

**Bonneville Power Administration
2000 Pacific Northwest Loads and Resources Study
Technical Appendix**

**Section 1
Loads & Resources Federal Table
Medium Loads
Annual OY 2002 – 2011
Average Energy in Megawatts**

Power Business Line

Reports Powered by:



Loads and Resources Information System

**Loads and Resources - Federal System
PNW Loads and Resources Study
2002 - 2011 Operating Years
1937 Water Year
2000 White Book**

10/1/2001

Average Energy in Megawatts	2002 Avg.	2003 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	2007 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
<u>Non-Utility Obligations</u>										
Federal Agencies 1981 PSC Sale	24	0	0	0	0	0	0	0	0	0
USBR 1981 PSC Sale	11	0	0	0	0	0	0	0	0	0
DSI 1981 PSC Sale	411	0	0	0	0	0	0	0	0	0
Federal Agencies 2002 PSC Sale	102	126	131	133	134	91	83	84	84	85
USBR 2002 PSC Sale	109	148	148	148	148	67	38	38	38	38
DSI 2002 PSC Sale	400	839	1336	1435	1441	240	0	0	0	0
Total Firm Non-Utility Obligations	1056	1112	1614	1716	1723	398	121	121	122	123
<u>Transfers Out</u>										
NGP 1981 PSC Sale	385	0	0	0	0	0	0	0	0	0
GPU 1981 PSC Sale	251	0	0	0	0	0	0	0	0	0
IOU 1981 PSC Sale	0	0	0	0	0	0	0	0	0	0
NGP 2002 PSC Sale	2173	2710	2840	2907	2953	2997	3032	3080	3120	3161
GPU 2002 PSC Sale	1643	2072	2156	2176	2194	2467	2515	2523	2527	2531
NGP Slice Sale	512	600	605	598	610	600	611	601	612	602
GPU Slice Sale	853	999	1007	996	1016	1000	1018	1002	1019	1002
IOU 2002 PSC Sale	292	377	382	382	382	1897	2200	2200	2200	2200
Exports	1239	1225	1186	1124	1060	821	730	720	719	720
Intra-Regional Transfers (Out)	1091	853	604	487	414	311	303	303	303	303
Supp & Entitlement Capacity (Out)	46	28	0	0	0	0	0	0	0	0
CSPE To West Group Utilities	94	62	0	0	0	0	0	0	0	0
Federal Diversity	0	0	0	0	0	0	0	0	0	0
Total Transfers Out	8579	8924	8780	8671	8629	10093	10410	10429	10501	10518
Total Firm Obligations	9635	10037	10394	10387	10352	10491	10530	10550	10623	10641
<u>Hydro Resources</u>										
Regulated Hydro	6334	6342	6349	6357	6364	6372	6379	6382	6382	6382
Independent Hydro	405	406	406	406	406	406	406	406	406	406
Sustained Peaking Adjustment	0	0	0	0	0	0	0	0	0	0
Non-Fed CER (CSPE)	21	14	0	0	0	0	0	0	0	0
Non-Fed CER (Canada)	79	100	142	142	140	139	138	137	136	136
Restoration	0	0	0	0	0	0	0	0	0	0
Total Hydro Resources	6840	6862	6898	6905	6911	6917	6923	6925	6924	6924
<u>Other Resources</u>										
Small Thermal & Misc.	0	0	0	0	0	0	0	0	0	0
Combustion Turbines	0	0	0	0	0	0	0	0	0	0
Renewables	29	29	29	29	29	29	29	29	29	29
Cogeneration	0	0	0	0	0	0	0	0	0	0
Imports	362	291	277	264	254	234	204	183	182	174
Intra-Regional Transfers (In)	1824	1855	1616	1502	1352	486	206	206	206	206
Supp & Entitlement Capacity (In)	46	28	0	0	0	0	0	0	0	0
Large Thermal	1000	875	1000	875	1000	875	1000	875	1000	875
Non-Utility Generation	56	61	61	103	111	111	111	111	111	111
Resource Acquisition	0	0	0	0	0	0	0	0	0	0
Total Other Resources	3318	3139	2983	2773	2746	1734	1550	1404	1527	1395
Total Resources	10157	10001	9880	9678	9657	8651	8472	8329	8452	8318
<u>Reserves & Maintenance</u>										
Hydro Reserves	0	0	0	0	0	0	0	0	0	0
Small Thermal & Misc. Reserves	0	0	0	0	0	0	0	0	0	0
Large Thermal Reserves	0	0	0	0	0	0	0	0	0	0
Federal Hydro Maintenance	0	0	0	0	0	0	0	0	0	0
Spinning Reserves	0	0	0	0	0	0	0	0	0	0
Federal Transmission Losses	-286	-282	-279	-273	-272	-244	-239	-235	-238	-235
Total Reserves, Maintenance & Losses	-286	-282	-279	-273	-272	-244	-239	-235	-238	-235
Total Net Resources	9871	9719	9602	9405	9385	8407	8234	8094	8213	8084
Total Firm Surplus/Deficit	236	-318	-792	-982	-967	-2084	-2297	-2456	-2409	-2557

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**Section 2
Loads & Resources Regional Table
Medium Loads
Annual OY 2002 – 2011
Average Energy in Megawatts**

Power Business Line

Reports Powered by:



Loads and Resources Information System

Loads and Resources - Pacific Northwest Region
PNW Loads and Resources Study
2002 - 2011 Operating Years
1937 Water Year
2000 White Book

10/1/2001

Average Energy in Megawatts	2002 Avg.	2003 Avg.	2004 Avg.	2005 Avg.	2006 Avg.	2007 Avg.	2008 Avg.	2009 Avg.	2010 Avg.	2011 Avg.
<u>Firm Regional Loads</u>										
Regional Firm Loads	22367	22509	22945	23390	23750	24121	24465	24889	25282	25679
Exports	1908	1888	1827	1637	1411	1131	1010	994	993	994
Federal Diversity	0	0	0	0	0	0	0	0	0	0
Total Firm Regional Loads	24275	24397	24772	25028	25161	25252	25475	25883	26275	26673
<u>Non-Firm Regional Loads</u>										
Regional Non-Firm Loads	14	14	14	14	14	14	14	14	14	14
Total Non-Firm Regional Loads	14	14	14	14	14	14	14	14	14	14
Total Loads	24289	24411	24786	25042	25175	25266	25489	25897	26289	26687
<u>Hydro Resources</u>										
Regulated Hydro	10502	10509	10518	10524	10532	10542	10548	10551	10553	10557
Independent Hydro	1121	1121	1122	1121	1121	1122	1122	1122	1123	1128
Sustained Peaking Adjustment	0	0	0	0	0	0	0	0	0	0
Total Hydro Resources	11623	11630	11640	11645	11652	11664	11669	11673	11676	11685
<u>Other Resources</u>										
Small Thermal & Misc.	51	50	51	50	50	51	51	52	52	58
Combustion Turbines	655	656	651	659	658	656	658	656	651	659
Renewables	76	76	76	76	76	76	76	76	76	76
Cogeneration	676	676	676	676	676	676	676	676	676	676
Imports	1749	1678	1581	1435	1428	1411	1282	1261	1203	821
Large Thermal	5034	4850	4952	4880	4962	4843	5016	4836	4954	4895
Non-Utility Generation	1234	1223	1224	1264	1269	1268	1268	1268	1269	1271
Resource Acquisition	0	0	0	0	0	0	0	0	0	0
Total Other Resources	9475	9209	9211	9041	9120	8982	9027	8825	8881	8457
Total Resources	21097	20839	20851	20686	20772	20647	20696	20497	20557	20142
<u>Reserves & Maintenance</u>										
Hydro Reserves	0	0	0	0	0	0	0	0	0	0
Small Thermal & Misc. Reserves	0	0	0	0	0	0	0	0	0	0
Contract Reserves	0	0	0	0	0	0	0	0	0	0
Large Thermal Reserves	0	0	0	0	0	0	0	0	0	0
Regional Hydro Maintenance	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12
Spinning Reserves	0	0	0	0	0	0	0	0	0	0
Regional Transmission Losses	-595	-587	-588	-583	-585	-582	-583	-578	-579	-568
Total Reserves, Maintenance & Losses	-607	-600	-600	-595	-598	-594	-596	-590	-592	-580
Total Net Resources	20491	20240	20251	20091	20174	20052	20101	19907	19966	19563
<u>Surplus/Deficits</u>										
Firm Surplus/Deficit	-3784	-4157	-4521	-4937	-4987	-5199	-5374	-5976	-6310	-7110
Total Surplus/Deficit	-3798	-4171	-4535	-4951	-5001	-5213	-5388	-5990	-6324	-7124