



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

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

Date of Reporting:02-Jul-2020

1. Regional Availability/Demand:

Evening Peak (20:00) MW				Off-Peak (03:00) MW				Day Energy(Net MU)	
Demand Met	Shortage	Requirement	Freq (Hz)	Demand Met	Shortage	Requirement	Freq (Hz)	Demand Met	Shortage
60,826	722	61,547	49.96	60,504	232	60,736	49.86	1,460	11.19

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	119.51	22.04	0	3.87	0	3.32	148.73	146.34	144.88	-1.46	293.61	0	293.61
HARYANA	61.11	0.92	1.73	0.14	0	0.89	64.79	164.36	166.05	1.69	231.12	0.28	230.84
RAJASTHAN	114.14	0	1.34	15.93	12.91	0.48	144.8	108.77	111.91	3.14	256.71	0	256.71
DELHI	0	0	21.23	0	0	0.66	21.89	99.83	98.11	-1.72	120.01	0.01	120
UTTAR PRADESH	205.9	23.12	0	6.03	0	0.6	235.65	201.95	201.66	-0.29	437.88	0.57	437.31
UTTARAKHAND	0	21.69	0	0.62	0	0	22.31	18.77	19.48	0.71	41.79	0	41.79
HIMACHAL PRADESH	0	17.31	0	0	0	14	31.3	-1.44	-2.01	-0.57	29.29	0	29.29
J&K(UT) & Ladakh(UT)	0	23.04	0	0	0	0	23.04	18.4	20.34	1.94	53.71	10.33	43.38
CHANDIGARH	0	0	0	0	0	0	0	6.62	6.84	0.22	6.84	0	6.84
Region	500.66	108.12	24.3	26.59	12.91	19.95	692.51	763.6	767.26	3.66	1,470.96	11.19	1,459.77

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

State	Evening Peak (20:00) MW				Off-Peak (03:00) MW			
	Demand Met	Shortage	UI	STOA/PX/RTM Transaction	Demand Met	Shortage	UI	STOA/PX/RTM Transaction
PUNJAB	12,134	0	-139	2,079	11,512	0	-137	1,861
HARYANA	9,518	0	53	1,027	9,725	0	211	897
RAJASTHAN	9,334	0	342	-151	9,964	0	312	337
DELHI	4,488	0	-93	898	5,287	0	79	1,235
UTTAR PRADESH	20,378	270	424	1,875	19,767	0	158	1,675
UTTARAKHAND	1,749	0	113	-58	1,639	0	-2	-82
HIMACHAL PRADESH	1,136	0	-15	-1,483	1,038	0	-61	-1,551
J&K(UT) & Ladakh(UT)	1,806	452	-188	-513	1,313	232	83	-1,158
CHANDIGARH	283	0	21	-30	258	0	13	0
Region	60,826	722	518	3,644	60,503	232	656	3,214

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 during at maximum demand	Requirement at the max demand met of the day	Maximum Requirement of the day	Time	Shortage during at maximum Requirement	Demand Met at maximum requiremnet	Min Demand Met	Time
PUNJAB	12,905	13:00	0	12,905	12,905	13:00	0	12,905	11,489	7:00
HARYANA	10,282	24:00	0	10,282	10,282	24:00	0	10,282	8,409	8:00
RAJASTHAN	12,095	16:00	0	12,095	12,095	16:00	0	12,095	8,918	19:00
DELHI	5,954	24:00	0	5,954	5,954	24:00	0	5,954	4,053	9:00
UP	21,316	22:00	440	21,756	21,756	22:00	440	21,316	14,873	7:00
UTTARAKHAND	1,843	16:00	0	1,843	1,843	16:00	0	1,843	1,623	5:00
HP	1,432	10:00	0	1,432	1,432	10:00	0	1,432	1,025	5:00
J&K(UT)&Ladak ..	2,251	21:00	563	2,814	2,814	21:00	563	2,251	1,313	3:00
CHANDIGARH	348	15:00	0	348	348	15:00	0	348	210	6:00
NR	65,352	23:00	1,105	66,457	66,457	23:00	1,105	65,352	54,750	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)	
BAWANA GPS(2 * 253 + 4 * 216)	1,370	484	577	617		12.99	541
DELHI GAS TURBINES(3 * 34 + 6 * 30)	282	74	75	74.95		1.74	73
PRAGATI GAS TURBINES(1 * 121.2 + 2 * 104.6)	452	264	264	281.34		6.5	271
RITHALA GPS(3 * 36)	108	0	0	0			
Total GAS/NAPTHA/DIESEL	2,212	822	916			21.23	885
WIND	0	0	0	0			
BIOMASS(52)	52	42	41	44.94		0.66	28
SOLAR(2)	2	0	0	0			
Total DELHI	2,266	864	957			21.89	913

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	561	560	566	04:00	12.31	513
JHAJJAR(CLP)(2 * 660)	1,320	600	560	607	12:00	14.04	585
MAGNUM DIESEL (IPP)(4 * 6.3)	25	0	0	0			
PANIPAT TPS(1 * 210 + 2 * 250)	710	399	443	443	03:00	10.1	421
RGTPP(KHEDAR)(2 * 600)	1,200	1,077	951	1,147	13:00	24.67	1,028
Total THERMAL	3,855	2,637	2,514			61.12	2,547
FARIDABAD GPS(1 * 156.07 + 2 * 137.75)	432	0	371	371	01:00	1.73	72
Total GAS/NAPTHA/DIESEL	432	0	371			1.73	72
TOTAL HYDRO HARYANA(64.8)	65	33	38	39	01:00	0.92	38
Total HYDEL	65	33	38			0.92	38
WIND	0	0	0	0			
BIOMASS(106)	106	0	0	0		0.89	37
SOLAR(55.8)	56	0	0	0		0.14	6
Total HARYANA	4,514	2,670	2,923			64.8	2,700

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	331	331	0		7.92	330
MALANA (IPP) HPS(2 * 43)	86	98	97	0		2.36	98
OTHER HYDRO HP(372)	372	301	295	0		7.03	293
Total HYDEL	758	730	723			17.31	721
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR(1 * 18.9)	19	0	0	0			
SMALL HYDRO(486)	486	582	585	0		14	583
Total SMALL HYDRO	486	582	585			14	583
Total HP	1,263	1,312	1,308			31.31	1,304

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		21.19	883
OTHER HYDRO/IPP J&K(308)	308	0	0	0		1.85	77
Total HYDEL	1,208	0	0			23.04	960
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			23.04	960

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	484	290	491		10.08	420
GURU GOBIND SINGH TPS (ROPAR)(4 * 210)	840	741	769	769		17.63	735
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)(2 * 210 + 2 * 250)	920	736	653	802		16.08	670
RAJPURA(NPL) TPS(2 * 700)	1,400	1,320	1,320	1,320		31.68	1,320
TALWANDI SABO TPS(3 * 660)	1,980	1,823	1,841	1,841		44.04	1,835
Total THERMAL	5,680	5,104	4,873			119.51	4,980
ANANADPUR SAHIB HYDRO PLANT(2 * 33.5 + 2 * 33.5)	134	0	14	14		0.23	10
MUKERIAN HYDRO PLANT(6 * 15 + 6 * 19.5 + 2 * 9)	225	209	169	210		4.43	185
RANJIT SAGAR POWER PLANT (4 * 150)	600	360	450	450		10.4	433
SHANAN(4 * 15 + 1 * 50)	110	110	110	110		2.63	110
UBDC(3 * 15 + 3 * 15.5)	92	82	82	82		1.97	82
OTHER HYDRO PUNJAB	0	0	0	0		2.38	99
Total HYDEL	1,161	761	825			22.04	919
WIND	0	0	0	0			
BIOMASS(303)	303	0	0	0		3.32	138
SOLAR(859)	859	0	0	486		3.87	161
Total PUNJAB	8,003	5,865	5,698			148.74	6,198

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	181	215	0		4.69	195
CHHABRA TPS(2 * 660 + 4 * 250)	2,320	848	1,108	0		24.32	1,013
GIRAL (IPP) LTPS(2 * 125)	250	0	0	0			
KALISINDH TPS(2 * 600)	1,200	833	905	0		20.22	843
KAWAI TPS(2 * 660)	1,320	888	873	0		22.35	931
KOTA TPS(2 * 110 + 2 * 195 + 3 * 210)	1,240	754	909	0		20.86	869
RAJWEST (IPP) LTPS(8 * 135)	1,080	689	823	0		18.73	780
SURATGARH TPS (6 * 250)	1,500	0	0	0			
VSLPP (IPP)(1 * 135)	135	121	121	0		2.97	124
Total THERMAL	9,295	4,314	4,954			114.14	4,755
DHOLPUR GPS(3 * 110)	330	0	0	0			
RAMGARH GPS(1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5)	271	53	56	0		1.34	56
Total GAS/NAPTHA/DIESEL	601	53	56			1.34	56
RAPS-A(1 * 100 + 1 * 200)	300	0	0	0			
Total NUCLEAR	300	0	0			0	0
TOTAL HYDRO RAJASTHAN(550)	550	0	0	0			
Total HYDEL	550	0	0			0	0
WIND	4,292	1,112	281	0		12.91	538
BIOMASS(102)	102	20	20	0		0.48	20
SOLAR(3045)	3,045	23	0	0		15.93	664
Total RAJASTHAN	18,185	5,522	5,311			144.8	6,033

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	1,346	1,367	0		31.8	1,325
ANPARA-C TPS(2 * 600)	1,200	1,036	1,008	0		25.6	1,067
ANPARA-D TPS(2 * 500)	1,000	469	472	0		11.3	471
BAJAJ ENERGY PVT LTD (IPP) TPS(10 * 45)	450	399	358	0		6.9	288
BARA PPGCL TPS(3 * 660)	1,980	1,189	1,194	0		27.6	1,150
HARDUAGANJ TPS(1 * 105 + 1 * 60 + 2 * 250)	665	411	430	0		10.2	425
LALITPUR TPS(3 * 660)	1,980	1,813	1,837	0		37.4	1,558
MEJA TPS(1 * 660)	660	90	0	0		1.5	63
OBRA TPS (2 * 94 + 5 * 200)	1,188	431	376	0		10.9	454
PARICHA TPS(2 * 110 + 2 * 210 + 2 * 250)	1,380	531	577	0		10.9	454
ROSA TPS(4 * 300)	1,200	1,064	1,080	0		23.9	996
TANDA TPS(4 * 110)	440	383	365	0		7.9	329
Total THERMAL	13,773	9,162	9,064			205.9	8,580
ALAKHANANDA HEP(4 * 82.5)	330	345	345	0		8.3	346
VISHNUPARYAG HPS(4 * 110)	440	396	436	0		10.3	429
OTHER HYDRO UP(527)	527	263	206	0		4.52	188
Total HYDEL	1,297	1,004	987			23.12	963
WIND	0	0	0	0			
BIOMASS(26)	26	0	0	0			
SOLAR(798)	798	0	0	0		6.03	251
CO-GENERATION(1360)	1,360	25	25	0		0.6	25
Total OTHERs	1,360	25	25			0.6	25
Total UP	17,254	10,191	10,076			235.65	9,819

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	902	896	904	23:00	21.69	904
Total HYDEL	1,250	902	896			21.69	904
WIND	0	0	0	0			
BIOMASS(127)	127	0	0	0			
SOLAR(100)	100	0	0	97	13:00	0.62	26
SMALL HYDRO(180)	180	0	0	0			
Total SMALL HYDRO	180	0	0			0	0
Total UTTARAKHAND	2,332	902	896			22.31	930

(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	1,437	490	0	874	22:57	3.97	3.87	161	-0.1
Sub-Total	1,500	1,437	490	0	-	-	3.97	3.87	161	-0.1
BBMB										
BHAKRA HPS(2 * 108 + 3 * 126 + 5 * 157)	1,379	1,343	1,358	1,050	1,361	22:00	28.58	28.68	1,195	0.1
DEHAR HPS(6 * 165)	990	630	645	645	645	20:00	14.38	14.6	608	0.22
PONG HPS(6 * 66)	396	304	310	124	310	20:00	4.87	4.91	205	0.04
Sub-Total	2,765	2,277	2,313	1,819	-	-	47.83	48.19	2,008	0.36
NHPC										
BAIRASIUL HPS(3 * 60)	180	62	63	62	63	20:00	1.45	1.46	61	0.01
CHAMERA HPS(3 * 180)	540	550	540	543	549	11:00	12.96	13.03	543	0.07
CHAMERA II HPS(3 * 100)	300	100	100	99	101	04:00	2.36	2.38	99	0.02
CHAMERA III HPS(3 * 77)	231	240	236	237	238	04:00	5.66	5.65	235	-0.01
DHAULIGANGA HPS(4 * 70)	280	292	285	286	293	22:00	6.76	6.91	288	0.15
DULHASTI HPS(3 * 130)	390	405	395	390	395	15:00	9.25	9.29	387	0.04
KISHANGANGA(3 * 110)	330	223	225	222	225	20:00	5.29	5.33	222	0.04
PARBATI III HEP(4 * 130)	520	520	512	165	522	06:45	4.49	4.57	190	0.08
PARBATI-II(4 * 200)(Infirm)	800	-	106	99	112	22:00	-	2.16	90	2.16
SALAL HPS(6 * 115)	690	683	720	712	721	23:59	16.27	16.78	699	0.51
SEWA-II HPS(3 * 40)	120	131	121	121	123	22:00	1.8	1.86	78	0.06
TANAKPUR HPS(1 * 31.42 + 2 * 31.4)	94	90	98	96	98	23:59	2.18	2.29	95	0.11
URI HPS(4 * 120)	480	480	482	479	483	19:00	11.54	11.5	479	-0.04
URI-II HPS(4 * 60)	240	237	242	243	245	08:00	5.73	5.79	241	0.06
Sub-Total	5,195	4,013	4,125	3,754	-	-	85.74	89	3,707	3.26
NPCL										
NAPS(2 * 220)	440	353	389	403	408	08:00	8.47	8.67	361	0.2
RAPS-B(2 * 220)	440	329	372	375	382	06:00	7.9	7.94	331	0.04
RAPS-C(2 * 220)	440	397	435	436	443	09:00	9.53	9.56	398	0.03
Sub-Total	1,320	1,079	1,196	1,214	-	-	25.9	26.17	1,090	0.27
NTPC										
ANTA GPS(1 * 153.2 + 3 * 88.71)	419	267	0	0	0	-	0	0.03	1	0.03
AURAIYA GPS(2 * 109.3 + 4 * 111.19)	663	620	0	0	0	-	0	0.06	3	0.06
DADRI GPS(2 * 154.51 + 4 * 130.19)	830	385	215	253	312	-	5.91	6.07	253	0.16
DADRI SOLAR(5)	5	5	0	0	3	12:00	0.02	0.02	1	0
DADRI-I TPS(4 * 210)	840	769	117	121	117	20:00	2.66	2.57	107	-0.09
DADRI-II TPS(2 * 490)	980	942	486	275	486	20:00	7.42	7.42	309	0
KOLDAM HPS(4 * 200)	800	872	864	870	874	21:00	20.93	20.97	874	0.04
RIHAND-I STPS(2 * 500)	1,000	460	502	973	502	20:00	19.32	18.51	771	-0.81
RIHAND-II STPS(2 * 500)	1,000	938	996	1,007	996	20:00	21.77	21.09	879	-0.68
RIHAND-III STPS(2 * 500)	1,000	938	988	1,006	988	20:00	22.49	22.61	942	0.12
SINGRAULI STPS(2 * 500 + 5 * 200)	2,000	1,250	1,397	1,384	1,397	20:00	30.06	29.75	1,240	-0.31
SINGRAULI SOLAR(15)	15	15	0	0	0	-	0.05	0.05	2	0
TANDA TPS STAGE-II(1 * 660)	660	622	638	659	638	20:00	14.16	13.78	574	-0.38
UNCHAHAH I(2 * 210)	420	382	266	249	266	20:00	5.54	6.21	259	0.67
UNCHAHAH II TPS(2 * 210)	420	382	285	239	285	20:00	5.57	6.32	263	0.75
UNCHAHAH III TPS(1 * 210)	210	191	138	122	138	20:00	2.77	3.24	135	0.47
UNCHAHAH IV TPS(1 * 500)	500	471	323	276	323	20:00	7.17	7.8	325	0.63
UNCHAHAH SOLAR(10)	10	10	0	0	0	-	0.03	0.03	1	0
Sub-Total	11,772	9,519	7,215	7,434	-	-	165.87	166.53	6,939	0.66
SJVNL										
NATHPA-JHAKRI HPS(6 * 250)	1,500	1,605	1,626	1,639	1,640	11:00	38.52	38.9	1,621	0.38
RAMPUR HEP(6 * 68.67)	412	442	444	445	447	05:00	10.61	10.72	447	0.11
Sub-Total	1,912	2,047	2,070	2,084	-	-	49.13	49.62	2,068	0.49
THDC										
KOTESHWAR HPS(4 * 100)	400	380	379	99	395	21:00	3.2	3.26	136	0.06
TEHRI HPS(4 * 250)	1,000	572	291	432	581	22:00	6.49	6.63	276	0.14
Sub-Total	1,400	952	670	531	-	-	9.69	9.89	412	0.2
Total	25,864	21,324	18,079	16,836			388.13	393.27	16,385	5.14

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	230	230	232	23:00	4.82	5.26	219	0.44
BUDHIL HPS (IPP)(2 * 35)	70	0	76	75	76	20:00	1.71	1.4	58	-0.31
KARCHAM WANGTOO HPS(4 * 250)	1,000	0	1,100	1,100	1,100	20:00	26.08	26.43	1,101	0.35
MALANA2(2 * 50)	100	0	110	111	111	23:00	0	2.63	110	2.63
SAINJ HEP(2 * 50)	100	0	110	110	110	-	2.59	2.6	108	0.01
SHREE CEMENT (IPP) TPS(2 * 150)	300	0	0	0	0	-	0	-	-	0
Sub-Total	1,762	0	1,626	1,626	-	-	35.2	38.32	1,596	3.12
SOLAR IPP										
ACME CHITTORGARH SOLAR ENERGY PVT LTD(1 * 250)	250	250	0	0	182	13:34	1.37	1.36	57	-0.01
ADANI RENEWABLE ENERGY RJ LIMITED (ARERJL)(1 * 200)	200	200	0	0	187	13:15	1.24	1.4	58	0.16
AZURE POWER INDIA PVT LTD.(4 * 50)	200	200	0	0	163	12:45	1.22	1.27	53	0.05
AZURE POWER THIRTY FOUR PRIVATE LTD(1 * 130)	130	130	0	0	123	13:11	0.87	0.91	38	0.04
CLEAN SOLAR POWER (BHADLA) PVT LTD(1 * 300)	300	300	0	0	300	13:05	2.15	2.27	95	0.12
M/S KILAJ SOLAR (MAHARASHTRA) PRIVATE LIMITED(1 * 50)	50	50	0	0	48	13:15	0.37	0.36	15	-0.01
RENEW SOLAR POWER PVT LTD(50)	50	50	0	0	49	13:49	0.36	0.37	15	0.01
RENEW SOLAR POWER PVT LTD. BIKANER(1 * 250)	250	250	0	0	227	13:27	1.57	1.53	64	-0.04
SB ENERGY FOUR PVT LTD(2 * 100)	200	200	0	0	200	13:05	1.41	1.38	58	-0.03
TATA POWER RENEWABLE ENERGY LTD(1 * 150)	150	150	0	0	0	-	1.07	1.03	43	-0.04
Sub-Total	1,780	1,780	0	0	-	-	11.63	11.88	496	0.25
Total	3,542	1,780	1,626	1,626			46.83	50.2	2,092	3.37
Summary Section										
	Inst. Capacity		PEAK	OFF-PEAK			Day Energy		Day AVG.	
Total State Control Area Generation		55,313	27,326	27,169			692.54		28,857	
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			15,274	15,107			356.17		18,915	
Total Regional Availability(Gross)		84,719	62,305	60,738			1,492.18		66,249	
Total Hydro Generation										
	Inst. Capacity		PEAK	OFF-PEAK			Day Energy		Day AVG.	
Regional Entities Hydro		13,534	11,668	10,684			255.99		10,665	
State Control Area Hydro		6,289	3,430	3,469			108.12		4,505	
Total Regional Hydro		19,823	15,098	14,153			364.11		15,170	
Total Renewable Generation										
	Inst. Capacity		PEAK	OFF-PEAK			Day Energy		Day AVG.	
Regional Entities Renewable		1,810	0	0			11.98		500	
State Control Area Renewable		10,651	1,779	927			58.85		2,452	
Total Regional Renewable		12,461	1,779	927			70.83		2,952	
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	-18	-23	-	23	0	0.38	-0.38		
2	132KV-Karmnasa (PG)-Sahupuri(UP)	-	-	-	-	0.96	0	0.96		
3	132KV-Rihand-Sonnagar (PG)	-	-	-	-	-	-	-		
4	220KV-Pusauli (PG)-Sahupuri(UP)	54	68	113	7	1.74	0	1.74		
5	400KV-Biharsharif (PG)-Balia(PG)	259	232	343	0	5.83	0	5.83		
6	400KV-Biharsharif (PG)-Varanasi(PG)	10	75	129	55	1.68	0	1.68		
7	400KV-Motihari (DMT)-Gorakhpur(UP)	274	278	297	0	5.45	0	5.45		
8	400KV-Muzaffarpur (PG)-Gorakhpur(UP)	450	562	656	0	13.12	0	13.12		
9	400KV-Patna (PG)-Balia(PG)	817	774	971	0	17.31	0	17.31		
10	400KV-Sasaram-Allahabad (PG)	133	149	165	0	3.53	0	3.53		
11	400KV-Sasaram-Varanasi (PG)	261	246	274	0	9.17	0	9.17		
12	765KV-Fatehpur (PG)-Sasaram.	-	-35	27	284	0	2.87	-2.87		
13	765KV-Gaya (PG)-Balia(PG)	451	349	515	0	8.42	0	8.42		
14	765KV-Gaya (PG)-Varanasi(PG)	452	472	658	0	11.75	0	11.75		
15	HVDC800KV-Alipurduar-Agra (PG)	1,000	1,000	1,000	0	22.6	0	22.6		
Sub-Total EAST REGION		4,143	4,147	5,148	369	101.56	3.25	98.31		
Import/Export between NORTH_EAST REGION and NORTH REGION										
1	HVDC800KV-BiswanathCharialli-Agra (PG)	500	500	500	0	11.47	0	11.47		
Sub-Total NORTH_EAST REGION		500	500	500	0	11.47	0	11.47		

Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya (NT)-Malanpur(PG)	21	-21	-	110	0	0.36	-0.36
2	220KV-Bhanpur-Modak	42	61	117	-	1.58	0	1.58
3	220KV-Ranpur-Bhanpur	33	50	110	-	1.38	0	1.38
4	400KV-RAPS C (NP)-Sujalpur	256	292	460	0	6.25	0	6.25
5	400KV-Vindhyachal (PG)-Rihand(NT)	-930	-951	-	959	0	22.61	-22.61
6	400KV-Zerda (PG)-Bhinmal(PG)	103	36	181	161	1.14	0	1.14
7	400KV-Zerda (PG)-Kankroli(RJ)	137	2	165	61	0.51	0	0.51
8	765KV-0rai-Gwalior (PG)	-327	-260	-	409	0	7.5	-7.5
9	765KV-0rai-Jabalpur	1,781	1,505	2,020	-	35.97	0	35.97
10	765KV-0rai-Satna	1,398	1,336	1,498	-	31.96	0	31.96
11	765KV-Chittorgarh-Banaskata D/C	816	347	1,013	0	10.63	0	10.63
12	765KV-Gwalior (PG)-Agra(PG)	1,674	1,896	2,670	0	42.36	0	42.36
13	765KV-Phagi (RJ)-Gwalior(PG)	879	1,069	1,349	-	26.93	0	26.93
14	HVDC500KV-Mundra (JH)-Mohindergarh(JH)	1,498	1,998	2,003	0	43.11	0	43.11
15	HVDC500KV-Vindhyachal (PG)-Vindhaychal B/B	250	100	250	0	4.24	0	4.24
16	HVDC800KV-Champa (PG)-Kurukshetra(PG)(PG)	3,000	3,000	3,500	0	70.8	0	70.8
Sub-Total WEST REGION		10,631	10,460	15,336	1,700	276.86	30.47	246.39
TOTAL IR EXCHANGE		15,274	15,107	20,984	2,069	389.89	33.72	356.17

4(B) Inter Regional Schedule & Actual Exchange (Import=(+ve) /Export =(-ve)) in MU							
	ISGS/(LT+MT) Schedule	BILT Schedule	PX Schedule	RTM Schedule	Total IR Schedule	Total IR Actual	NET IR UI
NR-ER	69.7	8.23	14.11	3.81	95.85	98.31	2.46
NR-WR	182.46	58.67	-0.44	5.34	246.03	246.39	0.36
Total	252.16	66.9	13.67	9.15	341.88	356.17	14.29

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)	20		15		32		0.33	-0.33

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	8.3	54.3	79.8	10.3	1.5	0	11.9
<-----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	08:01:50	49.79	01:08:00	49.99	0.035	0.058	50.09	49.86	20.2

6.Voltage Profile: 400kV									
	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index (% of time)
					< 380	< 390	> 420	> 430	
Abdullapur(PG) - 400KV	408	18:30	394	12:10	0	0	0	0	0
Amritsar(PG) - 400KV	402	19:00	391	13:40	0	0	0	0	0
Ballabgarh(PG) - 400KV	414	18:35	393	14:15	0	0	0	0	0
Bareilly II(PG) - 400KV	411	06:20	395	23:25	0	0	0	0	0
Bareilly(UP) - 400KV	412	06:20	396	23:25	0	0	0	0	0
Baspa(HP) - 400KV	398	02:30	390	12:15	0	11.46	0	0	0
Bassi(PG) - 400KV	421	18:05	394	22:20	0	0	1.04	0	1.04
Bawana(DTL) - 400KV	411	06:25	391	14:15	0	0	0	0	0
Dadri HVDC(PG). - 400KV	414	18:35	393	14:20	0	0	0	0	0
Gorakhpur(PG) - 400KV	414	07:00	394	22:30	0	0	0	0	0
Hisar(PG) - 400KV	408	08:00	393	14:10	0	0	0	0	0
Kanpur(PG) - 400KV	416	07:00	401	22:30	0	0	0	0	0
Kashipur(UT) - 400KV	416	06:30	406	13:25	0	0	0	0	0
Kishenpur(PG) - 400KV	411	00:00	411	00:00	0	0	0	0	0
Moga(PG) - 400KV	402	18:10	390	13:40	0	0	0	0	0
Nallagarh(PG) - 400KV	398	02:30	390	12:15	0	11.46	0	0	0
Rihand HVDC(PG) - 400KV	404	06:20	399	22:30	0	0	0	0	0

Rihand(NT) - 400KV	405	08:00	401	11:35	.35	.35	0	0	.35
--------------------	-----	-------	-----	-------	-----	-----	---	---	-----

6.1 Voltage Profile: 765kV

	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index
					< 728	< 742	> 800	> 820	
Anta RS(RJ) - 765KV	792	18:15	765	22:35	0	0	0	0	0
Balia(PG) - 765KV	778	07:00	751	22:30	0	0	0	0	0
Bareilly II(PG) - 765KV	785	06:20	755	23:25	0	0	0	0	0
Bhiwani(PG) - 765KV	791	08:00	756	13:40	0	0	0	0	0
Fatehpur(PG) - 765KV	780	07:00	755	20:55	0	0	0	0	0
Jhatikara(PG) - 765KV	790	18:10	751	13:35	0	0	0	0	0
Lucknow II(PG) - 765KV	784	07:00	754	22:30	0	0	0	0	0
Meerut(PG) - 765KV	799	18:10	762	11:40	0	0	0	0	0
Moga(PG) - 765KV	788	16:25	755	09:25	0	0	0	0	0
Phagi(RJ) - 765KV	793	18:00	759	13:45	0	0	0	0	0
Unnao(UP) - 765KV	775	07:00	750	22:30	0	0	0	0	0

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

State	Off- Peak Hours (03:00)					Peak Hours (20:00)				
	Bilateral (MW)	IEX (MW)	IEX RTM (MW)	PXIL (MW)	PXI RTM (MW)	Bilateral (MW)	IEX (MW)	IEX RTM (MW)	PXIL (MW)	PXI RTM (MW)
PUNJAB	1,861.23	0	0	0	0	1,861.23	197.9	20.28	0	0
HARYANA	705.89	190.21	0.69	0	0	705.89	321.05	0.3	0	0
RAJASTHAN	-163.26	13.2	487.25	0	0	-163.26	12.22	0	0	0
DELHI	1,202.87	31.66	0	0	0	745.39	152.38	0	0	0
UTTAR PRADESH	1,505.32	127.04	42.41	0	0	696.08	431.92	747.26	0	0
UTTARAKHAND	-269.67	188.06	0	0	0	-269.32	211.67	0	0	0
HIMACHAL PRADESH	-1,032.85	-518.16	0	0	0	-817.83	-664.7	0	0	0
J&K(UT) & LADAKH(UT)	-59.12	-1,008.06	-90.73	0	0	-59.72	-151.21	-302.42	0	0
CHANDIGARH	0	0	0	0	0	0	-30.17	0	0	0
TOTAL	3,750.41	-976.05	439.62	0	0	2,698.46	481.06	465.42	0	0

State	Day Energy (MU)				
	ISGS/(LT+MT) Schedule	BILT Schedule	PX Schedule	RTM Schedule	Total (MU)
PUNJAB	96.27	44.67	5.15	0.25	146.34
HARYANA	135.4	16.94	11	1.02	164.36
RAJASTHAN	89.82	-4.01	14.6	8.35	108.77
DELHI	68.82	25.33	5.88	-0.2	99.83
UTTAR PRADESH	181.44	13.62	3.04	3.85	201.95
UTTARAKHAND	19.81	-6.47	5.43	0	18.77
HIMACHAL PRADESH	33.49	-21.67	-13.27	0	-1.44
J&K(UT) & LADAKH(UT)	34.3	-1.45	-9.92	-4.53	18.4
CHANDIGARH	6.93	0	-0.3	0	6.62
TOTAL	666.28	66.96	21.61	8.74	763.6

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	3,381.39	3,132.62	1,861.23	1,861.23	445.28	0	0	0
HARYANA	3,060.03	2,344.37	705.9	705.89	1,119.77	170.29	0	0
RAJASTHAN	3,332.44	2,885.4	-163.26	-181.88	1,435.28	11.25	0	0
DELHI	2,313.85	1,798.06	1,388.89	661.66	858.8	-162.1	0	0
UTTAR PRADESH	5,692.14	4,612	1,557.23	87.82	987.36	-686.12	0	0
UTTARAKHAND	858.26	650.94	-269.32	-269.92	328.13	103.92	0	0
HIMACHAL PRADESH	1,461.6	1,314.03	-814.44	-1,058.18	-493.61	-763.08	0	0
J&K(UT) & Ladakh(UT)	1,748.77	1,420.83	-59.12	-62.73	0	-1,008.06	0	0
CHANDIGARH	334.79	228.56	0	0	29.38	-80.44	0	0

State	IEX RTM (MW)		PXI RTM (MW)	
	Maximum	Minimum	Maximum	Minimum
PUNJAB	20.28	0	0	0
HARYANA	788.19	0	0	0
RAJASTHAN	1,071.95	-152.75	0	0
DELHI	118.74	-140.77	0	0
UTTAR PRADESH	1,041.11	-458.8	0	0
UTTARAKHAND	0	0	0	0
HIMACHAL PRADESH	0	0	0	0
J&K(UT) & LADAKH(UT)	0	-548.39	0	0
CHANDIGARH	0	0	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	482.54	520	489.14	710	1,198.42	1,041.89
Chamera-I	748.75	760	753.95	757.14	-	-	-	406.27	353.49
Gandhisagar	381	399.9	725	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	2.01	-	-	-	-	-	0
Koteshwar	598.5	612.5	610.73	610.8	5	610.5	5	221	215.23
Pong	384.05	426.72	1,084	406.78	398	404.59	328	302.91	332.58
RPS	343.81	352.8	175.66	-	-	-	-	-	0
RSD	487.91	527.91	390.3	511.86	240	510.36	221	461.1	415.99
Rihand	252.98	268.22	860.5	-	-	-	-	-	0
Tehri	740.04	829.79	1,291.49	752.04	63	744.11	20	522.86	221
TOTAL	-	-	-	-	1,226	-	1,284	3,112.56	2,580.18

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 8 in a day)	Maximum number of continuous blocks without sign change
CHANDIGARH	1	24
DELHI	5	35
HARYANA	2	16
HIMACHAL PRADESH	1	14
J&K(UT) & Ladakh(UT)	4	25
PUNJAB	0	11
RAJASTHAN	3	22
UTTAR PRADESH	0	11
UTTARAKHAND	4	23

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 :

18.Remarks :

Shortage in J&K(UT) and Ladakh(UT) is due to congestion in distribution side network.

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