



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

Power Supply Position in Northern Region For 28-Sep-2018

Date of Reporting:29-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
47,317	1,362	48,679	49.98	40,558	215	40,773	49.93	1,033	15.09

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	79.11	18.28	0	4.38	0	8.3	110.07	32.24	31.06	-1.18	141.13	0	141.13
HARYANA	21.58	0.97	0	0.17	0	0.42	23.13	109.05	109.48	0.43	133.19	0.58	132.61
RAJASTHAN	130.09	0.25	2.99	12.08	7.45	4.26	157.11	49.8	50.41	0.61	207.52	0	207.52
DELHI	6.75	0	17.49	0	0	0.77	25.01	69.19	68.29	-0.9	93.3	0	93.3
UTTAR PRADESH	163.36	23.53	0	2.57	0	1.2	190.66	160.02	160.14	0.12	352.53	1.73	350.8
UTTARAKHAND	0	19.07	0	0.57	0	0	19.65	14.83	16.68	1.85	39.62	3.29	36.33
HIMACHAL PRADESH	0	10.39	0	0	0	8.63	19.02	7.7	8.44	0.74	27.46	0	27.46
JAMMU & KASHMIR	0	15.74	0	0	0	0	15.74	27.87	24.2	-3.67	49.43	9.49	39.94
CHANDIGARH	0	0	0	0	0	0	0	4.8	4.36	-0.44	4.36	0	4.36
Region	400.89	88.23	20.48	19.77	7.45	23.58	560.39	475.5	473.06	-2.44	1,048.54	15.09	1,033.45

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	6,416	0	-219	-1,880	4,782	0	-48	-2,211
HARYANA	7,029	188	8	941	5,119	0	237	501
RAJASTHAN	9,087	0	112	-191	8,210	0	203	-1,148
DELHI	4,375	0	67	-604	3,329	0	39	-927
UTTAR PRADESH	15,477	380	-388	1,617	15,392	0	-196	1,864
UTTARAKHAND	1,488	310	-18	22	1,466	0	105	-69
HIMACHAL PRADESH	1,294	0	-25	-1,276	914	0	-12	-654
JAMMU & KASHMIR	1,939	485	-193	-654	1,218	215	-161	-497
CHANDIGARH	213	0	-26	-40	128	0	4	-85
Region	47,318	1,363	-682	-2,065	40,558	215	171	-3,226

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	6,527	19:00	0	6,527	6,527	19:00	0	6,527
HARYANA	7,029	20:00	188	7,217	7,217	20:00	188	7,029
RAJASTHAN	9,467	8:00	0	9,467	9,467	8:00	0	9,467
DELHI	4,398	13:00	0	4,398	4,398	13:00	0	4,398
UP	16,295	22:00	0	16,295	16,295	22:00	0	16,295
UTTARAKHAND	1,762	7:00	0	1,762	1,762	7:00	0	1,762
HP	1,402	8:00	0	1,402	1,402	8:00	0	1,402
J&K	1,997	7:00	499	2,497	2,497	7:00	499	1,997
CHANDIGARH	225	19:00	0	225	225	19:00	0	225
NR	47,317	20:00	1,362	48,679	48,679	20:00	1,362	47,317

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	308	305	0		6.75	281
RAJGHAT TPS(2 * 67.5)	135	0	0	0			
Total THERMAL	840	308	305			6.75	281
BAWANA GPS(2 * 253 + 4 * 216)	1,370	546	502	0		13.04	543
DELHI GAS TURBINES(3 * 34 + 6 * 30)	282	33	34	0		0.82	34
PRAGATI GAS TURBINES(1 * 121.2 + 2 * 104.6)	331	146	149	0		3.63	151
RITHALA GPS(3 * 36)	108	0	0	0			
Total GAS/NAPHTHA/DIESEL	2,091	725	685			17.49	728
WIND	0	0	0	0			
BIOMASS(1 * 16)	16	26	30	0		0.77	32
SOLAR(1 * 2)	2	0	0	0			
Total DELHI	2,949	1,059	1,020			25.01	1,041

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	257	0	259	21:00	2.56	107
JHAJJAR(CLP)(2 * 660)	1,320	626	410	627	19:00	14.1	588
MAGNUM DIESEL (IPP)(4 * 6.3)	25	0	0	0			
PANIPAT TPS(2 * 210 + 2 * 250)	920	227	201	227	20:00	4.92	205
RGTPP(KHEDAR)(2 * 600)	1,200	0	0	0			
Total THERMAL	4,065	1,110	611			21.58	900
FARIDABAD GPS(1 * 156.07 + 2 * 137.75)	432	0	0	0			
Total GAS/NAPHTHA/DIESEL	432	0	0			0	0
TOTAL HYDRO HARYANA(1 * 62)	62	26	28	29	01:00	0.97	40
Total HYDEL	62	26	28			0.97	40
WIND	0	0	0	0			
BIOMASS(1 * 106)	106	0	0	0		0.42	18
SOLAR(1 * 50)	50	0	0	0		0.17	7
Total HARYANA	4,715	1,136	639			23.14	965

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	214	127	0		3.98	166
MALANA (IPP) HPS(2 * 43)	86	91	65	0		1.47	61
OTHER HYDRO HP(1 * 372)	372	240	191	0		4.94	206
Total HYDEL	758	545	383			10.39	433
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO(1 * 486)	486	342	369	0		8.63	360
Total SMALL HYDRO	486	342	369			8.63	360
Total HP	1,244	887	752			19.02	793

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	526	531	0		13.08	545
OTHER HYDRO/IPP J&K(1 * 308)	308	149	78	0		2.66	111
Total HYDEL	1,208	675	609			15.74	656
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	675	609			15.74	656

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	145	446		5.51	230
GURU GOBIND SINGH TPS (ROPAR)(6 * 210)	1,260	384	146	494		5.39	225
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)(2 * 210 + 2 * 250)	920	351	346	503		9.03	376
GURU NANAK DEV TPS (BHATINDA)(4 * 110)	460	0	0	0		-0.02	-1
RAJPURA(NPL) TPS(2 * 700)	1,400	1,320	1,320	1,320		29.54	1,231
TALWANDI SABO TPS(3 * 660)	1,980	1,616	1,274	1,841		29.66	1,236
Total THERMAL	6,560	3,961	3,231			79.11	3,297
TOTAL HYDRO PUNJAB(1 * 1000)	1,000	796	741	811		18.28	762
Total HYDEL	1,000	796	741			18.28	762
WIND	0	0	0	0			
BIOMASS(1 * 303)	303	0	0	0		8.3	346
SOLAR(1 * 859)	859	0	0	607		4.38	183
Total PUNJAB	8,722	4,757	3,972			110.07	4,588

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	1,188	1,167	0		28.05	1,169
GIRAL (IPP) LTPS(2 * 125)	250	0	0	0			
KALISINDH TPS(2 * 600)	1,200	434	474	0		11.66	486
KAWAI TPS(2 * 660)	1,320	1,175	1,193	0		27.74	1,156
KOTA TPS(2 * 110 + 2 * 195 + 3 * 210)	1,240	793	677	0		18.19	758
RAJWEST (IPP) LTPS(8 * 135)	1,080	725	727	0		17.04	710
SURATGARH TPS(6 * 250)	1,500	1,128	1,072	0		27.41	1,142
VSLPP (IPP)(1 * 135)	135	0	0	0			
Total THERMAL	8,635	5,443	5,310			130.09	5,421
DHOLPUR GPS(3 * 110)	330	0	0	0			
RAMGARH GPS(1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5)	271	124	124	0		2.99	125
Total GAS/NAPHTHA/DIESEL	601	124	124			2.99	125
RAPS-A(1 * 100 + 1 * 200)	300	161	158	0		3.8	158
Total NUCLEAR	300	161	158			3.8	158
TOTAL HYDRO RAJASTHAN(1 * 550)	550	0	0	0		0.25	10
Total HYDEL	550	0	0			0.25	10
WIND	4,292	262	519	0		7.45	310
BIOMASS(1 * 102)	102	19	19	0		0.46	19
SOLAR(1 * 1995)	1,995	40	0	0		12.08	503
Total RAJASTHAN	16,475	6,049	6,130			157.12	6,546

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	1,150	1,261	0		30.39	1,266
ANPARA-C TPS(2 * 600)	1,200	837	842	0		20.41	850
ANPARA-D TPS(2 * 500)	1,000	950	937	0		21.69	904
BAJAJ ENERGY PVT LTD (IPP) TPS(10 * 45)	450	80	80	0		1.74	73
BARA PPGCL TPS(3 * 660)	1,980	893	884	0		21.18	883
HARDUAGANJ TPS(1 * 105 + 1 * 60 + 2 * 250)	665	444	442	0		10	417
LALITPUR TPS(3 * 660)	1,980	422	0	0		2.83	118
OBRA TPS(2 * 94 + 5 * 200)	1,188	524	488	0		12.15	506
PANKI TPS(2 * 105)	210	0	0	0			
PARICHA TPS(2 * 110 + 2 * 210 + 2 * 250)	1,160	602	862	0		12.78	533
ROSA TPS(4 * 300)	1,200	1,056	1,074	0		23.74	989
TANDA TPS(4 * 110)	440	289	326	0		6.46	269
Total THERMAL	13,103	7,247	7,196			163.37	6,808
ALAKHANDA HEP(4 * 82.5)	330	320	344	0		8	333
VISHNUPARYAG HPS(4 * 110)	440	380	430	0		9.06	378
OTHER HYDRO UP(1 * 527)	527	249	311	0		6.47	270
Total HYDEL	1,297	949	1,085			23.53	981
WIND	0	0	0	0			
BIOMASS(1 * 26)	26	0	0	0			
SOLAR(1 * 472)	472	0	0	0		2.57	107
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	8,246	8,331			190.67	7,946

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	735	894	897	02:00	19.07	795			
Total HYDEL	1,250	735	894			19.07	795			
WIND	0	0	0	0						
BIOMASS(1 * 127)	127	0	0	0						
SOLAR(1 * 100)	100	0	0	75	14:00	0.57	24			
SMALL HYDRO(1 * 180)	180	0	0	0						
Total SMALL HYDRO	180	0	0			0	0			
Total UTTARAKHAND	2,107	735	894			19.64	819			

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	375.08	493	361	493	20:00	9	9.09	379	0.09
DEHAR HPS(6 * 165)	990	622.96	725	610	725	20:00	14.95	15.05	627	0.1
PONG HPS(6 * 66)	396	325	330	330	330	20:00	7.8	7.8	325	0
Sub-Total	2,765	1,323.04	1,548	1,301	-	-	31.75	31.94	1,331	0.19
NHPC										
BAIRASIUL HPS(3 * 60)	180	106.67	141	114	141	20:00	2.56	2.77	115	0.21
CHAMERA HPS(3 * 180)	540	534.33	545	542	547	15:00	12.82	13.07	545	0.25
CHAMERA II HPS(3 * 100)	300	296.85	301	301	302	01:00	7.12	7.17	299	0.05
CHAMERA III HPS(3 * 77)	231	229.08	220	223	224	01:00	5.48	5.27	220	-0.21
DHAULIGANGA HPS(4 * 70)	280	197.03	279	212	283	21:00	4.69	4.81	200	0.12
DULHASTI HPS(3 * 130)	390	387.16	405	408	409	11:00	9.29	9.54	398	0.25
KISHANGANGA(2 * 110)	220	103.75	173	111	173	20:00	2.49	2.59	108	0.1
PARBATI III HEP(4 * 130)	520	143.03	222	100	363	06:30	3.43	3.49	145	0.06
SALAL HPS(6 * 115)	690	367.6	355	375	680	21:00	8.82	9.38	391	0.56
SEWA-II HPS(3 * 40)	120	119.54	120	121	127	06:00	2.85	2.91	121	0.06
TANAKPUR HPS(1 * 31.42 + 2 * 31.4)	94	93.69	98	99	98	20:00	2.25	2.36	98	0.11
URI HPS(4 * 120)	480	223.54	244	162	463	08:00	5.36	6.26	261	0.9
URI-II HPS(4 * 60)	480	134.53	126	125	183	09:00	3.23	3.37	140	0.14
Sub-Total	4,525	2,936.8	3,229	2,893	-	-	70.39	72.99	3,041	2.6
NPCL										
NAPS(2 * 220)	440	388	416	425	427	04:00	9.31	9.23	385	-0.08
RAPS-B(2 * 220)	440	378	410	404	410	20:00	9.07	8.96	373	-0.11
RAPS-C(2 * 220)	440	204	230	230	231	04:00	4.9	4.89	204	-0.01
Sub-Total	1,320	970	1,056	1,059	-	-	23.28	23.08	962	-0.2
NTPC										
ANTA GPS(1 * 153.2 + 3 * 88.71)	419	0	306	223	398	05:06	7.32	7.15	298	-0.17
AURAIYA GPS(2 * 109.3 + 4 * 111.19)	663	0	627	370	627	20:00	10.45	10.91	455	0.46
DADRI GPS(2 * 154.51 + 4 * 130.19)	830	0	740	458	740	20:00	12.49	12.31	513	-0.18
DADRI SOLAR(1 * 5)	5	0.91	0	0	3	12:24	0.02	0.02	1	0
DADRI-I TPS(4 * 210)	840	583.66	421	322	421	20:00	12.68	13.27	553	0.59
DADRI-II TPS(2 * 490)	980	928.55	792	587	792	20:00	21.31	22.4	933	1.09
ISTPP (JHAJJAR)(3 * 500)	1,500	1,421.25	1,490	1,479	1,490	20:00	33.21	33.13	1,380	-0.08
KOLDAM HPS(4 * 200)	800	872	809	219	872	19:00	11.5	12.22	509	0.72
RIHAND-I STPS(2 * 500)	1,000	730	805	798	805	20:00	17.46	18.25	760	0.79
RIHAND-II STPS(2 * 500)	1,000	942.5	989	990	989	20:00	22.55	23.32	972	0.77
RIHAND-III STPS(2 * 500)	1,000	471.25	508	512	508	20:00	11.27	11.34	473	0.07
SINGRAULI STPS(2 * 500 + 5 * 200)	2,000	1,803.85	1,966	1,964	1,987	18:00	43.22	43.56	1,815	0.34
SINGRAULI SOLAR(1 * 15)	15	2.77	0	0	0	-	0.07	0.07	3	0
UNCHAHAH II TPS(2 * 210)	420	382.2	412	400	412	20:00	8.81	8.86	369	0.05
UNCHAHAH III TPS(1 * 210)	210	191.1	205	207	205	20:00	4.35	4.3	179	-0.05
UNCHAHAH IV TPS(1 * 500)	500	0	0	0	0	-	0	-	-	0
UNCHAHAH SOLAR(1 * 10)	10	2.22	0	0	0	-	0.05	0.05	2	0
UNCHAHAH TPS(2 * 210)	420	382.2	417	401	417	20:00	8.74	8.73	364	-0.01
Sub-Total	12,612	8,714.46	10,487	8,930	-	-	225.5	229.89	9,579	4.39
SJVNL										
NATHPA-JHAKRI HPS(6 * 250)	1,500	1,497.38	1,500	781	1,632	14:00	22.7	23.51	980	0.81
RAMPUR HEP(6 * 68.67)	412	442	421	225	440	19:00	6.31	6.78	283	0.47
Sub-Total	1,912	1,939.38	1,921	1,006	-	-	29.01	30.29	1,263	1.28
THDC										
KOTESHWAR HPS(4 * 100)	400	145.21	301	193	306	21:00	3.48	3.61	150	0.13
TEHRI HPS(4 * 250)	1,000	996.71	801	250	1,003	07:00	9.9	10.11	421	0.21
Sub-Total	1,400	1,141.92	1,102	443	-	-	13.38	13.72	571	0.34
Total	24,534	17,025.6	19,343	15,632			393.31	401.91	16,747	8.6

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	177	141	200	20:00	3.44	3.41	142	-0.03
BUDHIL HPS (IPP)(2 * 35)	70	0	69	73	73	06:00	1.64	1.68	70	0.04
KARCHAM WANGTOO HPS(4 * 250)	1,000	0	1,000	450	1,000	19:00	11.85	12.36	515	0.51
MALANA2(2 * 50)	100	0	105	51	105	19:00	1.35	1.46	61	0.11
SAINJ HEP(2 * 50)	50	0	110	110	110	00:00	1.78	2.51	105	0.73
SHREE CEMENT (IPP) TPS(2 * 150)	300	0	299	296	299	20:00	7.15	7.07	295	-0.08
Sub-Total	1,712	0	1,760	1,121	-	-	27.21	28.49	1,188	1.28
Total	1,712	0	1,760	1,121	-	-	27.21	28.49	1,188	1.28

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	53,966	23,544	22,347	560.41	23,350
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		3,684	2,911	76.06	6,265
Total Regional Availability(Gross)	80,212	48,331	42,011	1,066.87	47,549

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	10,070	6,687	182.58	7,607
State Control Area Hydro	6,125	3,726	3,740	88.23	3,676
Total Regional Hydro	18,939	13,796	10,427	270.81	11,283

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	689	937	45.8	1,908
Total Regional Renewable	9,244	689	937	45.94	1,914

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 ..	-	-	-	-	0.96	0	0.96
3	132KV-Rihand-Sonnagar(PG)	-20	-33	-	35	0	0.69	-0.69
4	220KV-Pusauli(PG)-Sahupuri(UP)	165	159	192	0	4.13	0	4.13
5	400KV-Biharsharif(PG)-Baliala(PG)	251	85	251	0	2.63	0	2.63
6	400KV-Biharsharif(PG)-Varanasi(P..	-547	-326	0	547	0	8.59	-8.59
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-
8	400KV-Motihari(DMT)-Gorakhpur ..	-296	-210	0	312	0	5.17	-5.17
9	400KV-Muzaffarpur(PG)-Gorakhp ..	-324	49	386	338	0.86	0	0.86
10	400KV-Patna(PG)-Baliala(PG)	92	5	297	0	3.32	0	3.32
11	400KV-Sasaram-Allahabad(PG)	49	65	104	0	1.79	0	1.79
12	400KV-Sasaram-Varanasi(PG)	329	319	329	0	7.67	0	7.67
13	765KV-Fatehpur(PG)-Sasaram.	-518	-493	0	533	0	10.2	-10.2
14	765KV-Gaya(PG)-Baliala(PG)	58	10	79	0	0.32	0	0.32
15	765KV-Gaya(PG)-Varanasi(PG)	-514	-454	0	542	0	9.79	-9.79
16	HVDC800KV-Alipurduar-Agra(PG)	1,200	700	1,300	-	11	0	11
Sub-Total EAST REGION		-75	-124	2,938	2,307	32.68	34.44	-1.76
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli- ..	300	300	1,700	-	15.61	0	15.61
Sub-Total NORTH_EAST REGION		300	300	1,700	0	15.61	0	15.61
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya(NT)-Malanpur(PG)	-183	-148	-	248	0	4.01	-4.01
2	220KV-Badod(MP)-Kota(PG)	-128	-152	-	55	0	3.15	-3.15
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-
4	400KV-RAPS C(NP)-Sujalpur	-66	-220	0	340	0	5.46	-5.46
5	400KV-Vindhyachal(PG)-Rihand(N ..	-471	-477	-	485	0	11.53	-11.53
6	400KV-Zerda(PG)-Bhinmal(PG)	-235	-260	0	397	0	6.78	-6.78
7	400KV-Zerda(PG)-Kankroli(RJ)	-297	-345	0	539	0	10.47	-10.47
8	765KV-0rai-Gwalior(PG)	-259	-218	0	312	0	6.05	-6.05
9	765KV-0rai-Jabalpur	63	80	564	0	3.84	0	3.84
10	765KV-0rai-Satna	1,354	1,314	1,358	0	31.3	0	31.3
11	765KV-Gwalior(PG)-Agra(PG)	942	858	1,098	-	16.99	0	16.99
12	765KV-Phagi(RJ)-Gwalior(PG)	538	155	538	-	7.18	0	7.18
13	HVDC500KV-Mundra(JH)-Mohind..	1,501	1,498	1,702	-	36.75	0	36.75
14	HVDC500KV-Vindhyachal(PG)-Vindhaychal B/B	-250	-250	0	250	0	6.04	-6.04
15	HVDC800KV-Champa(PG)-Kuruku..	950	900	1,300	0	19.64	0	19.64
Sub-Total WEST REGION		3,459	2,735	6,560	2,626	115.7	53.49	62.21
TOTAL IR EXCHANGE		3,684	2,911	11,198	4,933	163.99	87.93	76.06

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	47.81	32.37	-46.85	33.33	-1.76	-35.09

NR-WR	134.43	45.64	-112.18	67.89	62.21	-5.68
Total	182.24	78.01	-159.03	101.22	76.06	-25.16

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)	-21.61	0		22		0.3027	0

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	1	3.5	17.8	78.6	79	3.1	.1	0	3.2

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

Maximum		Minimum		Average Frequency	Freq Variation Index	Standard Deviation	Freq. in 15 mnt blk		Freq Dev Index (% of Time)
Frequency	Time	Frequency	Time				Max.	Min.	
50.11	13:02:40	49.63	18:43:00	49.95	0.072	0.068	50.06	49.72	21

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	421	04:00	404	18:40	0	0	3.82	0	3.82
Abdullapur(PG) - 400KV	421	04:00	404	18:40	0	0	3.82	0	3.82
Amritsar(PG) - 400KV	420	04:00	407	18:40	0	0	1.39	0	1.39
Ballabgarh(PG) - 400KV	418	04:00	399	18:40	0	0	0	0	0
Bareilly II(PG) - 400KV	414	07:40	400	18:25	0	0	0	0	0
Bareilly(UP) - 400KV	414	07:40	401	18:25	0	0	0	0	0
Baspa(HP) - 400KV	423	04:00	408	18:45	0	0	18.06	0	18.06
Bassi(PG) - 400KV	415	21:55	403	18:40	0	0	0	0	0
Bawana(DTL) - 400KV	419	04:00	402	18:40	0	0	0	0	0
Dadri HVDC(PG) - 400KV	417	04:00	403	18:40	0	0	0	0	0
Gorakhpur(PG) - 400KV	415	07:05	391	17:50	0	0	0	0	0
Hisar(PG) - 400KV	416	04:05	398	18:40	0	0	0	0	0
Kanpur(PG) - 400KV	416	07:55	401	18:20	0	0	0	0	0
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	419	23:35	406	18:40	0	0	0	0	0
Moga(PG) - 400KV	413	23:30	399	18:40	0	0	0	0	0
Nallagarh(PG) - 400KV	423	04:00	408	18:45	0	0	18.06	0	18.06
Rihand HVDC(PG) - 400KV	408	16:05	408	16:05	.35	.35	0	0	.35
Rihand(NT) - 400KV	407	07:55	403	21:05	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	792	04:05	777	18:45	0	0	0	0	0
Balia(PG) - 765KV	774	07:55	743	21:10	0	0	0	0	0
Bareilly II(PG) - 765KV	788	07:05	761	18:25	0	0	0	0	0
Bhiwani(PG) - 765KV	797	04:05	768	18:40	0	0	0	0	0
Fatehpur(PG) - 765KV	773	23:30	733	18:25	0	10.76	0	0	0
Jhatikara(PG) - 765KV	793	04:00	762	18:40	0	0	0	0	0
Lucknow II(PG) - 765KV	782	07:05	751	18:25	0	0	0	0	0
Meerut(PG) - 765KV	798	23:30	764	18:40	0	0	0	0	0
Moga(PG) - 765KV	789	23:30	751	18:40	0	0	0	0	0
Phagi(RJ) - 765KV	794	03:25	774	18:45	0	0	0	0	0
Unnao(UP) - 765KV	763	07:55	737	18:25	0	4.51	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	-3,730.59	0	1,346.86	-3,226.46	0	76.02	35.67	-79.45	32.24
HARYANA	1,410.1	-909.24	0	1,042.3	-101.08	0	99.61	26.19	-16.74	109.05
RAJASTHAN	-52.11	-1,095.68	0	-52.11	-139.08	0	67.31	-1.25	-16.26	49.8
DELHI	554.01	-1,481.44	0	513.8	-1,117.37	0	85.91	13.52	-30.23	69.19
UTTAR PRADESH	1,863.79	0	0	1,622.08	-4.77	0	128.81	38.42	-7.2	160.02
UTTARAKHAND	168.26	-237.09	0	16.64	5.71	0	14.39	2.27	-1.82	14.83
HIMACHAL PRADESH	-766.07	112.12	0	-748.35	-528.01	0	30.24	-18.06	-4.49	7.7
JAMMU & KASHMIR	-654.19	157.4	0	-654.19	0	0	36.97	-15.7	6.59	27.87
CHANDIGARH	0	-85.49	0	0	-40.23	0	5.58	0	-0.77	4.8
TOTAL	4,043.3	-7,270.01	0	3,087.03	-5,151.29	0	544.84	81.06	-150.37	475.5

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	3,621.09	2,670.6	1,519.51	1,299.29	-3,024.8	-3,730.59	0	0
HARYANA	4,886.68	3,719.2	1,410.72	731.1	0	-1,111.9	0	0
RAJASTHAN	3,175.81	2,317.96	-52.11	-52.11	0	-1,748.19	0	0
DELHI	3,838.53	2,983.64	686.02	456.39	-812.83	-1,898.82	0	0
UTTAR PRADESH	5,994.55	4,348.18	1,888.88	1,455.35	0	-919.13	0	0
UTTARAKHAND	815.95	472.16	168.56	-33.9	6.79	-277.91	0	0
HIMACHAL PRADESH	1,755.66	910.53	-665.58	-918.44	188.83	-528.01	0	0
JAMMU & KASHMIR	2,597.24	1,069.88	-654.19	-654.19	550.94	0	0	0
CHANDIGARH	289.91	195.78	0	0	0	-85.49	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	506.96	1,397	508.82	1,485	776.05	236.02
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	424.41	1,098	420.73	917	662.76	430.39
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	526.96	10	519.42	7	488.55	303.44
Rihand	252.98	268.22	264.29	565	263.74	528	1.2	14,308.2
Tehri	740.04	829.79	826.1	1,131	824.9	1,106	208.08	218
TOTAL	-	-	-	4,201	-	4,043	2,136.64	15,496.05

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	22
DELHI	5	38
HARYANA	0	12
HIMACHAL PRADESH	4	40
JAMMU & KASHMIR	1	13
PUNJAB	2	28
RAJASTHAN	1	18
UTTAR PRADESH	0	10
UTTARAKHAND	5	44

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 :

- | |
|--|
| <ol style="list-style-type: none">1. 400 KV Chhabra-Anta line charged and synchronized at 11:47 Hrs.2. 125 MVAR Bus Reactor at Kurukshetra first time charged at 14.56 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