



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

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

Date of Reporting:02-Jun-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
55,018	999	56,017	49.93	57,437	320	57,757	50.02	1,333	14.56

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	61.35	20.15	0	3.7	0	2.55	87.74	100.17	98.62	-1.55	186.36	0	186.36
HARYANA	62.84	0.91	0	0.12	0	0.48	64.35	123.98	124.09	0.11	188.44	0	188.44
RAJASTHAN	135.65	1.25	2.02	18.17	22.3	4.34	183.72	76.45	77.89	1.44	261.61	0	261.61
DELHI	0	0	20.6	0	0	0	20.6	110.23	111.62	1.39	132.33	0.11	132.22
UTTAR PRADESH	216.84	17.43	0	4.42	0	2.4	241.09	197.19	197.84	0.65	442.83	3.9	438.93
UTTARAKHAND	0	21.15	5.06	0.63	0	0	26.85	21.38	20.89	-0.49	47.74	0	47.74
HIMACHAL PRADESH	0	15.58	0	0	0	9.07	24.64	3.62	4.19	0.57	29.45	0.62	28.83
JAMMU & KASHMIR	0	20.59	0	0	0	0	20.59	28.07	21.67	-6.4	52.19	9.93	42.26
CHANDIGARH	0	0	0	0	0	0	0	7.03	6.43	-0.6	6.43	0	6.43
Region	476.68	97.06	27.68	27.04	22.3	18.84	669.58	668.12	663.24	-4.88	1,347.38	14.56	1,332.82

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	6,533	0	-263	-134	7,520	0	-39	371
HARYANA	7,842	0	-88	766	8,180	0	81	869
RAJASTHAN	9,388	0	-140	-467	10,534	0	26	-511
DELHI	5,369	0	82	433	5,748	0	208	1,040
UTTAR PRADESH	20,561	530	434	1,674	20,329	0	-298	1,298
UTTARAKHAND	2,036	0	-43	352	1,980	0	39	258
HIMACHAL PRADESH	1,150	0	43	-1,490	1,092	0	63	-1,408
JAMMU & KASHMIR	1,875	469	-194	-515	1,814	320	59	-501
CHANDIGARH	264	0	-46	0	239	0	-23	0
Region	55,018	999	-215	619	57,436	320	116	1,416

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	8,866	16:00	0	8,866	8,866	16:00	0	8,866	6,533	20:00
HARYANA	8,972	24:00	0	8,972	8,972	24:00	0	8,972	7,006	8:00
RAJASTHAN	11,755	13:00	0	11,755	11,755	13:00	0	11,755	9,168	19:00
DELHI	6,386	24:00	0	6,386	6,386	24:00	0	6,386	4,354	8:00
UP	21,142	21:00	180	21,322	21,322	21:00	180	21,142	16,096	12:00
UTTARAKHAND	2,113	16:00	0	2,113	2,113	16:00	0	2,113	1,749	8:00
HP	1,452	16:00	0	1,452	1,452	16:00	0	1,452	832	23:00
J&K	2,062	21:00	516	2,578	2,578	21:00	516	2,062	1,493	17:00
CHANDIGARH	332	16:00	0	332	332	16:00	0	332	202	7:00
NR	59,499	24:00	701	60,199	60,199	24:00	701	59,499	52,647	8:00

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	470	474	588	22:00	12.04	502
DELHI GAS TURBINES( 3 * 34 + 6 * 30 )	282	87	94	97	07:00	2.09	87
PRAGATI GAS TURBINES( 1 * 121.2 + 2 * 104.6 )	452	266	263	269	00:00	6.47	270
RITHALA GPS( 3 * 36 )	108	0	0	0			
Total GAS/NAPTHA/DIESEL	2,212	823	831			20.6	859
WIND	0	0	0	0			
BIOMASS( 16 )	16	0	0	0			
SOLAR( 2 )	2	0	0	0			
Total DELHI	3,370	823	831			20.6	859

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	528	574	0		12.35	515
JHAJJAR(CLP)( 2 * 660 )	1,320	767	1,058	0		21.14	881
MAGNUM DIESEL (IPP)( 4 * 6.3 )	25	0	0	0			
PANIPAT TPS( 2 * 210 + 2 * 250 )	920	394	394	0		9.69	404
RGTPP( KHEDAR)( 2 * 600 )	1,200	760	813	0		19.67	820
Total THERMAL	4,065	2,449	2,839			62.85	2,620
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	31	28	0		0.91	38
Total HYDEL	65	31	28			0.91	38
WIND	0	0	0	0			
BIOMASS( 106 )	106	0	0	0		0.48	20
SOLAR(55.8)	56	0	0	0		0.12	5
Total HARYANA	4,724	2,480	2,867			64.36	2,683

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	291	0		6.69	279
MALANA (IPP) HPS( 2 * 43 )	86	39	66	0		1.29	54
OTHER HYDRO HP( 372 )	372	352	348	0		7.6	317
Total HYDEL	758	721	705			15.58	650
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO( 486 )	486	375	406	0		9.07	378
Total SMALL HYDRO	486	375	406			9.07	378
Total HP	1,244	1,096	1,111			24.65	1,028

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	736	736	0		17.65	735
OTHER HYDRO/IPP J&K( 308 )	308	128	121	0		2.94	123
Total HYDEL	1,208	864	857			20.59	858
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	864	857			20.59	858

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	290	290	300		7	292
GURU GOBIND SINGH TPS (ROPAR)( 6 * 210 )	1,260	0	0	0		-0.09	-4
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)( 2 * 210 + 2 * 250 )	920	0	0	0		-0.08	-3
GURU NANAK DEV TPS (BHATINDA)( 4 * 110 )	440	0	0	0		-0.01	0
RAJPURA(NPL) TPS( 2 * 700 )	1,400	660	1,308	1,320		28.07	1,170
TALWANDI SABO TPS( 3 * 660 )	1,980	924	1,003	1,615		26.46	1,103
Total THERMAL	6,540	1,874	2,601			61.35	2,558
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	750	879	879		20.15	840
Total HYDEL	1,161	750	879			20.15	840
WIND	0	0	0	0			
BIOMASS( 303 )	303	0	0	0		2.55	106
SOLAR( 859 )	859	110	0	560		3.7	154
Total PUNJAB	8,863	2,734	3,480			87.75	3,658

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	57	112	0		2.61	109
CHHABRA TPS( 1 * 660 + 4 * 250 )	1,660	1,497	1,487	0		35.4	1,475
GIRAL (IPP) LTPS( 2 * 125 )	250	0	0	0			
KALISINDH TPS( 2 * 600 )	1,200	0	0	0			
KAWAI TPS( 2 * 660 )	1,320	631	1,180	0		21.09	879
KOTA TPS( 2 * 110 + 2 * 195 + 3 * 210 )	1,240	1,014	936	0		24.08	1,003
RAJWEST (IPP) LTPS( 8 * 135 )	1,080	839	807	0		19.88	828
SURATGARH TPS ( 6 * 250 )	1,500	1,323	1,215	0		30.14	1,256
VSLPP (IPP)( 1 * 135 )	135	104	103	0		2.46	103
Total THERMAL	8,635	5,465	5,840			135.66	5,653
DHOLPUR GPS( 3 * 110 )	330	0	0	0			
RAMGARH GPS( 1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5 )	271	81	85	0		2.02	84
Total GAS/NAPTHA/DIESEL	601	81	85			2.02	84
RAPS-A( 1 * 100 + 1 * 200 )	300	170	171	0		4.02	168
Total NUCLEAR	300	170	171			4.02	168
TOTAL HYDRO RAJASTHAN( 550 )	550	0	0	0		1.25	52
Total HYDEL	550	0	0			1.25	52
WIND	4,292	492	1,575	0		22.3	929
BIOMASS( 102 )	102	13	13	0		0.32	13
SOLAR( 3045 )	3,045	10	0	0		18.17	757
Total RAJASTHAN	17,525	6,231	7,684			183.74	7,656

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	1,398	1,222	0		32.4	1,350
ANPARA-C TPS( 2 * 600 )	1,200	1,068	1,073	0		24.15	1,006
ANPARA-D TPS( 2 * 500 )	1,000	941	756	0		20.28	845
BAJAJ ENERGY PVT LTD (IPP) TPS( 10 * 45 )	450	246	256	0		5.63	235
BARA PPGCL TPS( 3 * 660 )	1,980	1,269	1,259	0		30.4	1,267
HARDUAGANJ TPS( 1 * 105 + 1 * 60 + 2 * 250 )	665	389	401	0		9.08	378
LALITPUR TPS( 3 * 660 )	1,980	1,860	1,842	0		38.79	1,616
MEJA TPS( 1 * 660 )	660	631	502	0		12.61	525
OBRA TPS ( 2 * 94 + 5 * 200 )	1,188	445	478	0		11.22	468
PANKI TPS( 2 * 105 )	210	0	0	0		0	0
PARICHA TPS( 2 * 110 + 2 * 210 + 2 * 250 )	1,380	577	646	0		14.46	603
ROSA TPS( 4 * 300 )	1,200	1,047	1,083	0		11.77	490
TANDA TPS( 4 * 110 )	440	265	268	0		6.05	252
Total THERMAL	13,983	10,136	9,786			216.84	9,035
ALAKHANANDA HEP( 4 * 82.5 )	330	186	164	0		4.97	207
VISHNUPARYAG HPS( 4 * 110 )	440	436	436	0		10.46	436
OTHER HYDRO UP( 527 )	527	141	78	0		2	83
Total HYDEL	1,297	763	678			17.43	726
WIND	0	0	0	0		0	0
BIOMASS( 26 )	26	0	0	0		0	0
SOLAR( 798 )	798	0	0	0		4.42	184
CO-GENERATION( 1360 )	1,360	100	100	0		2.4	100
Total OTHERs	1,360	100	100			2.4	100
Total UP	17,464	10,999	10,564			241.09	10,045

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	189	184	251	23:00	5.06	211
Total GAS/NAPTHA/DIESEL	450	189	184			5.06	211
OTHER HYDRO UK( 1250 )	1,250	872	802	920	12:00	21.15	881
Total HYDEL	1,250	872	802			21.15	881
WIND	0	0	0	0			
BIOMASS( 127 )	127	0	0	0			
SOLAR( 100 )	100	0	0	92	13:00	0.63	26
SMALL HYDRO( 180 )	180	0	0	0			
Total SMALL HYDRO	180	0	0			0	0
Total UTTARAKHAND	2,107	1,061	986			26.84	1,118

(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	942.5	989	634	1,022	21:42	15.92	15.82	659	-0.1
Sub-Total	1,500	942.5	989	634	-	-	15.92	15.82	659	-0.1
BBMB										
BHAKRA HPS( 2 * 108 + 3 * 126 + 5 * 157 )	1,379	1,040.31	1,392	715	1,392	20:00	24.97	25.04	1,043	0.07
DEHAR HPS( 6 * 165 )	990	607.29	810	645	810	20:00	14.58	14.9	621	0.32
PONG HPS( 6 * 66 )	396	137.42	198	132	198	20:00	3.3	3.4	142	0.1
Sub-Total	2,765	1,785.02	2,400	1,492	-	-	42.85	43.34	1,806	0.49
NHPC										
BAIRASIUL HPS( 3 * 60 )	180	0	0	0	0	-	0	-	-	0
CHAMERA HPS( 3 * 180 )	540	536.2	529	530	546	18:45	12.78	12.85	535	0.07
CHAMERA II HPS( 3 * 100 )	300	300.38	293	289	305	02:00	7.15	7.17	299	0.02
CHAMERA III HPS( 3 * 77 )	231	231.5	229	228	240	00:00	5.48	5.47	228	-0.01
DHAULIGANGA HPS( 4 * 70 )	280	281.38	285	271	289	13:00	6.64	6.73	280	0.09
DULHASTI HPS( 3 * 130 )	390	257.27	261	261	265	01:00	6.17	6.15	256	-0.02
KISHANGANGA( 3 * 110 )	330	192.55	213	211	225	23:00	4.62	4.61	192	-0.01
PARBATI III HEP( 4 * 130 )	520	112.23	412	121	515	03:00	2.7	2.69	112	-0.01
SALAL HPS( 6 * 115 )	690	712.97	724	714	726	12:00	17.11	17.19	716	0.08
SEWA-II HPS( 3 * 40 )	120	125.62	124	116	128	23:59	2.85	2.9	121	0.05
TANAKPUR HPS( 1 * 31.42 + 2 * 31.4 )	94	74.48	79	65	95	13:00	1.79	1.81	75	0.02
URI HPS( 4 * 120 )	480	479.42	482	480	484	07:00	11.51	11.5	479	-0.01
URI-II HPS( 4 * 60 )	240	240.94	245	244	245	20:00	5.78	5.83	243	0.05
Sub-Total	4,395	3,544.94	3,876	3,530	-	-	84.58	84.9	3,536	0.32
NPCL										
NAPS( 2 * 220 )	440	379	415	426	426	03:00	9.1	9.08	378	-0.02
RAPS-B( 2 * 220 )	440	344	385	390	394	06:00	8.26	8.27	345	0.01
RAPS-C( 2 * 220 )	440	416	453	456	460	10:00	9.98	9.77	407	-0.21
Sub-Total	1,320	1,139	1,253	1,272	-	-	27.34	27.12	1,130	-0.22
NTPC										
ANTA GPS( 1 * 153.2 + 3 * 88.71 )	419	353.54	0	0	0	-	0	0.04	2	0.04
AURAIYA GPS( 2 * 109.3 + 4 * 111.19 )	663	417.94	0	286	288	05:00	1.72	1.72	72	0
DADRI GPS( 2 * 154.51 + 4 * 130.19 )	830	0	601	733	733	-	13.52	13.28	553	-0.24
DADRI SOLAR( 5 )	5	1	0	0	3	12:08	0.02	0.02	1	0
DADRI-I TPS( 4 * 210 )	840	768.6	0	0	0	-	10.43	10.41	434	-0.02
DADRI-II TPS( 2 * 490 )	980	928.55	0	0	0	-	15.04	14.86	619	-0.18
KOLDAM HPS( 4 * 200 )	800	872	779	646	875	14:00	13.7	14.34	598	0.64
RIHAND-I STPS( 2 * 500 )	1,000	922.5	992	995	992	20:00	22.13	23.58	983	1.45
RIHAND-II STPS( 2 * 500 )	1,000	889.61	1,003	704	1,003	20:00	21.35	22.48	937	1.13
RIHAND-III STPS( 2 * 500 )	1,000	942.5	994	1,000	994	20:00	22.63	23.67	986	1.04
SINGRAULI STPS( 2 * 500 + 5 * 200 )	2,000	1,717.08	1,884	1,887	1,884	20:00	41.14	44.3	1,846	3.16
SINGRAULI SOLAR( 15 )	15	2.76	0	0	0	-	0.07	0.06	3	-0.01
UNCHAHAH I( 2 * 210 )	420	382.2	411	330	411	20:00	7.64	8.33	347	0.69
UNCHAHAH II TPS( 2 * 210 )	420	382.2	402	399	402	20:00	7.47	7.88	328	0.41
UNCHAHAH III TPS( 1 * 210 )	210	191.1	189	201	189	20:00	3.79	4.06	169	0.27
UNCHAHAH IV TPS( 1 * 500 )	500	60.42	263	0	263	20:00	1.45	1.56	65	0.11
UNCHAHAH SOLAR( 10 )	10	2.25	0	0	0	-	0.05	0.05	2	0
Sub-Total	11,112	8,834.25	7,518	7,181	-	-	182.15	190.64	7,945	8.49
SJVNL										
NATHPA-JHAKRI HPS( 6 * 250 )	1,500	1,556.31	1,624	1,475	1,636	21:00	37.35	37.55	1,565	0.2
RAMPUR HEP( 6 * 68.67 )	412	428.54	427	425	443	10:00	10.28	10.4	433	0.12
Sub-Total	1,912	1,984.85	2,051	1,900	-	-	47.63	47.95	1,998	0.32
THDC										
KOTESHWAR HPS( 4 * 100 )	400	105.5	200	99	207	23:00	2.53	2.53	105	0
TEHRI HPS( 4 * 250 )	1,000	375	376	0	387	19:00	5.56	5.55	231	-0.01
Sub-Total	1,400	480.5	576	99	-	-	8.09	8.08	336	-0.01
Total	24,404	18,711.06	18,663	16,108			408.56	417.85	17,410	9.29

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	196	180	230	00:00	3.51	3.69	154	0.18
BUDHIL HPS (IPP)( 2 * 35 )	70	0	70	70	71	11:00	1.66	1.67	70	0.01
KARCHAM WANGTOO HPS( 4 * 250 )	1,000	0	1,000	850	1,000	19:00	21.88	22.65	944	0.77
MALANA2( 2 * 50 )	100	0	105	80	105	20:00	1.45	1.46	61	0.01
SAINJ HEP( 2 * 50 )	100	0	0	0	0	-	0	0	0	0
SHREE CEMENT (IPP) TPS( 2 * 150 )	300	0	103	104	146	23:00	2.44	2.37	99	-0.07
Sub-Total	1,762	0	1,474	1,284	-	-	30.94	31.84	1,328	0.9
SOLAR IPP										
AZURE POWER INDIA PVT LTD.( 4 * 50 )	200	0	0	0	112	12:30	0.83	0.86	36	0.03
RENEW SOLAR POWER PVT LTD( 50 )	50	0	0	0	48	12:47	0.38	0.4	17	0.02
SB ENERGY FOUR PVT LTD( 2 * 100 )	200	0	0	0	93	12:07	0.7	0.7	29	0
Sub-Total	450	0	0	0	-	-	1.91	1.96	82	0.05
Total	2,212	0	1,474	1,284			32.85	33.8	1,410	0.95
Summary Section										
	Inst. Capacity		PEAK	OFF-PEAK			Day Energy		Day AVG.	
Total State Control Area Generation	56,793		26,288	28,380			669.62		27,901	
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			11,730	13,109			249.75		13,342	
Total Regional Availability(Gross)	83,409		58,155	58,881			1,371.02		60,062	
Total Hydro Generation										
	Inst. Capacity		PEAK	OFF-PEAK			Day Energy		Day AVG.	
Regional Entities Hydro	12,734		11,053	8,847			228.08		9,503	
State Control Area Hydro	6,289		4,001	3,949			97.06		4,044	
Total Regional Hydro	19,023		15,054	12,796			325.14		13,547	
Total Renewable Generation										
	Inst. Capacity		PEAK	OFF-PEAK			Day Energy		Day AVG.	
Regional Entities Renewable	480		0	0			2.09		87	
State Control Area Renewable	10,596		1,000	1,994			61.76		2,573	
Total Regional Renewable	11,076		1,000	1,994			63.85		2,660	
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)	-	-	-	-	0.96	0	0.96		
3	132KV-Rihand-Sonnagar (PG)	-	-	-	-	0	0.5	-0.5		
4	220KV-Pusauli (PG)-Sahupuri(UP)	166	133	147	0	3.09	0	3.09		
5	400KV-Biharsharif (PG)-Baliala(PG)	363	551	551	0	10.25	0	10.25		
6	400KV-Biharsharif (PG)-Varanasi(PG)	-	-	-	-	-	-	-		
7	400KV-Motihari (DMT)-Gorakhpur(UP)	230	306	318	0	6.93	0	6.93		
8	400KV-Muzaffarpur (PG)-Gorakhpur(UP)	206	532	560	0	8.03	0	8.03		
9	400KV-Patna (PG)-Baliala(PG)	681	1,011	1,020	0	18.73	0	18.73		
10	400KV-Sasaram-Allahabad (PG)	-56	-22	0	62	0	0.86	-0.86		
11	400KV-Sasaram-Varanasi (PG)	101	69	106	0	1.19	0	1.19		
12	765KV-Fatehpur (PG)-Sasaram.	-66	100	135	94	0.84	0	0.84		
13	765KV-Gaya (PG)-Baliala(PG)	332	302	336	0	7.09	0	7.09		
14	765KV-Gaya (PG)-Varanasi(PG)	-	-	-	-	-	-	-		
15	HVDC PUSAULI B/B	-	-	-	-	-	-	-		
16	HVDC800KV-Alipurduar-Agra (PG)	500	500	500	0	11.24	0	11.24		
Sub-Total EAST REGION		2,457	3,482	3,673	156	68.35	1.36	66.99		
Import/Export between NORTH_EAST REGION and NORTH REGION										
1	HVDC800KV-BiswanathCharialli-Agra (PG)	400	400	500	0	9.22	0	9.22		
Sub-Total NORTH_EAST REGION		400	400	500	0	9.22	0	9.22		
Import/Export between WEST REGION and NORTH REGION										
1	220KV-Auraiya (NT)-Malanpur(PG)	43	-37	-	80	0.02	0	0.02		
2	220KV-Bhanpur-Modak	50	103	151	-	2.42	0	2.42		
3	220KV-Ranpur-Bhanpur	9	0	80	-	0.56	0	0.56		
4	400KV-RAPS C (NP)-Sujalpur	210	194	238	-	3.68	0	3.68		
5	400KV-Vindhyachal (PG)-Rihand(NT)	944	937	0	482	0	22.59	-22.59		
6	400KV-Zerda (PG)-Bhinmal(PG)	-74	-163	61	205	0	2.07	-2.07		

Import/Export between WEST REGION and NORTH REGION								
7	400KV-Zerda (PG)-Kankroli(RJ)	-47	-46	57	96	0	0.98	-0.98
8	765KV-0rai-Gwalior (PG)	-365	-348	0	421	0	8.8	-8.8
9	765KV-0rai-Jabalpur	1,396	1,691	1,693	0	34.36	0	34.36
10	765KV-0rai-Satna	1,242	1,296	1,319	0	29.77	0	29.77
11	765KV-Chittorgarh-Banaskata D/C	-256	-288	648	0	6.7	0	6.7
12	765KV-Gwalior (PG)-Agra(PG)	2,216	2,183	2,242	0	48.07	0	48.07
13	765KV-Phagi (RJ)-Gwalior(PG)	704	953	1,068	-	21.88	0	21.88
14	HVDC500KV-Mundra (JH)-Mohindergarh(JH)	1,801	1,502	1,802	0	37.76	0	37.76
15	HVDC500KV-Vindhyachal (PG)-Vindhaychal B/B	-500	-500	0	500	0	12.2	-12.2
16	HVDC800KV-Champa (PG)-Kurukshetra(PG)(PG)	1,500	1,750	1,750	0	34.96	0	34.96
Sub-Total WEST REGION		8,873	9,227	11,109	1,784	220.18	46.64	173.54
TOTAL IR EXCHANGE		11,730	13,109	15,282	1,940	297.75	48	249.75

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	67.29	-0.07	0.05	67.27	66.99	-0.28
NR-WR	163.43	21.22	-7.33	177.32	173.54	-3.78
Total	230.72	21.15	-7.28	244.59	249.75	5.16

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)	29	24				0.5788	-0.5788

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	1.3	14.1	44.7	63.1	16.8	5.3	.6	22.8

<-----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.	
50.25	07:45:50	49.72	22:11:40	50	0.063	0.08	50.19	49.79	36.9

6.Voltage Profile: 400kV

	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index (% of time)
					< 380	< 390	> 420	> 430	
Ballabgarh(PG) - 400KV	414	07:45	391	23:10	0	0	0	0	0
Bareilly II(PG) - 400KV	406	00:00	406	00:00	0	0	0	0	0
Bareilly(UP) - 400KV	416	08:00	394	21:05	0	0	0	0	0
Abdullapur(PG) - 400KV	410	08:00	396	00:10	0	0	0	0	0
Bassi(PG) - 400KV	411	07:40	391	23:10	0	0	0	0	0
Bawana(DTL) - 400KV	414	08:00	396	23:10	0	0	0	0	0
Hisar(PG) - 400KV	409	07:45	394	23:10	0	0	0	0	0
Rihand(NT) - 400KV	406	08:00	400	18:50	0	0	0	0	0
Moga(PG) - 400KV	410	08:00	400	14:40	0	0	0	0	0
Gorakhpur(PG) - 400KV	416	08:00	393	20:30	0	0	0	0	0
Nallagarh(PG) - 400KV	409	08:00	397	14:40	0	0	0	0	0
Kanpur(PG) - 400KV	422	07:40	405	21:10	0	0	3.13	0	3.13
Kashipur(UT) - 400KV					0	0	0	0	0
Amritsar(PG) - 400KV	408	20:00	397	14:40	0	0	0	0	0
Baspa(HP) - 400KV	409	08:00	397	14:40	0	0	0	0	0
Kishenpur(PG) - 400KV	409	20:00	398	14:40	0	0	0	0	0
Rihand HVDC(PG) - 400KV	406	08:00	406	08:00	5.21	5.21	0	0	5.21
Dadri HVDC(PG). - 400KV	416	08:00	399	23:10	0	0	0	0	0

6.1 Voltage Profile: 765kV

	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index
					< 728	< 742	> 800	> 820	
Anta RS(RJ) - 765KV	791	08:00	769	23:15	0	0	0	0	0

Balia(PG) - 765KV	796	08:00	757	20:30	0	0	0	0	0
Bareilly II(PG) - 765KV	794	08:00	751	21:05	0	0	0	0	0
Bhiwani(PG) - 765KV	795	07:40	762	23:15	0	0	0	0	0
Fatehpur(PG) - 765KV	792	07:40	761	23:10	0	0	0	0	0
Jhatikara(PG) - 765KV	795	08:00	758	23:10	0	0	0	0	0
Lucknow II(PG) - 765KV	799	08:00	752	21:05	0	0	0	0	0
Meerut(PG) - 765KV	774	00:00	774	00:00	0	0	0	0	0
Moga(PG) - 765KV	786	08:00	761	23:10	0	0	0	0	0
Phagi(RJ) - 765KV	792	07:40	764	00:00	0	0	0	0	0
Unnao(UP) - 765KV	768	08:00	735	21:10	0	10.07	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	370.76	0	0	370.76	-504.44	0	93.89	8.9	-2.62	100.17
HARYANA	715.23	154.24	0	727.19	38.82	0	104.88	15.92	3.18	123.98
RAJASTHAN	-601.32	90.4	0	-483.3	16.5	0	85.16	-12.31	3.6	76.45
DELHI	1,085.27	-45.29	0	1,061.29	-627.96	0	89.69	24.41	-3.88	110.23
UTTAR PRADESH	1,342.16	-43.82	0	674.93	998.99	0	177.98	15.86	3.36	197.19
UTTARAKHAND	12.46	245.56	0	12.46	339.8	0	15.12	0.3	5.97	21.38
HIMACHAL PRADESH	-885.13	-522.72	0	-763.55	-726.3	0	34.06	-19.27	-11.16	3.62
JAMMU & KASHMIR	-500.56	0	0	-501.57	-13.35	0	40.3	-12.03	-0.2	28.07
CHANDIGARH	0	0	0	0	0	0	6.88	0	0.15	7.03
TOTAL	1,538.87	-121.63	0	1,098.21	-477.94	0	647.96	21.78	-1.6	668.12

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	4,137.87	3,575.99	370.76	370.76	0	-706.21	0	0
HARYANA	4,739.07	3,639.28	813.41	487.06	177.02	-40.72	0	0
RAJASTHAN	4,044.05	3,110.77	-483.3	-601.32	713.7	-451.47	0	0
DELHI	4,353.57	2,937.72	1,260.75	723.54	175.29	-635	0	0
UTTAR PRADESH	8,824.25	6,388.59	1,351.69	-58.23	1,292.66	-382.6	0	0
UTTARAKHAND	778.62	496.89	12.46	12.46	345.77	89.65	0	0
HIMACHAL PRADESH	1,589.24	1,162.39	-655.23	-941.22	-138.41	-845.46	0	0
JAMMU & KASHMIR	2,081.04	1,287.91	-500.56	-501.57	0	-13.35	0	0
CHANDIGARH	331.35	249.25	0	0	39.15	-30.19	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	491.59	788	454.32	75	789.22	820.79
Chamera-I	748.75	760	753.95	-	-	-	-	-	0
Gandhisagar	381	399.9	725	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	2.01	-	-	-	-	-	0
Koteshwar	598.5	612.5	610.73	610.22	5	608.83	4	199	167.06
Pong	384.05	426.72	1,084	406.97	398	391.91	80	90.02	232.45
RPS	343.81	352.8	175.66	-	-	-	-	-	0
RSD	487.91	527.91	390.3	516.4	10	498.87	3	250.6	410
Rihand	252.98	268.22	860.5	-	-	-	-	-	0
Tehri	740.04	829.79	1,291.49	744.02	19	743.15	15	175.69	199
TOTAL	-	-	-	-	1,220	-	177	1,504.53	1,829.3

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

10. Zero Crossing Violations

State	No. of violations(Maximum 15 in a day)	Maximum number of continuous blocks without sign change
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CHANDIGARH	11	24
DELHI	7	14
HARYANA	0	6
HIMACHAL PRADESH	2	8
JAMMU & KASHMIR	7	18
PUNJAB	0	6
RAJASTHAN	0	6
UTTAR PRADESH	2	9
UTTARAKHAND	10	28

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. 315 MVA ICT-1 at Sarnath first time charged on Load at 17.15 hrs.  
2. Bay 404 and 405 at Azamgarh first time charged at 16.34 hrs.  
3. Bay 408 and 409 at Tanda New first time charged at 17.33 and 19.09 hrs respectively.  
4. 400 Azamgarh-Tanda and 400 BUS-2 at Tanda New first time charged at 19.09 hrs.

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