



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

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

Date of Reporting:02-Mar-2019

1. Regional Availability/Demand:

Evening Peak (19:00) 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
43,710	1,109	44,819	50.08	30,056	349	30,405	50.09	916	11.99

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	50.37	11.05	0	3.89	0	2.51	67.82	39.85	38.99	-0.86	106.81	0	106.81
HARYANA	31.53	0.74	4.08	0.18	0	1.1	37.63	85.45	86.1	0.65	123.73	0	123.73
RAJASTHAN	125.2	4.52	1.85	13.39	18.21	0.49	163.66	66.91	67.68	0.77	231.34	0	231.34
DELHI	-0.02	0	4.75	0	0	0.48	5.21	60.66	60.2	-0.46	65.48	0.07	65.41
UTTAR PRADESH	118.15	7.82	0	3.4	0	21.6	150.97	116.07	117	0.93	267.97	0	267.97
UTTARAKHAND	0	9.1	4.44	0.88	0	0.7	15.11	21.91	21.87	-0.04	36.98	0	36.98
HIMACHAL PRADESH	0	3.88	0	0	0	3.12	7	22.53	22.51	-0.02	29.51	0	29.51
JAMMU & KASHMIR	0	7.92	0	0	0	0	7.92	42.97	42.58	-0.39	62.42	11.92	50.5
CHANDIGARH	0	0	0	0	0	0	0	3.71	3.44	-0.27	3.44	0	3.44
Region	325.23	45.03	15.12	21.74	18.21	30	455.32	460.06	460.37	0.31	927.68	11.99	915.69

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

State	Evening Peak (19:00) MW				Off-Peak (03:00) MW			
	Demand Met	Shortage(-)/Surplus(+)	UI	STOA/PX Transaction	Demand Met	Shortage(-)/Sur ..	UI	STOA/PX Transaction
PUNJAB	5,077	0	-149	-1,594	3,143	0	-23	-1,191
HARYANA	6,006	0	16	-646	3,943	0	46	-586
RAJASTHAN	9,653	0	17	-354	7,705	0	178	-386
DELHI	3,093	0	-131	-954	1,521	0	6	-1,423
UTTAR PRADESH	14,190	540	572	454	9,551	0	64	-326
UTTARAKHAND	1,824	0	91	446	1,245	0	43	306
HIMACHAL PRADESH	1,416	0	48	555	888	0	-25	355
JAMMU & KASHMIR	2,274	569	21	446	1,976	349	135	384
CHANDIGARH	178	0	-27	0	84	0	-6	-30
Region	43,711	1,109	458	-1,647	30,056	349	418	-2,897

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	5,356	8:00	0	5,356	5,356	8:00	0	5,356	3,133	2:00
HARYANA	6,080	20:00	0	6,080	6,080	20:00	0	6,080	3,864	2:00
RAJASTHAN	11,428	12:00	0	11,428	11,428	12:00	0	11,428	7,009	5:00
DELHI	3,952	11:00	0	3,952	3,952	11:00	0	3,952	1,478	4:00
UP	14,458	20:00	370	14,828	14,828	20:00	370	14,458	9,154	17:00
UTTARAKHAND	2,002	8:00	0	2,002	2,002	8:00	0	2,002	1,237	4:00
HP	1,683	9:00	0	1,683	1,683	9:00	0	1,683	871	4:00
J&K	2,533	20:00	633	3,167	3,167	20:00	633	2,533	1,778	6:00
CHANDIGARH	223	8:00	0	223	223	8:00	0	223	84	3:00
NR	44,551	20:00	1,003	45,554	45,554	20:00	1,003	44,551	29,760	4:00

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	19:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
BADARPUR TPS(2 * 210 + 3 * 100)	705	0	0	0		-0.02	-1
RAJGHAT TPS(2 * 67.5)	135	0	0	0			
Total THERMAL	840	0	0			-0.02	-1
BAWANA GPS(2 * 253 + 4 * 216)	1,370	209	139	0		3.52	147
DELHI GAS TURBINES(3 * 34 + 6 * 30)	282	40	31	0		1.24	52
PRAGATI GAS TURBINES(1 * 121.2 + 2 * 104.6)	331	-2	-2	0		-0.01	0
RITHALA GPS(3 * 36)	108	0	0	0			
Total GAS/NAPTHA/DIESEL	2,091	247	168			4.75	199
WIND	0	0	0	0			
BIOMASS(1 * 16)	16	29	39	0		0.48	20
SOLAR(1 * 2)	2	0	0	0			
Total DELHI	2,949	276	207			5.21	218

HARIYANA							
Station/Constituents	Inst. Capacity	19:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
DCRTPP (YAMUNA NAGAR)(2 * 300)	600	477	498	575	10:00	11.86	494
JHAJJAR(CLP)(2 * 660)	1,320	747	741	1,072	12:00	19.67	820
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	1,224	1,239			31.53	1,314
FARIDABAD GPS(1 * 156.07 + 2 * 137.75)	432	199	165	199	12:00	4.08	170
Total GAS/NAPTHA/DIESEL	432	199	165			4.08	170
TOTAL HYDRO HARYANA(1 * 62)	62	21	27	27	02:00	0.74	31
Total HYDEL	62	21	27			0.74	31
WIND	0	0	0	0			
BIOMASS(1 * 106)	106	0	0	0		1.1	46
SOLAR(1 * 50)	50	0	0	0		0.18	8
Total HARYANA	4,715	1,444	1,431			37.63	1,569

HIMACHAL PRADESH							
Station/Constituents	Inst. Capacity	19:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
BASPA (IPP) HPS(3 * 100)	300	55	0	110	07:00	0.93	39
MALANA (IPP) HPS(2 * 43)	86	21	0	45	08:00	0.3	13
OTHER HYDRO HP(1 * 372)	372	139	100	140	19:00	2.66	111
Total HYDEL	758	215	100			3.89	163
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO(1 * 486)	486	170	102	170	19:00	3.12	130
Total SMALL HYDRO	486	170	102			3.12	130
Total HP	1,244	385	202			7.01	293

JAMMU & KASHMIR							
Station/Constituents	Inst. Capacity	19:00	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	148	295	0		5.32	222
OTHER HYDRO/IPP J&K(1 * 308)	308	100	133	0		2.6	108
Total HYDEL	1,208	248	428			7.92	330
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO(1 * 98)	98	0	0	0			
Total SMALL HYDRO	98	0	0			0	0
Total J&K	1,496	248	428			7.92	330

PUNJAB							
Station/Constituents	Inst. Capacity	19:00	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		9.67	403
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		-0.07	-3
GURU NANAK DEV TPS (BHATINDA)(4 * 110)	460	0	0	0		-0.01	0
RAJPURA(NPL) TPS(2 * 700)	1,400	640	463	795		13.93	580
TALWANDI SABO TPS(3 * 660)	1,980	1,135	616	1,610		26.93	1,122
Total THERMAL	6,560	2,259	1,369			50.36	2,098
TOTAL HYDRO PUNJAB(1 * 1000)	1,000	458	453	481		11.05	460
Total HYDEL	1,000	458	453			11.05	460
WIND	0	0	0	0			
BIOMASS(1 * 303)	303	0	0	0		2.51	105
SOLAR(1 * 859)	859	0	0	560		3.89	162
Total PUNJAB	8,722	2,717	1,822			67.81	2,825

RAJASTHAN							
Station/Constituents	Inst. Capacity	19:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
BARSINGSAR (IPP) LTPS(2 * 125)	250	218	221	0		5.29	220
CHHABRA TPS(1 * 660 + 4 * 250)	1,660	1,460	1,172	0		31.57	1,315
GIRAL (IPP) LTPS(2 * 125)	250	0	0	0			
KALISINDH TPS(2 * 600)	1,200	1,072	813	0		23.87	995
KAWAI TPS(2 * 660)	1,320	1,181	857	0		25.15	1,048
KOTA TPS(2 * 110 + 2 * 195 + 3 * 210)	1,240	973	755	0		20.58	858
RAJWEST (IPP) LTPS(8 * 135)	1,080	724	379	0		13.85	577
SURATGARH TPS (6 * 250)	1,500	220	187	0		4.9	204
VSLPP (IPP)(1 * 135)	135	0	0	0			
Total THERMAL	8,635	5,848	4,384			125.21	5,217
DHOLPUR GPS(3 * 110)	330	0	0	0			
RAMGARH GPS(1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5)	271	60	84	0		1.85	77
Total GAS/NAPTHA/DIESEL	601	60	84			1.85	77
RAPS-A(1 * 100 + 1 * 200)	300	0	0	0			
Total NUCLEAR	300	0	0			0	0
TOTAL HYDRO RAJASTHAN(1 * 550)	550	288	132	0		4.52	188
Total HYDEL	550	288	132			4.52	188
WIND	4,292	169	841	0		18.21	759
BIOMASS(1 * 102)	102	21	21	0		0.49	20
SOLAR(1 * 1995)	1,995	11	0	0		13.39	558
Total RAJASTHAN	16,475	6,397	5,462			163.67	6,819

UTTAR PRADESH							
Station/Constituents	Inst. Capacity	19:00	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	1,249	1,119	0		28.8	1,200
ANPARA-C TPS(2 * 600)	1,200	541	291	0		9.65	402
ANPARA-D TPS(2 * 500)	1,000	940	940	0		21.7	904
BAJAJ ENERGY PVT LTD (IPP) TPS(10 * 45)	450	0	0	0			
BARA PPGCL TPS(3 * 660)	1,980	835	683	0		18.1	754
HARDUAGANJ TPS(1 * 105 + 1 * 60 + 2 * 250)	665	442	247	0		7.1	296
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	494	323	0		10.6	442
PANKI TPS(2 * 105)	210	0	0	0			
PARICHA TPS(2 * 110 + 2 * 210 + 2 * 250)	1,160	816	468	0		14.2	592
ROSA TPS(4 * 300)	1,200	523	295	0		8	333
TANDA TPS(4 * 110)	440	0	0	0			
Total THERMAL	13,763	5,840	4,366			118.15	4,923
ALAKHANDA HEP(4 * 82.5)	330	159	76	0		1.6	67
VISHNUPARYAG HPS(4 * 110)	440	63	63	0		1.5	63
OTHER HYDRO UP(1 * 527)	527	280	211	0		4.72	197
Total HYDEL	1,297	502	350			7.82	327
WIND	0	0	0	0			
BIOMASS(1 * 26)	26	0	0	0			
SOLAR(1 * 472)	472	0	0	0		3.4	142
CO-GENERATION(1 * 1360)	1,360	900	900	0		21.6	900
Total OTHERs	1,360	900	900			21.6	900
Total UP	16,918	7,242	5,616			150.97	6,292

UTTARAKHAND							
Station/Constituents	Inst. Capacity	19:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
TOTAL GAS UK(1 * 450)	450	180	179	180	06:00	4.44	185
Total GAS/NAPTHA/DIESEL	450	180	179			4.44	185
OTHER HYDRO UK(1 * 1250)	1,250	528	323	603	20:00	9.1	379
Total HYDEL	1,250	528	323			9.1	379
WIND	0	0	0	0			
BIOMASS(1 * 127)	127	29	28	29	06:00	0.7	29
SOLAR(1 * 100)	100	0	0	103	12:00	0.88	37
SMALL HYDRO(1 * 180)	180	0	0	0			
Total SMALL HYDRO	180	0	0			0	0
Total UTTARAKHAND	2,107	737	530			15.12	630

3(B) Regional Entities Generation

Station/Constituents	Inst. Capacity	Declared Capacity	19:00	03:00	Day Peak		Day Energy		AVG. MW	UI
	(MW)		Peak MW	Off Peak MW	(MW)	Hrs	SCHD (MU)	ACT (MU)		
BBMB										
BHAKRA HPS(2 * 108 + 3 * 126 + 5 * 157)	1,379	650.98	1,110	436	1,110	19:00	15.62	15.63	651	0.01
DEHAR HPS(6 * 165)	990	221.67	495	0	495	19:00	5.32	5.38	224	0.06
PONG HPS(6 * 66)	396	227.6	258	192	258	19:00	5.46	5.45	227	-0.01
Sub-Total	2,765	1,100.25	1,863	628	-	-	26.4	26.46	1,102	0.06
NHPC										
BAIRASIUL HPS(3 * 60)	180	0	0	0	0	-	0	-	-	0
CHAMERA HPS(3 * 180)	540	361.25	360	361	372	06:45	8.54	8.65	360	0.11
CHAMERA II HPS(3 * 100)	300	279.66	302	20	302	19:00	1.77	1.82	76	0.05
CHAMERA III HPS(3 * 77)	231	232.12	208	0	233	07:00	0.92	0.91	38	-0.01
DHAULIGANGA HPS(4 * 70)	280	211	201	0	219	07:00	1.04	1.06	44	0.02
DULHASTI HPS(3 * 130)	390	180	169	40	184	09:00	2.63	2.67	111	0.04
KISHANGANGA(2 * 110)	220	41.71	197	25	207	18:00	1	1.09	45	0.09
PARBATI III HEP(4 * 130)	520	0	0	0	0	-	0	0	0	0
SALAL HPS(6 * 115)	690	249.79	350	133	472	07:00	6	6.01	250	0.01
SEWA-II HPS(3 * 40)	120	130	122	121	128	23:00	2.85	2.91	121	0.06
TANAKPUR HPS(1 * 31.42 + 2 * 31.4)	94	38.43	51	54	54	03:00	0.92	0.95	40	0.03
URI HPS(4 * 120)	480	472.71	479	476	484	16:00	11.34	11.4	475	0.06
URI-II HPS(4 * 60)	480	232.48	244	236	245	11:00	5.58	5.49	229	-0.09
Sub-Total	4,525	2,429.15	2,683	1,466	-	-	42.59	42.96	1,789	0.37
NPCL										
NAPS(2 * 220)	440	329	368	368	381	00:00	7.9	7.9	329	0
RAPS-B(2 * 220)	440	368	409	411	413	04:00	8.83	8.82	368	-0.01
RAPS-C(2 * 220)	440	425	474	473	475	01:00	10.2	10.26	428	0.06
Sub-Total	1,320	1,122	1,251	1,252	-	-	26.93	26.98	1,125	0.05
NTPC										
ANTA GPS(1 * 153.2 + 3 * 88.71)	419	408.81	0	0	0	-	0	-	-	0
AURAIYA GPS(2 * 109.3 + 4 * 111.19)	663	649.06	0	0	0	-	0	-	-	0
DADRI GPS(2 * 154.51 + 4 * 130.19)	830	408.75	230	348	230	19:00	6.14	6.23	260	0.09
DADRI SOLAR(1 * 5)	5	0.97	0	0	0	-	0.02	0.02	1	0
DADRI-I TPS(4 * 210)	840	768.6	509	422	509	19:00	12.32	12.24	510	-0.08
DADRI-II TPS(2 * 490)	980	387.86	388	260	388	19:00	6.53	5.94	248	-0.59
ISTPP (JHAJJAR)(3 * 500)	1,500	1,421.25	1,294	850	1,505	09:00	23.99	23.85	994	-0.14
KOLDAM HPS(4 * 200)	800	710.77	0	0	0	-	3.5	3.47	145	-0.03
RIHAND-I STPS(2 * 500)	1,000	922.5	996	941	996	19:00	21.72	21.52	897	-0.2
RIHAND-II STPS(2 * 500)	1,000	942.5	1,000	999	1,000	19:00	22.38	22.34	931	-0.04
RIHAND-III STPS(2 * 500)	1,000	942.5	960	911	960	19:00	21.8	21.58	899	-0.22
SINGRAULI STPS(2 * 500 + 5 * 200)	2,000	1,862.5	2,025	1,320	2,025	19:00	41.49	40.92	1,705	-0.57
SINGRAULI SOLAR(1 * 15)	15	3.21	0	0	0	-	0.08	0.08	3	0
UNCHAHAH II TPS(2 * 210)	420	382.2	338	229	338	19:00	6.14	6.69	279	0.55
UNCHAHAH III TPS(1 * 210)	210	191.1	193	114	193	19:00	3.08	3.38	141	0.3
UNCHAHAH IV TPS(1 * 500)	500	291.9	0	285	285	03:00	3.94	3.53	147	-0.41
UNCHAHAH SOLAR(1 * 10)	10	2.07	0	0	0	-	0.05	0.05	2	0
UNCHAHAH TPS(2 * 210)	420	382.2	337	232	337	19:00	5.85	6.5	271	0.65
Sub-Total	12,612	10,678.75	8,270	6,911	-	-	179.03	178.34	7,433	-0.69
SJVNL										
NATHPA-JHAKRI HPS(6 * 250)	1,500	1,497.38	1,460	0	1,460	19:00	6.9	6.92	288	0.02
RAMPUR HEP(6 * 68.67)	412	412.25	395	0	431	07:00	1.93	1.94	81	0.01
Sub-Total	1,912	1,909.63	1,855	0	-	-	8.83	8.86	369	0.03
THDC										
KOTESHWAR HPS(4 * 100)	400	141.96	409	92	409	18:00	3.41	3.41	142	0
TEHRI HPS(4 * 250)	1,000	856	857	0	871	07:00	8.6	8.6	358	0
Sub-Total	1,400	997.96	1,266	92	-	-	12.01	12.01	500	0
Total	24,534	18,237.74	17,188	10,349			295.79	295.61	12,318	-0.18

IPP/JV										
Station/Constituents	Inst. Capacity	Declared Capacity	19:00	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	82	0	90	20:00	0.29	0.3	13	0.01
BUDHIL HPS (IPP)(2 * 35)	70	0	0	0	34	07:00	0.27	0.28	12	0.01
KARCHAM WANGTOO HPS(4 * 250)	1,000	0	750	0	750	19:00	3.82	3.86	161	0.04
MALANA2(2 * 50)	100	0	0	0	65	11:00	0.18	0.2	8	0.02
SAINJ HEP(2 * 50)	50	0	18	17	18	19:00	0.4	0.4	17	0
SHREE CEMENT (IPP) TPS(2 * 150)	300	0	104	101	140	21:00	2.27	2.21	92	-0.06
Sub-Total	1,712	0	954	118	-	-	7.23	7.25	303	0.02
Total	1,712	0	954	118			7.23	7.25	303	0.02

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	54,626	19,446	15,698	455.34	18,973
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		8,326	5,436	179.63	9,807
Total Regional Availability(Gross)	80,872	45,914	31,601	937.83	41,399

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	8,517	2,203	98.8	4,117
State Control Area Hydro	6,125	2,260	1,813	45.04	1,877
Total Regional Hydro	18,939	10,777	4,016	143.84	5,994

Total Renewable Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Renewable	30	0	0	0.15	6
State Control Area Renewable	9,214	429	1,031	48.35	2,015
Total Regional Renewable	9,244	429	1,031	48.5	2,021

4(A) INTER-REGIONAL EXCHANGES (Import=(+ve) /Export =(-ve))								
SL.No.	Element	19:00	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(U ..	-	-	-	-	0	0	0
3	132KV-Rihand-Sonnagar(PG)	-	-	-	-	0	0.56	-0.56
4	220KV-Pusauli(PG)-Sahupuri(UP)	132	88	132	0	2.58	0	2.58
5	400KV-Biharsharif(PG)-Balia(PG)	376	204	397	0	7.42	0	7.42
6	400KV-Biharsharif(PG)-Varanasi(P..	130	19	219	43	2.54	0	2.54
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-
8	400KV-Motihari(DMT)-Gorakhpur ..	84	56	138	0	2.63	0	2.63
9	400KV-Muzaffarpur(PG)-Gorakhp ..	476	242	616	0	8.99	0	8.99
10	400KV-Patna(PG)-Balia(PG)	277	158	455	0	6.83	0	6.83
11	400KV-Sasaram-Allahabad(PG)	32	31	67	0	0.99	0	0.99
12	400KV-Sasaram-Varanasi(PG)	110	111	123	0	3.69	0	3.69
13	765KV-Fatehpur(PG)-Sasaram.	108	29	233	29	2.89	0	2.89
14	765KV-Gaya(PG)-Balia(PG)	543	289	543	0	9.78	0	9.78
15	765KV-Gaya(PG)-Varanasi(PG)	358	122	387	0	6.64	0	6.64
16	HVDC PUSAULI B/B	-	-	-	-	-	-	-
17	HVDC800KV-Alipurduar-Agra(PG)	-	-	-	-	-	-	-
Sub-Total EAST REGION		2,626	1,349	3,310	72	54.98	0.56	54.42

Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli- ..	-700	-700	0	700	0	16.72	-16.72
Sub-Total NORTH_EAST REGION		-700	-700	0	700	0	16.72	-16.72

Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya(NT)-Malanpur(PG)	-4	-5	-	89	0	0.38	-0.38
2	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-
3	220KV-Ranpur-Bhanpur	11	50	89	-	0	0.14	-0.14
4	220KV-Ranpur-Modak	48	43	104	-	1.62	0	1.62
5	400KV-RAPS C(NP)-Sujalpur	243	80	270	-	3.85	0	3.85
6	400KV-Vindhyachal(PG)-Rihand(N ..	-948	-813	-	948	0	21.58	-21.58
7	400KV-Zerda(PG)-Bhinmal(PG)	64	-36	163	108	1.19	0	1.19
8	400KV-Zerda(PG)-Kankroli(RJ)	-56	-122	0	132	0	1.59	-1.59
9	765KV-0rai-Gwalior(PG)	-518	-327	0	590	0	10.97	-10.97
10	765KV-0rai-Jabalpur	998	826	1,484	0	27	0	27
11	765KV-0rai-Satna	1,110	1,001	1,273	0	27.61	0	27.61
12	765KV-Chittorgarh-Banaskata D/C	-	-	-	-	0	2.78	-2.78
13	765KV-Gwalior(PG)-Agra(PG)	2,385	1,604	2,385	0	45.76	0	45.76
14	765KV-Phagi(RJ)-Gwalior(PG)	719	538	1,004	-	19.06	0	19.06
15	HVDC500KV-Mundra(JH)-Mohind..	1,798	1,398	1,814	0	40.79	0	40.79
16	HVDC500KV-Vindhyachal(PG)-Vindhaychal B/B	-250	-250	0	250	0	6.05	-6.05
17	HVDC800KV-Champa(PG)-Kuruks..	800	800	800	0	18.54	0	18.54
Sub-Total WEST REGION		6,400	4,787	9,386	2,117	185.42	43.49	141.93
TOTAL IR EXCHANGE		8,326	5,436	12,696	2,889	240.4	60.77	179.63

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	54.86	-33.71	2.19	23.34	54.42	31.08
NR-WR	167.95	-1.96	-15.59	150.4	141.93	-8.47
Total	222.81	-35.67	-13.4	173.74	179.63	5.89

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)	-36.17	-37.58		40		0.8585	-0.8585

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	5.3	36.6	66.9	21.5	5.6	.7	27.8

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

Maximum		Minimum		Average	Freq Variation	Standard	Freq. in 15 mnt blk		Freq Dev Index
Frequency	Time	Frequency	Time				Max.	Min.	
50.3	04:34:40	49.72	18:11:10	50.01	0.05	0.07	50.22	49.84	33.1

6.Voltage Profile: 400kV

	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index (% of time)
STATION	VOLTAGE	TIME	VOLTAGE	TIME	< 380	< 390	> 420	> 430	
Abdullapur(PG) - 400KV	428	04:35	411	11:45	0	0	55.9	0	55.9
Amritsar(PG) - 400KV	429	03:00	412	07:15	0	0	55.21	0	55.21
Ballabgarh(PG) - 400KV	425	04:35	402	11:45	0	0	25	0	25
Bareilly II(PG) - 400KV	423	04:35	404	11:45	0	0	15.63	0	15.63
Bareilly(UP) - 400KV	424	04:00	405	11:45	0	0	18.4	0	18.4
Baspa(HP) - 400KV	431	04:00	413	06:55	0	0	74.31	1.39	74.31
Bassi(PG) - 400KV	422	04:00	390	11:40	0	0	2.43	0	2.43
Bawana(DTL) - 400KV	427	04:35	427	04:35	30.56	30.56	39.58	0	70.14
Dadri HVDC(PG). - 400KV	426	04:35	406	11:45	0	0	34.03	0	34.03
Gorakhpur(PG) - 400KV	421	04:00	398	19:20	0	0	5.21	0	5.21
Hisar(PG) - 400KV	425	04:35	402	11:45	0	0	15.97	0	15.97
Kanpur(PG) - 400KV	424	04:35	408	19:15	0	0	18.06	0	18.06
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	423	04:35	411	11:45	0	0	19.44	0	19.44
Moga(PG) - 400KV	421	03:00	402	11:35	0	0	1.39	0	1.39
Nallagarh(PG) - 400KV	431	04:00	413	06:55	0	0	74.31	1.39	74.31
Rihand HVDC(PG) - 400KV	408	04:35	408	04:35	3.13	3.13	0	0	3.13
Rihand(NT) - 400KV	406	04:35	406	04:35	2.08	2.08	0	0	2.08

6.1 Voltage Profile: 765kV

	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index (% of time)
STATION	VOLTAGE	TIME	VOLTAGE	TIME	< 728	< 742	> 800	> 820	
Anta RS(RJ) - 765KV	792	04:05	764	11:10	0	0	0	0	0
Balia(PG) - 765KV	776	00:00	776	00:00	0	0	0	0	0
Bareilly II(PG) - 765KV	806	04:00	770	11:45	0	0	15.28	0	15.28
Bhiwani(PG) - 765KV	799	03:00	764	11:50	0	0	0	0	0
Fatehpur(PG) - 765KV	778	04:00	748	18:40	0	0	0	0	0
Jhatikara(PG) - 765KV	803	04:35	763	11:45	0	0	5.21	0	5.21
Lucknow II(PG) - 765KV	801	04:00	764	19:15	0	0	1.04	0	1.04
Meerut(PG) - 765KV	801	04:00	759	11:45	0	0	1.39	0	1.39
Moga(PG) - 765KV	787	04:35	752	11:45	0	0	0	0	0
Phagi(RJ) - 765KV	800	04:00	757	11:40	0	0	0	0	0
Unnao(UP) - 765KV	777	04:00	745	19:20	0	0	0	0	0

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

State	Off- Peak Hours (03:00)			Peak Hours (19:00)			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	-1,191.41	0	0	-1,191.41	-402.86	0	72.53	-31.97	-0.71	39.85
HARYANA	-755.08	168.63	0	-795.27	149.07	0	103.38	-21.4	3.48	85.45
RAJASTHAN	-66.6	-319.07	0	-349.26	-4.67	0	71.81	-2.32	-2.59	66.91
DELHI	-635.8	-787.59	0	-602.95	-351.5	0	79.39	-14.57	-4.15	60.66
UTTAR PRADESH	40.51	-366.21	0	500.29	-46.19	0	120.05	1.08	-5.05	116.07
UTTARAKHAND	527.46	-221.61	0	395.15	50.88	0	11.7	10.67	-0.46	21.91
HIMACHAL PRADESH	407.53	-52.77	0	252.8	302.49	0	13.37	10.58	-1.42	22.53
JAMMU & KASHMIR	460.15	-75.73	0	459.65	-13.33	0	33	11.04	-1.06	42.97
CHANDIGARH	0	-30.21	0	0	0	0	4.22	0	-0.5	3.71
TOTAL	-1,213.24	-1,684.56	0	-1,331	-316.11	0	509.45	-36.89	-12.46	460.06

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	3,986.89	2,227.7	-1,191.41	-1,493.56	0	-402.86	0	0
HARYANA	5,256.97	2,961.62	-619.02	-1,059.64	176.64	19.36	0	0
RAJASTHAN	3,911.04	1,974.46	-66.6	-349.26	349.47	-887.92	0	0
DELHI	3,952.16	2,669.96	-462.47	-675.56	454.75	-791.62	0	0
UTTAR PRADESH	7,044.78	3,756.78	510.07	-409.6	149.39	-816.14	0	0
UTTARAKHAND	844.22	173.56	527.46	395.15	361.04	-271.18	0	0
HIMACHAL PRADESH	1,371	251.82	567.08	228.44	353.98	-656.08	0	0
JAMMU & KASHMIR	1,793.01	1,016.23	460.15	459.65	0	-252.42	0	0
CHANDIGARH	280.1	116.46	0	0	0	-70.5	0	0

8.Major Reservoir Particulars

RESERVOIR	Parameters		Present Parameters		LAST YEAR		LAST DAY	
	MDDL (Mts)	FRL (Mts)	Level (Mts)	Energy (MU)	Level (Mts)	Energy (MU)	Inflow (m3/s)	Usage (m3/s)
Bhakra	445.62	513.59	496.92	972	483.84	553	237.92	438.71
Chamera-I	748.75	760	757.25	-	-	-	163.82	234.18
Gandhisagar	295.78	295.78	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	-	-	-	-	-	0
Koteshwar	598.5	612.5	611.29	5	610.42	5	226	225.33
Pong	384.05	426.72	409.7	484	400.71	238	111.12	357.47
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	521.74	3	495.81	2	229.18	139.2
Rihand	252.98	268.22	257.74	190	258.1	207	-	0
Tehri	740.04	829.79	788.69	435	782.45	352	48.4	226
TOTAL	-	-	-	2,089	-	1,357	1,016.44	1,620.89

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 15 in a day)	Maximum number of continuous blocks without sign change
CHANDIGARH	8	27
DELHI	11	30
HARYANA	0	6
HIMACHAL PRADESH	0	6
JAMMU & KASHMIR	5	19
PUNJAB	0	6
RAJASTHAN	2	7
UTTAR PRADESH	0	6
UTTARAKHAND	8	24

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