	163	163	163	163	163	163	163	163	163	163	163	163
8 PPL Share	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 PSE Share	251	251	251	251	251	251	251	251	251	251	251	251	251	251
10 Wells After Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Chelan-														
11 Chelan	54	54	53	53	53	52	51	51	12	50	12	51	53	54
12 Chelan Before Enc	54	54	53	53	53	52	51	51	12	50	12	51	53	54
-Chelan-														
13 CHPD Share	58	58	57	57	57	56	55	55	16	54	16	55	57	58
14 Chelan After Enc	58	58	57	57	57	56	55	55	16	54	16	55	57	58

Table A-18: Wells and Chelan Allocation
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wells-														
1 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
2 Wells Before Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Wells-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COLV Share	38	38	38	38	38	38	38	38	38	38	38	38	38	38
5 DOPD Share	241	241	241	241	241	241	241	241	241	241	241	241	241	241
6 OKPD Share	64	64	64	64	64	64	64	64	64	64	64	64	64	64
7 PGE Share	163	163	163	163	163	163	163	163	163	163	163	163	163	163
8 PPL Share	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 PSE Share	251	251	251	251	251	251	251	251	251	251	251	251	251	251
10 Wells After Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Chelan-														
11 Chelan	54	54	53	53	53	52	51	51	12	50	12	51	53	54
12 Chelan Before Enc	54	54	53	53	53	52	51	51	12	50	12	51	53	54
-Chelan-														
13 CHPD Share	58	58	57	57	57	56	55	55	16	54	16	55	57	58
14 Chelan After Enc	58	58	57	57	57	56	55	55	16	54	16	55	57	58

Table A-18: Wells and Chelan Allocation
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wells-														
1 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
2 Wells Before Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Wells-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COLV Share	38	38	38	38	38	38	38	38	38	38	38	38	38	38
5 DOPD Share	241	241	241	241	241	241	241	241	241	241	241	241	241	241
6 OKPD Share	64	64	64	64	64	64	64	64	64	64	64	64	64	64
7 PGE Share	163	163	163	163	163	163	163	163	163	163	163	163	163	163
8 PPL Share	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 PSE Share	251	251	251	251	251	251	251	251	251	251	251	251	251	251
10 Wells After Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Chelan-														
11 Chelan	54	54	53	53	53	52	51	51	12	50	12	51	53	54
12 Chelan Before Enc	54	54	53	53	53	52	51	51	12	50	12	51	53	54
-Chelan-														
13 CHPD Share	58	58	57	57	57	56	55	55	16	54	16	55	57	58
14 Chelan After Enc	58	58	57	57	57	56	55	55	16	54	16	55	57	58

Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wells-														
1 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
2 Wells Before Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Wells-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COLV Share	38	38	38	38	38	38	38	38	38	38	38	38	38	38
5 DOPD Share	241	241	241	241	241	241	241	241	241	241	241	241	241	241
6 OKPD Share	64	64	64	64	64	64	64	64	64	64	64	64	64	64
7 PGE Share	163	163	163	163	163	163	163	163	163	163	163	163	163	163
8 PPL Share	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 PSE Share	251	251	251	251	251	251	251	251	251	251	251	251	251	251
10 Wells After Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Chelan-														
11 Chelan	54	54	53	53	53	52	51	51	12	50	12	51	53	54
12 Chelan Before Enc	54	54	53	53	53	52	51	51	12	50	12	51	53	54
-Chelan-														
13 CHPD Share	58	58	57	57	57	56	55	55	16	54	16	55	57	58
14 Chelan After Enc	58	58	57	57	57	56	55	55	16	54	16	55	57	58

Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wells-														
1 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
2 Wells Before Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Wells-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COLV Share	38	38	38	38	38	38	38	38	38	38	38	38	38	38
5 DOPD Share	241	241	241	241	241	241	241	241	241	241	241	241	241	241
6 OKPD Share	64	64	64	64	64	64	64	64	64	64	64	64	64	64
7 PGE Share	163	163	163	163	163	163	163	163	163	163	163	163	163	163
8 PPL Share	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 PSE Share	251	251	251	251	251	251	251	251	251	251	251	251	251	251
10 Wells After Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Chelan-														
11 Chelan	54	54	53	53	53	52	51	51	12	50	12	51	53	54
12 Chelan Before Enc	54	54	53	53	53	52	51	51	12	50	12	51	53	54
-Chelan-														
13 CHPD Share	58	58	57	57	57	56	55	55	16	54	16	55	57	58
14 Chelan After Enc	58	58	57	57	57	56	55	55	16	54	16	55	57	58

Table A-18: Wells and Chelan Allocation
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wells-														
1 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
2 Wells Before Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Wells-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COLV Share	38	38	38	38	38	38	38	38	38	38	38	38	38	38
5 DOPD Share	241	241	241	241	241	241	241	241	241	241	241	241	241	241
6 OKPD Share	64	64	64	64	64	64	64	64	64	64	64	64	64	64
7 PGE Share	163	163	163	163	163	163	163	163	163	163	163	163	163	163
8 PPL Share	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 PSE Share	251	251	251	251	251	251	251	251	251	251	251	251	251	251
10 Wells After Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Chelan-														
11 Chelan	54	54	53	53	53	52	51	51	12	50	12	51	53	54
12 Chelan Before Enc	54	54	53	53	53	52	51	51	12	50	12	51	53	54
-Chelan-														
13 CHPD Share	58	58	57	57	57	56	55	55	16	54	16	55	57	58
14 Chelan After Enc	58	58	57	57	57	56	55	55	16	54	16	55	57	58

Table A-18: Wells and Chelan Allocation
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wells-														
1 Wells	840	840	840	840	840	840	840	840	840	840	840	840	840	840
2 Wells Before Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Wells-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COLV Share	38	38	38	38	38	38	38	38	38	38	38	38	38	38
5 DOPD Share	241	241	241	241	241	241	241	241	241	241	241	241	241	241
6 OKPD Share	64	64	64	64	64	64	64	64	64	64	64	64	64	64
7 PGE Share	163	163	163	163	163	163	163	163	163	163	163	163	163	163
8 PPL Share	55	55	55	55	55	55	55	55	55	55	55	55	55	55
9 PSE Share	251	251	251	251	251	251	251	251	251	251	251	251	251	251
10 Wells After Enc	840	840	840	840	840	840	840	840	840	840	840	840	840	840
-Chelan-														
11 Chelan	54	54	53	53	53	52	51	51	12	50	12	51	53	54
12 Chelan Before Enc	54	54	53	53	53	52	51	51	12	50	12	51	53	54
-Chelan-														
13 CHPD Share	58	58	57	57	57	56	55	55	16	54	16	55	57	58
14 Chelan After Enc	58	58	57	57	57	56	55	55	16	54	16	55	57	58

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Table A-19
Rocky Reach & Rock Island Allocation
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2009 - 2010 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Rocky Reach-														
1 Rocky Reach	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
2 Rocky Reach Before Enc	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
-Rocky Reach-														
3 APGI Share	299	299	298	298	299	299	299	299	298	297	298	299	299	299
4 AVWP Share	38	38	38	38	38	38	38	38	38	37	38	38	38	38
5 CHPD Share	196	196	196	196	196	196	196	196	196	195	196	196	196	196
6 DOPD Share	35	35	35	35	35	35	35	35	35	35	35	35	35	35
7 PGE Share	157	157	157	157	157	157	157	157	157	156	157	157	157	157
8 PPL Share	69	69	69	69	69	69	69	69	69	68	69	69	69	69
9 PSE Share	506	505	504	505	506	505	506	505	504	503	504	505	505	505
10 Rocky Reach After Enc	1301	1298	1296	1297	1300	1299	1300	1298	1297	1292	1296	1299	1299	1299
-Rock Island PH#1-														
11 Rock Island PH#1	153	158	158	158	156	158	156	158	158	158	158	157	157	157
12 Rock Island PH#1 Before Enc	153	158	158	158	156	158	156	158	158	158	158	157	157	157
-Rock Island PH#1-														
13 APGI Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 CHPD Share	84	87	88	87	86	87	85	87	88	88	88	86	86	86
15 PSE Share	84	87	88	87	86	87	85	87	88	88	88	86	86	86
16 Rock Island PH#1 After Enc	168	175	175	175	171	173	171	174	175	176	175	172	172	173
-Rock Island PH#2-														
17 Rock Island PH#2	393	388	388	388	391	389	391	388	388	388	388	390	390	390
18 Rock Island PH#2 Before Enc	393	388	388	388	391	389	391	388	388	388	388	390	390	390
-Rock Island PH#2-														
19 APGI Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 CHPD Share	216	214	215	214	215	214	215	214	214	216	215	215	215	214
21 PSE Share	216	214	215	214	215	214	215	214	214	216	215	215	215	214
22 Rock Island PH#2 After Enc	431	428	429	428	429	428	430	428	429	432	430	429	430	429

Table A-19: Rocky Reach and Rock Island Allocation
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Rocky Reach-</i>														
1 Rocky Reach	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
2 Rocky Reach Before Enc	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
<i>-Rocky Reach-</i>														
3 APGI Share	299	299	298	298	299	299	299	299	298	297	298	299	299	299
4 AVWP Share	38	38	38	38	38	38	38	38	38	37	38	38	38	38
5 CHPD Share	196	196	196	196	196	196	196	196	196	195	196	196	196	196
6 DOPD Share	35	35	35	35	35	35	35	35	35	35	35	35	35	35
7 PGE Share	157	157	157	157	157	157	157	157	157	156	157	157	157	157
8 PPL Share	69	69	69	69	69	69	69	69	69	68	69	69	69	69
9 PSE Share	506	505	504	505	506	505	506	505	504	503	504	505	505	505
10 Rocky Reach After Enc	1301	1298	1296	1297	1300	1299	1300	1298	1297	1292	1296	1299	1299	1299
<i>-Rock Island PH#1-</i>														
11 Rock Island PH#1	153	158	158	158	156	158	156	158	158	158	158	157	157	157
12 Rock Island PH#1 Before Enc	153	158	158	158	156	158	156	158	158	158	158	157	157	157
<i>-Rock Island PH#1-</i>														
13 APGI Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 CHPD Share	84	87	88	87	86	87	85	87	88	88	88	86	86	86
15 PSE Share	84	87	88	87	86	87	85	87	88	88	88	86	86	86
16 Rock Island PH#1 After Enc	168	175	175	175	171	173	171	174	175	176	175	172	172	173
<i>-Rock Island PH#2-</i>														
17 Rock Island PH#2	393	388	388	388	391	389	391	388	388	388	388	390	390	390
18 Rock Island PH#2 Before Enc	393	388	388	388	391	389	391	388	388	388	388	390	390	390
<i>-Rock Island PH#2-</i>														
19 APGI Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 CHPD Share	216	214	215	214	215	214	215	214	214	216	215	215	215	214
21 PSE Share	216	214	215	214	215	214	215	214	214	216	215	215	215	214
22 Rock Island PH#2 After Enc	431	428	429	428	429	428	430	428	429	432	430	429	430	429

Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Rocky Reach-														
1 Rocky Reach	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
2 Rocky Reach Before Enc	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
-Rocky Reach-														
3 APGI Share	299	299	298	298	357	357	357	357	357	355	356	357	357	338
4 AVWP Share	38	38	38	38	0	0	0	0	0	0	0	0	0	0
5 CHPD Share	196	196	196	196	545	545	545	545	544	542	544	545	545	565
6 DOPD Share	35	35	35	35	72	72	72	72	72	72	72	72	72	72
7 PGE Share	157	157	157	157	0	0	0	0	0	0	0	0	0	0
8 PPL Share	69	69	69	69	0	0	0	0	0	0	0	0	0	0
9 PSE Share	506	505	504	505	325	325	325	325	324	323	324	325	325	325
10 Rocky Reach After Enc	1301	1298	1296	1297	1300	1299	1300	1298	1297	1292	1296	1299	1299	1299
-Rock Island PH#1-														
11 Rock Island PH#1	153	158	158	158	156	158	156	158	158	158	158	157	157	157
12 Rock Island PH#1 Before Enc	153	158	158	158	156	158	156	158	158	158	158	157	157	157
-Rock Island PH#1-														
13 APGI Share	0	0	0	0	0	0	0	0	0	0	0	0	0	45
14 CHPD Share	84	87	88	87	86	87	85	87	88	88	88	86	86	85
15 PSE Share	84	87	88	87	86	87	85	87	88	88	88	86	86	43
16 Rock Island PH#1 After Enc	168	175	175	175	171	173	171	174	175	176	175	172	172	173
-Rock Island PH#2-														
17 Rock Island PH#2	393	388	388	388	391	389	391	388	388	388	388	390	390	390
18 Rock Island PH#2 Before Enc	393	388	388	388	391	389	391	388	388	388	388	390	390	390
-Rock Island PH#2-														
19 APGI Share	0	0	0	0	0	0	0	0	0	0	0	0	0	111
20 CHPD Share	216	214	215	214	215	214	215	214	214	216	215	215	215	210
21 PSE Share	216	214	215	214	215	214	215	214	214	216	215	215	215	107
22 Rock Island PH#2 After Enc	431	428	429	428	429	428	430	428	429	432	430	429	430	429

Table A-19: Rocky Reach and Rock Island Allocation
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Rocky Reach-														
1 Rocky Reach	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
2 Rocky Reach Before Enc	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
-Rocky Reach-														
3 APGI Share	338	337	337	337	338	338	338	338	337	336	337	338	338	338
4 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 CHPD Share	565	564	563	564	565	565	565	564	564	562	563	565	564	565
6 DOPD Share	72	72	72	72	72	72	72	72	72	72	72	72	72	72
7 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 PSE Share	325	324	324	324	325	325	325	325	324	323	324	325	325	325
10 Rocky Reach After Enc	1301	1298	1296	1297	1300	1299	1300	1298	1297	1292	1296	1299	1299	1299
-Rock Island PH#1-														
11 Rock Island PH#1	153	158	158	158	156	158	156	158	158	158	158	157	157	157
12 Rock Island PH#1 Before Enc	153	158	158	158	156	158	156	158	158	158	158	157	157	157
-Rock Island PH#1-														
13 APGI Share	44	45	46	45	45	45	44	45	46	46	46	45	45	45
14 CHPD Share	82	86	86	86	84	85	84	85	86	86	86	84	84	85
15 PSE Share	42	44	44	44	43	43	43	44	44	44	44	43	43	43
16 Rock Island PH#1 After Enc	168	175	175	175	171	173	171	174	175	176	175	172	172	173
-Rock Island PH#2-														
17 Rock Island PH#2	393	388	388	388	391	389	391	388	388	388	388	390	390	390
18 Rock Island PH#2 Before Enc	393	388	388	388	391	389	391	388	388	388	388	390	390	390
-Rock Island PH#2-														
19 APGI Share	112	111	112	111	112	111	112	111	111	112	112	112	112	111
20 CHPD Share	211	210	210	210	210	210	211	210	210	212	210	210	210	210
21 PSE Share	108	107	107	107	107	107	107	107	107	108	107	107	107	107
22 Rock Island PH#2 After Enc	431	428	429	428	429	428	430	428	429	432	430	429	430	429

Table A-19: Rocky Reach and Rock Island Allocation
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Rocky Reach-														
1 Rocky Reach	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
2 Rocky Reach Before Enc	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
-Rocky Reach-														
3 APGI Share	338	337	337	337	338	338	338	338	337	335	337	338	338	338
4 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 CHPD Share	565	564	563	564	565	565	565	564	564	561	563	565	564	565
6 DOPD Share	72	72	72	72	72	72	72	72	72	71	72	72	72	72
7 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 PSE Share	325	324	324	324	325	325	325	325	324	323	324	325	325	325
10 Rocky Reach After Enc	1301	1298	1296	1297	1300	1299	1300	1298	1297	1290	1296	1299	1299	1299
-Rock Island PH#1-														
11 Rock Island PH#1	153	158	158	158	156	157	156	158	158	158	158	157	157	157
12 Rock Island PH#1 Before Enc	153	158	158	158	156	157	156	158	158	158	158	157	157	157
-Rock Island PH#1-														
13 APGI Share	44	45	46	45	45	45	44	45	46	46	46	45	45	45
14 CHPD Share	82	86	86	86	84	85	84	85	86	87	86	84	84	85
15 PSE Share	42	44	44	44	43	43	43	44	44	44	44	43	43	43
16 Rock Island PH#1 After Enc	168	175	175	175	171	173	171	174	175	177	175	172	172	173
-Rock Island PH#2-														
17 Rock Island PH#2	393	388	388	388	391	389	391	388	388	388	388	390	390	390
18 Rock Island PH#2 Before Enc	393	388	388	388	391	389	391	388	388	388	388	390	390	390
-Rock Island PH#2-														
19 APGI Share	112	111	112	111	112	111	112	111	111	113	112	112	112	111
20 CHPD Share	211	210	210	210	210	210	211	210	210	212	210	210	210	210
21 PSE Share	108	107	107	107	107	107	107	107	107	108	107	107	107	107
22 Rock Island PH#2 After Enc	431	428	429	428	429	428	430	428	429	433	430	429	430	429

Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Rocky Reach-														
1 Rocky Reach	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
2 Rocky Reach Before Enc	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
-Rocky Reach-														
3 APGI Share	338	337	337	337	338	338	338	338	337	334	337	338	338	338
4 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 CHPD Share	565	564	563	564	565	565	565	564	564	558	563	565	564	565
6 DOPD Share	72	72	72	72	72	72	72	72	72	71	72	72	72	72
7 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 PSE Share	325	324	324	324	325	325	325	325	324	321	324	325	325	325
10 Rocky Reach After Enc	1301	1298	1296	1297	1300	1300	1300	1298	1297	1283	1296	1299	1299	1299
-Rock Island PH#1-														
11 Rock Island PH#1	153	158	158	158	156	156	156	158	158	158	158	157	157	157
12 Rock Island PH#1 Before Enc	153	158	158	158	156	156	156	158	158	158	158	157	157	157
-Rock Island PH#1-														
13 APGI Share	44	45	46	45	45	45	44	45	46	47	46	45	45	45
14 CHPD Share	82	86	86	86	84	84	84	85	86	88	86	84	84	85
15 PSE Share	42	44	44	44	43	43	43	44	44	45	44	43	43	43
16 Rock Island PH#1 After Enc	168	175	175	175	171	172	171	174	175	179	175	172	172	173
-Rock Island PH#2-														
17 Rock Island PH#2	393	388	388	388	391	390	391	388	388	388	388	390	390	390
18 Rock Island PH#2 Before Enc	393	388	388	388	391	390	391	388	388	388	388	390	390	390
-Rock Island PH#2-														
19 APGI Share	112	111	112	111	112	112	112	111	111	114	112	112	112	111
20 CHPD Share	211	210	210	210	210	210	211	210	210	215	210	210	210	210
21 PSE Share	108	107	107	107	107	107	107	107	107	110	107	107	107	107
22 Rock Island PH#2 After Enc	431	428	429	428	429	429	430	428	429	438	430	429	430	429

Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Rocky Reach-														
1 Rocky Reach	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
2 Rocky Reach Before Enc	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
-Rocky Reach-														
3 APGI Share	338	337	337	337	338	338	338	338	337	335	337	338	338	338
4 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 CHPD Share	565	564	563	564	565	565	565	564	564	561	563	565	564	565
6 DOPD Share	72	72	72	72	72	72	72	72	72	71	72	72	72	72
7 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 PSE Share	325	324	324	324	325	325	325	325	324	323	324	325	325	325
10 Rocky Reach After Enc	1301	1298	1296	1297	1300	1299	1300	1298	1297	1290	1296	1299	1299	1299
-Rock Island PH#1-														
11 Rock Island PH#1	153	158	158	158	156	157	156	158	158	158	158	157	157	157
12 Rock Island PH#1 Before Enc	153	158	158	158	156	157	156	158	158	158	158	157	157	157
-Rock Island PH#1-														
13 APGI Share	44	45	46	45	45	45	44	45	46	46	46	45	45	45
14 CHPD Share	82	86	86	86	84	85	84	85	86	87	86	84	84	85
15 PSE Share	42	44	44	44	43	43	43	44	44	44	44	43	43	43
16 Rock Island PH#1 After Enc	168	175	175	175	171	173	171	174	175	177	175	172	172	173
-Rock Island PH#2-														
17 Rock Island PH#2	393	388	388	388	391	389	391	388	388	388	388	390	390	390
18 Rock Island PH#2 Before Enc	393	388	388	388	391	389	391	388	388	388	388	390	390	390
-Rock Island PH#2-														
19 APGI Share	112	111	112	111	112	111	112	111	111	113	112	112	112	111
20 CHPD Share	211	210	210	210	210	210	211	210	210	212	210	210	210	210
21 PSE Share	108	107	107	107	107	107	107	107	107	108	107	107	107	107
22 Rock Island PH#2 After Enc	431	428	429	428	429	428	430	428	429	433	430	429	430	429

Table A-19: Rocky Reach and Rock Island Allocation
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Rocky Reach-														
1 Rocky Reach	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
2 Rocky Reach Before Enc	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
-Rocky Reach-														
3 APGI Share	338	337	337	337	338	338	338	338	337	334	337	338	338	338
4 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 CHPD Share	565	564	563	564	565	565	565	564	564	558	563	565	564	565
6 DOPD Share	72	72	72	72	72	72	72	72	72	71	72	72	72	72
7 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 PSE Share	325	324	324	324	325	325	325	325	324	321	324	325	325	325
10 Rocky Reach After Enc	1301	1298	1296	1297	1300	1300	1300	1298	1297	1283	1296	1299	1299	1299
-Rock Island PH#1-														
11 Rock Island PH#1	153	158	158	158	156	156	156	158	158	158	158	157	157	157
12 Rock Island PH#1 Before Enc	153	158	158	158	156	156	156	158	158	158	158	157	157	157
-Rock Island PH#1-														
13 APGI Share	44	45	46	45	45	45	44	45	46	47	46	45	45	45
14 CHPD Share	82	86	86	86	84	84	84	85	86	88	86	84	84	85
15 PSE Share	42	44	44	44	43	43	43	44	44	45	44	43	43	43
16 Rock Island PH#1 After Enc	168	175	175	175	171	172	171	174	175	179	175	172	172	173
-Rock Island PH#2-														
17 Rock Island PH#2	393	388	388	388	391	390	391	388	388	388	388	390	390	390
18 Rock Island PH#2 Before Enc	393	388	388	388	391	390	391	388	388	388	388	390	390	390
-Rock Island PH#2-														
19 APGI Share	112	111	112	111	112	112	112	111	111	114	112	112	112	111
20 CHPD Share	211	210	210	210	210	210	211	210	210	215	210	210	210	210
21 PSE Share	108	107	107	107	107	107	107	107	107	110	107	107	107	107
22 Rock Island PH#2 After Enc	431	428	429	428	429	429	430	428	429	438	430	429	430	429

Table A-19: Rocky Reach and Rock Island Allocation
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Rocky Reach-														
1 Rocky Reach	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
2 Rocky Reach Before Enc	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
-Rocky Reach-														
3 APGI Share	338	337	337	337	338	338	338	338	337	335	337	338	338	338
4 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 CHPD Share	565	564	563	564	565	565	565	564	564	561	563	565	564	565
6 DOPD Share	72	72	72	72	72	72	72	72	72	71	72	72	72	72
7 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 PSE Share	325	324	324	324	325	325	325	325	324	323	324	325	325	325
10 Rocky Reach After Enc	1301	1298	1296	1297	1300	1299	1300	1298	1297	1290	1296	1299	1299	1299
-Rock Island PH#1-														
11 Rock Island PH#1	153	158	158	158	156	157	156	158	158	158	158	157	157	157
12 Rock Island PH#1 Before Enc	153	158	158	158	156	157	156	158	158	158	158	157	157	157
-Rock Island PH#1-														
13 APGI Share	44	45	46	45	45	45	44	45	46	46	46	45	45	45
14 CHPD Share	82	86	86	86	84	85	84	85	86	87	86	84	84	85
15 PSE Share	42	44	44	44	43	43	43	44	44	44	44	43	43	43
16 Rock Island PH#1 After Enc	168	175	175	175	171	173	171	174	175	177	175	172	172	173
-Rock Island PH#2-														
17 Rock Island PH#2	393	388	388	388	391	389	391	388	388	388	388	390	390	390
18 Rock Island PH#2 Before Enc	393	388	388	388	391	389	391	388	388	388	388	390	390	390
-Rock Island PH#2-														
19 APGI Share	112	111	112	111	112	111	112	111	111	113	112	112	112	111
20 CHPD Share	211	210	210	210	210	210	211	210	210	212	210	210	210	210
21 PSE Share	108	107	107	107	107	107	107	107	107	108	107	107	107	107
22 Rock Island PH#2 After Enc	431	428	429	428	429	428	430	428	429	433	430	429	430	429

Table A-19: Rocky Reach and Rock Island Allocation
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Rocky Reach-														
1 Rocky Reach	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
2 Rocky Reach Before Enc	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266	1266
-Rocky Reach-														
3 APGI Share	338	337	337	337	338	338	338	338	337	334	337	338	338	338
4 AVWP Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 CHPD Share	565	564	563	564	565	565	565	564	564	558	563	565	564	565
6 DOPD Share	72	72	72	72	72	72	72	72	72	71	72	72	72	72
7 PGE Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 PPL Share	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 PSE Share	325	324	324	324	325	325	325	325	324	321	324	325	325	325
10 Rocky Reach After Enc	1301	1298	1296	1297	1300	1300	1300	1298	1297	1283	1296	1299	1299	1299
-Rock Island PH#1-														
11 Rock Island PH#1	153	158	158	158	156	156	156	158	158	158	158	157	157	157
12 Rock Island PH#1 Before Enc	153	158	158	158	156	156	156	158	158	158	158	157	157	157
-Rock Island PH#1-														
13 APGI Share	44	45	46	45	45	45	44	45	46	47	46	45	45	45
14 CHPD Share	82	86	86	86	84	84	84	85	86	88	86	84	84	85
15 PSE Share	42	44	44	44	43	43	43	44	44	45	44	43	43	43
16 Rock Island PH#1 After Enc	168	175	175	175	171	172	171	174	175	179	175	172	172	173
-Rock Island PH#2-														
17 Rock Island PH#2	393	388	388	388	391	390	391	388	388	388	388	390	390	390
18 Rock Island PH#2 Before Enc	393	388	388	388	391	390	391	388	388	388	388	390	390	390
-Rock Island PH#2-														
19 APGI Share	112	111	112	111	112	112	112	111	111	114	112	112	112	111
20 CHPD Share	211	210	210	210	210	210	211	210	210	215	210	210	210	210
21 PSE Share	108	107	107	107	107	107	107	107	107	110	107	107	107	107
22 Rock Island PH#2 After Enc	431	428	429	428	429	429	430	428	429	438	430	429	430	429

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Table A-20
Wanapum & Priest Rapids Allocation
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2009 - 2010 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wanapum-														
1 Wanapum	825	825	825	825	825	825	825	825	825	825	825	825	825	825
2 Wanapum Before Enc	825	825	825	825	825	825	825	825	825	825	825	825	825	825
-Wanapum-														
3 AVWP Share	61	61	61	61	40	40	28	28	28	28	28	28	28	28
4 COPD Share	20	20	20	20	13	13	13	13	13	13	13	13	13	13
5 EWEB Share	17	17	17	17	4.4	4.4	1	1	1	1	1	1	1	1
6 FGRV Share	5.2	5.2	5.2	5.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
7 GCPD Share	273	273	273	273	362	362	462	462	462	462	462	462	462	462
8 KITT Share	0	0	0	0	1	1	1	1	1	1	1	1	1	1
9 MCMN Share	5.2	5.2	5.2	5.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
10 MTRF Share	5.2	5.2	5.2	5.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
11 PGE Share	140	140	140	140	86	86	65	65	65	65	65	65	65	65
12 PNWMtr Share	0	0	0	0	158	158	152	152	152	152	152	152	152	152
13 PPL Share	140	140	140	140	36	36	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
14 PSE Share	81	81	81	81	21	21	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 SCL Share	0	0	0	0	8.8	8.8	2	2	2	2	2	2	2	2
16 TPU Share	0	0	0	0	8.8	8.8	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
17 Wanapum After Enc	749	749	749	749	749	749	749	749	749	749	749	749	749	749
-Priest Rapids-														
18 Priest Rapids	770	770	770	770	770	770	770	770	770	770	770	770	770	770
19 Priest Rapids Before Enc	770	770	770	770	770	770	770	770	770	770	770	770	770	770
-Priest Rapids-														
20 AVWP Share	25	25	25	25	41	41	29	29	29	29	29	29	29	29
21 COPD Share	11	11	11	11	14	14	14	14	14	14	14	14	14	14
22 EWEB Share	0.9	0.9	0.9	0.9	4.5	4.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
23 FGRV Share	2.6	2.6	2.6	2.6	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
24 GCPD Share	468	468	468	468	365	365	465	465	465	465	465	465	465	465
25 KITT Share	2.1	2.1	2.1	2.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
26 MCMN Share	2.6	2.6	2.6	2.6	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
27 MTRF Share	2.6	2.6	2.6	2.6	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
28 PGE Share	49	49	49	49	87	87	65	65	65	65	65	65	65	65
29 PNWMtr Share	171	171	171	171	159	159	153	153	153	153	153	153	153	153
30 PPL Share	7.1	7.1	7.1	7.1	36	36	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
31 PSE Share	4.1	4.1	4.1	4.1	21	21	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
32 SCL Share	4.1	4.1	4.1	4.1	8.8	8.8	2	2	2	2	2	2	2	2
33 TPU Share	4.4	4.4	4.4	4.4	8.9	8.9	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
34 Priest Rapids After Enc	754	754	754	754	754	754	754	754	754	754	754	754	754	754

Table A-20: Wanapum and Priest Rapids Allocation
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wanapum-														
1 Wanapum	825	825	825	825	825	825	825	825	825	825	825	825	825	825
2 Wanapum Before Enc	825	825	825	825	825	825	825	825	825	825	825	825	825	825
-Wanapum-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COPD Share	13	13	13	13	13	13	13	13	13	13	13	13	13	13
5 EWEB Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6 FGRV Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
7 GCPD Share	462	462	462	462	462	462	462	462	462	462	462	462	462	462
8 KITT Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9 MCMN Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
10 MTRF Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
11 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
12 PNWMkr Share	152	152	152	152	152	152	152	152	152	152	152	152	152	152
13 PPL Share	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
14 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
17 Wanapum After Enc	749	749	749	749	749	749	749	749	749	749	749	749	749	749
-Priest Rapids-														
18 Priest Rapids	770	770	770	770	770	770	770	770	770	770	770	770	770	770
19 Priest Rapids Before Enc	770	770	770	770	770	770	770	770	770	770	770	770	770	770
-Priest Rapids-														
20 AVWP Share	29	29	29	29	29	29	29	29	29	29	29	29	29	29
21 COPD Share	14	14	14	14	14	14	14	14	14	14	14	14	14	14
22 EWEB Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
23 FGRV Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
24 GCPD Share	465	465	465	465	465	465	465	465	465	465	465	465	465	465
25 KITT Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
26 MCMN Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
27 MTRF Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
28 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
29 PNWMkr Share	153	153	153	153	153	153	153	153	153	153	153	153	153	153
30 PPL Share	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
31 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
32 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
33 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
34 Priest Rapids After Enc	754	754	754	754	754	754	754	754	754	754	754	754	754	754

Table A-20: Wanapum and Priest Rapids Allocation
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wanapum-														
1 Wanapum	825	825	825	825	825	825	825	825	825	825	825	825	825	825
2 Wanapum Before Enc	825	825	825	825	825	825	825	825	825	825	825	825	825	825
-Wanapum-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COPD Share	13	13	13	13	13	13	13	13	13	13	13	13	13	13
5 EWEB Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6 FGRV Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
7 GCPD Share	462	462	462	462	462	462	462	462	462	462	462	462	462	462
8 KITT Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9 MCMN Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
10 MTFR Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
11 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
12 PNWMktr Share	152	152	152	152	152	152	152	152	152	152	152	152	152	152
13 PPL Share	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
14 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
17 Wanapum After Enc	749	749	749	749	749	749	749	749	749	749	749	749	749	749
-Priest Rapids-														
18 Priest Rapids	770	770	770	770	770	770	770	770	770	770	770	770	770	770
19 Priest Rapids Before Enc	770	770	770	770	770	770	770	770	770	770	770	770	770	770
-Priest Rapids-														
20 AVWP Share	29	29	29	29	29	29	29	29	29	29	29	29	29	29
21 COPD Share	14	14	14	14	14	14	14	14	14	14	14	14	14	14
22 EWEB Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
23 FGRV Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
24 GCPD Share	465	465	465	465	465	465	465	465	465	465	465	465	465	465
25 KITT Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
26 MCMN Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
27 MTFR Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
28 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
29 PNWMktr Share	153	153	153	153	153	153	153	153	153	153	153	153	153	153
30 PPL Share	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
31 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
32 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
33 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
34 Priest Rapids After Enc	754	754	754	754	754	754	754	754	754	754	754	754	754	754

Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wanapum-														
1 Wanapum	825	825	825	825	825	825	825	825	825	825	825	825	825	825
2 Wanapum Before Enc	825	825	825	825	825	825	825	825	825	825	825	825	825	825
-Wanapum-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COPD Share	13	13	13	13	13	13	13	13	13	13	13	13	13	13
5 EWEB Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6 FGRV Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
7 GCPD Share	462	462	462	462	462	462	462	462	462	462	462	462	462	462
8 KITT Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9 MCMN Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
10 MTRF Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
11 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
12 PNWMkr Share	152	152	152	152	152	152	152	152	152	152	152	152	152	152
13 PPL Share	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
14 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
17 Wanapum After Enc	749	749	749	749	749	749	749	749	749	749	749	749	749	749
-Priest Rapids-														
18 Priest Rapids	770	770	770	770	770	770	770	770	770	770	770	770	770	770
19 Priest Rapids Before Enc	770	770	770	770	770	770	770	770	770	770	770	770	770	770
-Priest Rapids-														
20 AVWP Share	29	29	29	29	29	29	29	29	29	29	29	29	29	29
21 COPD Share	14	14	14	14	14	14	14	14	14	14	14	14	14	14
22 EWEB Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
23 FGRV Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
24 GCPD Share	465	465	465	465	465	465	465	465	465	465	465	465	465	465
25 KITT Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
26 MCMN Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
27 MTRF Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
28 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
29 PNWMkr Share	153	153	153	153	153	153	153	153	153	153	153	153	153	153
30 PPL Share	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
31 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
32 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
33 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
34 Priest Rapids After Enc	754	754	754	754	754	754	754	754	754	754	754	754	754	754

Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wanapum-														
1 Wanapum	825	825	825	825	825	825	825	825	825	825	825	825	825	825
2 Wanapum Before Enc	825	825	825	825	825	825	825	825	825	825	825	825	825	825
-Wanapum-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COPD Share	13	13	13	13	13	13	13	13	13	13	13	13	13	13
5 EWEB Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6 FGRV Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
7 GCPD Share	462	462	462	462	462	462	462	462	462	462	462	462	462	462
8 KITTT Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9 MCMN Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
10 MTFR Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
11 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
12 PNWMktr Share	152	152	152	152	152	152	152	152	152	152	152	152	152	152
13 PPL Share	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
14 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
17 Wanapum After Enc	749	749	749	749	749	749	749	749	749	749	749	749	749	749
-Priest Rapids-														
18 Priest Rapids	770	770	770	770	770	770	770	770	770	770	770	770	770	770
19 Priest Rapids Before Enc	770	770	770	770	770	770	770	770	770	770	770	770	770	770
-Priest Rapids-														
20 AVWP Share	29	29	29	29	29	29	29	29	29	29	29	29	29	29
21 COPD Share	14	14	14	14	14	14	14	14	14	14	14	14	14	14
22 EWEB Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
23 FGRV Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
24 GCPD Share	465	465	465	465	465	465	465	465	465	465	465	465	465	465
25 KITTT Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
26 MCMN Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
27 MTFR Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
28 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
29 PNWMktr Share	153	153	153	153	153	153	153	153	153	153	153	153	153	153
30 PPL Share	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
31 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
32 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
33 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
34 Priest Rapids After Enc	754	754	754	754	754	754	754	754	754	754	754	754	754	754

Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wanapum-														
1 Wanapum	825	825	825	825	825	825	825	825	825	825	825	825	825	825
2 Wanapum Before Enc	825	825	825	825	825	825	825	825	825	825	825	825	825	825
-Wanapum-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COPD Share	13	13	13	13	13	13	13	13	13	13	13	13	13	13
5 EWEB Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6 FGRV Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
7 GCPD Share	462	462	462	462	462	462	462	462	462	462	462	462	462	462
8 KITT Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9 MCMN Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
10 MTRF Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
11 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
12 PNWMtr Share	152	152	152	152	152	152	152	152	152	152	152	152	152	152
13 PPL Share	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
14 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
17 Wanapum After Enc	749	749	749	749	749	749	749	749	749	749	749	749	749	749
-Priest Rapids-														
18 Priest Rapids	770	770	770	770	770	770	770	770	770	770	770	770	770	770
19 Priest Rapids Before Enc	770	770	770	770	770	770	770	770	770	770	770	770	770	770
-Priest Rapids-														
20 AVWP Share	29	29	29	29	29	29	29	29	29	29	29	29	29	29
21 COPD Share	14	14	14	14	14	14	14	14	14	14	14	14	14	14
22 EWEB Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
23 FGRV Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
24 GCPD Share	465	465	465	465	465	465	465	465	465	465	465	465	465	465
25 KITT Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
26 MCMN Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
27 MTRF Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
28 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
29 PNWMtr Share	153	153	153	153	153	153	153	153	153	153	153	153	153	153
30 PPL Share	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
31 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
32 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
33 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
34 Priest Rapids After Enc	754	754	754	754	754	754	754	754	754	754	754	754	754	754

Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wanapum-														
1 Wanapum	825	825	825	825	825	825	825	825	825	825	825	825	825	825
2 Wanapum Before Enc	825	825	825	825	825	825	825	825	825	825	825	825	825	825
-Wanapum-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COPD Share	13	13	13	13	13	13	13	13	13	13	13	13	13	13
5 EWEB Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6 FGRV Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
7 GCPD Share	462	462	462	462	462	462	462	462	462	462	462	462	462	462
8 KITT Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9 MCMN Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
10 MTFR Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
11 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
12 PNWMktr Share	152	152	152	152	152	152	152	152	152	152	152	152	152	152
13 PPL Share	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
14 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
17 Wanapum After Enc	749	749	749	749	749	749	749	749	749	749	749	749	749	749
-Priest Rapids-														
18 Priest Rapids	770	770	770	770	770	770	770	770	770	770	770	770	770	770
19 Priest Rapids Before Enc	770	770	770	770	770	770	770	770	770	770	770	770	770	770
-Priest Rapids-														
20 AVWP Share	29	29	29	29	29	29	29	29	29	29	29	29	29	29
21 COPD Share	14	14	14	14	14	14	14	14	14	14	14	14	14	14
22 EWEB Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
23 FGRV Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
24 GCPD Share	465	465	465	465	465	465	465	465	465	465	465	465	465	465
25 KITT Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
26 MCMN Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
27 MTFR Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
28 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
29 PNWMktr Share	153	153	153	153	153	153	153	153	153	153	153	153	153	153
30 PPL Share	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
31 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
32 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
33 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
34 Priest Rapids After Enc	754	754	754	754	754	754	754	754	754	754	754	754	754	754

Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wanapum-														
1 Wanapum	825	825	825	825	825	825	825	825	825	825	825	825	825	825
2 Wanapum Before Enc	825	825	825	825	825	825	825	825	825	825	825	825	825	825
-Wanapum-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COPD Share	13	13	13	13	13	13	13	13	13	13	13	13	13	13
5 EWEB Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6 FGRV Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
7 GCPD Share	462	462	462	462	462	462	462	462	462	462	462	462	462	462
8 KITT Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9 MCMN Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
10 MTRF Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
11 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
12 PNWMkr Share	152	152	152	152	152	152	152	152	152	152	152	152	152	152
13 PPL Share	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
14 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
17 Wanapum After Enc	749	749	749	749	749	749	749	749	749	749	749	749	749	749
-Priest Rapids-														
18 Priest Rapids	770	770	770	770	770	770	770	770	770	770	770	770	770	770
19 Priest Rapids Before Enc	770	770	770	770	770	770	770	770	770	770	770	770	770	770
-Priest Rapids-														
20 AVWP Share	29	29	29	29	29	29	29	29	29	29	29	29	29	29
21 COPD Share	14	14	14	14	14	14	14	14	14	14	14	14	14	14
22 EWEB Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
23 FGRV Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
24 GCPD Share	465	465	465	465	465	465	465	465	465	465	465	465	465	465
25 KITT Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
26 MCMN Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
27 MTRF Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
28 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
29 PNWMkr Share	153	153	153	153	153	153	153	153	153	153	153	153	153	153
30 PPL Share	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
31 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
32 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
33 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
34 Priest Rapids After Enc	754	754	754	754	754	754	754	754	754	754	754	754	754	754

Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wanapum-														
1 Wanapum	825	825	825	825	825	825	825	825	825	825	825	825	825	825
2 Wanapum Before Enc	825	825	825	825	825	825	825	825	825	825	825	825	825	825
-Wanapum-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COPD Share	13	13	13	13	13	13	13	13	13	13	13	13	13	13
5 EWEB Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6 FGRV Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
7 GCPD Share	462	462	462	462	462	462	462	462	462	462	462	462	462	462
8 KITT Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9 MCMN Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
10 MTFR Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
11 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
12 PNWMktr Share	152	152	152	152	152	152	152	152	152	152	152	152	152	152
13 PPL Share	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
14 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
17 Wanapum After Enc	749	749	749	749	749	749	749	749	749	749	749	749	749	749
-Priest Rapids-														
18 Priest Rapids	770	770	770	770	770	770	770	770	770	770	770	770	770	770
19 Priest Rapids Before Enc	770	770	770	770	770	770	770	770	770	770	770	770	770	770
-Priest Rapids-														
20 AVWP Share	29	29	29	29	29	29	29	29	29	29	29	29	29	29
21 COPD Share	14	14	14	14	14	14	14	14	14	14	14	14	14	14
22 EWEB Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
23 FGRV Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
24 GCPD Share	465	465	465	465	465	465	465	465	465	465	465	465	465	465
25 KITT Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
26 MCMN Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
27 MTFR Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
28 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
29 PNWMktr Share	153	153	153	153	153	153	153	153	153	153	153	153	153	153
30 PPL Share	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
31 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
32 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
33 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
34 Priest Rapids After Enc	754	754	754	754	754	754	754	754	754	754	754	754	754	754

Table A-20: Wanapum and Priest Rapids Allocation
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-Wanapum-														
1 Wanapum	825	825	825	825	825	825	825	825	825	825	825	825	825	825
2 Wanapum Before Enc	825	825	825	825	825	825	825	825	825	825	825	825	825	825
-Wanapum-														
3 AVWP Share	28	28	28	28	28	28	28	28	28	28	28	28	28	28
4 COPD Share	13	13	13	13	13	13	13	13	13	13	13	13	13	13
5 EWEB Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6 FGRV Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
7 GCPD Share	462	462	462	462	462	462	462	462	462	462	462	462	462	462
8 KITT Share	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9 MCMN Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
10 MTRF Share	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
11 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
12 PNWMkr Share	152	152	152	152	152	152	152	152	152	152	152	152	152	152
13 PPL Share	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
14 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
15 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
17 Wanapum After Enc	749	749	749	749	749	749	749	749	749	749	749	749	749	749
-Priest Rapids-														
18 Priest Rapids	770	770	770	770	770	770	770	770	770	770	770	770	770	770
19 Priest Rapids Before Enc	770	770	770	770	770	770	770	770	770	770	770	770	770	770
-Priest Rapids-														
20 AVWP Share	29	29	29	29	29	29	29	29	29	29	29	29	29	29
21 COPD Share	14	14	14	14	14	14	14	14	14	14	14	14	14	14
22 EWEB Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
23 FGRV Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
24 GCPD Share	465	465	465	465	465	465	465	465	465	465	465	465	465	465
25 KITT Share	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
26 MCMN Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
27 MTRF Share	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
28 PGE Share	65	65	65	65	65	65	65	65	65	65	65	65	65	65
29 PNWMkr Share	153	153	153	153	153	153	153	153	153	153	153	153	153	153
30 PPL Share	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
31 PSE Share	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
32 SCL Share	2	2	2	2	2	2	2	2	2	2	2	2	2	2
33 TPU Share	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
34 Priest Rapids After Enc	754	754	754	754	754	754	754	754	754	754	754	754	754	754

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Table A-21
Swift #1 and Swift #2 Allocation
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-21: Swift #1 and Swift #2 Allocation
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Swift 1-														
1 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
2 Swift 1 Before Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 1-														
3 COPD Share	69	68	68	44	60	44	36	36	39	41	0.1	61	69	70
4 PPL Share	196	194	193	125	170	124	104	104	112	117	0.1	172	196	198
5 Swift 1 After Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 2-														
6 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
7 Swift 2 Before Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
Swift 2-														
8 COPD Share	16	16	17	13	18	20	20	20	20	20	0	20	16	15
9 PPL Share	44	46	47	37	51	56	56	56	56	56	0.1	56	46	43
10 Swift 2 After Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58

Table A-21: Swift #1 and Swift #2 Allocation
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Swift 1-														
1 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
2 Swift 1 Before Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 1-														
3 COPD Share	69	68	68	44	60	44	36	36	39	41	0.1	61	69	70
4 PPL Share	196	194	193	125	170	124	104	104	112	117	0.1	172	196	198
5 Swift 1 After Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 2-														
6 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
7 Swift 2 Before Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
Swift 2-														
8 COPD Share	16	16	17	13	18	20	20	20	20	20	0	20	16	15
9 PPL Share	44	46	47	37	51	56	56	56	56	56	0.1	56	46	43
10 Swift 2 After Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58

Table A-21: Swift #1 and Swift #2 Allocation
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Swift 1- 1 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
2 Swift 1 Before Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 1- 3 COPD Share	69	68	68	44	60	44	36	36	39	41	0.1	61	69	70
4 PPL Share	196	194	193	125	170	124	104	104	112	117	0.1	172	196	198
5 Swift 1 After Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 2- 6 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
7 Swift 2 Before Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
Swift 2- 8 COPD Share	16	16	17	13	18	20	20	20	20	20	0	20	16	15
9 PPL Share	44	46	47	37	51	56	56	56	56	56	0.1	56	46	43
10 Swift 2 After Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58

Table A-21: Swift #1 and Swift #2 Allocation
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Swift 1-														
1 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
2 Swift 1 Before Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 1-														
3 COPD Share	69	68	68	44	60	44	36	36	39	41	0.1	61	69	70
4 PPL Share	196	194	193	125	170	124	104	104	112	117	0.1	172	196	198
5 Swift 1 After Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 2-														
6 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
7 Swift 2 Before Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
Swift 2-														
8 COPD Share	16	16	17	13	18	20	20	20	20	20	0	20	16	15
9 PPL Share	44	46	47	37	51	56	56	56	56	56	0.1	56	46	43
10 Swift 2 After Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58

Table A-21: Swift #1 and Swift #2 Allocation
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Swift 1- 1 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
2 Swift 1 Before Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 1- 3 COPD Share	69	68	68	44	60	44	36	36	39	41	0.1	61	69	70
4 PPL Share	196	194	193	125	170	124	104	104	112	117	0.1	172	196	198
5 Swift 1 After Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 2- 6 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
7 Swift 2 Before Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
Swift 2- 8 COPD Share	16	16	17	13	18	20	20	20	20	20	0	20	16	15
9 PPL Share	44	46	47	37	51	56	56	56	56	56	0.1	56	46	43
10 Swift 2 After Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58

Table A-21: Swift #1 and Swift #2 Allocation
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Swift 1-														
1 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
2 Swift 1 Before Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 1-														
3 COPD Share	69	68	68	44	60	44	36	36	39	41	0.1	61	69	70
4 PPL Share	196	194	193	125	170	124	104	104	112	117	0.1	172	196	198
5 Swift 1 After Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 2-														
6 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
7 Swift 2 Before Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
Swift 2-														
8 COPD Share	16	16	17	13	18	20	20	20	20	20	0	20	16	15
9 PPL Share	44	46	47	37	51	56	56	56	56	56	0.1	56	46	43
10 Swift 2 After Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58

Table A-21: Swift #1 and Swift #2 Allocation
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Swift 1-														
1 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
2 Swift 1 Before Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 1-														
3 COPD Share	69	68	68	44	60	44	36	36	39	41	0.1	61	69	70
4 PPL Share	196	194	193	125	170	124	104	104	112	117	0.1	172	196	198
5 Swift 1 After Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 2-														
6 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
7 Swift 2 Before Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
Swift 2-														
8 COPD Share	16	16	17	13	18	20	20	20	20	20	0	20	16	15
9 PPL Share	44	46	47	37	51	56	56	56	56	56	0.1	56	46	43
10 Swift 2 After Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58

Table A-21: Swift #1 and Swift #2 Allocation
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Swift 1-														
1 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
2 Swift 1 Before Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 1-														
3 COPD Share	69	68	68	44	60	44	36	36	39	41	0.1	61	69	70
4 PPL Share	196	194	193	125	170	124	104	104	112	117	0.1	172	196	198
5 Swift 1 After Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 2-														
6 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
7 Swift 2 Before Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
Swift 2-														
8 COPD Share	16	16	17	13	18	20	20	20	20	20	0	20	16	15
9 PPL Share	44	46	47	37	51	56	56	56	56	56	0.1	56	46	43
10 Swift 2 After Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58

Table A-21: Swift #1 and Swift #2 Allocation
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Swift 1-														
1 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
2 Swift 1 Before Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 1-														
3 COPD Share	69	68	68	44	60	44	36	36	39	41	0.1	61	69	70
4 PPL Share	196	194	193	125	170	124	104	104	112	117	0.1	172	196	198
5 Swift 1 After Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 2-														
6 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
7 Swift 2 Before Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
Swift 2-														
8 COPD Share	16	16	17	13	18	20	20	20	20	20	0	20	16	15
9 PPL Share	44	46	47	37	51	56	56	56	56	56	0.1	56	46	43
10 Swift 2 After Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58

Table A-21: Swift #1 and Swift #2 Allocation
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
Swift 1-														
1 Swift 1	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
2 Swift 1 Before Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 1-														
3 COPD Share	69	68	68	44	60	44	36	36	39	41	0.1	61	69	70
4 PPL Share	196	194	193	125	170	124	104	104	112	117	0.1	172	196	198
5 Swift 1 After Enc	265	263	261	170	229	168	140	140	152	158	0.2	233	265	268
Swift 2-														
6 Swift 2	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
7 Swift 2 Before Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58
Swift 2-														
8 COPD Share	16	16	17	13	18	20	20	20	20	20	0	20	16	15
9 PPL Share	44	46	47	37	51	56	56	56	56	56	0.1	56	46	43
10 Swift 2 After Enc	60	62	64	51	69	76	76	76	76	76	0.1	76	63	58

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Table A-22
BPA Power Sale Contracts
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2009 - 2010 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	158	158	152	160	177	185	202	188	171	161	161	157	151	151
2 Total Federal Entities	158	158	152	160	177	185	202	188	171	161	161	157	151	151
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	17	17	17	17	17	17	17	17	17	17	17	17	17	17
6 Total Direct Service Industry	17	17	17	17	17	17	17	17	17	17	17	17	17	17
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	2493	2493	2559	2673	3204	3425	3448	3413	3203	2795	2795	2516	2313	2474
8 Total Generating Public Entities	2493	2493	2559	2673	3204	3425	3448	3413	3203	2795	2795	2516	2313	2474
<i>-Generating Public Entities (Slice)-</i>														
9 Generating Public Entities (Slice)	1314	983	965	1415	1634	1729	1750	1578	1528	1206	1144	1864	1575	1639
10 Total Generating Public Entities (Slice)	1314	983	965	1415	1634	1729	1750	1578	1528	1206	1144	1864	1575	1639
<i>-Non-Generating Public Entities-</i>														
11 Non-Generating Public Entities	4014	4014	3857	4142	4622	5060	5217	4964	4410	4237	4237	4047	4069	4254
12 Total Non-Generating Public Entities	4014	4014	3857	4142	4622	5060	5217	4964	4410	4237	4237	4047	4069	4254
<i>-Non-Generating Public Entities (Slice)-</i>														
13 Non-Generating Public Entities (Slice)	789	590	580	850	981	1038	1051	947	917	724	687	1119	945	984
14 Total Non-Generating Public Entities (Slice)	789	590	580	850	981	1038	1051	947	917	724	687	1119	945	984
<i>-Investor-Owned Entities-</i>														
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Power Sales Contracts-</i>														
19 Federal Entities	158	158	152	160	177	185	202	188	171	161	161	157	151	151
20 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
21 Direct Service Industry	17	17	17	17	17	17	17	17	17	17	17	17	17	17
22 Generating Public Entities	3808	3476	3524	4087	4839	5154	5198	4990	4731	4001	3939	4380	3888	4113
23 Non-Generating Public Entities	4803	4604	4436	4991	5603	6098	6267	5911	5328	4961	4924	5166	5014	5238
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	8983	8451	8334	9291	10636	11454	11685	11107	10271	9401	9302	10006	9329	9788

Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2010 - 2011 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	162	162	156	164	182	191	206	191	174	163	163	159	153	153
2 Total Federal Entities	162	162	156	164	182	191	206	191	174	163	163	159	153	153
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	17	17	17	17	17	17	17	17	17	17	17	17	17	17
6 Total Direct Service Industry	17	17	17	17	17	17	17	17	17	17	17	17	17	17
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	2520	2520	2586	2698	3225	3448	3472	3438	3227	2820	2820	2538	2336	2488
8 Total Generating Public Entities	2520	2520	2586	2698	3225	3448	3472	3438	3227	2820	2820	2538	2336	2488
<i>-Generating Public Entities (Slice)-</i>														
9 Generating Public Entities (Slice)	1678	1401	1276	1387	1632	1709	1726	1542	1515	1172	975	1681	1399	1672
10 Total Generating Public Entities (Slice)	1678	1401	1276	1387	1632	1709	1726	1542	1515	1172	975	1681	1399	1672
<i>-Non-Generating Public Entities-</i>														
11 Non-Generating Public Entities	4086	4086	3926	4216	4702	5143	5299	5045	4488	4312	4312	4119	4140	4330
12 Total Non-Generating Public Entities	4086	4086	3926	4216	4702	5143	5299	5045	4488	4312	4312	4119	4140	4330
<i>-Non-Generating Public Entities (Slice)-</i>														
13 Non-Generating Public Entities (Slice)	1008	841	766	833	980	1026	1036	926	910	704	586	1010	840	1004
14 Total Non-Generating Public Entities (Slice)	1008	841	766	833	980	1026	1036	926	910	704	586	1010	840	1004
<i>-Investor-Owned Entities-</i>														
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Power Sales Contracts-</i>														
19 Federal Entities	162	162	156	164	182	191	206	191	174	163	163	159	153	153
20 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
21 Direct Service Industry	17	17	17	17	17	17	17	17	17	17	17	17	17	17
22 Generating Public Entities	4198	3921	3862	4086	4857	5157	5198	4981	4742	3992	3796	4220	3735	4160
23 Non-Generating Public Entities	5093	4927	4692	5049	5682	6169	6336	5972	5397	5016	4898	5129	4980	5334
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	9668	9224	8931	9351	10739	11535	11756	11161	10355	9449	9135	9811	9144	9931

Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	165	165	158	166	186	195	210	194	177	166	166	162	155	155
2 Total Federal Entities	165	165	158	166	186	195	210	194	177	166	166	162	155	155
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	17	17	17	0	0	0	0	0	0	0	0	0	0	0
6 Total Direct Service Industry	17	17	17	0	0	0	0	0	0	0	0	0	0	0
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	2541	2541	2609	1658	1970	2176	2184	1996	1879	1702	1702	1528	1476	1487
8 Total Generating Public Entities	2541	2541	2609	1658	1970	2176	2184	1996	1879	1702	1702	1528	1476	1487
<i>-Generating Public Entities (Slice)-</i>														
9 Generating Public Entities (Slice)	1686	1353	1198	2115	2414	2467	2497	2234	2267	1705	1614	2750	2231	2309
10 Total Generating Public Entities (Slice)	1686	1353	1198	2115	2414	2467	2497	2234	2267	1705	1614	2750	2231	2309
<i>-Non-Generating Public Entities-</i>														
11 Non-Generating Public Entities	4154	4154	3994	4666	5213	5677	5854	5489	4942	4744	4744	4589	4594	4799
12 Total Non-Generating Public Entities	4154	4154	3994	4666	5213	5677	5854	5489	4942	4744	4744	4589	4594	4799
<i>-Non-Generating Public Entities (Slice)-</i>														
13 Non-Generating Public Entities (Slice)	1012	813	719	518	592	605	612	548	556	418	396	674	547	566
14 Total Non-Generating Public Entities (Slice)	1012	813	719	518	592	605	612	548	556	418	396	674	547	566
<i>-Investor-Owned Entities-</i>														
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Power Sales Contracts-</i>														
19 Federal Entities	165	165	158	166	186	195	210	194	177	166	166	162	155	155
20 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
21 Direct Service Industry	17	17	17	0	0	0	0	0	0	0	0	0	0	0
22 Generating Public Entities	4227	3894	3807	3773	4384	4643	4682	4230	4146	3407	3316	4278	3707	3796
23 Non-Generating Public Entities	5166	4966	4713	5184	5804	6282	6466	6036	5498	5162	5140	5263	5141	5365
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	9772	9240	8900	9159	10374	11121	11358	10460	9845	8995	8882	9990	9263	9584

Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	168	168	160	169	189	198	212	197	178	168	168	164	156	157
2 Total Federal Entities	168	168	160	169	189	198	212	197	178	168	168	164	156	157
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	1492	1492	1482	1679	1989	2194	2203	2078	1898	1722	1722	1549	1497	1508
8 Total Generating Public Entities	1492	1492	1482	1679	1989	2194	2203	2078	1898	1722	1722	1549	1497	1508
<i>-Generating Public Entities (Slice)-</i>														
9 Generating Public Entities (Slice)	2457	1953	1751	2100	2424	2481	2485	2219	2248	1727	1552	2495	1919	2463
10 Total Generating Public Entities (Slice)	2457	1953	1751	2100	2424	2481	2485	2219	2248	1727	1552	2495	1919	2463
<i>-Non-Generating Public Entities-</i>														
11 Non-Generating Public Entities	4645	4645	4451	4757	5306	5773	5950	5634	5031	4831	4831	4661	4681	4894
12 Total Non-Generating Public Entities	4645	4645	4451	4757	5306	5773	5950	5634	5031	4831	4831	4661	4681	4894
<i>-Non-Generating Public Entities (Slice)-</i>														
13 Non-Generating Public Entities (Slice)	602	479	429	515	594	608	609	544	551	423	380	611	470	604
14 Total Non-Generating Public Entities (Slice)	602	479	429	515	594	608	609	544	551	423	380	611	470	604
<i>-Investor-Owned Entities-</i>														
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Power Sales Contracts-</i>														
19 Federal Entities	168	168	160	169	189	198	212	197	178	168	168	164	156	157
20 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
21 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Generating Public Entities	3949	3446	3233	3778	4413	4675	4687	4297	4146	3449	3274	4043	3416	3971
23 Non-Generating Public Entities	5247	5124	4880	5272	5900	6381	6559	6178	5582	5255	5212	5272	5152	5497
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	9560	8934	8478	9255	10502	11254	11459	10672	9930	9132	8914	9766	8983	9893

Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	169	169	161	171	191	200	236	216	195	182	182	179	173	169
2 Total Federal Entities	169	169	161	171	191	200	236	216	195	182	182	179	173	169
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	1513	1513	1503	1704	2015	2220	2229	2104	1923	1747	1747	1574	1522	1533
8 Total Generating Public Entities	1513	1513	1503	1704	2015	2220	2229	2104	1923	1747	1747	1574	1522	1533
<i>-Generating Public Entities (Slice)-</i>														
9 Generating Public Entities (Slice)	2418	1930	1766	2101	2426	2495	2484	2218	2246	1727	1555	2721	2153	2473
10 Total Generating Public Entities (Slice)	2418	1930	1766	2101	2426	2495	2484	2218	2246	1727	1555	2721	2153	2473
<i>-Non-Generating Public Entities-</i>														
11 Non-Generating Public Entities	4736	4736	4538	4844	5397	5869	6049	5728	5117	4916	4916	4758	4765	4983
12 Total Non-Generating Public Entities	4736	4736	4538	4844	5397	5869	6049	5728	5117	4916	4916	4758	4765	4983
<i>-Non-Generating Public Entities (Slice)-</i>														
13 Non-Generating Public Entities (Slice)	593	473	433	515	595	611	609	544	551	423	381	667	528	606
14 Total Non-Generating Public Entities (Slice)	593	473	433	515	595	611	609	544	551	423	381	667	528	606
<i>-Investor-Owned Entities-</i>														
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Power Sales Contracts-</i>														
19 Federal Entities	169	169	161	171	191	200	236	216	195	182	182	179	173	169
20 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
21 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Generating Public Entities	3931	3443	3269	3805	4441	4715	4713	4323	4170	3473	3302	4295	3674	4005
23 Non-Generating Public Entities	5329	5209	4970	5359	5992	6481	6658	6272	5668	5340	5298	5425	5292	5589
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	9626	9018	8605	9371	10624	11396	11607	10811	10058	9256	9043	10185	9398	10032

Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	187	187	177	188	211	222	242	222	200	187	187	183	178	173
2 Total Federal Entities	187	187	177	188	211	222	242	222	200	187	187	183	178	173
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	1538	1538	1528	1727	2039	2245	2253	2128	1947	1770	1770	1597	1545	1556
8 Total Generating Public Entities	1538	1538	1528	1727	2039	2245	2253	2128	1947	1770	1770	1597	1545	1556
<i>-Generating Public Entities (Slice)-</i>														
9 Generating Public Entities (Slice)	2420	1932	1762	2095	2420	2545	2475	2205	2246	1726	1555	2499	1930	2475
10 Total Generating Public Entities (Slice)	2420	1932	1762	2095	2420	2545	2475	2205	2246	1726	1555	2499	1930	2475
<i>-Non-Generating Public Entities-</i>														
11 Non-Generating Public Entities	4825	4825	4623	4929	5485	5962	6143	5817	5198	4998	4998	4842	4849	5071
12 Total Non-Generating Public Entities	4825	4825	4623	4929	5485	5962	6143	5817	5198	4998	4998	4842	4849	5071
<i>-Non-Generating Public Entities (Slice)-</i>														
13 Non-Generating Public Entities (Slice)	593	474	432	514	593	624	607	541	550	423	381	613	473	607
14 Total Non-Generating Public Entities (Slice)	593	474	432	514	593	624	607	541	550	423	381	613	473	607
<i>-Investor-Owned Entities-</i>														
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Power Sales Contracts-</i>														
19 Federal Entities	187	187	177	188	211	222	242	222	200	187	187	183	178	173
20 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
21 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Generating Public Entities	3959	3471	3290	3823	4459	4790	4728	4334	4193	3496	3325	4096	3475	4031
23 Non-Generating Public Entities	5418	5298	5055	5442	6078	6586	6750	6358	5749	5421	5380	5455	5322	5677
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	9760	9152	8726	9488	10749	11598	11720	10914	10166	9365	9152	10020	9234	10150

Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	191	191	181	192	217	228	245	223	203	189	189	185	180	175
2 Total Federal Entities	191	191	181	192	217	228	245	223	203	189	189	185	180	175
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	1562	1562	1551	1781	2095	2302	2311	2122	2002	1825	1825	1650	1598	1609
8 Total Generating Public Entities	1562	1562	1551	1781	2095	2302	2311	2122	2002	1825	1825	1650	1598	1609
<i>-Generating Public Entities (Slice)-</i>														
9 Generating Public Entities (Slice)	2422	1935	1765	2104	2429	2503	2492	2227	2255	1728	1557	2739	2171	2494
10 Total Generating Public Entities (Slice)	2422	1935	1765	2104	2429	2503	2492	2227	2255	1728	1557	2739	2171	2494
<i>-Non-Generating Public Entities-</i>														
11 Non-Generating Public Entities	4910	4910	4706	5016	5576	6057	6240	5856	5289	5083	5083	4928	4935	5161
12 Total Non-Generating Public Entities	4910	4910	4706	5016	5576	6057	6240	5856	5289	5083	5083	4928	4935	5161
<i>-Non-Generating Public Entities (Slice)-</i>														
13 Non-Generating Public Entities (Slice)	594	474	433	516	595	613	611	546	553	424	382	671	532	611
14 Total Non-Generating Public Entities (Slice)	594	474	433	516	595	613	611	546	553	424	382	671	532	611
<i>-Investor-Owned Entities-</i>														
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Power Sales Contracts-</i>														
19 Federal Entities	191	191	181	192	217	228	245	223	203	189	189	185	180	175
20 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
21 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Generating Public Entities	3984	3497	3316	3886	4525	4805	4803	4349	4257	3553	3382	4389	3769	4103
23 Non-Generating Public Entities	5504	5385	5138	5532	6172	6671	6851	6402	5841	5507	5465	5600	5467	5773
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	9877	9270	8840	9645	10913	11704	11900	10975	10326	9510	9296	10461	9675	10319

Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	194	194	183	194	220	231	327	291	259	237	237	237	235	216
2 Total Federal Entities	194	194	183	194	220	231	327	291	259	237	237	237	235	216
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	1615	1615	1604	1818	2131	2337	2346	2221	2038	1861	1861	1687	1635	1647
8 Total Generating Public Entities	1615	1615	1604	1818	2131	2337	2346	2221	2038	1861	1861	1687	1635	1647
<i>-Generating Public Entities (Slice)-</i>														
9 Generating Public Entities (Slice)	2441	1954	1783	2112	2428	2552	2481	2212	2252	1732	1561	2516	1948	2493
10 Total Generating Public Entities (Slice)	2441	1954	1783	2112	2428	2552	2481	2212	2252	1732	1561	2516	1948	2493
<i>-Non-Generating Public Entities-</i>														
11 Non-Generating Public Entities	4999	4999	4791	5103	5666	6151	6338	6004	5375	5168	5168	5015	5021	5250
12 Total Non-Generating Public Entities	4999	4999	4791	5103	5666	6151	6338	6004	5375	5168	5168	5015	5021	5250
<i>-Non-Generating Public Entities (Slice)-</i>														
13 Non-Generating Public Entities (Slice)	598	479	437	518	595	626	608	542	552	425	383	617	477	611
14 Total Non-Generating Public Entities (Slice)	598	479	437	518	595	626	608	542	552	425	383	617	477	611
<i>-Investor-Owned Entities-</i>														
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Power Sales Contracts-</i>														
19 Federal Entities	194	194	183	194	220	231	327	291	259	237	237	237	235	216
20 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
21 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Generating Public Entities	4056	3569	3387	3931	4558	4889	4827	4433	4291	3593	3422	4203	3583	4140
23 Non-Generating Public Entities	5598	5478	5228	5620	6261	6777	6946	6547	5927	5592	5550	5631	5499	5862
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	10045	9438	9003	9781	11040	11898	12100	11271	10502	9684	9471	10358	9576	10486

Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	254	254	233	249	288	306	330	294	261	240	240	239	237	218
2 Total Federal Entities	254	254	233	249	288	306	330	294	261	240	240	239	237	218
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	1653	1653	1642	1865	2178	2384	2393	2268	2085	1908	1908	1734	1681	1693
8 Total Generating Public Entities	1653	1653	1642	1865	2178	2384	2393	2268	2085	1908	1908	1734	1681	1693
<i>-Generating Public Entities (Slice)-</i>														
9 Generating Public Entities (Slice)	2441	1953	1782	2112	2445	2518	2507	2241	2261	1741	1570	2740	2172	2493
10 Total Generating Public Entities (Slice)	2441	1953	1782	2112	2445	2518	2507	2241	2261	1741	1570	2740	2172	2493
<i>-Non-Generating Public Entities-</i>														
11 Non-Generating Public Entities	5087	5087	4876	5188	5757	6245	6437	6099	5464	5256	5256	5101	5109	5342
12 Total Non-Generating Public Entities	5087	5087	4876	5188	5757	6245	6437	6099	5464	5256	5256	5101	5109	5342
<i>-Non-Generating Public Entities (Slice)-</i>														
13 Non-Generating Public Entities (Slice)	598	479	437	518	599	617	614	549	554	427	385	672	532	611
14 Total Non-Generating Public Entities (Slice)	598	479	437	518	599	617	614	549	554	427	385	672	532	611
<i>-Investor-Owned Entities-</i>														
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Power Sales Contracts-</i>														
19 Federal Entities	254	254	233	249	288	306	330	294	261	240	240	239	237	218
20 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
21 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Generating Public Entities	4093	3606	3424	3977	4623	4902	4899	4509	4346	3649	3478	4474	3854	4187
23 Non-Generating Public Entities	5686	5566	5313	5706	6356	6862	7051	6648	6018	5682	5640	5773	5642	5953
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	10230	9623	9174	9967	11267	12070	12280	11451	10650	9832	9619	10773	9992	10626

Table A-22: BPA Power Sale Contracts
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	256	256	234	252	291	308	333	298	264	243	243	242	239	221
2 Total Federal Entities	256	256	234	252	291	308	333	298	264	243	243	242	239	221
<i>-U.S. Bureau of Reclamation-</i>														
3 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
4 Total U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
<i>-Direct Service Industry-</i>														
5 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Total Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Generating Public Entities-</i>														
7 Generating Public Entities	1699	1699	1688	1910	2224	2430	2439	2313	2130	1953	1953	1779	1727	1739
8 Total Generating Public Entities	1699	1699	1688	1910	2224	2430	2439	2313	2130	1953	1953	1779	1727	1739
<i>-Generating Public Entities (Slice)-</i>														
9 Generating Public Entities (Slice)	2441	1953	1782	2112	2444	2569	2498	2229	2260	1741	1569	2515	1947	2493
10 Total Generating Public Entities (Slice)	2441	1953	1782	2112	2444	2569	2498	2229	2260	1741	1569	2515	1947	2493
<i>-Non-Generating Public Entities-</i>														
11 Non-Generating Public Entities	5177	5177	4963	5279	5852	6344	6539	6193	5555	5345	5345	5192	5201	5438
12 Total Non-Generating Public Entities	5177	5177	4963	5279	5852	6344	6539	6193	5555	5345	5345	5192	5201	5438
<i>-Non-Generating Public Entities (Slice)-</i>														
13 Non-Generating Public Entities (Slice)	598	479	437	518	599	630	612	546	554	427	385	617	477	611
14 Total Non-Generating Public Entities (Slice)	598	479	437	518	599	630	612	546	554	427	385	617	477	611
<i>-Investor-Owned Entities-</i>														
15 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Total Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Other Entities-</i>														
17 Other PNW Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 Total Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>-Power Sales Contracts-</i>														
19 Federal Entities	256	256	234	252	291	308	333	298	264	243	243	242	239	221
20 U.S. Bureau of Reclamation	197	197	205	35	0.5	0.4	0.4	0.4	24	261	261	286	259	268
21 Direct Service Industry	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Generating Public Entities	4140	3652	3470	4022	4668	4999	4937	4542	4391	3694	3523	4294	3674	4232
23 Non-Generating Public Entities	5775	5656	5400	5796	6451	6973	7151	6739	6109	5772	5730	5808	5678	6049
24 Investor-Owned Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 Other Entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 Total Power Sales Contracts	10368	9761	9309	10105	11410	12281	12422	11580	10789	9970	9756	10631	9851	10770

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Table A-23
Non-Utility Generating Resources
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-23: Regional NUG Resources By Owner
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	34	34	18	33	41	32	32	32	32	32	32	49	33	29
2 Total Federal Entities	34	34	18	33	41	32	32	32	32	32	32	49	33	29
<i>-Generating Public Entities-</i>														
3 Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
4 Total Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
<i>-Non-Generating Public Entities-</i>														
5 Non-Generating Public Entities	3.3	3.3	2.8	4.0	4.3	4.4	4.4	4.5	4.4	4.4	4.4	4.4	3.9	3
6 Total Non-Generating Public Entities	3.3	3.3	2.8	4.0	4.3	4.4	4.4	4.5	4.4	4.4	4.4	4.4	3.9	3
<i>-Investor-Owned Entities-</i>														
7 Investor-Owned Entities	614	614	595	567	557	546	539	547	563	599	593	654	658	634
8 Total Investor-owned Entities	614	614	595	567	557	546	539	547	563	599	593	654	658	634
<i>-Other Entities-</i>														
9 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
10 Total Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
<i>-Total Non-Utility Generating Resources-</i>														
11 Federal Entities	34	34	18	33	41	32	32	32	32	32	32	49	33	29
12 Public Entities	205	203	153	100	57	58	57	59	23	151	151	237	257	262
13 Investor-Owned Entities	614	614	595	567	557	546	539	547	563	599	593	654	658	634
14 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
15 Total Non-Utility Generation	862	860	774	708	656	637	630	639	620	783	785	950	957	934

Table A-23: Regional NUG Resources By Owner
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	34	34	18	33	41	32	32	32	32	32	32	49	33	29
2 Total Federal Entities	34	34	18	33	41	32	32	32	32	32	32	49	33	29
<i>-Generating Public Entities-</i>														
3 Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
4 Total Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
<i>-Non-Generating Public Entities-</i>														
5 Non-Generating Public Entities	3.3	3.3	2.8	4.0	4.3	4.4	4.4	4.5	4.4	4.4	4.4	4.4	3.9	3
6 Total Non-Generating Public Entities	3.3	3.3	2.8	4.0	4.3	4.4	4.4	4.5	4.4	4.4	4.4	4.4	3.9	3
<i>-Investor-Owned Entities-</i>														
7 Investor-Owned Entities	619	619	598	570	565	554	547	555	571	607	601	655	650	634
8 Total Investor-owned Entities	619	619	598	570	565	554	547	555	571	607	601	655	650	634
<i>-Other Entities-</i>														
9 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
10 Total Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
<i>-Total Non-Utility Generating Resources-</i>														
11 Federal Entities	34	34	18	33	41	32	32	32	32	32	32	49	33	29
12 Public Entities	205	203	153	100	57	58	57	59	23	151	151	237	257	262
13 Investor-Owned Entities	619	619	598	570	565	554	547	555	571	607	601	655	650	634
14 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
15 Total Non-Utility Generation	867	865	778	711	664	645	638	647	628	791	793	950	949	934

Table A-23: Regional NUG Resources By Owner
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	34	34	18	33	41	32	20	3.2	3.2	3.2	3.2	3.2	3.2	3.2
2 Total Federal Entities	34	34	18	33	41	32	20	3.2	3.2	3.2	3.2	3.2	3.2	3.2
<i>-Generating Public Entities-</i>														
3 Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
4 Total Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
<i>-Non-Generating Public Entities-</i>														
5 Non-Generating Public Entities	3.3	3.3	2.8	4.0	4.3	4.4	25	25	25	25	25	25	25	24
6 Total Non-Generating Public Entities	3.3	3.3	2.8	4.0	4.3	4.4	25	25	25	25	25	25	25	24
<i>-Investor-Owned Entities-</i>														
7 Investor-Owned Entities	619	619	598	570	565	554	527	535	551	586	580	634	629	614
8 Total Investor-owned Entities	619	619	598	570	565	554	527	535	551	586	580	634	629	614
<i>-Other Entities-</i>														
9 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
10 Total Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
<i>-Total Non-Utility Generating Resources-</i>														
11 Federal Entities	34	34	18	33	41	32	20	3.2	3.2	3.2	3.2	3.2	3.2	3.2
12 Public Entities	205	203	153	100	57	58	78	80	44	172	172	258	278	283
13 Investor-Owned Entities	619	619	598	570	565	554	527	535	551	586	580	634	629	614
14 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
15 Total Non-Utility Generation	867	865	778	711	665	645	625	619	599	763	764	905	920	909

Table A-23: Regional NUG Resources By Owner
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
2 Total Federal Entities	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
<i>-Generating Public Entities-</i>														
3 Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
4 Total Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
<i>-Non-Generating Public Entities-</i>														
5 Non-Generating Public Entities	24	24	24	25	25	25	25	25	25	25	25	25	25	24
6 Total Non-Generating Public Entities	24	24	24	25	25	25	25	25	25	25	25	25	25	24
<i>-Investor-Owned Entities-</i>														
7 Investor-Owned Entities	599	599	578	550	544	533	527	535	551	587	581	635	639	614
8 Total Investor-owned Entities	599	599	578	550	544	533	527	535	551	587	581	635	639	614
<i>-Other Entities-</i>														
9 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
10 Total Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
<i>-Total Non-Utility Generating Resources-</i>														
11 Federal Entities	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
12 Public Entities	226	224	174	121	78	79	78	80	44	172	172	258	278	283
13 Investor-Owned Entities	599	599	578	550	544	533	527	535	551	587	581	635	639	614
14 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
15 Total Non-Utility Generation	837	835	764	682	627	616	610	619	600	763	765	905	929	909

Table A-23: Regional NUG Resources By Owner
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
2 Total Federal Entities	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
<i>-Generating Public Entities-</i>														
3 Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
4 Total Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
<i>-Non-Generating Public Entities-</i>														
5 Non-Generating Public Entities	24	24	24	25	25	25	25	25	25	25	25	25	25	24
6 Total Non-Generating Public Entities	24	24	24	25	25	25	25	25	25	25	25	25	25	24
<i>-Investor-Owned Entities-</i>														
7 Investor-Owned Entities	599	599	578	550	545	534	528	536	552	588	582	636	631	601
8 Total Investor-owned Entities	599	599	578	550	545	534	528	536	552	588	582	636	631	601
<i>-Other Entities-</i>														
9 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	22
10 Total Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	22
<i>-Total Non-Utility Generating Resources-</i>														
11 Federal Entities	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
12 Public Entities	226	224	174	121	78	79	78	80	44	172	172	258	278	283
13 Investor-Owned Entities	599	599	578	550	545	534	528	536	552	588	582	636	631	601
14 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	22
15 Total Non-Utility Generation	837	836	764	683	627	617	610	620	600	764	766	906	921	909

Table A-23: Regional NUG Resources By Owner
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
2 Total Federal Entities	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
<i>-Generating Public Entities-</i>														
3 Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
4 Total Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
<i>-Non-Generating Public Entities-</i>														
5 Non-Generating Public Entities	24	24	24	25	25	25	25	25	25	25	25	25	25	24
6 Total Non-Generating Public Entities	24	24	24	25	25	25	25	25	25	25	25	25	25	24
<i>-Investor-Owned Entities-</i>														
7 Investor-Owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
8 Total Investor-owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
<i>-Other Entities-</i>														
9 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
10 Total Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
<i>-Total Non-Utility Generating Resources-</i>														
11 Federal Entities	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
12 Public Entities	226	224	174	121	78	79	78	80	44	172	172	258	278	283
13 Investor-Owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
14 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
15 Total Non-Utility Generation	839	838	766	685	629	619	612	622	602	766	768	908	923	911

Table A-23: Regional NUG Resources By Owner
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	3.2	3.2	3.2	53	53	53	53	53	53	53	53	53	53	53
2 Total Federal Entities	3.2	3.2	3.2	53	53	53	53	53	53	53	53	53	53	53
<i>-Generating Public Entities-</i>														
3 Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
4 Total Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
<i>-Non-Generating Public Entities-</i>														
5 Non-Generating Public Entities	24	24	24	25	25	25	25	25	25	25	25	25	25	24
6 Total Non-Generating Public Entities	24	24	24	25	25	25	25	25	25	25	25	25	25	24
<i>-Investor-Owned Entities-</i>														
7 Investor-Owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
8 Total Investor-owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
<i>-Other Entities-</i>														
9 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
10 Total Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
<i>-Total Non-Utility Generating Resources-</i>														
11 Federal Entities	3.2	3.2	3.2	53	53	53	53	53	53	53	53	53	53	53
12 Public Entities	226	224	174	121	78	79	78	80	44	172	172	258	278	283
13 Investor-Owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
14 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
15 Total Non-Utility Generation	839	838	766	735	679	669	662	672	652	816	818	958	973	961

Table A-23: Regional NUG Resources By Owner
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	53	53	53	53	53	53	53	53	53	53	53	53	53	53
2 Total Federal Entities	53	53	53	53	53	53	53	53	53	53	53	53	53	53
<i>-Generating Public Entities-</i>														
3 Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
4 Total Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
<i>-Non-Generating Public Entities-</i>														
5 Non-Generating Public Entities	24	24	24	25	25	25	25	25	25	25	25	25	25	24
6 Total Non-Generating Public Entities	24	24	24	25	25	25	25	25	25	25	25	25	25	24
<i>-Investor-Owned Entities-</i>														
7 Investor-Owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
8 Total Investor-owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
<i>-Other Entities-</i>														
9 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
10 Total Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
<i>-Total Non-Utility Generating Resources-</i>														
11 Federal Entities	53	53	53	53	53	53	53	53	53	53	53	53	53	53
12 Public Entities	226	224	174	121	78	79	78	80	44	172	172	258	278	283
13 Investor-Owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
14 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
15 Total Non-Utility Generation	889	887	816	735	679	669	662	672	652	816	818	958	973	961

Table A-23: Regional NUG Resources By Owner
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	53	53	53	53	53	53	53	53	53	53	53	53	53	53
2 Total Federal Entities	53	53	53	53	53	53	53	53	53	53	53	53	53	53
<i>-Generating Public Entities-</i>														
3 Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
4 Total Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
<i>-Non-Generating Public Entities-</i>														
5 Non-Generating Public Entities	24	24	24	25	25	25	25	25	25	25	25	25	25	24
6 Total Non-Generating Public Entities	24	24	24	25	25	25	25	25	25	25	25	25	25	24
<i>-Investor-Owned Entities-</i>														
7 Investor-Owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
8 Total Investor-owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
<i>-Other Entities-</i>														
9 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
10 Total Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
<i>-Total Non-Utility Generating Resources-</i>														
11 Federal Entities	53	53	53	53	53	53	53	53	53	53	53	53	53	53
12 Public Entities	226	224	174	121	78	79	78	80	44	172	172	258	278	283
13 Investor-Owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
14 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
15 Total Non-Utility Generation	889	887	816	735	679	669	662	672	652	816	818	958	973	961

Table A-23: Regional NUG Resources By Owner
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Federal Entities-</i>														
1 Federal Entities	53	53	53	53	53	53	53	53	53	53	53	53	53	53
2 Total Federal Entities	53	53	53	53	53	53	53	53	53	53	53	53	53	53
<i>-Generating Public Entities-</i>														
3 Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
4 Total Generating Public Entities	202	200	150	96	53	53	53	54	18	146	146	233	253	259
<i>-Non-Generating Public Entities-</i>														
5 Non-Generating Public Entities	24	24	24	25	25	25	25	25	25	25	25	25	25	24
6 Total Non-Generating Public Entities	24	24	24	25	25	25	25	25	25	25	25	25	25	24
<i>-Investor-Owned Entities-</i>														
7 Investor-Owned Entities	588	588	567	539	534	523	517	525	544	576	575	627	620	601
8 Total Investor-owned Entities	588	588	567	539	534	523	517	525	544	576	575	627	620	601
<i>-Other Entities-</i>														
9 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
10 Total Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
<i>-Total Non-Utility Generating Resources-</i>														
11 Federal Entities	53	53	53	53	53	53	53	53	53	53	53	53	53	53
12 Public Entities	226	224	174	121	78	79	78	80	44	172	172	258	278	283
13 Investor-Owned Entities	588	588	567	539	534	523	517	525	544	576	575	627	620	601
14 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
15 Total Non-Utility Generation	889	887	816	735	679	669	662	672	655	816	822	961	973	960

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Table A-24
Non-Utility Generating Resources by Project
and Project Type
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-NUG: Hydro-</i>														
1 Albany	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2 Barber Dam	3	3	2.4	1.1	0.4	1.2	2.7	3.3	4.1	4.1	4.1	4.0	4.1	4.1
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
6 Big Sheep Creek	0	0	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
15 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6
16 Broadwater Dam	1.6	1.6	2.1	2.8	2.5	2.4	2.3	2.2	2.2	2.2	2.2	3.7	4.1	2.5
17 Buffalo Hydro	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
18 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7
20 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
21 Carlton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3
24 Central OR Irrigation District	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1
25 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4
26 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
28 Crystal Springs	2.1	2.1	2.4	2.4	2.4	0.8	0.8	0.9	1.3	1.3	1.3	1.3	2.2	2.1
29 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2
30 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2
34 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5
35 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0.1	0.1	0.1
37 Dworshak/Clearwater Small Hydropower	3	3	3	3	3	3	3	3	3	3	3	3	3	3
38 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Elk Creek	1.9	1.9	0	0	0	0.2	0.2	0.2	1.6	1.7	1.7	1.6	2	1.9
40 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2
41 Elwha Hydro	15	15	4.9	13	14	13	13	13	13	13	13	13	13	9.8
42 Estacada	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Fall Creek (OR)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0
44 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1
46 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7
47 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8
48 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
49 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5
50 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0
51 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0
52 Glines Canyon Hydro	16	16	9.6	16	24	16	16	16	16	16	16	32	16	16
53 Hailey Csp	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
54 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
55 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0
56 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2
57 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
58 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
59 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1
60 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4
61 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
62 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8
63 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2009 - 2010 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
64 Koma Kulshan	12	12	12	12	12	12	12	12	12	12	12	12	12	12
65 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9
66 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4
68 Lake Oswego	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
69 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2
70 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
71 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
72 Lilliwaup Falls Generating Co.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
73 Little Mac	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
74 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9
75 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7
76 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8
77 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2
78 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7
79 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73
80 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0
81 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24
82 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5
83 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1
84 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
85 Meyers Falls	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
86 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0
87 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4
88 Mill Creek (OR) - City of Cove	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
89 Minikahda	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6
91 Mitchell Butte	1.8	1.8	1.8	0.7	0	0	0	0	0.5	1.4	1.4	2.1	2.1	1.8
92 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
93 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Mt. Tabor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
95 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4
96 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1
97 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0
98 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
99 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1
100 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
101 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2
103 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
104 Owyhee Dam	3.6	3.6	2.6	0.8	0	0	0.3	0.8	2.3	4.3	4.3	5	4.3	4.1
105 PEC Headworks	4.5	4.5	3.1	3	0	0	0	0	2.8	5.1	5.1	6.5	6.2	5.8
106 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107 Phillipsburg	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0
108 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7
110 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
111 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2
113 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4
114 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8
115 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
116 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
117 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
118 Quincy Chute	9	9	8	5	0	0	0	0	5	8	8	9	9	9
119 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
120 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
121 Rock Creek #1	1.3	1.3	1.9	2	1.5	1.6	1.3	1.2	1.3	1.7	1.7	1.7	1.5	1.3
122 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6
123 Rocky Brook	0.5	0.5	0	1.1	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.1	0.2
124 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4
125 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4
126 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
127 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2009 - 2010 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
129 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1
130 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
131 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3
132 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6
133 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
134 Snedigar Ranch	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4
135 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1
136 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.4	0.4	0.4	0.6	0.7	0.5
137 Spokane Upriver	16	16	16	16	16	16	16	16	16	16	16	16	16	16
138 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1
139 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0.1	0.1	0.1
140 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87
141 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
142 Sygitowicz Creek Small Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
143 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
145 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
146 Trout Co.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
147 Tunnel #1	5	5	3	0.6	0	0	0	0	2.8	6	6	6.9	6.9	7
148 Twin Falls	20	20	20	20	20	20	20	20	20	20	20	20	20	20
149 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8
150 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1
151 Weeks Falls	5	5	5	5	5	5	5	5	5	5	5	5	5	5
152 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
153 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6
154 Wisconsin Creek	0	0	0	0.1	0	0.1	0.1	0.1	0	0	0	0	0.1	0
155 Woods Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
156 Total NUG: Hydro	395	394	308	240	189	168	161	172	207	321	330	473	477	463
-NUG: Small Thermal & Misc.-														
157 Covanta Marion Solid Waste	13	13	13	13	13	13	13	13	13	13	13	13	13	13
158 Methane Energy Agricultural D.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
159 Montana One	10	10	10	11	9.2	10	10	9.6	8.4	7.6	7.6	13	15	11
160 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
161 Spokane MSW	21	21	21	21	21	21	21	21	21	21	21	21	21	21
162 Treasure Valley	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
163 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164 Total NUG: Small Thermal & Misc.	48	48	48	49	47	48	48	47	46	45	45	51	52	49
-NUG: Co-Generation-														
165 Billings Generation	17	17	17	18	15	16	17	16	14	12	12	21	24	18
166 Biomass One	25	25	25	25	25	25	25	25	25	25	25	25	25	25
167 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168 Champion	3	3	3	3	3	3	3	3	3	3	3	3	3	3
169 Cogen Co	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
170 DR Johnson - Co-Gen II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	0	7.5	7.5	7.5
171 Everett Cogen Project (Kimberly Clark)	52	52	52	52	52	52	52	52	0	52	52	52	52	52
172 Evergreen Biopower Cogen (Freres)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
173 Glenns Ferry Cogen Facility (Magic West)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
174 March Point #1	80	80	80	80	80	80	80	80	80	80	80	80	80	80
175 March Point #2	65	65	65	65	65	65	65	65	65	65	65	65	65	65
176 Metro Westpoint	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
177 Pottlatch Contract Renewal	75	75	75	75	75	75	75	75	75	75	75	75	75	75
178 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1
179 Rupert Cogen Facility (Magic Valley)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
180 Simplot Pocatello	9	9	9	9	9	9	9	9	9	9	9	9	9	9
181 Stimson Lumber (formerly Haley West)	4.4	4.4	4.3	4.0	4.5	4.1	4.2	4.4	4.5	4.3	4.3	4.1	4	4
182 Sumas Compression Station	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
183 Tamarack	4	4	4	4	4	4	4	4	4	4	4	4	4	4
184 TASCO Nampa ID	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
185 TASCO Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
186 Vaagen Bros.	4	4	4	4	4	4	4	4	4	4	4	4	4	4
187 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

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Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
188 Total NUG: Co-Generation	390	390	390	390	388	389	389	389	335	385	378	394	396	390
<i>-NUG: Renewables-</i>														
189 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190 Bettencourt Dairy (Cargill)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
191 Big Sky Dairy	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
192 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
194 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
195 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
196 Finley Buttes BioEnergy	0	0	0	0	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
197 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
198 Hidden Hollow Landfill	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
199 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Lewandowski Farms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
201 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0
202 Pine Products Corp	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
203 Portland Waste Water	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
204 Puyallup Energy Recovery (PERC)	2	2	2	2	2	2	2	2	2	2	2	2	2	2
205 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
206 Raft River Geothermal Phase 1	13	13	13	13	13	13	13	13	13	13	13	13	13	13
207 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
208 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Wild Horse Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211 Total NUG: Renewables	28	28	28	29	32	32	32	32	32	32	32	32	32	32
<i>-Total Non-Utility Generating Resources-</i>														
212 Federal Entities	34	34	18	33	41	32	32	32	32	32	32	49	33	29
213 Public Entities	205	203	153	100	57	58	57	59	23	151	151	237	257	262
214 Investor-Owned Entities	614	614	595	567	557	546	539	547	563	599	593	654	658	634
215 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
216 Total Non-Utility Generation	862	860	774	708	656	637	630	639	620	783	785	950	957	934

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-NUG: Hydro-</i>														
1 Albany	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2 Barber Dam	3	3	2.4	1.1	0.4	1.2	2.7	3.3	4.1	4.1	4.1	4.0	4.1	4.1
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
15 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6
16 Broadwater Dam	1.6	1.6	2.1	2.8	3.3	3.1	2.9	2.8	2.8	3.0	3.0	3.7	3.4	2.5
17 Buffalo Hydro	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
18 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7
20 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
21 Carlton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3
24 Central OR Irrigation District	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1
25 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4
26 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
28 Crystal Springs	2.1	2.1	2.4	2.4	2.4	0.8	0.8	0.9	1.3	1.3	1.3	1.3	2.2	2.1
29 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2
30 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2
34 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5
35 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Dworshak/Clearwater Small Hydropower	3	3	3	3	3	3	3	3	3	3	3	3	3	3
38 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Elk Creek	1.9	1.9	0	0	0	0.2	0.2	0.2	1.6	1.7	1.7	1.6	2	1.9
40 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2
41 Elwha Hydro	15	15	4.9	13	14	13	13	13	13	13	13	13	13	9.8
42 Estacada	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Fall Creek (OR)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0
44 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1
46 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7
47 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8
48 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
49 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5
50 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0
51 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0
52 Glines Canyon Hydro	16	16	9.6	16	24	16	16	16	16	16	16	32	16	16
53 Hailey Csp	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
54 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
55 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0
56 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2
57 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
58 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
59 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1
60 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4
61 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
62 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8
63 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
64 Koma Kulshan	12	12	12	12	12	12	12	12	12	12	12	12	12	12
65 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9
66 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4
68 Lake Oswego	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
69 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2
70 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
71 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
72 Lilliwaup Falls Generating Co.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
73 Little Mac	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
74 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9
75 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7
76 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8
77 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2
78 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7
79 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73
80 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0
81 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24
82 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5
83 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1
84 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
85 Meyers Falls	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
86 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0
87 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4
88 Mill Creek (OR) - City of Cove	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
89 Minikahda	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6
91 Mitchell Butte	1.8	1.8	1.8	0.7	0	0	0	0	0.5	1.4	1.4	2.1	2.1	1.8
92 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
93 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Mt. Tabor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
95 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4
96 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1
97 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0
98 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
99 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1
100 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
101 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2
103 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
104 Owyhee Dam	3.6	3.6	2.6	0.8	0	0	0.3	0.8	2.3	4.3	4.3	5	4.3	4.1
105 PEC Headworks	4.5	4.5	3.1	3	0	0	0	0	2.8	5.1	5.1	6.5	6.2	5.8
106 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
108 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7
110 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
111 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2
113 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4
114 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8
115 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
116 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
117 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
118 Quincy Chute	9	9	8	5	0	0	0	0	5	8	8	9	9	9
119 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
120 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
121 Rock Creek #1	1.3	1.3	1.9	2	1.5	1.6	1.3	1.2	1.3	1.7	1.7	1.7	1.5	1.3
122 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6
123 Rocky Brook	0.5	0.5	0	1.1	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.1	0.2
124 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4
125 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4
126 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
127 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2010 - 2011 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
129 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1
130 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
131 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3
132 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6
133 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
134 Snedigar Ranch	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4
135 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1
136 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.5	0.5
137 Spokane Upriver	16	16	16	16	16	16	16	16	16	16	16	16	16	16
138 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1
139 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
140 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87
141 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
142 Sygitowicz Creek Small Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
143 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
145 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
146 Trout Co.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
147 Tunnel #1	5	5	3	0.6	0	0	0	0	2.8	6	6	6.9	6.9	7
148 Twin Falls	20	20	20	20	20	20	20	20	20	20	20	20	20	20
149 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8
150 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1
151 Weeks Falls	5	5	5	5	5	5	5	5	5	5	5	5	5	5
152 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
153 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6
154 Wisconsin Creek	0	0	0	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0
155 Woods Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
156 Total NUG: Hydro	397	395	308	240	190	169	162	172	208	322	331	473	476	463
-NUG: Small Thermal & Misc.-														
157 Covanta Marion Solid Waste	13	13	13	13	13	13	13	13	13	13	13	13	13	13
158 Methane Energy Agricultural D.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
159 Montana One	10	10	10	11	12	13	13	12	11	10	10	13	12	11
160 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
161 Spokane MSW	21	21	21	21	21	21	21	21	21	21	21	21	21	21
162 Treasure Valley	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
163 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164 Total NUG: Small Thermal & Misc.	48	48	48	49	50	51	51	50	49	48	48	51	50	49
-NUG: Co-Generation-														
165 Billings Generation	17	17	17	18	20	21	21	20	18	17	17	21	19	18
166 Biomass One	25	25	25	25	25	25	25	25	25	25	25	25	25	25
167 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168 Champion	3	3	3	3	3	3	3	3	3	3	3	3	3	3
169 Cogen Co	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
170 DR Johnson - Co-Gen II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	0	7.5	7.5	7.5
171 Everett Cogen Project (Kimberly Clark)	52	52	52	52	52	52	52	52	0	52	52	52	52	52
172 Evergreen Biopower Cogen (Freres)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
173 Glenns Ferry Cogen Facility (Magic West)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
174 March Point #1	80	80	80	80	80	80	80	80	80	80	80	80	80	80
175 March Point #2	65	65	65	65	65	65	65	65	65	65	65	65	65	65
176 Metro Westpoint	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
177 Pottlatch Contract Renewal	75	75	75	75	75	75	75	75	75	75	75	75	75	75
178 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1
179 Rupert Cogen Facility (Magic Valley)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
180 Simplot Pocatello	9	9	9	9	9	9	9	9	9	9	9	9	9	9
181 Stimson Lumber (formerly Haley West)	4.4	4.4	4.3	4.0	4.5	4.1	4.2	4.4	4.5	4.3	4.3	4.1	4	4
182 Sumas Compression Station	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
183 Tamarack	4	4	4	4	4	4	4	4	4	4	4	4	4	4
184 TASCO Nampa ID	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
185 TASCO Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
186 Vaagen Bros.	4	4	4	4	4	4	4	4	4	4	4	4	4	4
187 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2010 - 2011 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
188 Total NUG: Co-Generation	390	390	390	390	393	393	394	393	339	390	382	394	392	391
<i>-NUG: Renewables-</i>														
189 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190 Bettencourt Dairy (Cargill)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
191 Big Sky Dairy	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
192 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
194 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
195 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
196 Finley Buttes BioEnergy	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
197 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
198 Hidden Hollow Landfill	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
199 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Lewandowski Farms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
201 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0
202 Pine Products Corp	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
203 Portland Waste Water	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
204 Puyallup Energy Recovery (PERC)	2	2	2	2	2	2	2	2	2	2	2	2	2	2
205 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
206 Raft River Geothermal Phase 1	13	13	13	13	13	13	13	13	13	13	13	13	13	13
207 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
208 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Wild Horse Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211 Total NUG: Renewables	32	32	32	32	32	32	32	32	32	32	32	32	32	32
<i>-Total Non-Utility Generating Resources-</i>														
212 Federal Entities	34	34	18	33	41	32	32	32	32	32	32	49	33	29
213 Public Entities	205	203	153	100	57	58	57	59	23	151	151	237	257	262
214 Investor-Owned Entities	619	619	598	570	565	554	547	555	571	607	601	655	650	634
215 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
216 Total Non-Utility Generation	867	865	778	711	664	645	638	647	628	791	793	950	949	934

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 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-NUG: Hydro-</i>														
1 Albany	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2 Barber Dam	3	3	2.4	1.1	0.4	1.2	2.7	3.3	4.1	4.1	4.1	4.0	4.1	4.1
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
15 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6
16 Broadwater Dam	1.7	1.7	2.1	2.8	3.3	3.1	3.0	2.8	2.9	3.0	3.0	3.8	3.4	2.5
17 Buffalo Hydro	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
18 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7
20 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
21 Carlton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3
24 Central OR Irrigation District	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1
25 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4
26 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
28 Crystal Springs	2.1	2.1	2.4	2.4	2.4	0.8	0.8	0.9	1.3	1.3	1.3	1.3	2.2	2.1
29 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2
30 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2
34 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5
35 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Dworshak/Clearwater Small Hydropower	3	3	3	3	3	3	3	3	3	3	3	3	3	3
38 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Elk Creek	1.9	1.9	0	0	0	0.2	0.2	0.2	1.6	1.7	1.7	1.6	2	1.9
40 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2
41 Elwha Hydro	15	15	4.9	13	14	13	0	0	0	0	0	0	0	0
42 Estacada	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43 Fall Creek (OR)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0
44 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1
46 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7
47 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8
48 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
49 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5
50 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0
51 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0
52 Glines Canyon Hydro	16	16	9.6	16	24	16	16	0	0	0	0	0	0	0
53 Hailey Csp	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
54 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
55 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0
56 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2
57 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
58 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
59 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1
60 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4
61 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
62 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8
63 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2011 - 2012 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
64 Koma Kulshan	12	12	12	12	12	12	12	12	12	12	12	12	12	12
65 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9
66 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4
68 Lake Oswego	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
69 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2
70 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
71 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
72 Lilliwaup Falls Generating Co.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
73 Little Mac	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
74 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9
75 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7
76 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8
77 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2
78 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7
79 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73
80 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0
81 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24
82 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5
83 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1
84 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
85 Meyers Falls	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
86 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0
87 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4
88 Mill Creek (OR) - City of Cove	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
89 Minikahda	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6
91 Mitchell Butte	1.8	1.8	1.8	0.7	0	0	0	0	0.5	1.4	1.4	2.1	2.1	1.8
92 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
93 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94 Mt. Tabor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
95 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4
96 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1
97 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0
98 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
99 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1
100 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
101 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2
103 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
104 Owyhee Dam	3.6	3.6	2.6	0.8	0	0	0.3	0.8	2.3	4.3	4.3	5	4.3	4.1
105 PEC Headworks	4.5	4.5	3.1	3	0	0	0	0	2.8	5.1	5.1	6.5	6.2	5.8
106 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
108 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7
110 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
111 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2
113 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4
114 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8
115 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
116 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
117 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
118 Quincy Chute	9	9	8	5	0	0	0	0	5	8	8	9	9	9
119 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
120 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
121 Rock Creek #1	1.3	1.3	1.9	2	1.5	1.6	1.3	1.2	1.3	1.7	1.7	1.7	1.5	1.3
122 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6
123 Rocky Brook	0.5	0.5	0	1.1	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.1	0.2
124 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4
125 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4
126 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
127 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2011 - 2012 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
129 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1
130 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
131 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3
132 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6
133 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
134 Snedigar Ranch	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4
135 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1
136 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.6	0.5
137 Spokane Upriver	16	16	16	16	16	16	16	16	16	16	16	16	16	16
138 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1
139 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
140 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87
141 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
142 Sygitowicz Creek Small Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
143 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
145 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
146 Trout Co.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
147 Tunnel #1	5	5	3	0.6	0	0	0	0	2.8	6	6	6.9	6.9	7
148 Twin Falls	20	20	20	20	20	20	20	20	20	20	20	20	20	20
149 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8
150 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1
151 Weeks Falls	5	5	5	5	5	5	5	5	5	5	5	5	5	5
152 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
153 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6
154 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0
155 Woods Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
156 Total NUG: Hydro	397	395	308	240	190	169	149	143	179	293	302	428	446	437
-NUG: Small Thermal & Misc.-														
157 Covanta Marion Solid Waste	13	13	13	13	13	13	13	13	13	13	13	13	13	13
158 Methane Energy Agricultural D.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
159 Montana One	11	11	11	11	12	13	13	12	11	10	10	13	12	11
160 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
161 Spokane MSW	21	21	21	21	21	21	21	21	21	21	21	21	21	21
162 Treasure Valley	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
163 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164 Total NUG: Small Thermal & Misc.	48	48	48	49	50	51	51	50	49	48	48	51	50	49
-NUG: Co-Generation-														
165 Billings Generation	17	17	17	18	20	21	21	20	18	17	17	21	19	18
166 Biomass One	25	25	25	25	25	25	25	25	25	25	25	25	25	25
167 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168 Champion	3	3	3	3	3	3	3	3	3	3	3	3	3	3
169 Cogen Co	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
170 DR Johnson - Co-Gen II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	0	7.5	7.5	7.5
171 Everett Cogen Project (Kimberly Clark)	52	52	52	52	52	52	52	52	0	52	52	52	52	52
172 Evergreen Biopower Cogen (Freres)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
173 Glenns Ferry Cogen Facility (Magic West)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
174 March Point #1	80	80	80	80	80	80	80	80	80	80	80	80	80	80
175 March Point #2	65	65	65	65	65	65	65	65	65	65	65	65	65	65
176 Metro Westpoint	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
177 Pottlatch Contract Renewal	75	75	75	75	75	75	75	75	75	75	75	75	75	75
178 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1
179 Rupert Cogen Facility (Magic Valley)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
180 Simplot Pocatello	9	9	9	9	9	9	9	9	9	9	9	9	9	9
181 Stimson Lumber (formerly Haley West)	4.4	4.4	4.3	4.0	4.5	4.1	4.2	4.4	4.5	4.3	4.3	4.1	4	4
182 Sumas Compression Station	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
183 Tamarack	4	4	4	4	4	4	4	4	4	4	4	4	4	4
184 TASCO Nampa ID	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
185 TASCO Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
186 Vaagen Bros.	4	4	4	4	4	4	4	4	4	4	4	4	4	4
187 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

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Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
188 Total NUG: Co-Generation	390	390	390	391	393	394	394	393	339	390	382	394	392	391
<i>-NUG: Renewables-</i>														
189 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190 Bettencourt Dairy (Cargill)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
191 Big Sky Dairy	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
192 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
194 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
195 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
196 Finley Buttes BioEnergy	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
197 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
198 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
199 Hidden Hollow Landfill	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
200 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
201 Lewandowski Farms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
202 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0
203 Pine Products Corp	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
204 Portland Waste Water	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
205 Puyallup Energy Recovery (PERC)	2	2	2	2	2	2	2	2	2	2	2	2	2	2
206 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
207 Raft River Geothermal Phase 1	13	13	13	13	13	13	13	13	13	13	13	13	13	13
208 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
209 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Wild Horse Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0
212 Total NUG: Renewables	32	32	32	32	32	32	32	32	32	32	32	32	32	32
<i>-Total Non-Utility Generating Resources-</i>														
213 Federal Entities	34	34	18	33	41	32	20	3.2	3.2	3.2	3.2	3.2	3.2	3.2
214 Public Entities	205	203	153	100	57	58	78	80	44	172	172	258	278	283
215 Investor-Owned Entities	619	619	598	570	565	554	527	535	551	586	580	634	629	614
216 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
217 Total Non-Utility Generation	867	865	778	711	665	645	625	619	599	763	764	905	920	909

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-NUG: Hydro-</i>														
1 Albany	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2 Barber Dam	3	3	2.4	1.1	0.4	1.2	2.7	3.3	4.1	4.1	4.1	4.0	4.1	4.1
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
15 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6
16 Broadwater Dam	1.7	1.7	2.1	2.9	3.3	3.1	3	2.9	2.9	3	3	3.8	4.3	2.6
17 Buffalo Hydro	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
18 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7
20 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
21 Carlton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3
24 Central OR Irrigation District	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1
25 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4
26 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
28 Crystal Springs	2.1	2.1	2.4	2.4	2.4	0.8	0.8	0.9	1.3	1.3	1.3	1.3	2.2	2.1
29 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2
30 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2
34 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5
35 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Dworshak/Clearwater Small Hydropower	3	3	3	3	3	3	3	3	3	3	3	3	3	3
38 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Elk Creek	1.9	1.9	0	0	0	0.2	0.2	0.2	1.6	1.7	1.7	1.6	2	1.9
40 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2
41 Estacada	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Fall Creek (OR)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0
43 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1
45 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7
46 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8
47 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
48 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5
49 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0
50 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0
51 Hailey Cspg	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
52 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
53 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0
54 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2
55 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
56 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
57 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1
58 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4
59 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
60 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8
61 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 Koma Kulshan	12	12	12	12	12	12	12	12	12	12	12	12	12	12
63 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
64 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4
66 Lake Oswego	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
67 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2
68 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
69 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
70 Lilliwaup Falls Generating Co.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71 Little Mac	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
72 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9
73 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7
74 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8
75 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2
76 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7
77 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73
78 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0
79 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24
80 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5
81 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1
82 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
83 Meyers Falls	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
84 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0
85 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4
86 Mill Creek (OR) - City of Cove	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87 Minikahda	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6
89 Mitchell Butte	1.8	1.8	1.8	0.7	0	0	0	0	0.5	1.4	1.4	2.1	2.1	1.8
90 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
91 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Mt. Tabor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
93 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4
94 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1
95 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0
96 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1
98 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
99 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2
101 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
102 Owyhee Dam	3.6	3.6	2.6	0.8	0	0	0.3	0.8	2.3	4.3	4.3	5	4.3	4.1
103 PEC Headworks	4.5	4.5	3.1	3	0	0	0	0	2.8	5.1	5.1	6.5	6.2	5.8
104 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
106 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7
108 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
109 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2
111 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4
112 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8
113 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
114 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
115 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
116 Quincy Chute	9	9	8	5	0	0	0	0	5	8	8	9	9	9
117 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
118 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
119 Rock Creek #1	1.3	1.3	1.9	2	1.5	1.6	1.3	1.2	1.3	1.7	1.7	1.7	1.5	1.3
120 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6
121 Rocky Brook	0.5	0.5	0	1.1	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.1	0.2
122 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4
123 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4
124 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
125 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0
126 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4
127 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1
128 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

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2012 - 2013 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
129 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3
130 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6
131 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
132 Snedigar Ranch	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4
133 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1
134 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.7	0.5
135 Spokane Upriver	16	16	16	16	16	16	16	16	16	16	16	16	16	16
136 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1
137 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
138 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87
139 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
140 Sygitowicz Creek Small Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
143 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
144 Trout Co.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
145 Tunnel #1	5	5	3	0.6	0	0	0	0	2.8	6	6	6.9	6.9	7
146 Twin Falls	20	20	20	20	20	20	20	20	20	20	20	20	20	20
147 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8
148 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1
149 Weeks Falls	5	5	5	5	5	5	5	5	5	5	5	5	5	5
150 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
151 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6
152 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0
153 Woods Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
154 Total NUG: Hydro	366	365	293	211	152	140	133	143	179	293	302	428	447	438
-NUG: Small Thermal & Misc.-														
155 Covanta Marion Solid Waste	13	13	13	13	13	13	13	13	13	13	13	13	13	13
156 Methane Energy Agricultural D.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
157 Montana One	11	11	11	11	12	13	13	13	11	11	11	13	15	11
158 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
159 Spokane MSW	21	21	21	21	21	21	21	21	21	21	21	21	21	21
160 Treasure Valley	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
161 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0
162 Total NUG: Small Thermal & Misc.	48	48	48	49	50	51	51	50	49	48	48	51	53	49
-NUG: Co-Generation-														
163 Billings Generation	17	17	17	18	20	21	22	21	18	17	17	22	24	18
164 Biomass One	25	25	25	25	25	25	25	25	25	25	25	25	25	25
165 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166 Champion	3	3	3	3	3	3	3	3	3	3	3	3	3	3
167 Cogen Co	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
168 DR Johnson - Co-Gen II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	0	7.5	7.5	7.5
169 Everett Cogen Project (Kimberly Clark)	52	52	52	52	52	52	52	52	0	52	52	52	52	52
170 Evergreen Biopower Cogen (Freres)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
171 Glens Ferry Cogen Facility (Magic West)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
172 March Point #1	80	80	80	80	80	80	80	80	80	80	80	80	80	80
173 March Point #2	65	65	65	65	65	65	65	65	65	65	65	65	65	65
174 Metro Westpoint	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
175 Potlatch Contract Renewal	75	75	75	75	75	75	75	75	75	75	75	75	75	75
176 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1
177 Rupert Cogen Facility (Magic Valley)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
178 Simplot Pocatello	9	9	9	9	9	9	9	9	9	9	9	9	9	9
179 Stimson Lumber (formerly Haley West)	4.4	4.4	4.3	4.0	4.5	4.1	4.2	4.4	4.5	4.3	4.3	4.1	4	4
180 Sumas Compression Station	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
181 Tamarack	4	4	4	4	4	4	4	4	4	4	4	4	4	4
182 TASCO Nampa ID	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
183 TASCO Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
184 Vaagen Bros.	4	4	4	4	4	4	4	4	4	4	4	4	4	4
185 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
186 Total NUG: Co-Generation	390	390	390	391	393	394	394	394	340	390	383	395	397	391

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2012 - 2013 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-NUG: Renewables-</i>														
187 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
188 Bettencourt Dairy (Cargill)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
189 Big Sky Dairy	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
190 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0
191 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
192 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
193 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
194 Finley Buttes BioEnergy	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
195 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
196 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197 Hidden Hollow Landfill	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
198 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
199 Lewandowski Farms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0
201 Pine Products Corp	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
202 Portland Waste Water	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
203 Puyallup Energy Recovery (PERC)	2	2	2	2	2	2	2	2	2	2	2	2	2	2
204 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
205 Raft River Geothermal Phase 1	13	13	13	13	13	13	13	13	13	13	13	13	13	13
206 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
207 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208 Wild Horse Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Total NUG: Renewables	32	32	32	32	32	32	32	32	32	32	32	32	32	32
<i>-Total Non-Utility Generating Resources-</i>														
211 Federal Entities	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
212 Public Entities	226	224	174	121	78	79	78	80	44	172	172	258	278	283
213 Investor-Owned Entities	599	599	578	550	544	533	527	535	551	587	581	635	639	614
214 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	9
215 Total Non-Utility Generation	837	835	764	682	627	616	610	619	600	763	765	905	929	909

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-NUG: Hydro-</i>														
1 Albany	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2 Barber Dam	3	3	2.4	1.1	0.4	1.2	2.7	3.3	4.1	4.1	4.1	4.0	4.1	4.1
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
15 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6
16 Broadwater Dam	1.7	1.7	2.2	2.9	3.3	3.2	3.1	2.9	3.0	3.1	3.1	3.9	3.5	2.6
17 Buffalo Hydro	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
18 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7
20 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
21 Carlton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3
24 Central OR Irrigation District	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1
25 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4
26 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
28 Crystal Springs	2.1	2.1	2.4	2.4	2.4	0.8	0.8	0.9	1.3	1.3	1.3	1.3	2.2	2.1
29 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2
30 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2
34 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5
35 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Dworshak/Clearwater Small Hydropower	3	3	3	3	3	3	3	3	3	3	3	3	3	3
38 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Elk Creek	1.9	1.9	0	0	0	0.2	0.2	0.2	1.6	1.7	1.7	1.6	2	1.9
40 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2
41 Estacada	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Fall Creek (OR)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0
43 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1
45 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7
46 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8
47 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
48 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5
49 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0
50 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0
51 Hailey Cspg	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
52 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
53 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0
54 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2
55 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
56 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
57 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1
58 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4
59 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
60 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8
61 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 Koma Kulshan	12	12	12	12	12	12	12	12	12	12	12	12	12	12
63 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
64 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4
66 Lake Oswego	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
67 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2
68 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
69 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
70 Lilliwaup Falls Generating Co.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71 Little Mac	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
72 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9
73 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7
74 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8
75 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2
76 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7
77 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73
78 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0
79 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24
80 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5
81 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1
82 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
83 Meyers Falls	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
84 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0
85 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4
86 Mill Creek (OR) - City of Cove	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87 Minikahda	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6
89 Mitchell Butte	1.8	1.8	1.8	0.7	0	0	0	0	0.5	1.4	1.4	2.1	2.1	1.8
90 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
91 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Mt. Tabor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
93 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4
94 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1
95 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0
96 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1
98 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
99 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2
101 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
102 Owyhee Dam	3.6	3.6	2.6	0.8	0	0	0.3	0.8	2.3	4.3	4.3	5	4.3	4.1
103 PEC Headworks	4.5	4.5	3.1	3	0	0	0	0	2.8	5.1	5.1	6.5	6.2	5.8
104 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
106 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7
108 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
109 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2
111 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4
112 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8
113 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
114 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
115 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
116 Quincy Chute	9	9	8	5	0	0	0	0	5	8	8	9	9	9
117 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
118 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
119 Rock Creek #1	1.3	1.3	1.9	2	1.5	1.6	1.3	1.2	1.3	1.7	1.7	1.7	1.5	1.3
120 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6
121 Rocky Brook	0.5	0.5	0	1.1	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.1	0.2
122 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4
123 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4
124 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
125 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0
126 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4
127 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1
128 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2013 - 2014 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
129 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3
130 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6
131 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
132 Snedigar Ranch	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4
133 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1
134 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.6	0.5
135 Spokane Upriver	16	16	16	16	16	16	16	16	16	16	16	16	16	16
136 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1
137 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
138 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87
139 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
140 Sygitowicz Creek Small Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
143 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
144 Trout Co.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
145 Tunnel #1	5	5	3	0.6	0	0	0	0	2.8	6	6	6.9	6.9	7
146 Twin Falls	20	20	20	20	20	20	20	20	20	20	20	20	20	20
147 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8
148 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1
149 Weeks Falls	5	5	5	5	5	5	5	5	5	5	5	5	5	5
150 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
151 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6
152 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
153 Woods Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
154 Total NUG: Hydro	366	365	293	211	152	140	133	143	179	293	302	428	447	438
-NUG: Small Thermal & Misc.-														
155 Covanta Marion Solid Waste	13	13	13	13	13	13	13	13	13	13	13	13	13	13
156 Methane Energy Agricultural D.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
157 Montana One	11	11	11	11	12	13	13	13	12	11	11	14	12	11
158 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
159 Spokane MSW	21	21	21	21	21	21	21	21	21	21	21	21	21	21
160 Treasure Valley	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
161 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0
162 Total NUG: Small Thermal & Misc.	49	49	49	49	50	51	51	51	49	49	49	52	50	49
-NUG: Co-Generation-														
163 Billings Generation	18	18	18	18	20	21	22	21	19	18	18	22	20	18
164 Biomass One	25	25	25	25	25	25	25	25	25	25	25	25	25	25
165 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166 Champion	3	3	3	3	3	3	3	3	3	3	3	3	3	3
167 Cogen Co	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
168 DR Johnson - Co-Gen II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	0	7.5	7.5	7.5
169 Everett Cogen Project (Kimberly Clark)	52	52	52	52	52	52	52	52	0	52	52	52	52	52
170 Evergreen Biopower Cogen (Freres)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
171 Glens Ferry Cogen Facility (Magic West)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
172 March Point #1	80	80	80	80	80	80	80	80	80	80	80	80	80	80
173 March Point #2	65	65	65	65	65	65	65	65	65	65	65	65	65	65
174 Metro Westpoint	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
175 Potlatch Contract Renewal	75	75	75	75	75	75	75	75	75	75	75	75	75	75
176 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1
177 Rupert Cogen Facility (Magic Valley)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
178 Simplot Pocatello	9	9	9	9	9	9	9	9	9	9	9	9	9	9
179 Stimson Lumber (formerly Haley West)	4.4	4.4	4.3	4.0	4.5	4.1	4.2	4.4	4.5	4.3	4.3	4.1	4	4
180 Sumas Compression Station	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
181 Tamarack	4	4	4	4	4	4	4	4	4	4	4	4	4	4
182 TASCO Nampa ID	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
183 TASCO Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
184 Vaagen Bros.	4	4	4	4	4	4	4	4	4	4	4	4	4	4
185 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
186 Total NUG: Co-Generation	391	391	391	391	393	394	395	394	340	391	383	395	393	391

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2013 - 2014 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
-NUG: Renewables-														
187 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
188 Bettencourt Dairy (Cargill)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
189 Big Sky Dairy	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
190 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0
191 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
192 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
193 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
194 Finley Buttes BioEnergy	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
195 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
196 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197 Hidden Hollow Landfill	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
198 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
199 Lewandowski Farms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0
201 Pine Products Corp	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
202 Portland Waste Water	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
203 Puyallup Energy Recovery (PERC)	2	2	2	2	2	2	2	2	2	2	2	2	2	2
204 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
205 Raft River Geothermal Phase 1	13	13	13	13	13	13	13	13	13	13	13	13	13	13
206 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
207 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208 Wild Horse Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210 Total NUG: Renewables	32	32	32	32	32	32	32	32	32	32	32	32	32	32
-Total Non-Utility Generating Resources-														
211 Federal Entities	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
212 Public Entities	226	224	174	121	78	79	78	80	44	172	172	258	278	283
213 Investor-Owned Entities	599	599	578	550	545	534	528	536	552	588	582	636	631	601
214 Other Entities	9	9	9	9	1.2	1.2	1.2	1.2	1.2	1.2	9	9	9	22
215 Total Non-Utility Generation	837	836	764	683	627	617	610	620	600	764	766	906	921	909

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-NUG: Hydro-</i>														
1 Albany	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2 Barber Dam	3	3	2.4	1.1	0.4	1.2	2.7	3.3	4.1	4.1	4.1	4.0	4.1	4.1
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
15 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6
16 Broadwater Dam	1.7	1.7	2.2	2.9	3.3	3.2	3.1	2.9	3.0	3.1	3.1	3.9	3.5	2.6
17 Buffalo Hydro	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
18 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7
20 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
21 Carlton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3
24 Central OR Irrigation District	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1
25 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4
26 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
28 Crystal Springs	2.1	2.1	2.4	2.4	2.4	0.8	0.8	0.9	1.3	1.3	1.3	1.3	2.2	2.1
29 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2
30 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2
34 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5
35 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Dworshak/Clearwater Small Hydropower	3	3	3	3	3	3	3	3	3	3	3	3	3	3
38 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Elk Creek	1.9	1.9	0	0	0	0.2	0.2	0.2	1.6	1.7	1.7	1.6	2	1.9
40 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2
41 Estacada	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Fall Creek (OR)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0
43 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1
45 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7
46 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8
47 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
48 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5
49 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0
50 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0
51 Hailey Cspg	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
52 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
53 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0
54 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2
55 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
56 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
57 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1
58 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4
59 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
60 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8
61 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 Koma Kulshan	12	12	12	12	12	12	12	12	12	12	12	12	12	12
63 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
64 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4
66 Lake Oswego	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
67 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2
68 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
69 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
70 Lilliwaup Falls Generating Co.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71 Little Mac	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
72 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9
73 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7
74 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8
75 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2
76 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7
77 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73
78 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0
79 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24
80 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5
81 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1
82 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
83 Meyers Falls	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
84 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0
85 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4
86 Mill Creek (OR) - City of Cove	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87 Minikahda	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6
89 Mitchell Butte	1.8	1.8	1.8	0.7	0	0	0	0	0.5	1.4	1.4	2.1	2.1	1.8
90 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
91 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Mt. Tabor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
93 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4
94 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1
95 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0
96 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1
98 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
99 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2
101 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
102 Owyhee Dam	3.6	3.6	2.6	0.8	0	0	0.3	0.8	2.3	4.3	4.3	5	4.3	4.1
103 PEC Headworks	4.5	4.5	3.1	3	0	0	0	0	2.8	5.1	5.1	6.5	6.2	5.8
104 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
106 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7
108 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
109 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2
111 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4
112 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8
113 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
114 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
115 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
116 Quincy Chute	9	9	8	5	0	0	0	0	5	8	8	9	9	9
117 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
118 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
119 Rock Creek #1	1.3	1.3	1.9	2	1.5	1.6	1.3	1.2	1.3	1.7	1.7	1.7	1.5	1.3
120 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6
121 Rocky Brook	0.5	0.5	0	1.1	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.1	0.2
122 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4
123 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4
124 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
125 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0
126 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4
127 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1
128 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2014 - 2015 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
129 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3
130 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6
131 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
132 Snedigar Ranch	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4
133 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1
134 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.6	0.5
135 Spokane Upriver	16	16	16	16	16	16	16	16	16	16	16	16	16	16
136 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1
137 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
138 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87
139 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
140 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
142 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
143 Trout Co.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
144 Tunnel #1	5	5	3	0.6	0	0	0	0	2.8	6	6	6.9	6.9	7
145 Twin Falls	20	20	20	20	20	20	20	20	20	20	20	20	20	20
146 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8
147 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1
148 Weeks Falls	5	5	5	5	5	5	5	5	5	5	5	5	5	5
149 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
150 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6
151 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
152 Woods Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
153 Total NUG: Hydro	366	365	293	211	152	140	133	143	179	293	302	428	447	438
-NUG: Small Thermal & Misc.-														
154 Covanta Marion Solid Waste	13	13	13	13	13	13	13	13	13	13	13	13	13	13
155 Methane Energy Agricultural D.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
156 Montana One	11	11	11	11	12	13	13	13	12	11	11	14	12	11
157 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
158 Spokane MSW	21	21	21	21	21	21	21	21	21	21	21	21	21	21
159 Treasure Valley	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
160 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0
161 Total NUG: Small Thermal & Misc.	49	49	49	49	50	51	51	51	49	49	49	52	50	49
-NUG: Co-Generation-														
162 Billings Generation	18	18	18	18	20	21	22	21	19	18	18	22	20	18
163 Biomass One	25	25	25	25	25	25	25	25	25	25	25	25	25	25
164 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165 Champion	3	3	3	3	3	3	3	3	3	3	3	3	3	3
166 Cogen Co	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
167 DR Johnson - Co-Gen II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	0	7.5	7.5	7.5
168 Everett Cogen Project (Kimberly Clark)	52	52	52	52	52	52	52	52	0	52	52	52	52	52
169 Evergreen Biopower Cogen (Freres)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
170 Glens Ferry Cogen Facility (Magic West)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
171 March Point #1	80	80	80	80	80	80	80	80	80	80	80	80	80	80
172 March Point #2	65	65	65	65	65	65	65	65	65	65	65	65	65	65
173 Metro Westpoint	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
174 Potlatch Contract Renewal	75	75	75	75	75	75	75	75	75	75	75	75	75	75
175 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1
176 Rupert Cogen Facility (Magic Valley)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
177 Simplot Pocatello	9	9	9	9	9	9	9	9	9	9	9	9	9	9
178 Stimson Lumber (formerly Haley West)	4.4	4.4	4.3	4.0	4.5	4.1	4.2	4.4	4.5	4.3	4.3	4.1	4	4
179 Sumas Compression Station	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
180 Tamarack	4	4	4	4	4	4	4	4	4	4	4	4	4	4
181 TESCO Nampa ID	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
182 TESCO Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
183 Vaagen Bros.	4	4	4	4	4	4	4	4	4	4	4	4	4	4
184 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
185 Total NUG: Co-Generation	393	393	393	393	395	396	397	396	342	393	385	397	395	393
-NUG: Renewables-														

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2014 - 2015 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
186 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
187 Bettencourt Dairy (Cargill)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
188 Big Sky Dairy	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
189 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
191 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
192 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193 Finley Buttes BioEnergy	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
194 Fourmile Hill Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
195 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
196 Hidden Hollow Landfill	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
197 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
198 Lewandowski Farms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
199 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Pine Products Corp	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
201 Portland Waste Water	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
202 Puyallup Energy Recovery (PERC)	2	2	2	2	2	2	2	2	2	2	2	2	2	2
203 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
204 Raft River Geothermal Phase 1	13	13	13	13	13	13	13	13	13	13	13	13	13	13
205 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
206 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207 Wild Horse Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Total NUG: Renewables	32	32	32	32	32	32	32	32	32	32	32	32	32	32
-Total Non-Utility Generating Resources-														
210 Federal Entities	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
211 Public Entities	226	224	174	121	78	79	78	80	44	172	172	258	278	283
212 Investor-Owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
213 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
214 Total Non-Utility Generation	839	838	766	685	629	619	612	622	602	766	768	908	923	911

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-NUG: Hydro-</i>														
1 Albany	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2 Barber Dam	3	3	2.4	1.1	0.4	1.2	2.7	3.3	4.1	4.1	4.1	4.0	4.1	4.1
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
15 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6
16 Broadwater Dam	1.7	1.7	2.2	2.9	3.3	3.2	3.1	2.9	3.0	3.1	3.1	3.9	3.5	2.6
17 Buffalo Hydro	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
18 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7
20 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
21 Carlton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3
24 Central OR Irrigation District	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1
25 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4
26 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
28 Crystal Springs	2.1	2.1	2.4	2.4	2.4	0.8	0.8	0.9	1.3	1.3	1.3	1.3	2.2	2.1
29 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2
30 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2
34 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5
35 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Dworshak/Clearwater Small Hydropower	3	3	3	3	3	3	3	3	3	3	3	3	3	3
38 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Elk Creek	1.9	1.9	0	0	0	0.2	0.2	0.2	1.6	1.7	1.7	1.6	2	1.9
40 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2
41 Estacada	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Fall Creek (OR)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0
43 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1
45 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7
46 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8
47 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
48 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5
49 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0
50 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0
51 Hailey Cspg	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
52 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
53 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0
54 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2
55 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
56 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
57 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1
58 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4
59 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
60 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8
61 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 Koma Kulshan	12	12	12	12	12	12	12	12	12	12	12	12	12	12
63 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
64 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4
66 Lake Oswego	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
67 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2
68 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
69 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
70 Lilliwaup Falls Generating Co.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71 Little Mac	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
72 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9
73 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7
74 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8
75 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2
76 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7
77 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73
78 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0
79 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24
80 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5
81 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1
82 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
83 Meyers Falls	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
84 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0
85 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4
86 Mill Creek (OR) - City of Cove	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87 Minikahda	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6
89 Mitchell Butte	1.8	1.8	1.8	0.7	0	0	0	0	0.5	1.4	1.4	2.1	2.1	1.8
90 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
91 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Mt. Tabor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
93 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4
94 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1
95 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0
96 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1
98 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
99 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2
101 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
102 Owyhee Dam	3.6	3.6	2.6	0.8	0	0	0.3	0.8	2.3	4.3	4.3	5	4.3	4.1
103 PEC Headworks	4.5	4.5	3.1	3	0	0	0	0	2.8	5.1	5.1	6.5	6.2	5.8
104 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
106 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7
108 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
109 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2
111 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4
112 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8
113 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
114 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
115 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
116 Quincy Chute	9	9	8	5	0	0	0	0	5	8	8	9	9	9
117 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
118 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
119 Rock Creek #1	1.3	1.3	1.9	2	1.5	1.6	1.3	1.2	1.3	1.7	1.7	1.7	1.5	1.3
120 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6
121 Rocky Brook	0.5	0.5	0	1.1	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.1	0.2
122 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4
123 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4
124 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
125 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0
126 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4
127 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1
128 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2015 - 2016 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
129 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3
130 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6
131 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
132 Snedigar Ranch	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4
133 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1
134 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.6	0.5
135 Spokane Upriver	16	16	16	16	16	16	16	16	16	16	16	16	16	16
136 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1
137 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
138 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87
139 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
140 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
142 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
143 Trout Co.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
144 Tunnel #1	5	5	3	0.6	0	0	0	0	2.8	6	6	6.9	6.9	7
145 Twin Falls	20	20	20	20	20	20	20	20	20	20	20	20	20	20
146 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8
147 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1
148 Weeks Falls	5	5	5	5	5	5	5	5	5	5	5	5	5	5
149 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
150 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6
151 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
152 Woods Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
153 Total NUG: Hydro	366	365	293	211	152	140	133	143	179	293	302	428	447	438
-NUG: Small Thermal & Misc.-														
154 Covanta Marion Solid Waste	13	13	13	13	13	13	13	13	13	13	13	13	13	13
155 Methane Energy Agricultural D.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
156 Montana One	11	11	11	11	12	13	13	13	12	11	11	14	12	11
157 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
158 Spokane MSW	21	21	21	21	21	21	21	21	21	21	21	21	21	21
159 Treasure Valley	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
160 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0
161 Total NUG: Small Thermal & Misc.	49	49	49	49	50	51	51	51	49	49	49	52	50	49
-NUG: Co-Generation-														
162 Billings Generation	18	18	18	18	20	21	22	21	19	18	18	22	20	18
163 Biomass One	25	25	25	25	25	25	25	25	25	25	25	25	25	25
164 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165 Champion	3	3	3	3	3	3	3	3	3	3	3	3	3	3
166 Cogen Co	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
167 DR Johnson - Co-Gen II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	0	7.5	7.5	7.5
168 Everett Cogen Project (Kimberly Clark)	52	52	52	52	52	52	52	52	0	52	52	52	52	52
169 Evergreen Biopower Cogen (Freres)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
170 Glens Ferry Cogen Facility (Magic West)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
171 March Point #1	80	80	80	80	80	80	80	80	80	80	80	80	80	80
172 March Point #2	65	65	65	65	65	65	65	65	65	65	65	65	65	65
173 Metro Westpoint	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
174 Potlatch Contract Renewal	75	75	75	75	75	75	75	75	75	75	75	75	75	75
175 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1
176 Rupert Cogen Facility (Magic Valley)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
177 Simplot Pocatello	9	9	9	9	9	9	9	9	9	9	9	9	9	9
178 Stimson Lumber (formerly Haley West)	4.4	4.4	4.3	4.0	4.5	4.1	4.2	4.4	4.5	4.3	4.3	4.1	4	4
179 Sumas Compression Station	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
180 Tamarack	4	4	4	4	4	4	4	4	4	4	4	4	4	4
181 TASCO Nampa ID	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
182 TASCO Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
183 Vaagen Bros.	4	4	4	4	4	4	4	4	4	4	4	4	4	4
184 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
185 Total NUG: Co-Generation	393	393	393	393	395	396	397	396	342	393	385	397	395	393
-NUG: Renewables-														

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
186 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
187 Bettencourt Dairy (Cargill)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
188 Big Sky Dairy	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
189 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
191 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
192 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193 Finley Buttes BioEnergy	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
194 Fourmile Hill Geothermal	0	0	0	50	50	50	50	50	50	50	50	50	50	50
195 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
196 Hidden Hollow Landfill	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
197 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
198 Lewandowski Farms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
199 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Pine Products Corp	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
201 Portland Waste Water	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
202 Puyallup Energy Recovery (PERC)	2	2	2	2	2	2	2	2	2	2	2	2	2	2
203 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
204 Raft River Geothermal Phase 1	13	13	13	13	13	13	13	13	13	13	13	13	13	13
205 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
206 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207 Wild Horse Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Total NUG: Renewables	32	32	32	82	82	82	82	82	82	82	82	82	82	82
<i>-Total Non-Utility Generating Resources-</i>														
210 Federal Entities	3.2	3.2	3.2	53	53	53	53	53	53	53	53	53	53	53
211 Public Entities	226	224	174	121	78	79	78	80	44	172	172	258	278	283
212 Investor-Owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
213 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
214 Total Non-Utility Generation	839	838	766	735	679	669	662	672	652	816	818	958	973	961

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 2016 - 2017 Operating Year
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7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-NUG: Hydro-</i>														
1 Albany	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2 Barber Dam	3	3	2.4	1.1	0.4	1.2	2.7	3.3	4.1	4.1	4.1	4.0	4.1	4.1
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
15 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6
16 Broadwater Dam	1.7	1.7	2.2	2.9	3.3	3.2	3.1	2.9	3.0	3.1	3.1	3.9	3.5	2.6
17 Buffalo Hydro	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
18 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7
20 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
21 Carlton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3
24 Central OR Irrigation District	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1
25 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4
26 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
28 Crystal Springs	2.1	2.1	2.4	2.4	2.4	0.8	0.8	0.9	1.3	1.3	1.3	1.3	2.2	2.1
29 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2
30 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2
34 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5
35 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Dworshak/Clearwater Small Hydropower	3	3	3	3	3	3	3	3	3	3	3	3	3	3
38 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Elk Creek	1.9	1.9	0	0	0	0.2	0.2	0.2	1.6	1.7	1.7	1.6	2	1.9
40 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2
41 Estacada	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Fall Creek (OR)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0
43 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1
45 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7
46 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8
47 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
48 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5
49 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0
50 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0
51 Hailey Cspg	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
52 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
53 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0
54 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2
55 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
56 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
57 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1
58 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4
59 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
60 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8
61 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 Koma Kulshan	12	12	12	12	12	12	12	12	12	12	12	12	12	12
63 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2016 - 2017 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
64 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4
66 Lake Oswego	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
67 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2
68 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
69 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
70 Lilliwaup Falls Generating Co.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71 Little Mac	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
72 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9
73 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7
74 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8
75 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2
76 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7
77 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73
78 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0
79 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24
80 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5
81 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1
82 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
83 Meyers Falls	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
84 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0
85 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4
86 Mill Creek (OR) - City of Cove	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87 Minikahda	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6
89 Mitchell Butte	1.8	1.8	1.8	0.7	0	0	0	0	0.5	1.4	1.4	2.1	2.1	1.8
90 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
91 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Mt. Tabor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
93 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4
94 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1
95 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0
96 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1
98 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
99 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2
101 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
102 Owyhee Dam	3.6	3.6	2.6	0.8	0	0	0.3	0.8	2.3	4.3	4.3	5	4.3	4.1
103 PEC Headworks	4.5	4.5	3.1	3	0	0	0	0	2.8	5.1	5.1	6.5	6.2	5.8
104 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
106 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7
108 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
109 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2
111 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4
112 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8
113 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
114 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
115 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
116 Quincy Chute	9	9	8	5	0	0	0	0	5	8	8	9	9	9
117 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
118 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
119 Rock Creek #1	1.3	1.3	1.9	2	1.5	1.6	1.3	1.2	1.3	1.7	1.7	1.7	1.5	1.3
120 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6
121 Rocky Brook	0.5	0.5	0	1.1	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.1	0.2
122 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4
123 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4
124 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
125 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0
126 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4
127 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1
128 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2016 - 2017 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
129 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3
130 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6
131 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
132 Snedigar Ranch	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4
133 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1
134 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.6	0.5
135 Spokane Upriver	16	16	16	16	16	16	16	16	16	16	16	16	16	16
136 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1
137 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
138 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87
139 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
140 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
142 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
143 Trout Co.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
144 Tunnel #1	5	5	3	0.6	0	0	0	0	2.8	6	6	6.9	6.9	7
145 Twin Falls	20	20	20	20	20	20	20	20	20	20	20	20	20	20
146 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8
147 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1
148 Weeks Falls	5	5	5	5	5	5	5	5	5	5	5	5	5	5
149 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
150 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6
151 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
152 Woods Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
153 Total NUG: Hydro	366	365	293	211	152	140	133	143	179	293	302	428	447	438
-NUG: Small Thermal & Misc.-														
154 Covanta Marion Solid Waste	13	13	13	13	13	13	13	13	13	13	13	13	13	13
155 Methane Energy Agricultural D.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
156 Montana One	11	11	11	11	12	13	13	13	12	11	11	14	12	11
157 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
158 Spokane MSW	21	21	21	21	21	21	21	21	21	21	21	21	21	21
159 Treasure Valley	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
160 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0
161 Total NUG: Small Thermal & Misc.	49	49	49	49	50	51	51	51	49	49	49	52	50	49
-NUG: Co-Generation-														
162 Billings Generation	18	18	18	18	20	21	22	21	19	18	18	22	20	18
163 Biomass One	25	25	25	25	25	25	25	25	25	25	25	25	25	25
164 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165 Champion	3	3	3	3	3	3	3	3	3	3	3	3	3	3
166 Cogen Co	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
167 DR Johnson - Co-Gen II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	0	7.5	7.5	7.5
168 Everett Cogen Project (Kimberly Clark)	52	52	52	52	52	52	52	52	0	52	52	52	52	52
169 Evergreen Biopower Cogen (Freres)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
170 Glens Ferry Cogen Facility (Magic West)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
171 March Point #1	80	80	80	80	80	80	80	80	80	80	80	80	80	80
172 March Point #2	65	65	65	65	65	65	65	65	65	65	65	65	65	65
173 Metro Westpoint	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
174 Potlatch Contract Renewal	75	75	75	75	75	75	75	75	75	75	75	75	75	75
175 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1
176 Rupert Cogen Facility (Magic Valley)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
177 Simplot Pocatello	9	9	9	9	9	9	9	9	9	9	9	9	9	9
178 Stimson Lumber (formerly Haley West)	4.4	4.4	4.3	4.0	4.5	4.1	4.2	4.4	4.5	4.3	4.3	4.1	4	4
179 Sumas Compression Station	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
180 Tamarack	4	4	4	4	4	4	4	4	4	4	4	4	4	4
181 TESCO Nampa ID	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
182 TESCO Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
183 Vaagen Bros.	4	4	4	4	4	4	4	4	4	4	4	4	4	4
184 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
185 Total NUG: Co-Generation	393	393	393	393	395	396	397	396	342	393	385	397	395	393
-NUG: Renewables-														

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 PNW Loads and Resource Study
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 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
186 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
187 Bettencourt Dairy (Cargill)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
188 Big Sky Dairy	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
189 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
191 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
192 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193 Finley Buttes BioEnergy	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
194 Fourmile Hill Geothermal	50	50	50	50	50	50	50	50	50	50	50	50	50	50
195 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
196 Hidden Hollow Landfill	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
197 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
198 Lewandowski Farms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
199 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Pine Products Corp	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
201 Portland Waste Water	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
202 Puyallup Energy Recovery (PERC)	2	2	2	2	2	2	2	2	2	2	2	2	2	2
203 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
204 Raft River Geothermal Phase 1	13	13	13	13	13	13	13	13	13	13	13	13	13	13
205 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
206 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207 Wild Horse Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Total NUG: Renewables	82	82	82	82	82	82	82	82	82	82	82	82	82	82
<i>-Total Non-Utility Generating Resources-</i>														
210 Federal Entities	53	53	53	53	53	53	53	53	53	53	53	53	53	53
211 Public Entities	226	224	174	121	78	79	78	80	44	172	172	258	278	283
212 Investor-Owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
213 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
214 Total Non-Utility Generation	889	887	816	735	679	669	662	672	652	816	818	958	973	961

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-NUG: Hydro-</i>														
1 Albany	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2 Barber Dam	3	3	2.4	1.1	0.4	1.2	2.7	3.3	4.1	4.1	4.1	4.0	4.1	4.1
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
15 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6
16 Broadwater Dam	1.7	1.7	2.2	2.9	3.3	3.2	3.1	2.9	3.0	3.1	3.1	3.9	3.5	2.6
17 Buffalo Hydro	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
18 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0	0.1	2.9	2.9	7	8.2	8.7
20 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
21 Carlton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3
24 Central OR Irrigation District	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1
25 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4
26 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
28 Crystal Springs	2.1	2.1	2.4	2.4	2.4	0.8	0.8	0.9	1.3	1.3	1.3	1.3	2.2	2.1
29 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2
30 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2
34 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5
35 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Dworshak/Clearwater Small Hydropower	3	3	3	3	3	3	3	3	3	3	3	3	3	3
38 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Elk Creek	1.9	1.9	0	0	0	0.2	0.2	0.2	1.6	1.7	1.7	1.6	2	1.9
40 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2
41 Estacada	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Fall Creek (OR)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0
43 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1
45 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7
46 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8
47 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
48 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5
49 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0
50 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0
51 Hailey Cspg	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
52 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
53 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0
54 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2
55 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
56 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
57 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1
58 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4
59 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
60 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8
61 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 Koma Kulshan	12	12	12	12	12	12	12	12	12	12	12	12	12	12
63 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
64 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4
66 Lake Oswego	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
67 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2
68 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
69 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
70 Lilliwaup Falls Generating Co.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71 Little Mac	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
72 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9
73 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7
74 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8
75 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2
76 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7
77 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73
78 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0
79 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24
80 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5
81 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1
82 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
83 Meyers Falls	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
84 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0
85 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4
86 Mill Creek (OR) - City of Cove	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87 Minikahda	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6
89 Mitchell Butte	1.8	1.8	1.8	0.7	0	0	0	0	0.5	1.4	1.4	2.1	2.1	1.8
90 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
91 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Mt. Tabor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
93 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4
94 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1
95 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0
96 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1
98 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
99 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2
101 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
102 Owyhee Dam	3.6	3.6	2.6	0.8	0	0	0.3	0.8	2.3	4.3	4.3	5	4.3	4.1
103 PEC Headworks	4.5	4.5	3.1	3	0	0	0	0	2.8	5.1	5.1	6.5	6.2	5.8
104 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
106 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7
108 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
109 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2
111 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4
112 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8
113 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
114 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
115 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
116 Quincy Chute	9	9	8	5	0	0	0	0	5	8	8	9	9	9
117 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
118 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
119 Rock Creek #1	1.3	1.3	1.9	2	1.5	1.6	1.3	1.2	1.3	1.7	1.7	1.7	1.5	1.3
120 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6
121 Rocky Brook	0.5	0.5	0	1.1	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.1	0.2
122 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4
123 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4
124 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
125 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0
126 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4
127 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1
128 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2017 - 2018 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
129 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3
130 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6
131 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
132 Snedigar Ranch	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4
133 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1
134 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.6	0.5
135 Spokane Upriver	16	16	16	16	16	16	16	16	16	16	16	16	16	16
136 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1
137 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
138 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87
139 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
140 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
142 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
143 Trout Co.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
144 Tunnel #1	5	5	3	0.6	0	0	0	0	2.8	6	6	6.9	6.9	7
145 Twin Falls	20	20	20	20	20	20	20	20	20	20	20	20	20	20
146 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8
147 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1
148 Weeks Falls	5	5	5	5	5	5	5	5	5	5	5	5	5	5
149 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
150 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6
151 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
152 Woods Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
153 Total NUG: Hydro	366	365	293	211	152	140	133	143	179	293	302	428	447	438
-NUG: Small Thermal & Misc.-														
154 Covanta Marion Solid Waste	13	13	13	13	13	13	13	13	13	13	13	13	13	13
155 Methane Energy Agricultural D.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
156 Montana One	11	11	11	11	12	13	13	13	12	11	11	14	12	11
157 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
158 Spokane MSW	21	21	21	21	21	21	21	21	21	21	21	21	21	21
159 Treasure Valley	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
160 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0
161 Total NUG: Small Thermal & Misc.	49	49	49	49	50	51	51	51	49	49	49	52	50	49
-NUG: Co-Generation-														
162 Billings Generation	18	18	18	18	20	21	22	21	19	18	18	22	20	18
163 Biomass One	25	25	25	25	25	25	25	25	25	25	25	25	25	25
164 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165 Champion	3	3	3	3	3	3	3	3	3	3	3	3	3	3
166 Cogen Co	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
167 DR Johnson - Co-Gen II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	0	7.5	7.5	7.5
168 Everett Cogen Project (Kimberly Clark)	52	52	52	52	52	52	52	52	0	52	52	52	52	52
169 Evergreen Biopower Cogen (Freres)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
170 Glens Ferry Cogen Facility (Magic West)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
171 March Point #1	80	80	80	80	80	80	80	80	80	80	80	80	80	80
172 March Point #2	65	65	65	65	65	65	65	65	65	65	65	65	65	65
173 Metro Westpoint	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
174 Potlatch Contract Renewal	75	75	75	75	75	75	75	75	75	75	75	75	75	75
175 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1
176 Rupert Cogen Facility (Magic Valley)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
177 Simplot Pocatello	9	9	9	9	9	9	9	9	9	9	9	9	9	9
178 Stimson Lumber (formerly Haley West)	4.4	4.4	4.3	4.0	4.5	4.1	4.2	4.4	4.5	4.3	4.3	4.1	4	4
179 Sumas Compression Station	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
180 Tamarack	4	4	4	4	4	4	4	4	4	4	4	4	4	4
181 TASCO Nampa ID	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
182 TASCO Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
183 Vaagen Bros.	4	4	4	4	4	4	4	4	4	4	4	4	4	4
184 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
185 Total NUG: Co-Generation	393	393	393	393	395	396	397	396	342	393	385	397	395	393
-NUG: Renewables-														

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2017 - 2018 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
186 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
187 Bettencourt Dairy (Cargill)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
188 Big Sky Dairy	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
189 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
191 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
192 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193 Finley Buttes BioEnergy	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
194 Fourmile Hill Geothermal	50	50	50	50	50	50	50	50	50	50	50	50	50	50
195 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
196 Hidden Hollow Landfill	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
197 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
198 Lewandowski Farms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
199 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Pine Products Corp	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
201 Portland Waste Water	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
202 Puyallup Energy Recovery (PERC)	2	2	2	2	2	2	2	2	2	2	2	2	2	2
203 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
204 Raft River Geothermal Phase 1	13	13	13	13	13	13	13	13	13	13	13	13	13	13
205 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
206 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207 Wild Horse Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Total NUG: Renewables	82	82	82	82	82	82	82	82	82	82	82	82	82	82
<i>-Total Non-Utility Generating Resources-</i>														
210 Federal Entities	53	53	53	53	53	53	53	53	53	53	53	53	53	53
211 Public Entities	226	224	174	121	78	79	78	80	44	172	172	258	278	283
212 Investor-Owned Entities	588	588	567	539	534	523	517	525	541	576	571	625	620	603
213 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
214 Total Non-Utility Generation	889	887	816	735	679	669	662	672	652	816	818	958	973	961

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-NUG: Hydro-</i>														
1 Albany	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2 Barber Dam	3	3	2.4	1.1	0.4	1.2	2.7	3.3	4.1	4.1	4.1	4.0	4.1	4.1
3 Barney Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Beaverton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Bell Mountain	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
6 Big Sheep Creek	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Bingham Engineering	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8 Birch Creek (Clark County)	0	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0
9 Birch Creek (Gooding County)	1.3	1.3	1.1	1.0	1.1	1.1	0.3	1.2	1.7	1.6	1.6	1.6	1.3	1.2
10 Black Canyon #3	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
11 Black Creek	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
12 Blind Canyon Hydro	0.7	0.7	1.1	0.9	0.2	0	0	0	0	0.6	0.6	1.6	1.0	0.7
13 Boulder Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14 Box Canyon	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
15 Briggs Creek	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6
16 Broadwater Dam	1.7	1.7	2.2	2.9	3.3	3.2	3.1	2.9	3.0	3.1	3.1	3.9	3.5	2.6
17 Buffalo Hydro	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
18 Burr & Bouchard	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19 Bypass	8.3	8.3	6.5	2.8	1.0	0	0	0.1	2.9	2.9	7	8.2	8.7	8.3
20 Canyon Springs	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
21 Carlton	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22 Cascade Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Cedar Draw	0.3	0.3	0.9	0.9	0.9	1.2	1.2	1.3	0.4	0.4	0.4	0.4	0.3	0.3
24 Central OR Irrigation District	3.1	3.1	3.7	3.5	0	0.7	0	0.4	0.9	0.8	0.8	4.5	3.8	4.1
25 Clear Springs Trout	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4
26 Cornelius	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27 Cowiche	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
28 Crystal Springs	2.1	2.1	2.4	2.4	2.4	0.8	0.8	0.9	1.3	1.3	1.3	1.3	2.2	2.1
29 Curry Cattle Co.	0.2	0.2	0.2	0.1	0.1	0	0	0	0.1	0.1	0.1	0.2	0.2	0.2
30 Curtiss Livestock	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31 Dairy Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32 Deep Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33 Derr Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2
34 Dietrich Drop	4.7	4.7	3.6	3.1	1.4	0	0	0	0	3.1	3.1	4.7	4.7	4.5
35 Don Steffen	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36 Donald Jenni	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
37 Dworshak/Clearwater Small Hydropower	3	3	3	3	3	3	3	3	3	3	3	3	3	3
38 Eagle Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39 Elk Creek	1.9	1.9	0	0	0	0.2	0.2	0.2	1.6	1.7	1.7	1.6	2	1.9
40 Eltopia Br Canal 4.6	1.8	1.8	1.2	0.6	0	0	0	0	0	1.4	1.4	2	2	2.2
41 Estacada	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42 Fall Creek (OR)	0	0	0	0	1.9	3.1	0.9	2.7	2.7	4.4	4.4	4.1	3.8	0
43 Falls Creek (WA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44 Falls River	6.5	6.5	6.3	5.7	5.6	5.0	4.2	3.8	3.8	6.2	6.2	7.9	8.5	7.1
45 Farmers Irrig.	0.6	0.6	0.7	1.2	3.2	3.2	2.1	4.6	3.3	3.5	3.5	4.7	0.8	0.7
46 Faulkner Ranch	0.8	0.8	0.7	0.7	0.7	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.8
47 Fisheries Development Co	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
48 Galesville Dam	0.6	0.6	0.4	0.2	0.2	0.3	0	0.2	0.3	0.4	0.4	0.3	0.4	0.5
49 Geobon 2	1.0	1.0	0.3	0.3	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.6	1.0	1.0
50 Georgetown Power	0	0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0
51 Hailey Cspg	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
52 Hazelton A	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
53 Hazelton B	6.6	6.6	5.2	2.4	0.7	0	0	0	0.1	2.2	2.2	5.6	6.4	7.0
54 Horseshoe Bend Hydro	8.8	8.8	7.5	3.9	2.8	3.5	3.9	4.6	5.9	8.8	8.8	9.9	9.8	9.2
55 Hutchinson Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
56 Ingram Warm Springs	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
57 Jim Ford Creek	0	0	0	0	0.3	0.5	0.9	0.9	1.1	1.1	1.1	0.7	0.3	0.1
58 Jim Knight	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.4
59 John Day Creek	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
60 Kasel & Witherspoon	0.9	0.9	0.9	0.6	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.8	0.9	0.8
61 Kevin Duncan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62 Koma Kulshan	12	12	12	12	12	12	12	12	12	12	12	12	12	12
63 Koyle	1.1	1.1	1.1	1.0	1	0.2	0.1	0.1	0.3	0.8	0.8	1.2	0.8	0.9

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Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
64 L. Fery	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 Lacombe Irrig.	0	0	0	0	0.2	1.0	0.2	0.9	0.9	1	1	0.9	0.9	0.4
66 Lake Oswego	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
67 Lateral #10	1.2	1.2	1.3	1.6	1.7	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.3	1.2
68 Lee Tavenner	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
69 Lemoyne	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
70 Lilliwaup Falls Generating Co.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71 Little Mac	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
72 Little Wood River Res.	1.9	1.9	0.2	0.2	0.2	0	0	0	1.6	1.7	1.7	1.6	2	1.9
73 Littlewood/Arkoosh	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.5	0.4	0.8	0.7
74 Low Line Canal Drop	7.8	7.8	7.5	7.3	7.5	0.6	0.6	0.7	5.3	5.5	5.5	5.3	8.1	7.8
75 Low Line Midway	2	2	0	0	0	0	0	0	0	0	0	0	2	2
76 Lower Low Line #2	2.7	2.7	2.5	1.8	1.4	0	0	0.7	1.9	2.5	2.5	2.7	2.7	2.7
77 Lucky Peak	29	27	20	4.5	0	0.7	0	1.5	1.6	11	11	68	75	73
78 Magic Reservoir	6.8	6.8	4.4	0.5	0.2	0.1	0.3	0.1	0.9	3.0	3.0	8.3	9.1	9.0
79 Main Canal Headworks	20	20	12	5.2	0	0	0	0	2.8	14	14	18	21	24
80 Malad River	0.5	0.5	0.6	0.5	0.5	0.1	0.1	0	0.2	0.4	0.4	0.6	0.4	0.5
81 Marco Ranches	1.1	1.1	1.2	1.1	1.2	0	0	0	1.1	1.2	1.2	1.1	1.2	1.1
82 Marsh Valley	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
83 Meyers Falls	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
84 Middle Fork Irrig.	1.8	1.8	0.8	1.2	1.3	1.7	2.7	3.1	3.1	2.9	2.9	2.8	2.4	2.0
85 Mile 28	1.3	1.3	1.2	0.7	0.2	0	0	0	0	0.6	0.6	1.2	1.3	1.4
86 Mill Creek (OR) - City of Cove	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87 Minikahda	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88 Mink Creek	1.2	1.2	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	1.6	2.7	1.6
89 Mitchell Butte	1.8	1.8	1.8	0.7	0	0	0	0	0.5	1.4	1.4	2.1	2.1	1.8
90 Mora Canal Drop	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
91 Mountain Energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92 Mt. Tabor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
93 Mud Creek/S&S	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4
94 Mud Creek/White	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1
95 Nichols Gap	0	0	0	0	0.4	0.6	0.2	0.5	0.6	0.4	0.4	0	0	0
96 Nicholson Sunnybar	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97 North Fork Sprague	0	0	0.1	0	0	0	0.1	0.3	0.2	0.3	0.3	0.9	0.4	0.1
98 O.J. Power	0	0	0.1	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
99 Odell Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100 Opal Springs	2.6	2.6	3.0	3.6	3.2	2.9	2.9	3.5	2.6	2.7	2.7	4.5	1.6	2.2
101 Orchard Avenue	0.8	0.8	0.8	0.8	0	0	0	0	0	0	0.8	0.8	0.8	0.8
102 Owyhee Dam	3.6	3.6	2.6	0.8	0	0	0.3	0.8	2.3	4.3	4.3	5	4.3	4.1
103 PEC Headworks	4.5	4.5	3.1	3	0	0	0	0	2.8	5.1	5.1	6.5	6.2	5.8
104 Phillips Ranch	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105 Phillipsburg	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
106 Pickering Micro Hydro	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107 Pigeon Cove	2.0	2.0	2.1	1.3	0.8	0.4	0.3	0.4	0.6	0.8	0.8	1.7	1.9	1.7
108 Pine Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
109 Portland	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110 Portland Hydro Project	2.3	2.3	2.9	6.7	16	20	18	17	16	17	17	15	8.4	3.2
111 Portneuf River	0.2	0.2	0.1	0	0.1	0.1	0	0	0	0	0	0.2	0.6	0.4
112 Potholes E Canal 66.0	1.8	1.8	1.8	1.6	0	0	0	0	0.6	1.8	1.8	1.8	1.8	1.8
113 Preston City	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
114 Pristine Springs	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
115 Pristine Springs #3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
116 Quincy Chute	9	9	8	5	0	0	0	0	5	8	8	9	9	9
117 Reynolds Irrigation	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
118 Rim View	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
119 Rock Creek #1	1.3	1.3	1.9	2	1.5	1.6	1.3	1.2	1.3	1.7	1.7	1.7	1.5	1.3
120 Rock Creek #2	1.8	1.8	1.8	1.9	1.9	1.9	0.6	0.4	1.6	1.9	1.9	1.9	1.9	1.6
121 Rocky Brook	0.5	0.5	0	1.1	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.1	0.2
122 Russel D. Smith	4	4	2.6	1.4	0	0	0	0	0.2	2.4	2.4	3.8	4.2	3.4
123 Sagebrush	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.4	0.4
124 Sahko	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
125 Salem	0	0	0	0	0	0	0	0	0	0	0	0	0	0
126 Schaffner	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4
127 Sheep Creek	0.4	0.4	0.3	0.3	0.4	0.5	0.5	0.5	0.9	1.6	1.6	0.8	1.5	1.1
128 Shingle Creek	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Table A-24: Regional NUG Resources By Project And Project Type
PNW Loads and Resource Study
2018 - 2019 Operating Year
[61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
129 Shoshone	0.3	0.3	0.3	0.3	0.3	0	0	0	0.1	0.2	0.2	0.4	0.2	0.3
130 Shoshone II	0.6	0.6	0.6	0	0	0	0	0	0	0.3	0.3	0.5	0.6	0.6
131 Snake River Pottery	0	0	0	0	0	0.1	0.1	0.1	0	0	0	0	0	0
132 Snedigar Ranch	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4
133 Solar Research	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1
134 South Dry Creek	0.5	0.5	0.5	0.5	0	0	0	0	0.5	0.5	0.5	0.6	0.6	0.5
135 Spokane Upriver	16	16	16	16	16	16	16	16	16	16	16	16	16	16
136 Stauffer Dry Creek	0.9	0.9	1	0.8	0.4	0.3	0.3	0.4	0.4	0.4	0.9	2.7	2.1	0.9
137 Strawberry Creek	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
138 Summer Falls	79	79	48	22	0	0	0	0	4.8	50	50	71	81	87
139 Sunshine Power #2	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1
140 Thomas Burnside	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141 Tiber Dam Liberty Montana	7	7	5.4	2.5	0.9	0	0	0	0.1	2.6	2.6	6	6.7	7.4
142 Tieton (Yakima)	7.8	7.8	7.8	7.8	0	0	0	0	0	0	7.8	7.8	7.8	7.8
143 Trout Co.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
144 Tunnel #1	5	5	3	0.6	0	0	0	0	2.8	6	6	6.9	6.9	7
145 Twin Falls	20	20	20	20	20	20	20	20	20	20	20	20	20	20
146 Walla Walla	1.5	1.5	1.4	1.3	1.2	1.3	1.2	1.5	1.8	1.8	1.8	1.5	1.5	1.8
147 Water Street / Santiam	0	0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1
148 Weeks Falls	5	5	5	5	5	5	5	5	5	5	5	5	5	5
149 White Water Ranch	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
150 Wilson Lake Hydro	7.1	7.1	5.3	2.0	0.2	0	0	0	0	2.3	2.3	6.1	6.8	7.6
151 Wisconsin Creek	0	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0
152 Woods Creek	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
153 Total NUG: Hydro	366	365	293	211	152	140	133	144	182	293	307	431	446	436
-NUG: Small Thermal & Misc.-														
154 Covanta Marion Solid Waste	13	13	13	13	13	13	13	13	13	13	13	13	13	13
155 Methane Energy Agricultural D.	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
156 Montana One	11	11	11	11	12	13	13	13	12	11	11	14	12	11
157 Pocatello Waste	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
158 Spokane MSW	21	21	21	21	21	21	21	21	21	21	21	21	21	21
159 Treasure Valley	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
160 West Boise Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0
161 Total NUG: Small Thermal & Misc.	49	49	49	49	50	51	51	51	49	49	49	52	50	49
-NUG: Co-Generation-														
162 Billings Generation	18	18	18	18	20	21	22	21	19	18	18	22	20	18
163 Biomass One	25	25	25	25	25	25	25	25	25	25	25	25	25	25
164 Boise Cascade Medford	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165 Champion	3	3	3	3	3	3	3	3	3	3	3	3	3	3
166 Cogen Co	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
167 DR Johnson - Co-Gen II	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	0	7.5	7.5	7.5
168 Everett Cogen Project (Kimberly Clark)	52	52	52	52	52	52	52	52	0	52	52	52	52	52
169 Evergreen Biopower Cogen (Freres)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
170 Glens Ferry Cogen Facility (Magic West)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
171 March Point #1	80	80	80	80	80	80	80	80	80	80	80	80	80	80
172 March Point #2	65	65	65	65	65	65	65	65	65	65	65	65	65	65
173 Metro Westpoint	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
174 Potlatch Contract Renewal	75	75	75	75	75	75	75	75	75	75	75	75	75	75
175 Rough & Ready Lumber	1	1	1	1	1	1	1	1	1	1	1	1	1	1
176 Rupert Cogen Facility (Magic Valley)	10	10	10	10	10	10	10	10	10	10	10	10	10	10
177 Simplot Pocatello	9	9	9	9	9	9	9	9	9	9	9	9	9	9
178 Stimson Lumber (formerly Haley West)	4.4	4.4	4.3	4.0	4.5	4.1	4.2	4.4	4.5	4.3	4.3	4.1	4	4
179 Sumas Compression Station	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
180 Tamarack	4	4	4	4	4	4	4	4	4	4	4	4	4	4
181 TESCO Nampa ID	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
182 TESCO Twin Falls ID	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
183 Vaagen Bros.	4	4	4	4	4	4	4	4	4	4	4	4	4	4
184 Warm Springs	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
185 Total NUG: Co-Generation	393	393	393	393	395	396	397	396	342	393	385	397	395	393
-NUG: Renewables-														

Table A-24: Regional NUG Resources By Project And Project Type
 PNW Loads and Resource Study
 2018 - 2019 Operating Year
 [61] 2009 White Book - 30 Minute Wind (Final)

Continued

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
186 Ashland Solar Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
187 Bettencourt Dairy (Cargill)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
188 Big Sky Dairy	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
189 Chinook Wind	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190 DeRuyter & Son's Dairy	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
191 Dry Creek Landfill (NUG Renewable)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
192 Emmett Biomass Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
193 Finley Buttes BioEnergy	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
194 Fourmile Hill Geothermal	50	50	50	50	50	50	50	50	50	50	50	50	50	50
195 Healow #2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
196 Hidden Hollow Landfill	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
197 Josef Staufer	0	0	0	0	0	0	0	0	0	0	0	0	0	0
198 Lewandowski Farms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
199 Livingston	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200 Pine Products Corp	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
201 Portland Waste Water	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
202 Puyallup Energy Recovery (PERC)	2	2	2	2	2	2	2	2	2	2	2	2	2	2
203 Qualco Dairy Digester	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
204 Raft River Geothermal Phase 1	13	13	13	13	13	13	13	13	13	13	13	13	13	13
205 VanderHaak Dairy	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
206 White Bluffs Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207 Wild Horse Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208 Windmill	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209 Total NUG: Renewables	82	82	82	82	82	82	82	82	82	82	82	82	82	82
<i>-Total Non-Utility Generating Resources-</i>														
210 Federal Entities	53	53	53	53	53	53	53	53	53	53	53	53	53	53
211 Public Entities	226	224	174	121	78	79	78	80	44	172	172	258	278	283
212 Investor-Owned Entities	588	588	567	539	534	523	517	525	544	576	575	627	620	601
213 Other Entities	22	22	22	22	14	14	14	14	14	14	22	22	22	22
214 Total Non-Utility Generation	889	887	816	735	679	669	662	672	655	816	822	961	973	960

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Table A-26
Dedicated Resources
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-26: Dedicated Resources
PNW Loads and Resource Study
2009 - 2010 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	4833	4792	4457	4490	4413	4560	4403	4336	4138	3989	3903	4226	4778	4635
2 Total Generating Public Entities	4833	4792	4457	4490	4413	4560	4403	4336	4138	3989	3903	4226	4778	4635
<i>-Non-Generating Public Entities-</i>														
3 Non-Generating Public Entities	109	109	122	123	136	135	134	135	140	133	133	130	127	128
4 Total Non-Generating Public Entities	109	109	122	123	136	135	134	135	140	133	133	130	127	128
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	12639	12589	12765	12591	13093	13199	12853	12874	12689	12600	11893	12258	12700	13096
6 Total Investor-owned Entities	12639	12589	12765	12591	13093	13199	12853	12874	12689	12600	11893	12258	12700	13096
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	4833	4792	4457	4490	4413	4560	4403	4336	4138	3989	3903	4226	4778	4635
8 Small & Non Generating Entities	109	109	122	123	136	135	134	135	140	133	133	130	127	128
9 Investor-Owned Entities	12639	12589	12765	12591	13093	13199	12853	12874	12689	12600	11893	12258	12700	13096
10 Regional Total Dedicated Resources	17581	17489	17344	17203	17642	17894	17390	17345	16967	16723	15930	16614	17605	17859

Table A-26: Dedicated Resources
PNW Loads and Resource Study
2010 - 2011 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	4734	4692	4379	4412	4438	4584	4405	4338	4138	3992	3906	4229	4780	4589
2 Total Generating Public Entities	4734	4692	4379	4412	4438	4584	4405	4338	4138	3992	3906	4229	4780	4589
<i>-Non-Generating Public Entities-</i>														
3 Non-Generating Public Entities	127	127	135	136	138	137	136	137	142	135	135	133	132	131
4 Total Non-Generating Public Entities	127	127	135	136	138	137	136	137	142	135	135	133	132	131
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	12886	12836	13013	12839	12869	12963	12757	12778	12593	12610	12334	12690	12694	13100
6 Total Investor-owned Entities	12886	12836	13013	12839	12869	12963	12757	12778	12593	12610	12334	12690	12694	13100
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	4734	4692	4379	4412	4438	4584	4405	4338	4138	3992	3906	4229	4780	4589
8 Small & Non Generating Entities	127	127	135	136	138	137	136	137	142	135	135	133	132	131
9 Investor-Owned Entities	12886	12836	13013	12839	12869	12963	12757	12778	12593	12610	12334	12690	12694	13100
10 Regional Total Dedicated Resources	17748	17656	17527	17387	17444	17684	17299	17254	16873	16737	16375	17052	17606	17820

Table A-26: Dedicated Resources
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	4713	4672	4322	4454	4846	4987	4796	4729	4538	4647	4562	4319	5290	5130
2 Total Generating Public Entities	4713	4672	4322	4454	4846	4987	4796	4729	4538	4647	4562	4319	5290	5130
<i>-Non-Generating Public Entities-</i>														
3 Non-Generating Public Entities	130	130	138	138	139	139	139	140	144	131	131	131	130	129
4 Total Non-Generating Public Entities	130	130	138	138	139	139	139	140	144	131	131	131	130	129
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	12890	12840	12441	12136	11741	11833	11622	11643	11457	11693	10987	10444	11463	11752
6 Total Investor-owned Entities	12890	12840	12441	12136	11741	11833	11622	11643	11457	11693	10987	10444	11463	11752
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	4713	4672	4322	4454	4846	4987	4796	4729	4538	4647	4562	4319	5290	5130
8 Small & Non Generating Entities	130	130	138	138	139	139	139	140	144	131	131	131	130	129
9 Investor-Owned Entities	12890	12840	12441	12136	11741	11833	11622	11643	11457	11693	10987	10444	11463	11752
10 Regional Total Dedicated Resources	17733	17642	16901	16729	16725	16959	16557	16511	16139	16471	15680	14894	16883	17012

Table A-26: Dedicated Resources
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	5192	5150	4810	4838	4867	5008	4817	4750	4556	4664	4579	4337	5307	5134
2 Total Generating Public Entities	5192	5150	4810	4838	4867	5008	4817	4750	4556	4664	4579	4337	5307	5134
<i>-Non-Generating Public Entities-</i>														
3 Non-Generating Public Entities	130	130	139	138	139	139	139	140	144	131	131	131	130	129
4 Total Non-Generating Public Entities	130	130	139	138	139	139	139	140	144	131	131	131	130	129
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	11596	11547	11728	11553	11578	11671	11481	11501	11315	11647	10941	10933	11229	11754
6 Total Investor-owned Entities	11596	11547	11728	11553	11578	11671	11481	11501	11315	11647	10941	10933	11229	11754
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	5192	5150	4810	4838	4867	5008	4817	4750	4556	4664	4579	4337	5307	5134
8 Small & Non Generating Entities	130	130	139	138	139	139	139	140	144	131	131	131	130	129
9 Investor-Owned Entities	11596	11547	11728	11553	11578	11671	11481	11501	11315	11647	10941	10933	11229	11754
10 Regional Total Dedicated Resources	16918	16826	16676	16528	16584	16817	16437	16391	16016	16442	15652	15401	16666	17017

Table A-26: Dedicated Resources
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	5196	5154	4814	4842	4872	5013	4822	4755	4561	4667	4582	4339	5310	5136
2 Total Generating Public Entities	5196	5154	4814	4842	4872	5013	4822	4755	4561	4667	4582	4339	5310	5136
<i>-Non-Generating Public Entities-</i>														
3 Non-Generating Public Entities	130	130	139	138	139	139	139	140	144	131	131	131	130	129
4 Total Non-Generating Public Entities	130	130	139	138	139	139	139	140	144	131	131	131	130	129
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	11598	11548	11729	11554	11580	11672	11483	11503	11317	11648	10943	10304	11322	11741
6 Total Investor-owned Entities	11598	11548	11729	11554	11580	11672	11483	11503	11317	11648	10943	10304	11322	11741
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	5196	5154	4814	4842	4872	5013	4822	4755	4561	4667	4582	4339	5310	5136
8 Small & Non Generating Entities	130	130	139	138	139	139	139	140	144	131	131	131	130	129
9 Investor-Owned Entities	11598	11548	11729	11554	11580	11672	11483	11503	11317	11648	10943	10304	11322	11741
10 Regional Total Dedicated Resources	16924	16832	16682	16534	16590	16824	16444	16398	16021	16446	15655	14774	16762	17007

Table A-26: Dedicated Resources
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	5199	5157	4816	4846	4877	5019	4828	4760	4564	4669	4585	4342	5313	5139
2 Total Generating Public Entities	5199	5157	4816	4846	4877	5019	4828	4760	4564	4669	4585	4342	5313	5139
<i>-Non-Generating Public Entities-</i>														
3 Non-Generating Public Entities	130	130	139	138	139	139	139	140	144	131	131	131	130	130
4 Total Non-Generating Public Entities	130	130	139	138	139	139	139	140	144	131	131	131	130	130
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	11587	11537	11719	11543	11569	11661	11472	11492	11306	11541	11365	10925	11212	11744
6 Total Investor-owned Entities	11587	11537	11719	11543	11569	11661	11472	11492	11306	11541	11365	10925	11212	11744
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	5199	5157	4816	4846	4877	5019	4828	4760	4564	4669	4585	4342	5313	5139
8 Small & Non Generating Entities	130	130	139	138	139	139	139	140	144	131	131	131	130	130
9 Investor-Owned Entities	11587	11537	11719	11543	11569	11661	11472	11492	11306	11541	11365	10925	11212	11744
10 Regional Total Dedicated Resources	16916	16824	16674	16527	16585	16819	16439	16393	16014	16341	16081	15397	16655	17013

Table A-26: Dedicated Resources
PNW Loads and Resource Study
2015 - 2016 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	5202	5160	4819	4850	4884	5026	4835	4767	4568	4487	4403	4535	5318	5145
2 Total Generating Public Entities	5202	5160	4819	4850	4884	5026	4835	4767	4568	4487	4403	4535	5318	5145
<i>-Non-Generating Public Entities-</i>														
3 Non-Generating Public Entities	130	130	139	138	139	139	139	140	144	131	131	131	131	130
4 Total Non-Generating Public Entities	130	130	139	138	139	139	139	140	144	131	131	131	131	130
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	11588	11538	11719	11544	11570	11662	11473	11493	11307	11056	9820	11408	11313	11745
6 Total Investor-owned Entities	11588	11538	11719	11544	11570	11662	11473	11493	11307	11056	9820	11408	11313	11745
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	5202	5160	4819	4850	4884	5026	4835	4767	4568	4487	4403	4535	5318	5145
8 Small & Non Generating Entities	130	130	139	138	139	139	139	140	144	131	131	131	131	130
9 Investor-Owned Entities	11588	11538	11719	11544	11570	11662	11473	11493	11307	11056	9820	11408	11313	11745
10 Regional Total Dedicated Resources	16919	16828	16678	16532	16593	16827	16446	16400	16019	15675	14354	16074	16762	17020

Table A-26: Dedicated Resources
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	5192	5150	4810	4834	4854	4995	4804	4737	4552	4475	4391	4523	5306	5133
2 Total Generating Public Entities	5192	5150	4810	4834	4854	4995	4804	4737	4552	4475	4391	4523	5306	5133
<i>-Non-Generating Public Entities-</i>														
3 Non-Generating Public Entities	130	130	139	138	139	139	139	140	144	131	131	131	131	130
4 Total Non-Generating Public Entities	130	130	139	138	139	139	139	140	144	131	131	131	131	130
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	11589	11539	11720	11545	11571	11663	11474	11494	11308	11157	10982	10879	11314	11746
6 Total Investor-owned Entities	11589	11539	11720	11545	11571	11663	11474	11494	11308	11157	10982	10879	11314	11746
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	5192	5150	4810	4834	4854	4995	4804	4737	4552	4475	4391	4523	5306	5133
8 Small & Non Generating Entities	130	130	139	138	139	139	139	140	144	131	131	131	131	130
9 Investor-Owned Entities	11589	11539	11720	11545	11571	11663	11474	11494	11308	11157	10982	10879	11314	11746
10 Regional Total Dedicated Resources	16911	16819	16669	16517	16564	16797	16417	16371	16005	15764	15503	15533	16750	17008

Table A-26: Dedicated Resources
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	5186	5144	4804	4824	4836	4977	4786	4719	4542	4657	4572	4330	5300	5127
2 Total Generating Public Entities	5186	5144	4804	4824	4836	4977	4786	4719	4542	4657	4572	4330	5300	5127
<i>-Non-Generating Public Entities-</i>														
3 Non-Generating Public Entities	130	130	139	138	139	139	139	140	144	131	131	131	131	130
4 Total Non-Generating Public Entities	130	130	139	138	139	139	139	140	144	131	131	131	131	130
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	11590	11540	11721	11546	11572	11664	11475	11495	11309	11543	10837	10397	11314	11746
6 Total Investor-owned Entities	11590	11540	11721	11546	11572	11664	11475	11495	11309	11543	10837	10397	11314	11746
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	5186	5144	4804	4824	4836	4977	4786	4719	4542	4657	4572	4330	5300	5127
8 Small & Non Generating Entities	130	130	139	138	139	139	139	140	144	131	131	131	131	130
9 Investor-Owned Entities	11590	11540	11721	11546	11572	11664	11475	11495	11309	11543	10837	10397	11314	11746
10 Regional Total Dedicated Resources	16906	16814	16664	16508	16546	16780	16400	16354	15995	16331	15541	14857	16745	17003

Table A-26: Dedicated Resources
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	5187	5145	4805	4825	4837	4978	4571	4504	4328	4442	4357	4115	5085	4912
2 Total Generating Public Entities	5187	5145	4805	4825	4837	4978	4571	4504	4328	4442	4357	4115	5085	4912
<i>-Non-Generating Public Entities-</i>														
3 Non-Generating Public Entities	130	130	139	138	139	139	103	104	108	95	95	95	94	94
4 Total Non-Generating Public Entities	130	130	139	138	139	139	103	104	108	95	95	95	94	94
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	11590	11541	11722	11547	11572	11665	10385	10405	10222	10551	9850	9840	10225	10655
6 Total Investor-owned Entities	11590	11541	11722	11547	11572	11665	10385	10405	10222	10551	9850	9840	10225	10655
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	5187	5145	4805	4825	4837	4978	4571	4504	4328	4442	4357	4115	5085	4912
8 Small & Non Generating Entities	130	130	139	138	139	139	103	104	108	95	95	95	94	94
9 Investor-Owned Entities	11590	11541	11722	11547	11572	11665	10385	10405	10222	10551	9850	9840	10225	10655
10 Regional Total Dedicated Resources	16907	16816	16666	16510	16548	16782	15059	15013	14658	15088	14302	14050	15404	15661

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Table A-27
Other Dedicated Resources
Monthly OY 2010 – 2019
1-Hour Capacity in Megawatts

Power Services

Reports Powered by:



Loads and Resources Information System

Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2009 - 2010 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	4325	3992	4020	4636	5586	5928	6103	5898	5660	4935	4873	5296	4720	4950
2 Total Generating Public Entities	4325	3992	4020	4636	5586	5928	6103	5898	5660	4935	4873	5296	4720	4950
<i>-Non-Generating Public Entities-</i>														
3 Small & Non Generating Public Entities	4916	4716	4562	5117	5729	6224	6394	6038	5454	5088	5051	5248	5123	5345
4 Total Non-Generating Public Entities	4916	4716	4562	5117	5729	6224	6394	6038	5454	5088	5051	5248	5123	5345
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	6684	6683	6548	6834	7790	8216	8450	8368	7234	7593	7509	4649	6580	6881
6 Total Investor-owned Entities	6684	6683	6548	6834	7790	8216	8450	8368	7234	7593	7509	4649	6580	6881
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	4325	3992	4020	4636	5586	5928	6103	5898	5660	4935	4873	5296	4720	4950
8 Non Generating Entities	4916	4716	4562	5117	5729	6224	6394	6038	5454	5088	5051	5248	5123	5345
9 Investor-Owned Entities	6684	6683	6548	6834	7790	8216	8450	8368	7234	7593	7509	4649	6580	6881
10 Regional Total Dedicated Resources	15924	15392	15130	16587	19106	20368	20947	20304	18348	17616	17433	15194	16422	17176

Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2010 - 2011 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	5026	4748	4667	4921	5770	6097	6135	5920	5691	4946	4750	5156	4637	5115
2 Total Generating Public Entities	5026	4748	4667	4921	5770	6097	6135	5920	5691	4946	4750	5156	4637	5115
<i>-Non-Generating Public Entities-</i>														
3 Small & Non Generating Public Entities	5206	5039	4818	5175	5808	6310	6476	6112	5536	5156	5038	5224	5103	5454
4 Total Non-Generating Public Entities	5206	5039	4818	5175	5808	6310	6476	6112	5536	5156	5038	5224	5103	5454
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	6724	6723	6592	7133	8036	8379	8158	8083	7054	7412	6893	5213	6342	6554
6 Total Investor-owned Entities	6724	6723	6592	7133	8036	8379	8158	8083	7054	7412	6893	5213	6342	6554
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	5026	4748	4667	4921	5770	6097	6135	5920	5691	4946	4750	5156	4637	5115
8 Non Generating Entities	5206	5039	4818	5175	5808	6310	6476	6112	5536	5156	5038	5224	5103	5454
9 Investor-Owned Entities	6724	6723	6592	7133	8036	8379	8158	8083	7054	7412	6893	5213	6342	6554
10 Regional Total Dedicated Resources	16956	16511	16077	17228	19614	20786	20768	20115	18282	17514	16680	15593	16081	17122

Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2011 - 2012 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	5173	4840	4731	884	910	939	935	937	948	953	952	935	897	905
2 Total Generating Public Entities	5173	4840	4731	884	910	939	935	937	948	953	952	935	897	905
<i>-Non-Generating Public Entities-</i>														
3 Small & Non Generating Public Entities	5291	5092	4850	177	177	183	180	181	182	186	186	147	175	170
4 Total Non-Generating Public Entities	5291	5092	4850	177	177	183	180	181	182	186	186	147	175	170
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	6395	6396	6263	6778	7507	7834	7812	7738	6633	5948	5429	4536	6535	6563
6 Total Investor-owned Entities	6395	6396	6263	6778	7507	7834	7812	7738	6633	5948	5429	4536	6535	6563
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	5173	4840	4731	884	910	939	935	937	948	953	952	935	897	905
8 Non Generating Entities	5291	5092	4850	177	177	183	180	181	182	186	186	147	175	170
9 Investor-Owned Entities	6395	6396	6263	6778	7507	7834	7812	7738	6633	5948	5429	4536	6535	6563
10 Regional Total Dedicated Resources	16860	16327	15844	7839	8595	8956	8927	8856	7763	7088	6568	5618	7607	7639

Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2012 - 2013 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	897	896	875	884	910	939	935	937	948	953	952	935	897	905
2 Total Generating Public Entities	897	896	875	884	910	939	935	937	948	953	952	935	897	905
<i>-Non-Generating Public Entities-</i>														
3 Small & Non Generating Public Entities	170	170	177	177	177	183	184	185	187	190	190	151	179	175
4 Total Non-Generating Public Entities	170	170	177	177	177	183	184	185	187	190	190	151	179	175
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	6403	6403	6270	6801	7500	7676	7650	7576	6650	6014	5494	4986	6067	6379
6 Total Investor-owned Entities	6403	6403	6270	6801	7500	7676	7650	7576	6650	6014	5494	4986	6067	6379
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	897	896	875	884	910	939	935	937	948	953	952	935	897	905
8 Non Generating Entities	170	170	177	177	177	183	184	185	187	190	190	151	179	175
9 Investor-Owned Entities	6403	6403	6270	6801	7500	7676	7650	7576	6650	6014	5494	4986	6067	6379
10 Regional Total Dedicated Resources	7470	7468	7322	7861	8587	8798	8770	8698	7785	7157	6637	6072	7144	7460

Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2013 - 2014 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	897	896	875	884	910	939	935	937	948	953	952	935	907	915
2 Total Generating Public Entities	897	896	875	884	910	939	935	937	948	953	952	935	907	915
<i>-Non-Generating Public Entities-</i>														
3 Small & Non Generating Public Entities	174	174	182	182	182	188	184	185	187	190	190	151	179	175
4 Total Non-Generating Public Entities	174	174	182	182	182	188	184	185	187	190	190	151	179	175
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	6218	6218	6164	6675	7374	7551	7530	7456	6529	6489	5498	4719	6037	6341
6 Total Investor-owned Entities	6218	6218	6164	6675	7374	7551	7530	7456	6529	6489	5498	4719	6037	6341
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	897	896	875	884	910	939	935	937	948	953	952	935	907	915
8 Non Generating Entities	174	174	182	182	182	188	184	185	187	190	190	151	179	175
9 Investor-Owned Entities	6218	6218	6164	6675	7374	7551	7530	7456	6529	6489	5498	4719	6037	6341
10 Regional Total Dedicated Resources	7289	7288	7221	7740	8466	8678	8649	8578	7664	7632	6640	5806	7124	7432

Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2014 - 2015 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	907	906	885	894	924	953	944	947	957	962	962	944	906	915
2 Total Generating Public Entities	907	906	885	894	924	953	944	947	957	962	962	944	906	915
<i>-Non-Generating Public Entities-</i>														
3 Small & Non Generating Public Entities	174	174	182	182	182	188	189	190	192	195	195	157	184	180
4 Total Non-Generating Public Entities	174	174	182	182	182	188	189	190	192	195	195	157	184	180
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	6213	6213	6181	6692	7391	7546	7624	7550	6623	5940	4948	5085	6134	6447
6 Total Investor-owned Entities	6213	6213	6181	6692	7391	7546	7624	7550	6623	5940	4948	5085	6134	6447
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	907	906	885	894	924	953	944	947	957	962	962	944	906	915
8 Non Generating Entities	174	174	182	182	182	188	189	190	192	195	195	157	184	180
9 Investor-Owned Entities	6213	6213	6181	6692	7391	7546	7624	7550	6623	5940	4948	5085	6134	6447
10 Regional Total Dedicated Resources	7294	7293	7248	7767	8497	8686	8757	8686	7772	7097	6105	6185	7224	7542

Table A-27: Other Dedicated Resources
 PNW Loads and Resource Study
 2015 - 2016 Operating Year
 1937 Water Year
 [61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	906	905	884	893	919	948	944	947	957	962	962	944	906	915
2 Total Generating Public Entities	906	905	884	893	919	948	944	947	957	962	962	944	906	915
<i>-Non-Generating Public Entities-</i>														
3 Small & Non Generating Public Entities	179	179	187	187	187	193	189	190	192	195	195	156	184	180
4 Total Non-Generating Public Entities	179	179	187	187	187	193	189	190	192	195	195	156	184	180
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	6318	6318	6286	6796	7420	7575	7553	7479	6627	6114	5595	4868	6190	6504
6 Total Investor-owned Entities	6318	6318	6286	6796	7420	7575	7553	7479	6627	6114	5595	4868	6190	6504
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	906	905	884	893	919	948	944	947	957	962	962	944	906	915
8 Non Generating Entities	179	179	187	187	187	193	189	190	192	195	195	156	184	180
9 Investor-Owned Entities	6318	6318	6286	6796	7420	7575	7553	7479	6627	6114	5595	4868	6190	6504
10 Regional Total Dedicated Resources	7403	7402	7356	7876	8527	8716	8686	8615	7776	7272	6752	5969	7280	7598

Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2016 - 2017 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	906	905	884	893	919	948	940	943	953	959	958	941	903	911
2 Total Generating Public Entities	906	905	884	893	919	948	940	943	953	959	958	941	903	911
<i>-Non-Generating Public Entities-</i>														
3 Small & Non Generating Public Entities	179	179	187	187	187	193	189	190	192	195	195	156	184	180
4 Total Non-Generating Public Entities	179	179	187	187	187	193	189	190	192	195	195	156	184	180
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	6373	6372	6340	6850	7425	7580	7557	7484	6631	6590	5314	5144	6489	6510
6 Total Investor-owned Entities	6373	6372	6340	6850	7425	7580	7557	7484	6631	6590	5314	5144	6489	6510
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	906	905	884	893	919	948	940	943	953	959	958	941	903	911
8 Non Generating Entities	179	179	187	187	187	193	189	190	192	195	195	156	184	180
9 Investor-Owned Entities	6373	6372	6340	6850	7425	7580	7557	7484	6631	6590	5314	5144	6489	6510
10 Regional Total Dedicated Resources	7458	7456	7410	7930	8531	8721	8687	8616	7776	7744	6468	6241	7576	7601

Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2017 - 2018 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	926	925	904	913	940	965	961	964	978	983	982	965	927	935
2 Total Generating Public Entities	926	925	904	913	940	965	961	964	978	983	982	965	927	935
<i>-Non-Generating Public Entities-</i>														
3 Small & Non Generating Public Entities	179	179	187	187	187	193	189	190	192	195	195	156	184	180
4 Total Non-Generating Public Entities	179	179	187	187	187	193	189	190	192	195	195	156	184	180
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	6377	6377	6344	6855	7347	7503	7479	7406	6594	5626	4634	4877	6495	6516
6 Total Investor-owned Entities	6377	6377	6344	6855	7347	7503	7479	7406	6594	5626	4634	4877	6495	6516
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	926	925	904	913	940	965	961	964	978	983	982	965	927	935
8 Non Generating Entities	179	179	187	187	187	193	189	190	192	195	195	156	184	180
9 Investor-Owned Entities	6377	6377	6344	6855	7347	7503	7479	7406	6594	5626	4634	4877	6495	6516
10 Regional Total Dedicated Resources	7483	7482	7435	7955	8474	8661	8630	8560	7763	6804	5812	5999	7606	7632

Table A-27: Other Dedicated Resources
PNW Loads and Resource Study
2018 - 2019 Operating Year
1937 Water Year
[61] 2009 White Book - 30 Minute Wind (Final)

7/22/2009

Capacity (MW)	Aug1	Aug16	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr1	Apr16	May	Jun	Jul
<i>-Generating Public Entities-</i>														
1 Generating Public Entities	926	925	904	913	940	965	955	958	971	977	976	981	921	929
2 Total Generating Public Entities	926	925	904	913	940	965	955	958	971	977	976	981	921	929
<i>-Non-Generating Public Entities-</i>														
3 Small & Non Generating Public Entities	179	179	187	187	187	193	189	190	192	195	195	178	184	180
4 Total Non-Generating Public Entities	179	179	187	187	187	193	189	190	192	195	195	178	184	180
<i>-Investor-Owned Entities-</i>														
5 Investor-Owned Entities	6382	6382	6349	6859	7351	7507	7484	7411	6598	6084	5565	5153	6208	6523
6 Total Investor-owned Entities	6382	6382	6349	6859	7351	7507	7484	7411	6598	6084	5565	5153	6208	6523
<i>-Total Dedicated Resources-</i>														
7 Generating Public Entities	926	925	904	913	940	965	955	958	971	977	976	981	921	929
8 Non Generating Entities	179	179	187	187	187	193	189	190	192	195	195	178	184	180
9 Investor-Owned Entities	6382	6382	6349	6859	7351	7507	7484	7411	6598	6084	5565	5153	6208	6523
10 Regional Total Dedicated Resources	7488	7487	7440	7959	8478	8665	8628	8558	7761	7256	6736	6312	7312	7632

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