



POWER SYSTEM OPERATION CORPORATION LIMITED  
NORTHERN REGIONAL LOAD DESPATCH CENTRE  
DAILY OPERATION REPORT OF NORTHERN REGION

Power Supply Position in Northern Region For 01-Apr-2020

Date of Reporting:02-Apr-2020

1. Regional Availability/Demand:

Evening Peak (20:00) MW				Off-Peak (03:00) MW				Day Energy(Net MU)	
Demand Met	Shortage(-)/Surplus(+)	Requirement	Freq (Hz)	Demand Met	Shortage(-)/Surplus(+)	Requirement	Freq (Hz)	Demand Met	Shortage
32,699	1,026	33,725	49.86	22,472	356	22,828	49.96	638	10.18

2(A)State's Load Deails (At State Periphery) in MU:

State	State's Control Area Generation (Net MU)							Drawal Sch	Act Drawal	UI	Requirement	Shortage	Consumption
	Thermal	Hydro	Gas/Naptha/Diesel	Solar	Wind	OthersBiomass/Small Hyd/Co-gen etc.)	Total	(Net MU)	(Net MU)	(Net MU)	(Net MU)	(Net MU)	(Net MU)
PUNJAB	-0.13	8.44	0	4.47	0	3.32	16.09	48.07	47.37	-0.7	63.46	0	63.46
HARYANA	0	0.97	0	0.18	0	1.37	2.53	63.76	64.28	0.52	66.81	0	66.81
RAJASTHAN	56.86	0.96	2.13	20.43	12.26	4.4	97.05	50.3	48.01	-2.29	145.06	0	145.06
DELHI	0	0	11.08	0	0	0.82	11.91	33.56	32.97	-0.59	44.91	0.03	44.88
UTTAR PRADESH	104.73	5.81	0	5.84	0	14.4	130.77	110.01	110.45	0.44	241.22	0	241.22
UTTARAKHAND	0	12.72	0	0.89	0	0.58	14.18	3.87	4.05	0.18	18.23	0	18.23
HIMACHAL PRADESH	0	4.76	0	0	0	8.22	12.98	0.12	-0.43	-0.55	12.55	0	12.55
J&K(UT) & Ladakh(UT)	0	9.53	0	0	0	0	9.53	33.18	34	0.82	53.68	10.15	43.53
CHANDIGARH	0	0	0	0	0	0	0	2.19	2.23	0.04	2.23	0	2.23
Region	161.46	43.19	13.21	31.81	12.26	33.11	295.04	345.06	342.93	-2.13	648.15	10.18	637.97

2(B)State Demand Met (Peak and off-peak Hrs)

State	Evening Peak (20:00) MW				Off-Peak (03:00) MW			
	Demand Met	Shortage(-)/Surplus(+)	UI	STOA/PX Transaction	Demand Met	Shortage(-)/Surplus(+)	UI	STOA/PX Transaction
PUNJAB	3,228	0	-101	-372	1,627	0	41	-372
HARYANA	3,635	0	39	-40	2,169	0	-36	-18
RAJASTHAN	6,243	0	-45	-149	4,544	0	-78	-485
DELHI	2,066	0	-54	-452	1,472	0	-48	-742
UTTAR PRADESH	13,638	485	315	554	9,813	0	-156	45
UTTARAKHAND	939	0	-34	-243	518	0	-57	-253
HIMACHAL PRADESH	661	0	-34	-971	250	0	-42	-561
J&K(UT) & Ladakh(UT)	2,165	541	172	-56	2,015	356	499	-56
CHANDIGARH	124	0	11	-100	63	0	-1	-81
Region	32,699	1,026	269	-1,829	22,471	356	122	-2,523

2(C)State's Demand Met in MWs (Maximum Demand Met and Maximum requirement of the day details)

State	Maximum Demand, corresponding shortage and requirement details for the day				Maximum requirement, corresponding shortage and demand details for the day					
	Maximum Demand Met of the day	Time	Shortage(-) /Surplus(+) during at maximum demand	Requirement at the max demand met of the day	Maximum Requirement of the day	Time	Shortage(-) /Surplus(+) during at maximum Requirement	Demand Met at maximum requiremnet	Min Demand Met	Time
PUNJAB	3,228	20:00	0	3,228	3,228	20:00	0	3,228	1,627	3:00
HARYANA	3,635	20:00	0	3,635	3,635	20:00	0	3,635	2,139	2:00
RAJASTHAN	7,996	9:00	0	7,996	7,996	9:00	0	7,996	4,435	4:00
DELHI	2,413	10:00	0	2,413	2,413	10:00	0	2,413	1,458	5:00
UP	13,959	21:00	425	14,384	14,384	21:00	425	13,959	6,171	17:00
UTTARAKHAND	1,140	8:00	0	1,140	1,140	8:00	0	1,140	510	4:00
HP	871	9:00	0	871	871	9:00	0	871	236	2:00
J&K(UT)&Ladak ..	2,165	20:00	541	2,706	2,706	20:00	541	2,165	1,414	9:00
CHANDIGARH	154	8:00	0	154	154	8:00	0	154	60	2:00
NR	32,699	20:00	1,026	33,725	33,725	20:00	1,026	32,699	21,656	17:00

3(A) State Entities Generation:

CHANDIGARH							
Station/Constituents	Inst. Capacity	N/A	N/A	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
NIL							
Total	0	0	0			0	0
Total	0	0	0			0	0

DELHI							
Station/Constituents	Inst. Capacity	20:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
RAJGHAT TPS( 2 * 67.5 )	135	0	0	0			
Total THERMAL	135	0	0			0	0
BAWANA GPS( 2 * 253 + 4 * 216 )	1,370	268	252	275		6.37	265
DELHI GAS TURBINES( 3 * 34 + 6 * 30 )	282	38	27	38.45		0.89	37
PRAGATI GAS TURBINES( 1 * 121.2 + 2 * 104.6 )	452	156	158	161.28		3.82	159
RITHALA GPS( 3 * 36 )	108	0	0	0			
Total GAS/NAPTHA/DIESEL	2,212	462	437			11.08	461
WIND	0	0	0	0			
BIOMASS( 16 )	16	34	31	34.46		0.82	34
SOLAR( 2 )	2	0	0	0			
Total DELHI	2,365	496	468			11.9	495

HARIYANA							
Station/Constituents	Inst. Capacity	20:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
DCRTPP (YAMUNA NAGAR)( 2 * 300 )	600	0	0	0			
JHAJJAR(CLP)( 2 * 660 )	1,320	0	0	0			
MAGNUM DIESEL (IPP)( 4 * 6.3 )	25	0	0	0			
PANIPAT TPS( 2 * 210 + 2 * 250 )	920	0	0	0			
RGTPP( KHEDAR)( 2 * 600 )	1,200	0	0	0			
Total THERMAL	4,065	0	0			0	0
FARIDABAD GPS( 1 * 156.07 + 2 * 137.75 )	432	0	0	0			
Total GAS/NAPTHA/DIESEL	432	0	0			0	0
TOTAL HYDRO HARYANA(64.8)	65	29	43	0		0.97	40
Total HYDEL	65	29	43			0.97	40
WIND	0	0	0	0			
BIOMASS( 106 )	106	0	0	0		1.37	57
SOLAR(55.8)	56	0	0	0		0.18	8
Total HARYANA	4,724	29	43			2.52	105

HIMACHAL PRADESH							
Station/Constituents	Inst. Capacity	20:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
BASPA (IPP) HPS( 3 * 100 )	300	74	0	102	06:00	0.91	38
MALANA (IPP) HPS( 2 * 43 )	86	0	0	55	18:00	0.37	15
OTHER HYDRO HP( 372 )	372	148	124	0		3.48	145
Total HYDEL	758	222	124			4.76	198
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	14.1494	13:00	0	0
SMALL HYDRO( 486 )	486	399	272	0		8.22	343
Total SMALL HYDRO	486	399	272			8.22	343
Total HP	1,244	621	396			12.98	541

J&K(UT) & LADAKH(UT)							
Station/Constituents	Inst. Capacity	20:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
GAS/DIESEL/OTHERS J&K( 1 * 190 )	190	0	0	0			
Total GAS/NAPTHA/DIESEL	190	0	0			0	0
BAGLIHAR (IPP) HPS( 6 * 150 )	900	0	0	0		7.67	320
OTHER HYDRO/IPP J&K( 308 )	308	0	0	0		1.87	78
Total HYDEL	1,208	0	0			9.54	398
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO( 98 )	98	0	0	0			
Total SMALL HYDRO	98	0	0			0	0
Total J&K(UT)&Ladakh(UT)	1,496	0	0			9.54	398

PUNJAB							
Station/Constituents	Inst. Capacity	20:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
GOINDWAL(GVK)( 2 * 270 )	540	0	0	0			
GURU GOBIND SINGH TPS (ROPAR)( 4 * 210 )	840	0	0	0		-0.07	-3
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)( 2 * 210 + 2 * 250 )	920	0	0	0		-0.06	-3
RAJPURA(NPL) TPS( 2 * 700 )	1,400	0	0	0			
TALWANDI SABO TPS( 3 * 660 )	1,980	0	0	0			
Total THERMAL	5,680	0	0			-0.13	-6
ANANADPUR SAHIB HYDRO PLANT( 2 * 33.5 + 2 * 33.5 )	134	25	25	25		0.76	32
MUKERIAN HYDRO PLANT( 6 * 15 + 6 * 19.5 + 2 * 9 )	225	37	0	48		0.7	29
RANJIT SAGAR POWER PLANT ( 4 * 150 )	600	360	0	420		2.44	102
SHANAN( 4 * 15 + 1 * 50 )	110	60	60	60		1.39	58
UBDC( 3 * 15 + 3 * 15.5 )	92	0	30	63		0.77	32
OTHER HYDRO PUNJAB	0	0	0	0		2.38	99
Total HYDEL	1,161	482	115			8.44	352
WIND	0	0	0	0			
BIOMASS( 303 )	303	0	0	0		3.32	138
SOLAR( 859 )	859	0	0	585		4.47	186
Total PUNJAB	8,003	482	115			16.1	670

RAJASTHAN							
Station/Constituents	Inst. Capacity	20:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
BARSINGSAR (IPP) LTPS( 2 * 125 )	250	214	182	0		4.85	202
CHHABRA TPS( 2 * 660 + 4 * 250 )	2,320	1,555	1,359	0		34.42	1,434
GIRAL (IPP) LTPS( 2 * 125 )	250	0	0	0			
KALISINDH TPS( 2 * 600 )	1,200	0	0	0			
KAWAI TPS( 2 * 660 )	1,320	0	0	0			
KOTA TPS( 2 * 110 + 2 * 195 + 3 * 210 )	1,240	183	148	0		3.84	160
RAJWEST (IPP) LTPS( 8 * 135 )	1,080	536	371	0		11.28	470
SURATGARH TPS ( 6 * 250 )	1,500	0	0	0			
VSLPP (IPP)( 1 * 135 )	135	103	106	0		2.47	103
Total THERMAL	9,295	2,591	2,166			56.86	2,369
DHOLPUR GPS( 3 * 110 )	330	0	0	0			
RAMGARH GPS( 1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5 )	271	85	89	0		2.13	89
Total GAS/NAPTHA/DIESEL	601	85	89			2.13	89
RAPS-A( 1 * 100 + 1 * 200 )	300	172	169	0		3.91	163
Total NUCLEAR	300	172	169			3.91	163
TOTAL HYDRO RAJASTHAN( 550 )	550	64	20	0		0.96	40
Total HYDEL	550	64	20			0.96	40
WIND	4,292	205	682	0		12.26	511
BIOMASS( 102 )	102	21	21	0		0.49	20
SOLAR( 3045 )	3,045	7	0	0		20.43	851
Total RAJASTHAN	18,185	3,145	3,147			97.04	4,043

UTTAR PRADESH							
Station/Constituents	Inst. Capacity	20:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
ANPARA TPS( 2 * 500 + 3 * 210 )	1,630	1,448	1,457	0		31.89	1,329
ANPARA-C TPS( 2 * 600 )	1,200	1,078	833	0		21.4	892
ANPARA-D TPS( 2 * 500 )	1,000	401	456	0		9.63	401
BAJAJ ENERGY PVT LTD (IPP) TPS( 10 * 45 )	450	0	0	0			
BARA PPGCL TPS( 3 * 660 )	1,980	1,582	1,012	0		28.04	1,168
HARDUAGANJ TPS( 1 * 105 + 1 * 60 + 2 * 250 )	665	0	252	0		1.29	54
LALITPUR TPS( 3 * 660 )	1,980	0	0	0			
MEJA TPS( 1 * 660 )	660	0	0	0			
OBRA TPS ( 2 * 94 + 5 * 200 )	1,188	665	418	0		12.48	520
PARICHA TPS( 2 * 110 + 2 * 210 + 2 * 250 )	1,380	0	0	0			
ROSA TPS( 4 * 300 )	1,200	0	0	0			
TANDA TPS( 4 * 110 )	440	0	0	0			
Total THERMAL	13,773	5,174	4,428			104.73	4,364
ALAKHANANDA HEP( 4 * 82.5 )	330	78	82	0		2.22	93
VISHNUPARYAG HPS( 4 * 110 )	440	0	68	0		1.55	65
OTHER HYDRO UP( 527 )	527	153	112	0		2.04	85
Total HYDEL	1,297	231	262			5.81	243
WIND	0	0	0	0			
BIOMASS( 26 )	26	0	0	0			
SOLAR( 798 )	798	0	0	0		5.84	243
CO-GENERATION( 1360 )	1,360	600	600	0		14.4	600
Total OTHERs	1,360	600	600			14.4	600
Total UP	17,254	6,005	5,290			130.78	5,450

UTTARAKHAND							
Station/Constituents	Inst. Capacity	20:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
TOTAL GAS UK( 675 )	675	0	0	0			
Total GAS/NAPTHA/DIESEL	675	0	0			0	0
OTHER HYDRO UK( 1250 )	1,250	503	494	621	08:00	12.72	530
Total HYDEL	1,250	503	494			12.72	530
WIND	0	0	0	0			
BIOMASS( 127 )	127	23	29	30	00:00	0.58	24
SOLAR( 100 )	100	0	0	110	12:00	0.89	37
SMALL HYDRO( 180 )	180	0	0	0			
Total SMALL HYDRO	180	0	0			0	0
Total UTTARAKHAND	2,332	526	523			14.19	591

(B) Regional Entities Generation										
Station/Constituents	Inst. Capacity	Declared Capacity	20:00	03:00	Day Peak		Day Energy		AVG. MW	UI
	(MW)	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	SCHD (MU)	ACT (MU)		
Aravali Power Company Private Ltd										
ISTPP (JHAJJAR)( 3 * 500 )	1,500	1,414	0	0	0	-	0	-	-	0
Sub-Total	1,500	1,414	0	0	-	-	0	0	0	0
BBMB										
BHAKRA HPS( 2 * 108 + 3 * 126 + 5 * 157 )	1,379	965	977	415	977	20:00	14.64	14.67	611	0.03
DEHAR HPS( 6 * 165 )	990	645	660	165	660	20:00	6.26	6.32	263	0.06
PONG HPS( 6 * 66 )	396	180	184	0	184	20:00	1.12	1.12	47	0
Sub-Total	2,765	1,790	1,821	580	-	-	22.02	22.11	921	0.09
NHPC										
BAIRASIUL HPS( 3 * 60 )	180	120	122	116	122	22:00	2.65	2.7	113	0.05
CHAMERA HPS( 3 * 180 )	540	555	520	545	545	01:15	11.08	11.04	460	-0.04
CHAMERA II HPS( 3 * 100 )	300	100	97	99	100	21:00	2.04	2.05	85	0.01
CHAMERA III HPS( 3 * 77 )	231	240	149	0	161	23:00	1.57	1.67	70	0.1
DHAULIGANGA HPS( 4 * 70 )	280	292	137	0	146	18:00	1.49	1.55	65	0.06
DULHASTI HPS( 3 * 130 )	390	405	393	0	402	08:00	3.6	3.71	155	0.11
KISHANGANGA( 3 * 110 )	330	0	0	0	0	-	0	-	-	0
PARBATI III HEP( 4 * 130 )	520	20	0	0	131	07:00	0.6	0.53	22	-0.07
SALAL HPS( 6 * 115 )	690	300	694	550	694	20:00	10.52	11.27	470	0.75
SEWA-II HPS( 3 * 40 )	120	131	123	124	126	17:00	2.89	2.94	123	0.05
TANAKPUR HPS( 1 * 31.42 + 2 * 31.4 )	94	30	35	45	64	16:00	0.83	0.94	39	0.11
URI HPS( 4 * 120 )	480	478	480	472	480	14:00	10.34	10.56	440	0.22
URI-II HPS( 4 * 60 )	240	230	235	240	242	10:00	5.65	5.66	236	0.01
Sub-Total	4,395	2,901	2,985	2,191	-	-	53.26	54.62	2,278	1.36
NPCL										
NAPS( 2 * 220 )	440	392	416	423	432	07:00	9.41	9.29	387	-0.12
RAPS-B( 2 * 220 )	440	172	199	196	201	23:59	4.13	4.12	172	-0.01
RAPS-C( 2 * 220 )	440	430	453	458	461	08:00	10.32	9.97	415	-0.35
Sub-Total	1,320	994	1,068	1,077	-	-	23.86	23.38	974	-0.48
NTPC										
ANTA GPS( 1 * 153.2 + 3 * 88.71 )	419	404	0	0	0	-	0	0.02	1	0.02
AURAIYA GPS( 2 * 109.3 + 4 * 111.19 )	663	325	278	187	288	19:00	4.71	4.61	192	-0.1
DADRI GPS( 2 * 154.51 + 4 * 130.19 )	830	400	239	259	259	03:00	5.59	5.62	234	0.03
DADRI SOLAR( 5 )	5	0	0	0	3	12:00	0.02	0.02	1	0
DADRI-I TPS( 4 * 210 )	840	769	0	0	0	-	0	-	-	0
DADRI-II TPS( 2 * 490 )	980	924	243	253	243	20:00	6.12	5.98	249	-0.14
KOLDAM HPS( 4 * 200 )	800	872	614	0	654	19:00	4.5	4.64	193	0.14
RIHAND-I STPS( 2 * 500 )	1,000	920	981	1,004	981	20:00	22.08	23.03	960	0.95
RIHAND-II STPS( 2 * 500 )	1,000	938	1,000	995	1,000	20:00	22.48	22.99	958	0.51
RIHAND-III STPS( 2 * 500 )	1,000	938	987	1,012	987	20:00	22.5	22.95	956	0.45
SINGRAULI STPS( 2 * 500 + 5 * 200 )	2,000	1,680	1,848	1,844	1,848	20:00	40.18	40.55	1,690	0.37
SINGRAULI SOLAR( 15 )	15	0	0	0	0	-	0.06	0.06	3	0
TANDA TPS STAGE-II( 1 * 660 )	660	622	622	622	622	20:00	12.59	12.63	526	0.04
UNCHAHAH I( 2 * 210 )	420	382	0	0	0	-	0	-	-	0
UNCHAHAH II TPS( 2 * 210 )	420	382	0	0	0	-	0	0	0	0
UNCHAHAH III TPS( 1 * 210 )	210	191	205	119	205	20:00	2.96	2.78	116	-0.18
UNCHAHAH IV TPS( 1 * 500 )	500	471	457	282	457	20:00	7.34	7.08	295	-0.26
UNCHAHAH SOLAR( 10 )	10	0	0	0	0	-	0.05	0.05	2	0
Sub-Total	11,772	10,218	7,474	6,577	-	-	151.18	153.01	6,376	1.83
SJVNL										
NATHPA-JHAKRI HPS( 6 * 250 )	1,500	1,605	1,131	0	1,371	20:00	7.9	8.36	348	0.46
RAMPUR HEP( 6 * 68.67 )	412	370	350	0	369	19:00	2.21	2.42	101	0.21
Sub-Total	1,912	1,975	1,481	0	-	-	10.11	10.78	449	0.67
THDC										
KOTESHWAR HPS( 4 * 100 )	400	204	207	95	207	20:00	2.54	2.61	109	0.07
TEHRI HPS( 4 * 250 )	1,000	764	376	0	569	19:00	5.9	6.03	251	0.13
Sub-Total	1,400	968	583	95	-	-	8.44	8.64	360	0.2
Total	25,064	20,260	15,412	10,520			268.87	272.54	11,358	3.67

IPP/JV										
Station/Constituents	Inst. Capacity	Declared Capacity	20:00	03:00	Day Peak		Day Energy		AVG. MW	UI
	(MW)	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	SCHD (MU)	ACT (MU)		
IPP										
ADHPL(IPP) HPS( 2 * 96 )	192	0	0	0	49	16:00	0.46	0.48	20	0.02
BUDHIL HPS (IPP)( 2 * 35 )	70	0	70	0	72	08:00	0.35	0.38	16	0.03
KARCHAM WANGTOO HPS( 4 * 250 )	1,000	0	900	0	900	19:00	4.56	4.46	186	-0.1
MALANA2( 2 * 50 )	100	0	0	0	78	09:00	0	0.24	10	0.24
SAINJ HEP( 2 * 50 )	100	0	50	0	50	20:30	0.32	0.28	12	-0.04
SHREE CEMENT (IPP) TPS( 2 * 150 )	300	0	3	3	3	20:00	0	0.06	3	0.06
Sub-Total	1,762	0	1,023	3	-	-	5.69	5.9	247	0.21
SOLAR IPP										
ACME CHITTORGARH SOLAR ENERGY PVT LTD( 1 * 250 )	250	0	0	0	210	12:01	1.66	1.68	70	0.02
AZURE POWER INDIA PVT LTD.( 4 * 50 )	200	0	0	0	197	12:30	1.33	1.53	64	0.2
AZURE POWER THIRTY FOUR PRIVATE LTD( 1 * 130 )	130	0	0	0	127	14:59	0.97	1.07	45	0.1
CLEAN SOLAR POWER (BHADLA) PVT LTD( 1 * 300 )	300	0	0	0	300	13:00	2.13	2.46	103	0.33
MAHOBA SOLAR (UP) PRIVATE LTD( 1 * 250 )	250	0	0	0	206	12:30	1.57	1.67	70	0.1
RENEW SOLAR POWER PVT LTD( 50 )	50	0	0	0	50	14:13	0.38	0.42	18	0.04
RENEW SOLAR POWER PVT LTD. BIKANER( 1 * 250 )	250	0	0	0	264	11:59	1.84	2.04	85	0.2
SB ENERGY FOUR PVT LTD( 2 * 100 )	200	0	0	0	200	13:00	1.6	1.69	70	0.09
TATA POWER RENEWABLE ENERGY LTD( 1 * 150 )	150	0	0	0	160	14:47	1.12	1.3	54	0.18
Sub-Total	1,780	0	0	0	-	-	12.6	13.86	579	1.26
Total	3,542	0	1,023	3			18.29	19.76	826	1.47
Summary Section										
	Inst. Capacity		PEAK	OFF-PEAK			Day Energy		Day AVG.	
Total State Control Area Generation		55,603	11,304	9,982			295.05		12,293	
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			6,143	4,212			60.85		5,044	
Total Regional Availability(Gross)		84,209	33,882	24,717			648.2		29,521	
Total Hydro Generation										
	Inst. Capacity		PEAK	OFF-PEAK			Day Energy		Day AVG.	
Regional Entities Hydro		12,734	8,504	2,866			106.63		4,445	
State Control Area Hydro		6,289	1,531	1,058			43.2		1,801	
Total Regional Hydro		19,023	10,035	3,924			149.83		6,246	
Total Renewable Generation										
	Inst. Capacity		PEAK	OFF-PEAK			Day Energy		Day AVG.	
Regional Entities Renewable		1,810	0	0			13.99		585	
State Control Area Renewable		10,596	689	1,035			58.87		2,452	
Total Regional Renewable		12,406	689	1,035			72.86		3,037	
4(A) INTER-REGIONAL EXCHANGES (Import=(+ve) /Export =(-ve))										
SL.No.	Element	20:00	03:00	Maximum Interchange (MW)		Import in MU	Export in MU	NET		
		(MW)	MW	Import (MW)	Export (MW)					
Import/Export between EAST REGION and NORTH REGION										
1	132KV-Garhwa-Rihand	-	-	-	-	-	-	-		
2	132KV-Karmnasa (PG)-Sahupuri(UP)	-	-	-	-	0.48	0.48	0		
3	132KV-Rihand-Sonnagar (PG)	24	24	-	27	0	0.53	-0.53		
4	220KV-Pusauli (PG)-Sahupuri(UP)	-132	-102	132	-	2.49	0	2.49		
5	400KV-Biharsharif (PG)-Baliala(PG)	166	48	186	0	1.81	0	1.81		
6	400KV-Biharsharif (PG)-Varanasi(PG)	32	134	79	219	0	2.35	-2.35		
7	400KV-Motihari (DMT)-Gorakhpur(UP)	172	120	193	0	3.32	0	3.32		
8	400KV-Muzaffarpur (PG)-Gorakhpur(UP)	160	36	456	172	2.63	0	2.63		
9	400KV-Patna (PG)-Baliala(PG)	517	205	533	0	4.63	0	4.63		
10	400KV-Sasaram-Allahabad (PG)	-47	-56	100	0	1.31	0	1.31		
11	400KV-Sasaram-Varanasi (PG)	-193	-190	210	0	6.79	0	6.79		
12	765KV-Fatehpur (PG)-Sasaram.	-85	-69	107	179	0	1.39	-1.39		
13	765KV-Gaya (PG)-Baliala(PG)	262	135	262	0	3.26	0	3.26		
14	765KV-Gaya (PG)-Varanasi(PG)	-232	20	232	212	0.37	0	0.37		
15	HVDC800KV-Alipurduar-Agra (PG)	-	-	-	-	-	-	-		
Sub-Total EAST REGION		644	305	2,490	809	27.09	4.75	22.34		
Import/Export between NORTH_EAST REGION and NORTH REGION										
1	HVDC800KV-BiswanathCharialli-Agra (PG)	500	500	0	500	0	12.25	-12.25		
Sub-Total NORTH_EAST REGION		500	500	0	500	0	12.25	-12.25		
Import/Export between WEST REGION and NORTH REGION										
1	220KV-Auraiya (NT)-Malanpur(PG)	-120	-54	-	214	0	1.71	-1.71		

Import/Export between WEST REGION and NORTH REGION								
2	220KV-Bhanpur-Modak	82	37	92	-	1.38	0	1.38
3	220KV-Ranpur-Bhanpur	-	-	-	-	-	-	-
4	400KV-RAPS C (NP)-Sujalpur	140	148	228	140	0	1.04	-1.04
5	400KV-Vindhyachal (PG)-Rihand(NT)	469	481	0	484	0	22.84	-22.84
6	400KV-Zerda (PG)-Bhinmal(PG)	40	-218	46	283	0	3.32	-3.32
7	400KV-Zerda (PG)-Kankroli(RJ)	-18	-132	0	176	0	2.66	-2.66
8	765KV-0rai-Gwalior (PG)	-387	-327	0	617	0	9.26	-9.26
9	765KV-0rai-Jabalpur	1,013	551	1,178	0	17.51	0	17.51
10	765KV-0rai-Satna	1,076	970	1,160	0	24.19	0	24.19
11	765KV-Chittorgarh-Banaskata D/C	-147	160	147	386	0	3.21	-3.21
12	765KV-Gwalior (PG)-Agra(PG)	1,598	1,048	1,786	0	30.49	0	30.49
13	765KV-Phagi (RJ)-Gwalior(PG)	891	585	1,163	-	16.26	0	16.26
14	HVDC500KV-Mundra (JH)-Mohindergarh(JH)	702	498	703	0	13.55	0	13.55
15	HVDC500KV-Vindhyachal (PG)-Vindhaychal B/B	-500	-500	0	500	0	12.1	-12.1
16	HVDC800KV-Champa (PG)-Kurukshetra(PG)(PG)	160	160	160	0	3.52	0	3.52
Sub-Total WEST REGION		4,999	3,407	6,663	2,800	106.9	56.14	50.76
TOTAL IR EXCHANGE		6,143	4,212	9,153	4,109	133.99	73.14	60.85

4(B) Inter Regional Schedule & Actual Exchange (Import=(+ve) /Export =(-ve)) in MU

	ISGS/(LT+MT) Schedule	BILT Schedule	PX Schedule	Total IR Schedule	Total IR Actual	NET IR UI
NR-ER	27.21	-12.09	0	15.12	22.34	7.22
NR-WR	120.83	-2.17	-48.18	70.48	50.76	-19.72
Total	148.04	-14.26	-48.18	85.6	60.85	-24.75

5.Inter National Exchange with Nepal [Import (+ve)/Export(-ve)] [Linkwise]

Element	Peak	Off-Peak	Maximum Interchange(MW)		Energy (MU)		Net Energy
	MW	MW	Import	Export	Import	Export	(MU)
132KV-Tanakpur(NH)-Mahendranagar(PG)	25	0	0	30	0	0.44	-0.44

5.Frequency Profile

RANGE(Hz)	< 49.2	< 49.7	< 49.8	< 49.9	< 50.0	>= 49.9 - <= 50.05	> 50.05 - <= 50.1	> 50.1 - <= 50.2	> 50.2	> 50.05
%	0	.5	1.9	17.1	56.9	73.6	8.6	.5	0	9.1

<-----Frequency (Hz)----->

Maximum		Minimum		Average Frequency	Freq Variation Index	Standard Deviation	Freq. in 15 mnt blk		Freq Dev Index (% of Time)
Frequency	Time	Frequency	Time				Max.	Min.	
50.14	12:00:20	49.61	22:07:30	49.97	0.061	0.073	50.06	49.75	0.00

6.Voltage Profile: 400kV

	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index (% of time)
					< 380	< 390	> 420	> 430	
Abdullapur(PG) - 400KV	427	01:55	403	19:00	0	0	23.26	0	23.26
Amritsar(PG) - 400KV	427	04:00	406	19:10	0	0	29.17	0	29.17
Ballabgarh(PG) - 400KV	424	01:55	400	19:05	0	0	19.79	0	19.79
Bareilly II(PG) - 400KV	419	17:05	389	19:00	0	1.39	0	0	0
Bareilly(UP) - 400KV	421	17:00	390	19:00	0	0	.69	0	.69
Baspa(HP) - 400KV	422	06:05	405	19:00	0	0	26.04	0	26.04
Bassi(PG) - 400KV	422	04:00	395	08:10	0	0	3.13	0	3.13
Bawana(DTL) - 400KV	433	01:55	408	19:05	0	0	60.07	13.19	60.07
Dadri HVDC(PG). - 400KV	425	01:55	404	19:10	0	0	28.47	0	28.47
Gorakhpur(PG) - 400KV	420	17:00	396	19:00	0	0	0	0	0
Hisar(PG) - 400KV	424	04:00	401	19:05	0	0	19.44	0	19.44
Kanpur(PG) - 400KV	419	17:00	398	19:05	0	0	0	0	0
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	421	04:00	405	19:10	0	0	7.99	0	7.99
Moga(PG) - 400KV	403	02:30	384	19:00	0	13.19	0	0	0
Nallagarh(PG) - 400KV	422	06:05	405	19:00	0	0	26.04	0	26.04
Rihand HVDC(PG) - 400KV	408	17:30	400	12:50	0	0	0	0	0

Rihand(NT) - 400KV	406	17:30	399	12:40	0	0	0	0	0
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6.1 Voltage Profile: 765kV

	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index
					< 728	< 742	> 800	> 820	
Anta RS(RJ) - 765KV	787	01:45	760	07:45	0	0	0	0	0
Balia(PG) - 765KV	790	17:00	754	19:05	0	0	0	0	0
Bareilly II(PG) - 765KV	802	17:00	745	19:00	0	0	.69	0	.69
Bhiwani(PG) - 765KV	789	02:00	750	19:40	0	0	0	0	0
Fatehpur(PG) - 765KV	783	17:00	748	18:50	0	0	0	0	0
Jhatikara(PG) - 765KV	796	01:55	753	19:10	0	0	0	0	0
Lucknow II(PG) - 765KV	800	17:05	750	19:05	0	0	.35	0	.35
Meerut(PG) - 765KV	788	01:55	743	19:05	0	0	0	0	0
Moga(PG) - 765KV	770	16:00	734	06:25	0	8.33	0	0	0
Phagi(RJ) - 765KV	790	01:45	758	07:30	0	0	0	0	0
Unnao(UP) - 765KV	784	17:00	739	19:05	0	2.43	0	0	0

7(A). Short-Term Open Access Details:

State	Off- Peak Hours (03:00)			Peak Hours (20:00)			Day Energy (MU)			
	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MW)	IEX (MW)	PXIL (MW)	ISGS / (LT+MT) Schedule	BILT Schedule	PX Schedule	Total (MU)
PUNJAB	-372.39	0	0	-372.39	0	0	57.01	-8.94	0	48.07
HARYANA	-25.03	7.5	0	-25.03	-15.14	0	65.5	-0.24	-1.5	63.76
RAJASTHAN	-152.29	-332.51	0	-151.04	1.65	0	52.98	-3.62	0.93	50.3
DELHI	-136.07	-606.03	0	-60.44	-391.87	0	44.89	-1.01	-10.33	33.56
UTTAR PRADESH	58.53	-13.23	0	58.53	495.94	0	124	1.4	-15.41	110.01
UTTARAKHAND	0.19	-253.37	0	0.19	-243.24	0	9.68	0.02	-5.83	3.87
HIMACHAL PRADESH	-22.88	-538.41	0	-22.88	-947.95	0	14.93	-0.78	-14.02	0.12
J&K(UT) & Ladakh(UT)	-56.4	0	0	-56.4	0	0	34.48	-1.3	0	33.18
CHANDIGARH	0	-80.67	0	0	-99.93	0	4.06	0	-1.87	2.19
TOTAL	-706.34	-1,816.72	0	-629.46	-1,200.54	0	407.53	-14.47	-48.03	345.06

7(B). Short-Term Open Access Details

State	ISGS/(LT+MT) Schedule		Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
PUNJAB	3,230.45	1,768.14	-372.39	-372.39	0	0	0	0
HARYANA	3,528.71	2,017.76	84.41	-38.05	8.29	-433.98	0	0
RAJASTHAN	3,328.36	1,287.5	-147.06	-155.81	1,364.95	-533.49	0	0
DELHI	2,199.87	1,576.41	22.2	-136.07	-95.31	-736.11	0	0
UTTAR PRADESH	7,130.74	3,118.09	58.53	58.43	702.28	-2,451.06	0	0
UTTARAKHAND	696.1	276.5	1.75	0.19	-81.08	-364.85	0	0
HIMACHAL PRADESH	1,237.06	276.58	-9.5	-62.3	-245	-1,242.17	0	0
J&K(UT) & Ladakh(UT)	1,728.85	880.95	-51.96	-56.4	0	0	0	0
CHANDIGARH	224.19	141.84	0	0	0	-99.93	0	0

8.Major Reservoir Particulars

RESERVOIR	Parameters			Present Parameters		LAST YEAR		LAST DAY	
	MDDL (Mts)	FRL (Mts)	Energy Content at FRL	Level (Mts)	Energy (MU)	Level (Mts)	Energy (MU)	Inflow (m3/s)	Usage (m3/s)
Bhakra	445.62	513.59	1,728.8	487.35	653	492.55	818	269.6	422.83
Chamera-I	748.75	760	753.95	755.71	-	-	-	221.37	298.77
Gandhisagar	381	399.9	725	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	2.01	-	-	-	-	-	0
Koteshwar	598.5	612.5	610.73	611.35	5	610.13	5	172	172.95
Pong	384.05	426.72	1,084	414.39	656	408.43	445	239.7	64.82
RPS	343.81	352.8	175.66	-	-	-	-	-	0
RSD	487.91	527.91	390.3	509.22	209	519.59	312	322.57	207.06
Rihand	252.98	268.22	860.5	-	-	-	-	-	0
Tehri	740.04	829.79	1,291.49	774.76	260	773.49	246	107.66	172
TOTAL	-	-	-	-	1,783	-	1,826	1,332.9	1,338.43

9. System Reliability Indices(Violation of TTC and ATC):

(i)%age of times N-1 Criteria was violated in the inter - regional corridors		
WR	0	
ER	0	
Simultaneous	0	

ii)%age of times ATC violated on the inter-regional corridors



WR	0
ER	0
Simultaneous	0

iii)%age of times Angular Difference on Important Buses was beyond permissible limits(40 deg.)

Rihand-Dadri	0
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10. Zero Crossing Violations

State	No. of violations(Maximum 8 in a day)	Maximum number of continuous blocks without sign change
CHANDIGARH	2	15
DELHI	1	21
HARYANA	1	13
HIMACHAL PRADESH	7	89
J&K(UT) & Ladakh(UT)	2	15
PUNJAB	2	20
RAJASTHAN	1	13
UTTAR PRADESH	0	9
UTTARAKHAND	4	60

11.Significant events (If any):

12.Grid Disturbance / Any Other Significant Event:

13.Weather Conditions :

14.Synchronisation of new generating units :

15.Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :

16.Tripping of lines in pooling stations :

17.Complete generation loss in a generating station :

Note: Data(regarding drawal,generation, shortage , inter-regional flows and reservoir levels)of the constituents filled in the report are as per last furnished data by the respective state/constituent to NRLDC.

Shift In Charge