



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

Power Supply Position in Northern Region For 01-Jul-2019

Date of Reporting:02-Jul-2019

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
60,971	1,203	62,173	0	61,670	622	62,292	0	1,493	14.14

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	120.43	21.75	0	4.7	0	1.92	148.81	143.16	141.25	-1.91	290.06	0	290.06
HARYANA	64.38	0.99	0	0.12	0	0.47	65.97	162.31	162.12	-0.19	228.09	0	228.09
RAJASTHAN	119.26	0	1.92	17.38	36.26	4.57	179.4	70.6	68.51	-2.09	247.91	0	247.91
DELHI	0	0	21.42	0	0	0.87	22.29	122.04	122.9	0.86	145.27	0.08	145.19
UTTAR PRADESH	208.22	22.48	0	4.39	0	2.4	237.49	214.29	216.77	2.48	457.79	3.53	454.26
UTTARAKHAND	0	21.69	4.74	0.64	0	0	27.07	18.54	19.39	0.85	46.46	0	46.46
HIMACHAL PRADESH	0	18.78	0	0	0	10.04	28.82	1.4	0.81	-0.59	29.64	0.01	29.63
JAMMU & KASHMIR	0	25.08	0	0	0	0	25.08	21.08	19.29	-1.79	54.89	10.52	44.37
CHANDIGARH	0	0	0	0	0	0	0	7.95	7.19	-0.76	7.19	0	7.19
Region	512.29	110.77	28.08	27.23	36.26	20.27	734.93	761.37	758.23	-3.14	1,507.3	14.14	1,493.16

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	10,460	0	-400	1,838	12,016	0	40	2,210
HARYANA	9,451	0	16	2,165	9,586	0	-165	2,614
RAJASTHAN	8,812	0	-71	-59	9,635	0	-186	-99
DELHI	5,885	0	226	797	6,069	0	39	1,232
UTTAR PRADESH	20,906	710	252	1,921	19,728	360	53	2,357
UTTARAKHAND	2,122	0	78	12	1,843	0	83	-101
HIMACHAL PRADESH	1,089	4	-160	-1,488	1,039	0	10	-1,657
JAMMU & KASHMIR	1,956	489	225	-541	1,484	262	-113	-527
CHANDIGARH	288	0	-45	0	270	0	-64	20
Region	60,969	1,203	121	4,645	61,670	622	-303	6,049

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	13,027	15:00	0	13,027	13,027	15:00	0	13,027	10,254	24:00
HARYANA	10,699	15:00	0	10,699	10,699	15:00	0	10,699	8,460	19:00
RAJASTHAN	11,399	15:00	0	11,399	11,399	15:00	0	11,399	8,506	19:00
DELHI	7,135	16:00	0	7,135	7,135	16:00	0	7,135	4,826	9:00
UP	21,165	24:00	410	21,575	21,575	24:00	410	21,165	17,542	6:00
UTTARAKHAND	2,158	21:00	0	2,158	2,158	21:00	0	2,158	1,771	7:00
HP	1,444	16:00	12	1,456	1,456	16:00	12	1,444	1,024	5:00
J&K	2,150	21:00	538	2,688	2,688	21:00	538	2,150	1,403	18:00
CHANDIGARH	376	15:00	0	376	376	15:00	0	376	221	7:00
NR	65,602	16:00	538	66,140	66,140	16:00	538	65,602	58,380	7:00

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)	
BADARPUR TPS( 2 * 210 + 3 * 100 )	1,005	0	0	0			
RAJGHAT TPS( 2 * 67.5 )	135	0	0	0			
Total THERMAL	1,140	0	0			0	0
BAWANA GPS( 2 * 253 + 4 * 216 )	1,370	504	467	591		11.95	498
DELHI GAS TURBINES( 3 * 34 + 6 * 30 )	282	156	104	158		3.05	127
PRAGATI GAS TURBINES( 1 * 121.2 + 2 * 104.6 )	452	264	260	279.11		6.42	268
RITHALA GPS( 3 * 36 )	108	0	0	0			
Total GAS/NAPTHA/DIESEL	2,212	924	831			21.42	893
WIND	0	0	0	0			
BIOMASS( 16 )	16	31	31	36.01		0.87	36
SOLAR( 2 )	2	0	0	0			
Total DELHI	3,370	955	862			22.29	929

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	512	542	572	22:00	12.33	514
JHAJJAR(CLP)( 2 * 660 )	1,320	740	929	1,231	23:00	22.45	935
MAGNUM DIESEL (IPP)( 4 * 6.3 )	25	0	0	0			
PANIPAT TPS( 2 * 210 + 2 * 250 )	920	395	394	455	22:00	9.93	414
RGTPP( KHEDAR)( 2 * 600 )	1,200	761	756	1,146	16:00	19.68	820
Total THERMAL	4,065	2,408	2,621			64.39	2,683
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	34	37	40	06:00	0.99	41
Total HYDEL	65	34	37			0.99	41
WIND	0	0	0	0			
BIOMASS( 106 )	106	0	0	0		0.47	20
SOLAR(55.8)	56	0	0	0		0.12	5
Total HARYANA	4,724	2,442	2,658			65.97	2,749

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	330	330	330	01:00	7.92	330
MALANA (IPP) HPS( 2 * 43 )	86	86	77	87	21:00	1.78	74
OTHER HYDRO HP( 372 )	372	387	382	0		9.08	378
Total HYDEL	758	803	789			18.78	782
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO( 486 )	486	471	421	0		10.04	418
Total SMALL HYDRO	486	471	421			10.04	418
Total HP	1,244	1,274	1,210			28.82	1,200

JAMMU & KASHMIR							
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	882	882	0		21.18	883
OTHER HYDRO/IPP J&K( 308 )	308	175	154	0		3.91	163
Total HYDEL	1,208	1,057	1,036			25.09	1,046
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	1,496	1,057	1,036			25.09	1,046

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	297	491	491		10.92	455
GURU GOBIND SINGH TPS (ROPAR)( 6 * 210 )	1,260	677	769	769		17.41	725
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)( 2 * 210 + 2 * 250 )	920	655	854	861		19.06	794
GURU NANAK DEV TPS (BHATINDA)( 4 * 110 )	440	0	0	0		0.01	0
RAJPURA(NPL) TPS( 2 * 700 )	1,400	1,055	1,320	1,320		31.27	1,303
TALWANDI SABO TPS( 3 * 660 )	1,980	1,288	1,841	1,841		41.76	1,740
Total THERMAL	6,540	3,972	5,275			120.43	5,017
ANANADPUR SAHIB HYDRO PLANT( 2 * 33.5 + 2 * 33.5 )	134	0	0	0			
MUKERIAN HYDRO PLANT( 6 * 15 + 6 * 19.5 + 2 * 9 )	225	0	0	0			
RANJIT SAGAR POWER PLANT ( 4 * 150 )	600	0	0	0			
SHANAN( 4 * 15 + 1 * 50 )	110	0	0	0			
UBDC( 3 * 15 + 3 * 15.5 )	92	0	0	0			
OTHER HYDRO PUNJAB	0	744	961	1,094		21.75	906
Total HYDEL	1,161	744	961			21.75	906
WIND	0	0	0	0			
BIOMASS( 303 )	303	0	0	0		1.92	80
SOLAR( 859 )	859	0	0	511		4.7	196
Total PUNJAB	8,863	4,716	6,236			148.8	6,199

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	130	112	0		2.94	123
CHHABRA TPS( 1 * 660 + 4 * 250 )	1,660	1,026	1,134	0		26.03	1,085
GIRAL (IPP) LTPS( 2 * 125 )	250	0	0	0			
KALISINDH TPS( 2 * 600 )	1,200	872	871	0		21.94	914
KAWAI TPS( 2 * 660 )	1,320	446	440	0		11.81	492
KOTA TPS( 2 * 110 + 2 * 195 + 3 * 210 )	1,240	899	887	0		21.85	910
RAJWEST (IPP) LTPS( 8 * 135 )	1,080	413	436	0		12.72	530
SURATGARH TPS ( 6 * 250 )	1,500	901	755	0		20.84	868
VSLPP (IPP)( 1 * 135 )	135	49	47	0		1.13	47
Total THERMAL	8,635	4,736	4,682			119.26	4,969
DHOLPUR GPS( 3 * 110 )	330	0	0	0			
RAMGARH GPS( 1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5 )	271	79	80	0		1.92	80
Total GAS/NAPTHA/DIESEL	601	79	80			1.92	80
RAPS-A( 1 * 100 + 1 * 200 )	300	170	168	0		3.96	165
Total NUCLEAR	300	170	168			3.96	165
TOTAL HYDRO RAJASTHAN( 550 )	550	0	0	0			
Total HYDEL	550	0	0			0	0
WIND	4,292	1,079	2,008	0		36.26	1,511
BIOMASS( 102 )	102	26	26	0		0.62	26
SOLAR( 3045 )	3,045	20	0	0		17.38	724
Total RAJASTHAN	17,525	6,110	6,964			179.4	7,475

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	1,375	1,347	0		32.79	1,366
ANPARA-C TPS( 2 * 600 )	1,200	1,064	1,073	0		25.66	1,069
ANPARA-D TPS( 2 * 500 )	1,000	462	462	0		10.65	444
BAJAJ ENERGY PVT LTD (IPP) TPS( 10 * 45 )	450	0	0	0			
BARA PPGCL TPS( 3 * 660 )	1,980	483	1,320	0		32.42	1,351
HARDUAGANJ TPS( 1 * 105 + 1 * 60 + 2 * 250 )	665	207	211	0		5.05	210
LALITPUR TPS( 3 * 660 )	1,980	1,855	1,213	0		30.8	1,283
MEJA TPS( 1 * 660 )	660	417	416	0		10.02	418
OBRA TPS ( 2 * 94 + 5 * 200 )	1,188	471	475	0		11.42	476
PANKI TPS( 2 * 105 )	210	0	0	0			
PARICHA TPS( 2 * 110 + 2 * 210 + 2 * 250 )	1,380	666	647	0		15.7	654
ROSA TPS( 4 * 300 )	1,200	1,092	1,078	0		25.6	1,067
TANDA TPS( 4 * 110 )	440	265	384	0		8.11	338
TANDA TPS STAGE-II( 1 * 660 )	660	0	0	0			
Total THERMAL	14,643	8,357	8,626			208.22	8,676
ALAKHANANDA HEP( 4 * 82.5 )	330	299	330	0		7.71	321
VISHNUPARYAG HPS( 4 * 110 )	440	436	436	0		10.44	435
OTHER HYDRO UP( 527 )	527	209	198	0		4.33	180
Total HYDEL	1,297	944	964			22.48	936
WIND	0	0	0	0			
BIOMASS( 26 )	26	0	0	0			
SOLAR( 798 )	798	0	0	0		4.39	183
CO-GENERATION( 1360 )	1,360	100	100	0		2.4	100
Total OTHERs	1,360	100	100			2.4	100
Total UP	18,124	9,401	9,690			237.49	9,895

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( 450 )	450	245	180	270	22:00	4.74	198
Total GAS/NAPTHA/DIESEL	450	245	180			4.74	198
OTHER HYDRO UK( 1250 )	1,250	913	871	938	15:00	21.69	904
Total HYDEL	1,250	913	871			21.69	904
WIND	0	0	0	0			
BIOMASS( 127 )	127	0	0	0			
SOLAR( 100 )	100	0	0	94	13:00	0.64	27
SMALL HYDRO( 180 )	180	0	0	0			
Total SMALL HYDRO	180	0	0			0	0
Total UTTARAKHAND	2,107	1,158	1,051			27.07	1,129

(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	1,413.75	1,487	835	1,507	20:34	24.45	24.8	1,033	0.35
Sub-Total	1,500	1,413.75	1,487	835	-	-	24.45	24.8	1,033	0.35
BBMB										
BHAKRA HPS( 2 * 108 + 3 * 126 + 5 * 157 )	1,379	1,350	1,366	981	1,366	20:00	28.04	28.15	1,173	0.11
DEHAR HPS( 6 * 165 )	990	625	700	605	700	20:00	14.19	14.49	604	0.3
PONG HPS( 6 * 66 )	396	308	320	65	320	20:00	4.69	4.68	195	-0.01
Sub-Total	2,765	2,283	2,386	1,651	-	-	46.92	47.32	1,972	0.4
NHPC										
BAIRASIUL HPS( 3 * 60 )	180	0	0	0	0	-	0	-	-	0
CHAMERA HPS( 3 * 180 )	540	555	542	542	545	06:30	12.8	12.88	537	0.08
CHAMERA II HPS( 3 * 100 )	300	303	304	304	307	10:00	7.2	7.26	303	0.06
CHAMERA III HPS( 3 * 77 )	231	237	238	234	238	01:00	5.56	5.57	232	0.01
DHAULIGANGA HPS( 4 * 70 )	280	291	289	284	290	21:00	6.64	6.72	280	0.08
DULHASTI HPS( 3 * 130 )	390	328	331	327	331	20:00	7.7	7.71	321	0.01
KISHANGANGA( 3 * 110 )	330	218	220	219	221	13:00	5.2	5.2	217	0
PARBATI III HEP( 4 * 130 )	520	150	507	16	507	20:00	3.42	3.44	143	0.02
SALAL HPS( 6 * 115 )	690	690	730	720	730	13:00	16.19	16.73	697	0.54
SEWA-II HPS( 3 * 40 )	120	130	124	122	124	20:00	1.8	1.82	76	0.02
TANAKPUR HPS( 1 * 31.42 + 2 * 31.4 )	94	90	96	94	97	19:00	2.14	2.2	92	0.06
URI HPS( 4 * 120 )	480	489	480	480	484	00:00	11.43	11.51	480	0.08
URI-II HPS( 4 * 60 )	240	240	246	244	246	20:00	5.78	5.82	243	0.04
Sub-Total	4,395	3,721	4,107	3,586	-	-	85.86	86.86	3,621	1
NPCL										
NAPS( 2 * 220 )	440	371	398	412	417	04:00	8.9	8.9	371	0
RAPS-B( 2 * 220 )	440	343	388	390	391	07:00	8.23	8.29	345	0.06
RAPS-C( 2 * 220 )	440	412	457	457	458	19:00	9.89	9.89	412	0
Sub-Total	1,320	1,126	1,243	1,259	-	-	27.02	27.08	1,128	0.06
NTPC										
ANTA GPS( 1 * 153.2 + 3 * 88.71 )	419	341	45	0	85	23:40	0.18	0.16	7	-0.02
AURAIYA GPS( 2 * 109.3 + 4 * 111.19 )	663	525	0	0	0	-	0	-	-	0
DADRI GPS( 2 * 154.51 + 4 * 130.19 )	830	220	109	113	249	-	3.01	2.98	124	-0.03
DADRI SOLAR( 5 )	5	0	0	0	3	13:02	0.02	0.02	1	0
DADRI-I TPS( 4 * 210 )	840	768.6	0	0	0	-	12.04	11.63	485	-0.41
DADRI-II TPS( 2 * 490 )	980	928.55	0	0	0	-	17.7	17.31	721	-0.39
KOLDAM HPS( 4 * 200 )	800	872	875	858	875	09:00	20.93	21	875	0.07
RIHAND-I STPS( 2 * 500 )	1,000	280	298	322	298	20:00	6.99	6.64	277	-0.35
RIHAND-II STPS( 2 * 500 )	1,000	471.25	506	489	506	20:00	11.31	11.23	468	-0.08
RIHAND-III STPS( 2 * 500 )	1,000	942.5	1,000	1,024	1,000	20:00	22.62	22.75	948	0.13
SINGRAULI STPS( 2 * 500 + 5 * 200 )	2,000	1,720	1,859	1,883	1,859	20:00	41.38	40.83	1,701	-0.55
SINGRAULI SOLAR( 15 )	15	0	0	0	0	-	0.05	0.06	3	0.01
UNCHAHAH I( 2 * 210 )	420	300	318	342	318	20:00	7.38	7.01	292	-0.37
UNCHAHAH II TPS( 2 * 210 )	420	191.1	208	190	208	20:00	3.88	3.91	163	0.03
UNCHAHAH III TPS( 1 * 210 )	210	191.1	205	209	205	20:00	3.92	3.96	165	0.04
UNCHAHAH IV TPS( 1 * 500 )	500	471.25	483	452	483	20:00	10.3	10.16	423	-0.14
UNCHAHAH SOLAR( 10 )	10	0	0	0	0	-	0.05	0.05	2	0
Sub-Total	11,112	8,222.35	5,906	5,882	-	-	161.76	159.7	6,655	-2.06
SJVNL										
NATHPA-JHAKRI HPS( 6 * 250 )	1,500	1,605	1,620	1,605	1,630	15:00	38.52	38.4	1,600	-0.12
RAMPUR HEP( 6 * 68.67 )	412	442	444	436	447	15:00	10.61	10.59	441	-0.02
Sub-Total	1,912	2,047	2,064	2,041	-	-	49.13	48.99	2,041	-0.14
THDC										
KOTESHWAR HPS( 4 * 100 )	400	400	404	188	407	19:00	4.41	4.45	185	0.04
TEHRI HPS( 4 * 250 )	1,000	504	504	493	504	20:00	8.34	8.37	349	0.03
Sub-Total	1,400	904	908	681	-	-	12.75	12.82	534	0.07
Total	24,404	19,717.1	18,101	15,935			407.89	407.57	16,984	-0.32

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	224	199	226	22:00	4.44	4.61	192	0.17
BUDHIL HPS (IPP)( 2 * 35 )	70	0	38	38	38	19:00	0.9	0.91	38	0.01
KARCHAM WANGTOO HPS( 4 * 250 )	1,000	0	1,100	1,100	1,100	20:00	26.08	26.29	1,095	0.21
MALANA2( 2 * 50 )	100	0	100	80	105	21:00	1.98	2.1	88	0.12
SAINJ HEP( 2 * 50 )	100	0	108	102	108	08:00	2.44	2.46	103	0.02
SHREE CEMENT (IPP) TPS( 2 * 150 )	300	0	131	80	147	21:00	2.34	2.28	95	-0.06
Sub-Total	1,762	0	1,701	1,599	-	-	38.18	38.65	1,611	0.47
SOLAR IPP										
AZURE POWER INDIA PVT LTD.( 4 * 50 )	200	0	0	0	74	13:15	0.73	0.67	28	-0.06
RENEW SOLAR POWER PVT LTD( 50 )	50	0	0	0	25	12:36	0.16	0.19	8	0.03
SB ENERGY FOUR PVT LTD( 2 * 100 )	200	0	0	0	101	12:25	0.74	0.76	32	0.02
Sub-Total	450	0	0	0	-	-	1.63	1.62	68	-0.01
Total	2,212	0	1,701	1,599			39.81	40.27	1,679	0.46
Summary Section										
	Inst. Capacity		PEAK	OFF-PEAK			Day Energy		Day AVG.	
Total State Control Area Generation	57,453		27,113	29,707			734.93		30,622	
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			13,371	13,990			336.89		16,523	
Total Regional Availability(Gross)	84,069		60,286	61,231			1,519.66		65,805	
Total Hydro Generation										
	Inst. Capacity		PEAK	OFF-PEAK			Day Energy		Day AVG.	
Regional Entities Hydro	12,734		11,910	10,336			253.36		10,557	
State Control Area Hydro	6,289		4,495	4,658			110.78		4,616	
Total Regional Hydro	19,023		16,405	14,994			364.14		15,173	
Total Renewable Generation										
	Inst. Capacity		PEAK	OFF-PEAK			Day Energy		Day AVG.	
Regional Entities Renewable	480		0	0			1.75		73	
State Control Area Renewable	10,596		1,627	2,486			77.41		3,225	
Total Regional Renewable	11,076		1,627	2,486			79.16		3,298	
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	0.48		
3	132KV-Rihand-Sonnagar (PG)	-29	-25	-	32	0	0.54	-0.54		
4	220KV-Pusauli (PG)-Sahupuri(UP)	199	165	199	0	3.67	0	3.67		
5	400KV-Biharsharif (PG)-Baliala(PG)	356	373	409	0	8.78	0	8.78		
6	400KV-Biharsharif (PG)-Varanasi(PG)	-94	-101	12	127	0	1.43	-1.43		
7	400KV-Motihari (DMT)-Gorakhpur(UP)	-278	-314	0	352	0	6.18	-6.18		
8	400KV-Muzaffarpur (PG)-Gorakhpur(UP)	296	298	560	0	10.14	0	10.14		
9	400KV-Patna (PG)-Baliala(PG)	918	968	1,109	0	23.73	0	23.73		
10	400KV-Sasaram-Allahabad (PG)	76	78	120	0	1.95	0	1.95		
11	400KV-Sasaram-Varanasi (PG)	265	261	269	0	6.13	0	6.13		
12	765KV-Fatehpur (PG)-Sasaram.	-207	-110	59	270	0	2.16	-2.16		
13	765KV-Gaya (PG)-Baliala(PG)	529	562	562	0	11.98	0	11.98		
14	765KV-Gaya (PG)-Varanasi(PG)	-306	-263	397	0	7.38	0	7.38		
15	HVDC800KV-Alipurduar-Agra (PG)	1,400	1,000	1,400	0	27.72	0	27.72		
Sub-Total EAST REGION		3,125	2,892	5,096	781	101.96	10.31	91.65		
Import/Export between NORTH_EAST REGION and NORTH REGION										
1	HVDC800KV-BiswanathCharialli-Agra (PG)	500	600	700	0	14.29	0	14.29		
Sub-Total NORTH_EAST REGION		500	600	700	0	14.29	0	14.29		
Import/Export between WEST REGION and NORTH REGION										
1	220KV-Auraiya (NT)-Malanpur(PG)	28	73	-	34	0.68	0	0.68		
2	220KV-Bhanpur-Modak	22	55	83	-	1.26	0	1.26		
3	220KV-Ranpur-Bhanpur	-3	34	72	18	0.73	0	0.73		
4	400KV-RAPS C (NP)-Sujalpur	156	282	282	10	4.12	0	4.12		
5	400KV-Vindhyachal (PG)-Rihand(NT)	-949	-958	-	974	0	22.75	-22.75		
6	400KV-Zerda (PG)-Bhinmal(PG)	-115	-94	75	314	0	2.86	-2.86		
7	400KV-Zerda (PG)-Kankroli(RJ)	30	-12	30	-160	0	1.29	-1.29		

Import/Export between WEST REGION and NORTH REGION								
8	765KV-0rai-Gwalior (PG)	-319	-341	0	399	0	8.31	-8.31
9	765KV-0rai-Jabalpur	1,738	1,972	1,972	0	39.71	0	39.71
10	765KV-0rai-Satna	1,333	1,372	1,372	0	30.71	0	30.71
11	765KV-Chittorgarh-Banaskata D/C	-59	-235	402	293	2.59	0	2.59
12	765KV-Gwalior (PG)-Agra(PG)	2,280	2,550	2,550	0	50.85	0	50.85
13	765KV-Phagi (RJ)-Gwalior(PG)	703	1,049	1,049	-	21.04	0	21.04
14	HVDC500KV-Mundra (JH)-Mohindergarh(JH)	1,701	2,001	2,003	0	44.66	0	44.66
15	HVDC500KV-Vindhyachal (PG)-Vindhaychal B/B	200	250	500	0	6.34	0	6.34
16	HVDC800KV-Champa (PG)-Kurukshetra(PG)(PG)	3,000	2,500	3,000	0	63.47	0	63.47
Sub-Total WEST REGION		9,746	10,498	13,390	1,882	266.16	35.21	230.95
TOTAL IR EXCHANGE		13,371	13,990	19,186	2,663	382.41	45.52	336.89

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	62.86	11.84	2.28	76.98	91.65	14.67
NR-WR	169.96	88.03	1.43	259.42	230.95	-28.47
Total	232.82	99.87	3.71	336.4	336.89	0.49

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)	-26.78	-23.95		27		0.4883	-0.4883

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	0	0	7.3	41.2	73.5	15.6	3.4	.1	19.2

<-----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.	
50.21	21:54:30	49.8	14:13:40	50	0.037	0.061	50.15	49.86	26.5

6.Voltage Profile: 400kV

	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index (% of time)
					< 380	< 390	> 420	> 430	
Ballabgarh(PG) - 400KV	413	18:45	389	13:50	0	.69	0	0	0
Bareilly II(PG) - 400KV	416	05:20	397	00:05	0	0	0	0	0
Bareilly(UP) - 400KV	417	05:15	398	00:05	0	0	0	0	0
Abdullapur(PG) - 400KV	403	06:55	392	12:45	0	0	0	0	0
Bassi(PG) - 400KV	418	18:40	395	00:05	0	0	0	0	0
Bawana(DTL) - 400KV	409	18:45	394	14:50	0	0	0	0	0
Hisar(PG) - 400KV	408	18:40	392	13:45	0	0	0	0	0
Rihand(NT) - 400KV	408	05:15	401	22:10	0	0	0	0	0
Moga(PG) - 400KV	407	18:45	396	14:50	0	0	0	0	0
Gorakhpur(PG) - 400KV	415	05:15	392	22:40	0	0	0	0	0
Nallagarh(PG) - 400KV	406	05:05	396	12:30	0	0	0	0	0
Kanpur(PG) - 400KV	415	05:15	401	00:05	0	0	0	0	0
Kashipur(UT) - 400KV					0	0	0	0	0
Amritsar(PG) - 400KV	402	00:00	389	14:45	0	4.86	0	0	0
Baspa(HP) - 400KV	401	17:05	396	12:30	0	0	0	0	0
Kishenpur(PG) - 400KV	403	18:45	390	14:45	0	0	0	0	0
Rihand HVDC(PG) - 400KV	410	05:15	410	05:15	1.04	1.04	0	0	1.04
Dadri HVDC(PG). - 400KV	418	05:20	418	05:20	1.04	1.04	0	0	1.04

6.1 Voltage Profile: 765kV

	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index
					< 728	< 742	> 800	> 820	
Anta RS(RJ) - 765KV	791	18:35	768	00:00	0	0	0	0	0
Balia(PG) - 765KV	785	05:15	759	00:05	0	0	0	0	0

Bareilly II(PG) - 765KV	801	05:15	765	00:05	0	0	.69	0	.69
Bhiwani(PG) - 765KV	798	18:35	765	14:55	0	0	0	0	0
Fatehpur(PG) - 765KV	790	17:15	748	00:05	0	0	0	0	0
Jhatikara(PG) - 765KV	797	18:40	753	00:05	0	0	0	0	0
Lucknow II(PG) - 765KV	792	05:15	758	00:05	0	0	0	0	0
Meerut(PG) - 765KV	801	18:45	762	12:25	0	0	.69	0	.69
Moga(PG) - 765KV	788	18:45	760	13:40	0	0	0	0	0
Phagi(RJ) - 765KV	797	18:35	767	00:00	0	0	0	0	0
Unnao(UP) - 765KV	776	05:15	747	00:05	0	0	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	2,210.14	0	0	1,837.83	0	0	89.04	54.12	0	143.16
HARYANA	2,496.65	117.58	0	2,061.8	103.39	0	110.53	49.31	2.47	162.31
RAJASTHAN	-178.05	79.48	0	-59.96	1.14	0	70.03	-2.15	2.71	70.6
DELHI	1,246.75	-15.1	0	1,181.24	-384.65	0	90.51	28.67	2.86	122.04
UTTAR PRADESH	1,025.07	1,332.17	0	553.84	1,367.02	0	191.6	9.52	13.17	214.29
UTTARAKHAND	-101.47	0.1	0	-101.47	113.46	0	18.95	-2.4	1.99	18.54
HIMACHAL PRADESH	-1,172.16	-484.79	0	-1,071.15	-417.15	0	36.12	-25.88	-8.85	1.4
JAMMU & KASHMIR	-526.54	0	0	-527.55	-13.36	0	33.87	-12.65	-0.13	21.08
CHANDIGARH	0	19.56	0	0	0	0	7.05	0	0.9	7.95
TOTAL	5,000.39	1,049	0	3,874.58	769.85	0	647.7	98.54	15.12	761.37

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	3,931.08	3,594.78	2,515.49	1,246.75	0	0	0	0
HARYANA	5,350.21	3,750.47	2,503.52	1,234.15	152.37	-250.24	0	0
RAJASTHAN	3,570.45	2,057.15	-59.96	-178.05	755.28	-483.38	0	0
DELHI	4,349.2	2,868.11	1,471.17	897.73	574.09	-384.65	0	0
UTTAR PRADESH	9,318.29	6,910.39	1,118.94	128.75	2,042.81	-156.85	0	0
UTTARAKHAND	897.91	667.27	-97.65	-101.47	191.51	0.1	0	0
HIMACHAL PRADESH	1,583.08	1,406.05	-865.77	-1,274.59	-86.11	-521.08	0	0
JAMMU & KASHMIR	1,675.61	1,084.58	-526.53	-527.55	0	-13.36	0	0
CHANDIGARH	350.8	250.47	0	0	94.88	-10.07	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	489.14	710	455.57	86	996.89	949.55
Chamera-I	748.75	760	753.95	753.38	-	-	-	330.11	349.46
Gandhisagar	381	399.9	725	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	2.01	-	-	-	-	-	0
Koteshwar	598.5	612.5	610.73	610.5	5	610.1	5	302	294.39
Pong	384.05	426.72	1,084	404.59	328	391.23	72	194.51	333.91
RPS	343.81	352.8	175.66	-	-	-	-	-	0
RSD	487.91	527.91	390.3	510.36	9	504.94	6	287.99	364.13
Rihand	252.98	268.22	860.5	-	-	-	-	-	0
Tehri	740.04	829.79	1,291.49	743.77	18	747.3	36	358.35	302
TOTAL	-	-	-	-	1,070	-	205	2,469.85	2,593.44

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	3.13
iii)%age of times Angular Difference on Important Buses was beyond permissible limits(40 deg.)	
Rihand-Dadri	0

10. Zero Crossing Violations

State	No. of violations(Maximum 8 in a day)	Maximum number of continuous blocks without sign change
CHANDIGARH	3	20



DELHI	2	27
HARYANA	0	12
HIMACHAL PRADESH	2	26
JAMMU & KASHMIR	1	23
PUNJAB	0	12
RAJASTHAN	1	17
UTTAR PRADESH	0	9
UTTARAKHAND	3	15

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 :

1. 400kV Bikaner(PG)-Bikaner(Raj) line first time charged at 17:28Hrs.  
2. 400kV Bus-2 at 765/400kV Bikaner(PG) SS first time charged at 17:43Hrs.  
3. 500MVA ICT-4 at Akal first time charged at 21:10Hrs.

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