



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

Power Supply Position in Northern Region For 29-Sep-2018

Date of Reporting:30-Sep-2018

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
48,516	920	49,436	49.87	40,388	1,324	41,712	50.01	1,042	10.41

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

State	State's Control Area Generation (Net MU)							Drawal Sch (Net MU)	Act Drawal (Net MU)	UI (Net MU)	Requirement (Net MU)	Shortage (Net MU)	Consumption (Net MU)
	Thermal	Hydro	Gas/Naptha/Diesel	Solar	Wind	OthersBiomass/Small Hyd/Co-gen etc.)	Total						
PUNJAB	90.19	21.04	0	4.29	0	8.3	123.82	16.99	15.56	-1.43	139.38	0	139.38
HARYANA	24.59	0.97	0	0.16	0	0.57	26.29	109.25	109.58	0.33	136.34	0.47	135.87
RAJASTHAN	123.47	0	3.02	12	7.69	3.66	149.84	55.28	57.27	1.99	207.11	0	207.11
DELHI	7.43	0	18.32	0	0	0	25.75	68.01	67.44	-0.57	93.19	0	93.19
UTTAR PRADESH	187.61	21.7	0	0	0	1.2	210.51	156.83	154.86	-1.97	365.37	0	365.37
UTTARAKHAND	0	19.74	0	0.7	0	0	20.44	16.82	17.55	0.73	39.74	1.75	37.99
HIMACHAL PRADESH	0	10.46	0	0	0	8.16	18.61	6.71	7.73	1.02	26.47	0.13	26.34
JAMMU & KASHMIR	0	15.54	0	0	0	0	15.54	24.76	16.7	-8.06	40.3	8.06	32.24
CHANDIGARH	0	0	0	0	0	0	0	4.63	4.16	-0.47	4.16	0	4.16
Region	433.29	89.45	21.34	17.15	7.69	21.89	590.8	459.28	450.85	-8.43	1,052.06	10.41	1,041.65

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(-)/Sur ..	UI	STOA/PX Transaction
PUNJAB	6,302	0	-185	-2,182	4,312	0	-22	-3,018
HARYANA	7,096	174	20	990	5,438	0	51	348
RAJASTHAN	9,030	0	115	-194	8,263	0	4	-809
DELHI	4,393	0	28	-755	3,562	0	21	-820
UTTAR PRADESH	17,003	280	-303	1,624	15,429	990	5	1,897
UTTARAKHAND	1,651	70	-126	64	1,320	150	38	52
HIMACHAL PRADESH	1,250	0	152	-1,292	893	0	53	-777
JAMMU & KASHMIR	1,585	396	-531	-654	1,043	184	-7	-383
CHANDIGARH	206	0	-78	-35	129	0	6	-70
Region	48,516	920	-908	-2,434	40,389	1,324	149	-3,580

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 requirement
PUNJAB	6,427	19:00	0	6,427	6,427	19:00	0	6,427
HARYANA	7,096	20:00	174	7,270	7,270	20:00	174	7,096
RAJASTHAN	9,338	16:00	0	9,338	9,338	16:00	0	9,338
DELHI	4,393	20:00	0	4,393	4,393	20:00	0	4,393
UP	17,003	20:00	280	17,283	17,283	20:00	280	17,003
UTTARAKHAND	1,768	19:00	150	1,918	1,918	19:00	150	1,768
HP	1,347	8:00	0	1,347	1,347	8:00	0	1,347
J&K	1,748	21:00	437	2,185	2,185	21:00	437	1,748
CHANDIGARH	215	19:00	0	215	215	19:00	0	215
NR	48,516	20:00	920	49,436	49,436	20:00	920	48,516

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)	705	342	310	348	19:00	7.43	310
RAJGHAT TPS(2 * 67.5)	135	0	0	0			
Total THERMAL	840	342	310			7.43	310
BAWANA GPS(2 * 253 + 4 * 216)	1,370	608	548	614	11:00	13.86	578
DELHI GAS TURBINES(3 * 34 + 6 * 30)	282	33	34	35	04:00	0.85	35
PRAGATI GAS TURBINES(1 * 121.2 + 2 * 104.6)	331	146	149	151	08:00	3.61	150
RITHALA GPS(3 * 36)	108	0	0	0			
Total GAS/NAPHTHA/DIESEL	2,091	787	731			18.32	763
WIND	0	0	0	0			
BIOMASS(1 * 16)	16	0	0	0			
SOLAR(1 * 2)	2	0	0	0			
Total DELHI	2,949	1,129	1,041			25.75	1,073

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	234	240	245	01:00	5.31	221
JHAJJAR(CLP)(2 * 660)	1,320	626	624	628	21:00	14.33	597
MAGNUM DIESEL (IPP)(4 * 6.3)	25	0	0	0			
PANIPAT TPS(2 * 210 + 2 * 250)	920	226	203	226	20:00	4.96	207
RGTPP(KHEDAR)(2 * 600)	1,200	0	0	0	00:00	0	0
Total THERMAL	4,065	1,086	1,067			24.6	1,025
FARIDABAD GPS(1 * 156.07 + 2 * 137.75)	432	0	0	0	00:00	0	0
Total GAS/NAPHTHA/DIESEL	432	0	0			0	0
TOTAL HYDRO HARYANA(1 * 62)	62	29	28	29	09:00	0.97	40
Total HYDEL	62	29	28			0.97	40
WIND	0	0	0	0			
BIOMASS(1 * 106)	106	0	0	0		0.57	24
SOLAR(1 * 50)	50	0	0	0		0.16	7
Total HARYANA	4,715	1,115	1,095			26.3	1,096

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	216	147	0		3.93	164
MALANA (IPP) HPS(2 * 43)	86	86	50	0		1.39	58
OTHER HYDRO HP(1 * 372)	372	223	211	0		5.14	214
Total HYDEL	758	525	408			10.46	436
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO(1 * 486)	486	333	338	0		8.16	340
Total SMALL HYDRO	486	333	338			8.16	340
Total HP	1,244	858	746			18.62	776

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/NAPHTHA/DIESEL	190	0	0			0	0
BAGLIHAR (IPP) HPS(6 * 150)	900	524	530	0		12.98	541
OTHER HYDRO/IPP J&K(1 * 308)	308	149	77	0		2.56	107
Total HYDEL	1,208	673	607			15.54	648
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	673	607			15.54	648

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	290		7.1	296
GURU GOBIND SINGH TPS (ROPAR)(6 * 210)	1,260	439	476	522		10.14	423
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)(2 * 210 + 2 * 250)	920	523	527	555		11.58	483
GURU NANAK DEV TPS (BHATINDA)(4 * 110)	460	0	0	0		-0.02	-1
RAJPURA(NPL) TPS(2 * 700)	1,400	1,320	1,305	1,320		30.95	1,290
TALWANDI SABO TPS(3 * 660)	1,980	1,680	1,050	1,841		30.43	1,268
Total THERMAL	6,560	4,252	3,648			90.18	3,759
TOTAL HYDRO PUNJAB(1 * 1000)	1,000	723	811	812		21.04	877
Total HYDEL	1,000	723	811			21.04	877
WIND	0	0	0	0			
BIOMASS(1 * 303)	303	0	0	0		8.3	346
SOLAR(1 * 859)	859	0	0	611		4.29	179
Total PUNJAB	8,722	4,975	4,459			123.81	5,161

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	0	0	0			
CHHABRA TPS(1 * 660 + 4 * 250)	1,660	1,015	1,214	0		24.99	1,041
GIRAL (IPP) LTPS(2 * 125)	250	0	0	0			
KALISINDH TPS(2 * 600)	1,200	540	442	0		11.64	485
KAWAI TPS(2 * 660)	1,320	627	994	0		21.73	905
KOTA TPS(2 * 110 + 2 * 195 + 3 * 210)	1,240	817	682	0		17.82	743
RAJWEST (IPP) LTPS(8 * 135)	1,080	843	724	0		19.43	810
SURATGARH TPS(6 * 250)	1,500	1,329	1,084	0		27.86	1,161
VSLPP (IPP)(1 * 135)	135	0	0	0			
Total THERMAL	8,635	5,171	5,140			123.47	5,145
DHOLPUR GPS(3 * 110)	330	0	0	0			
RAMGARH GPS(1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5)	271	123	125	0		3.02	126
Total GAS/NAPHTHA/DIESEL	601	123	125			3.02	126
RAPS-A(1 * 100 + 1 * 200)	300	157	160	0		3.66	153
Total NUCLEAR	300	157	160			3.66	153
TOTAL HYDRO RAJASTHAN(1 * 550)	550	0	0	0			
Total HYDEL	550	0	0			0	0
WIND	4,292	142	786	0		7.69	320
BIOMASS(1 * 102)	102	0	0	0			
SOLAR(1 * 1995)	1,995	40	0	0		12	500
Total RAJASTHAN	16,475	5,633	6,211			149.84	6,244

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	1,162	1,185	0		30.07	1,253
ANPARA-C TPS(2 * 600)	1,200	860	842	0		20.36	848
ANPARA-D TPS(2 * 500)	1,000	913	931	0		22.68	945
BAJAJ ENERGY PVT LTD (IPP) TPS(10 * 45)	450	45	80	0		1.06	44
BARA PPGCL TPS(3 * 660)	1,980	902	885	0		21.54	898
HARDUAGANJ TPS(1 * 105 + 1 * 60 + 2 * 250)	665	505	453	0		10.96	457
LALITPUR TPS(3 * 660)	1,980	1,574	618	0		20.4	850
OBRA TPS(2 * 94 + 5 * 200)	1,188	531	526	0		13.08	545
PANKI TPS(2 * 105)	210	0	0	0			
PARICHA TPS(2 * 110 + 2 * 210 + 2 * 250)	1,160	671	657	0		15.59	650
ROSA TPS(4 * 300)	1,200	1,053	1,074	0		25.13	1,047
TANDA TPS(4 * 110)	440	288	290	0		6.75	281
Total THERMAL	13,103	8,504	7,541			187.62	7,818
ALAKHANDA HEP(4 * 82.5)	330	292	355	0		7.56	315
VISHNUPARYAG HPS(4 * 110)	440	365	355	0		8.46	353
OTHER HYDRO UP(1 * 527)	527	215	336	0		5.68	237
Total HYDEL	1,297	872	1,046			21.7	905
WIND	0	0	0	0			
BIOMASS(1 * 26)	26	0	0	0			
SOLAR(1 * 472)	472	0	0	0			
CO-GENERATION(1 * 1360)	1,360	50	50	0		1.2	50
Total OTHERs	1,360	50	50			1.2	50
Total UP	16,258	9,426	8,637			210.52	8,773

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(1 * 450)	450	0	0	0						
Total GAS/NAPHTHA/DIESEL	450	0	0			0	0			
OTHER HYDRO UK(1 * 1250)	1,250	854	729	989	12:00	19.74	823			
Total HYDEL	1,250	854	729			19.74	823			
WIND	0	0	0	0						
BIOMASS(1 * 127)	127	0	0	0						
SOLAR(1 * 100)	100	0	0	87	11:00	0.7	29			
SMALL HYDRO(1 * 180)	180	0	0	0						
Total SMALL HYDRO	180	0	0			0	0			
Total UTTARAKHAND	2,107	854	729			20.44	852			

3(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)		
BBMB										
BHAKRA HPS(2 * 108 + 3 * 126 + 5 * 157)	1,379	404.89	648	367	648	20:00	9.72	9.61	400	-0.11
DEHAR HPS(6 * 165)	990	613.75	725	610	725	20:00	14.73	14.88	620	0.15
PONG HPS(6 * 66)	396	318.91	330	330	330	20:00	7.65	7.72	322	0.07
Sub-Total	2,765	1,337.55	1,703	1,307	-	-	32.1	32.21	1,342	0.11
NHPC										
BAIRASIUL HPS(3 * 60)	180	107.5	140	136	141	19:00	2.58	2.76	115	0.18
CHAMERA HPS(3 * 180)	540	534.33	544	539	547	15:00	12.8	13.02	543	0.22
CHAMERA II HPS(3 * 100)	300	296.85	301	299	302	19:00	7.12	7.17	299	0.05
CHAMERA III HPS(3 * 77)	231	224.46	223	219	223	12:00	5.37	5.28	220	-0.09
DHAULIGANGA HPS(4 * 70)	280	63.75	284	0	285	19:00	1.49	1.51	63	0.02
DULHASTI HPS(3 * 130)	390	387.16	406	406	411	18:00	9.25	9.53	397	0.28
KISHANGANGA(2 * 110)	220	76.77	173	83	173	20:00	1.84	1.92	80	0.08
PARBATI III HEP(4 * 130)	520	128.81	237	30	365	06:30	3.09	3.09	129	0
SALAL HPS(6 * 115)	690	392.29	432	348	711	02:00	9.42	10.19	425	0.77
SEWA-II HPS(3 * 40)	120	119.54	123	121	124	02:00	2.33	2.4	100	0.07
TANAKPUR HPS(1 * 31.42 + 2 * 31.4)	94	93.65	98	98	100	08:00	2.25	2.35	98	0.1
URI HPS(4 * 120)	480	210.52	350	246	375	19:00	5.05	5.88	245	0.83
URI-II HPS(4 * 60)	480	134.58	181	128	183	05:00	3.23	3.31	138	0.08
Sub-Total	4,525	2,770.21	3,492	2,653	-	-	65.82	68.41	2,852	2.59
NPCL										
NAPS(2 * 220)	440	385	421	431	432	04:00	9.24	9.24	385	0
RAPS-B(2 * 220)	440	382	424	430	424	20:00	9.17	9.19	383	0.02
RAPS-C(2 * 220)	440	204	230	231	231	03:00	4.9	4.86	203	-0.04
Sub-Total	1,320	971	1,075	1,092	-	-	23.31	23.29	971	-0.02
NTPC										
ANTA GPS(1 * 153.2 + 3 * 88.71)	419	0	371	225	371	20:00	7.08	7.18	299	0.1
AURAIYA GPS(2 * 109.3 + 4 * 111.19)	663	0	625	367	625	20:00	10.2	10.79	450	0.59
DADRI GPS(2 * 154.51 + 4 * 130.19)	830	0	755	463	755	20:00	13.34	13.7	571	0.36
DADRI SOLAR(1 * 5)	5	0.91	0	0	0	-	0.02	0.02	1	0
DADRI-I TPS(4 * 210)	840	576.45	561	408	561	20:00	11.63	11.18	466	-0.45
DADRI-II TPS(2 * 490)	980	928.55	865	777	865	20:00	20.29	20.53	855	0.24
ISTPP (JHAJJAR)(3 * 500)	1,500	1,421.25	1,468	1,480	1,527	18:42	32.87	32.68	1,362	-0.19
KOLDAM HPS(4 * 200)	800	872	762	0	869	-	10.5	11.12	463	0.62
RIHAND-I STPS(2 * 500)	1,000	730	779	803	779	20:00	17.47	17.78	741	0.31
RIHAND-II STPS(2 * 500)	1,000	942.5	993	989	993	20:00	22.51	22.56	940	0.05
RIHAND-III STPS(2 * 500)	1,000	471.25	505	507	505	20:00	11.26	11.32	472	0.06
SINGRAULI STPS(2 * 500 + 5 * 200)	2,000	1,810	1,975	1,966	1,987	18:00	43.43	43.57	1,815	0.14
SINGRAULI SOLAR(1 * 15)	15	2.75	0	0	0	-	0.07	0.07	3	0
UNCHAHAH II TPS(2 * 210)	420	382.2	416	406	416	20:00	8.96	9.54	398	0.58
UNCHAHAH III TPS(1 * 210)	210	191.1	209	167	209	20:00	4.42	4.64	193	0.22
UNCHAHAH IV TPS(1 * 500)	500	0	0	0	0	-	0	-	-	0
UNCHAHAH SOLAR(1 * 10)	10	2.21	0	0	0	-	0.05	0.05	2	0
UNCHAHAH TPS(2 * 210)	420	382.2	413	400	413	20:00	8.98	9.37	390	0.39
Sub-Total	12,612	8,713.37	10,697	8,958	-	-	223.08	226.1	9,421	3.02
SJVNL										
NATHPA-JHAKRI HPS(6 * 250)	1,500	1,497.38	1,500	543	1,574	15:00	23	23.62	984	0.62
RAMPUR HEP(6 * 68.67)	412	442	421	150	447	14:00	6.39	6.75	281	0.36
Sub-Total	1,912	1,939.38	1,921	693	-	-	29.39	30.37	1,265	0.98
THDC										
KOTESHWAR HPS(4 * 100)	400	119.29	402	71	402	19:00	2.86	2.95	123	0.09
TEHRI HPS(4 * 250)	1,000	872.22	1,050	0	1,050	20:00	8.85	9.22	384	0.37
Sub-Total	1,400	991.51	1,452	71	-	-	11.71	12.17	507	0.46
Total	24,534	16,723.02	20,340	14,774			385.41	392.55	16,358	7.14

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	187	91	189	19:00	2.86	2.98	124	0.12
BUDHIL HPS (IPP)(2 * 35)	70	0	59	69	69	03:00	1.64	1.46	61	-0.18
KARCHAM WANGTOO HPS(4 * 250)	1,000	0	1,000	400	1,000	19:00	11.9	12.22	509	0.32
MALANA2(2 * 50)	100	0	105	55	105	21:00	1.3	1.37	57	0.07
SAINJ HEP(2 * 50)	50	0	110	110	110	00:00	1.84	2.34	98	0.5
SHREE CEMENT (IPP) TPS(2 * 150)	300	0	299	297	299	19:00	7.17	7.09	295	-0.08
Sub-Total	1,712	0	1,760	1,022	-	-	26.71	27.46	1,144	0.75
Total	1,712	0	1,760	1,022	-	-	26.71	27.46	1,144	0.75

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	53,966	24,663	23,525	590.82	24,618
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		2,725	3,684	67.61	4,442
Total Regional Availability(Gross)	80,212	49,488	43,005	1,078.44	46,560

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	10,791	5,449	174.65	7,277
State Control Area Hydro	6,125	3,676	3,629	89.45	3,727
Total Regional Hydro	18,939	14,467	9,078	264.1	11,004

Total Renewable Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Renewable	30	0	0	0.14	6
State Control Area Renewable	9,214	515	1,124	41.87	1,745
Total Regional Renewable	9,244	515	1,124	42.01	1,751

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(U ..	-	-	1	-	0	0	0
3	132KV-Rihand-Sonnagar(PG)	-32	-30	-	35	0	0.66	-0.66
4	220KV-Pusauli(PG)-Sahupuri(UP)	182	125	201	0	3.3	0	3.3
5	400KV-Biharsharif(PG)-Baliala(PG)	123	208	0	217	0	2.89	-2.89
6	400KV-Biharsharif(PG)-Varanasi(P..	-394	-337	0	394	0	8.14	-8.14
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-
8	400KV-Motihari(DMT)-Gorakhpur ..	-302	-218	0	304	0	4.6	-4.6
9	400KV-Muzaffarpur(PG)-Gorakhp ..	-158	-365	179	386	2.86	0	2.86
10	400KV-Patna(PG)-Baliala(PG)	133	4	330	0	3.54	0	3.54
11	400KV-Sasaram-Allahabad(PG)	56	47	83	0	1.46	0	1.46
12	400KV-Sasaram-Varanasi(PG)	326	334	334	0	6.03	0	6.03
13	765KV-Fatehpur(PG)-Sasaram.	-568	-619	0	640	0	12.12	-12.12
14	765KV-Gaya(PG)-Baliala(PG)	-90	17	109	0	0.01	0	0.01
15	765KV-Gaya(PG)-Varanasi(PG)	-340	-346	0	346	0	7.59	-7.59
16	HVDC800KV-Alipurduar-Agra(PG)	400	400	400	0	7.83	0	7.83
Sub-Total EAST REGION		-664	-780	1,637	2,322	25.03	36	-10.97
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli- ..	800	2,000	2,000	0	32.93	0	32.93
Sub-Total NORTH_EAST REGION		800	2,000	2,000	0	32.93	0	32.93
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya(NT)-Malanpur(PG)	-199	-172	-	239	0	3.48	-3.48
2	220KV-Badod(MP)-Kota(PG)	-165	-114	-	251	0	1.15	-1.15
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-
4	400KV-RAPS C(NP)-Sujalpur	-64	-252	0	466	0	5.98	-5.98
5	400KV-Vindhyachal(PG)-Rihand(N ..	-472	-475	-	477	0	11.32	-11.32
6	400KV-Zerda(PG)-Bhinmal(PG)	-186	-333	0	426	0	7.77	-7.77
7	400KV-Zerda(PG)-Kankroli(RJ)	-278	-399	0	592	0	11	-11
8	765KV-0rai-Gwalior(PG)	-315	-204	0	339	0	6.29	-6.29
9	765KV-0rai-Jabalpur	124	222	673	0	4.57	0	4.57
10	765KV-0rai-Satna	1,331	1,256	1,356	0	26.22	0	26.22
11	765KV-Gwalior(PG)-Agra(PG)	1,047	523	1,195	0	13.26	0	13.26
12	765KV-Phagi(RJ)-Gwalior(PG)	115	364	440	-	7.45	0	7.45
13	HVDC500KV-Mundra(JH)-Mohind..	1,301	1,698	1,903	0	35.48	0	35.48
14	HVDC500KV-Vindhyachal(PG)-Vindhaychal B/B	-250	-250	0	250	0	6.05	-6.05
15	HVDC800KV-Champa(PG)-Kuruku..	600	600	600	0	11.71	0	11.71
Sub-Total WEST REGION		2,589	2,464	6,167	3,040	98.69	53.04	45.65
TOTAL IR EXCHANGE		2,725	3,684	9,804	5,362	156.65	89.04	67.61

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	47.35	31.56	-46.85	32.06	-10.97	-43.03

NR-WR	135.58	45.88	-121.49	59.97	45.65	-14.32
Total	182.93	77.44	-168.34	92.03	67.61	-24.42

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)	-22	-14.95		22		0.3261	-0.3261

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	.8	2.5	16.7	74.8	79.9	2.9	.6	0	3.5

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

Maximum		Minimum		Average	Freq Variation	Standard	Freq. in 15 mnt blk		Freq Dev Index
Frequency	Time	Frequency	Time				Frequency	Index	
50.14	06:01:50	49.62	18:37:10	49.96	0.065	0.067	50.06	49.68	20.1

6. Voltage Profile: 400kV

STATION	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index (% of time)
	VOLTAGE	TIME	VOLTAGE	TIME	< 380	< 390	> 420	> 430	
Abdullapur(PG) - 400KV	423	04:00	406	18:40	0	0	20.49	0	20.49
Abdullapur(PG) - 400KV	423	04:00	406	18:40	0	0	20.49	0	20.49
Amritsar(PG) - 400KV	423	04:00	409	18:35	0	0	21.18	0	21.18
Ballabgarh(PG) - 400KV	419	04:00	399	18:40	0	0	0	0	0
Bareilly II(PG) - 400KV	413	08:00	394	18:40	0	0	0	0	0
Bareilly(UP) - 400KV	414	08:00	395	18:40	0	0	0	0	0
Baspa(HP) - 400KV	425	04:05	409	18:45	0	0	32.99	0	32.99
Bassi(PG) - 400KV	421	04:00	401	18:40	0	0	.35	0	.35
Bawana(DTL) - 400KV	420	04:00	404	18:40	0	0	0	0	0
Dadri HVDC(PG). - 400KV	418	04:00	418	04:00	55.56	55.56	0	0	55.56
Gorakhpur(PG) - 400KV	415	16:05	392	18:50	0	0	0	0	0
Hisar(PG) - 400KV	419	04:00	399	18:40	0	0	0	0	0
Kanpur(PG) - 400KV	415	16:05	401	18:40	0	0	0	0	0
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	422	04:00	408	18:55	0	0	14.58	0	14.58
Moga(PG) - 400KV	417	04:00	402	18:35	0	0	0	0	0
Nallagarh(PG) - 400KV	425	04:05	409	18:45	0	0	32.99	0	32.99
Rihand HVDC(PG) - 400KV	409	16:05	403	01:10	0	0	0	0	0
Rihand(NT) - 400KV	407	07:30	402	01:10	0	0	0	0	0

6.1 Voltage Profile: 765kV

STATION	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index (% of time)
	VOLTAGE	TIME	VOLTAGE	TIME	< 728	< 742	> 800	> 820	
Anta RS(RJ) - 765KV	796	04:05	776	11:45	0	0	0	0	0
Balia(PG) - 765KV	774	16:05	742	18:40	0	.35	0	0	0
Bareilly II(PG) - 765KV	786	08:00	751	18:40	0	0	0	0	0
Bhiwani(PG) - 765KV	802	03:35	771	18:40	0	0	5.56	0	5.56
Fatehpur(PG) - 765KV	780	12:20	751	18:40	0	0	0	0	0
Jhatikara(PG) - 765KV	797	04:00	764	18:40	0	0	0	0	0
Lucknow II(PG) - 765KV	779	16:05	744	18:40	0	0	0	0	0
Meerut(PG) - 765KV	807	04:00	774	18:40	0	0	20.14	0	20.14
Moga(PG) - 765KV	797	04:00	768	18:40	0	0	0	0	0
Phagi(RJ) - 765KV	802	04:00	775	18:40	0	0	1.74	0	1.74
Unnao(UP) - 765KV	759	16:05	731	18:40	0	6.6	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	1,519.51	-4,537.21	0	1,346.86	-3,528.94	0	73.94	35.67	-92.61	16.99
HARYANA	1,358.09	-1,009.74	0	990.29	0	0	101.8	25.15	-17.7	109.25
RAJASTHAN	-52.11	-756.66	0	-52.11	-142.04	0	69.16	-1.25	-12.62	55.28
DELHI	552.99	-1,372.83	0	513.6	-1,268.23	0	86.08	13.5	-31.58	68.01
UTTAR PRADESH	1,870.66	26.51	0	1,628.95	-4.77	0	127.32	38.57	-9.06	156.83
UTTARAKHAND	107.61	-55.14	0	57.07	6.89	0	14.04	2.58	0.19	16.82
HIMACHAL PRADESH	-771.15	-5.94	0	-754.26	-538.2	0	28.9	-17.85	-4.34	6.71
JAMMU & KASHMIR	-654.19	271.66	0	-654.19	0	0	33.34	-15.7	7.12	24.76
CHANDIGARH	0	-70.4	0	0	-35.2	0	5.37	0	-0.73	4.63
TOTAL	3,931.41	-7,509.75	0	3,076.21	-5,510.49	0	539.95	80.67	-161.33	459.28

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	3,732.15	2,806.53	1,519.51	1,299.29	-3,528.94	-4,537.21	0	0
HARYANA	4,988.2	3,664.57	1,358.39	679.09	0	-1,111.9	0	0
RAJASTHAN	3,443.37	2,280.94	-52.11	-52.11	0	-1,768.61	0	0
DELHI	3,952.68	3,199.46	685.82	455.37	-993.66	-1,737.91	0	0
UTTAR PRADESH	6,249.78	4,870.75	1,898.69	1,462.22	26.51	-919.13	0	0
UTTARAKHAND	843.23	435.08	208.69	6.53	104.83	-75.75	0	0
HIMACHAL PRADESH	1,597.21	865.27	-670.64	-856.11	192.15	-538.2	0	0
JAMMU & KASHMIR	2,376.53	817.83	-654.19	-654.19	513.94	0	0	0
CHANDIGARH	291.13	182.8	0	0	0	-80.46	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	507.22	1,411	508.84	1,485	712.88	255.47
Chamera-I	748.75	760	-	-	-	-	-	0
Gandhisagar	295.78	295.78	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	-	-	-	-	-	0
Koteshwar	598.5	612.5	-	-	-	-	-	0
Pong	384.05	426.72	424.44	1,098	420.62	917	485.66	423.11
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	526.94	10	519.19	7	364.41	391.65
Rihand	252.98	268.22	264.26	573	263.74	528	7.45	17,631.13
Tehri	740.04	829.79	826.3	1,135	824.9	1,106	192.03	199
TOTAL	-	-	-	4,227	-	4,043	1,762.43	18,900.36

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

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

WR	0
ER	0
Simultaneous	0

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

WR	0
ER	0
Simultaneous	0

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

Rihand-Dadri	0
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10. Zero Crossing Violations

State	No. of violations(Maximum 8 in a day)	Maximum number of continuous blocks without sign change
CHANDIGARH	3	20
DELHI	3	27
HARYANA	0	7
HIMACHAL PRADESH	4	24
JAMMU & KASHMIR	1	20
PUNJAB	3	17
RAJASTHAN	1	20
UTTAR PRADESH	1	13
UTTARAKHAND	3	39

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 :

420/12ohm Series Bus reactor with associated bay 416,147 ,420 and 421 at 400kV Ballabgarh first time test charged at 19:25 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