



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

Power Supply Position in Northern Region For 23-Sep-2018

Date of Reporting:24-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
40,319	451	40,770	49.98	34,858	170	35,028	49.85	854	7.83

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	9.65	3.68	0	4.29	0	8.3	25.93	85.39	81.02	-4.37	106.95	0	106.95
HARYANA	8.9	0.37	0	0.04	0	0.4	9.71	90.67	90.7	0.03	100.41	0	100.41
RAJASTHAN	106.54	0.05	3.03	11.82	14.81	4.07	140.31	35.6	36.62	1.02	176.93	0	176.93
DELHI	6.52	0	15.07	0	0	0.75	22.34	63.51	61.55	-1.96	83.89	0	83.89
UTTAR PRADESH	122.95	20.65	0	2.37	0	1.2	147.16	144.45	144.96	0.51	292.12	0	292.12
UTTARAKHAND	0	18.47	0	0.18	0	0	18.65	16.4	14.25	-2.15	32.9	0	32.9
HIMACHAL PRADESH	0	12.65	0	0	0	8.05	20.7	4.15	3.63	-0.52	24.33	0	24.33
JAMMU & KASHMIR	0	20.29	0	0	0	0	20.29	24.99	12.81	-12.18	40.93	7.83	33.1
CHANDIGARH	0	0	0	0	0	0	0	5.19	3.38	-1.81	3.38	0	3.38
Region	254.56	76.16	18.1	18.7	14.81	22.77	405.09	470.35	448.92	-21.43	861.84	7.83	854.01

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	4,343	0	-279	655	3,810	0	-199	1,563
HARYANA	4,771	0	-328	39	4,358	0	337	287
RAJASTHAN	7,707	0	-402	-712	7,344	0	-132	-865
DELHI	3,930	0	60	-685	3,385	0	-45	-377
UTTAR PRADESH	14,792	0	-165	1,531	13,074	0	403	1,404
UTTARAKHAND	1,695	0	20	118	920	0	-227	164
HIMACHAL PRADESH	1,112	0	34	-1,518	880	0	29	-827
JAMMU & KASHMIR	1,803	451	-415	168	962	170	-235	-414
CHANDIGARH	166	0	-22	-86	125	0	-68	0
Region	40,319	451	-1,497	-490	34,858	170	-137	935

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	4,343	20:00	0	4,343	4,343	20:00	0	4,343
HARYANA	5,007	1:00	0	5,007	5,007	1:00	0	5,007
RAJASTHAN	8,649	9:00	0	8,649	8,649	9:00	0	8,649
DELHI	3,930	20:00	0	3,930	3,930	20:00	0	3,930
UP	14,792	20:00	0	14,792	14,792	20:00	0	14,792
UTTARAKHAND	1,752	19:00	0	1,752	1,752	19:00	0	1,752
HP	1,166	10:00	0	1,166	1,166	10:00	0	1,166
J&K	1,843	19:00	461	2,304	2,304	19:00	461	1,843
CHANDIGARH	170	19:00	0	170	170	19:00	0	170
NR	40,319	20:00	451	40,770	40,770	20:00	451	40,319

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	309	308	0		6.52	272
RAJGHAT TPS(2 * 67.5)	135	0	0	0			
Total THERMAL	840	309	308			6.52	272
BAWANA GPS(2 * 253 + 4 * 216)	1,370	449	433	0		10.52	438
DELHI GAS TURBINES(3 * 34 + 6 * 30)	282	39	40	0		0.89	37
PRAGATI GAS TURBINES(1 * 121.2 + 2 * 104.6)	331	149	149	0		3.66	153
RITHALA GPS(3 * 36)	108	0	0	0			
Total GAS/NAPHTHA/DIESEL	2,091	637	622			15.07	628
WIND	0	0	0	0			
BIOMASS(1 * 16)	16	29	25	0		0.75	31
SOLAR(1 * 2)	2	0	0	0			
Total DELHI	2,949	975	955			22.34	931

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	0	0	0	00:00	0	0
JHAJJAR(CLP)(2 * 660)	1,320	376	376	380	19:00	8.9	371
MAGNUM DIESEL (IPP)(4 * 6.3)	25	0	0	0			
PANIPAT TPS(2 * 210 + 2 * 250)	920	0	0	0	00:00	0	0
RGTPP(KHEDAR)(2 * 600)	1,200	0	0	0	00:00	0	0
Total THERMAL	4,065	376	376			8.9	371
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	0	35	40	02:00	0.37	15
Total HYDEL	62	0	35			0.37	15
WIND	0	0	0	0			
BIOMASS(1 * 106)	106	0	0	0		0.4	17
SOLAR(1 * 50)	50	0	0	0		0.04	2
Total HARYANA	4,715	376	411			9.71	405

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	221	331	23:00	6.39	266
MALANA (IPP) HPS(2 * 43)	86	89	74	95	23:00	1.75	73
OTHER HYDRO HP(1 * 372)	372	189	232	250	23:00	4.52	188
Total HYDEL	758	609	527			12.66	527
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO(1 * 486)	486	246	399	400	21:00	8.05	335
Total SMALL HYDRO	486	246	399			8.05	335
Total HP	1,244	855	926			20.71	862

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	874	523	882	04:00	17.71	738
OTHER HYDRO/IPP J&K(1 * 308)	308	129	105	132	18:00	2.58	108
Total HYDEL	1,208	1,003	628			20.29	846
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	1,003	628			20.29	846

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	0	0	0		-0.1	-4
GURU GOBIND SINGH TPS (ROPAR)(6 * 210)	1,260	0	0	0		-0.19	-8
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)(2 * 210 + 2 * 250)	920	0	0	0		-0.25	-10
GURU NANAK DEV TPS (BHATINDA)(4 * 110)	460	0	0	0		-0.01	0
RAJPURA(NPL) TPS(2 * 700)	1,400	330	330	373		7.86	328
TALWANDI SABO TPS(3 * 660)	1,980	0	308	308		2.34	98
Total THERMAL	6,560	330	638			9.65	404
TOTAL HYDRO PUNJAB(1 * 1000)	1,000	26	123	303		3.68	153
Total HYDEL	1,000	26	123			3.68	153
WIND	0	0	0	0			
BIOMASS(1 * 303)	303	0	0	0		8.3	346
SOLAR(1 * 859)	859	0	0	204		4.29	179
Total PUNJAB	8,722	356	761			25.92	1,082

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	67	65	0		1.42	59
CHHABRA TPS(1 * 660 + 4 * 250)	1,660	1,389	1,238	0		29.56	1,232
GIRAL (IPP) LTPS(2 * 125)	250	0	0	0			
KALISINDH TPS(2 * 600)	1,200	446	403	0		9.75	406
KAWAI TPS(2 * 660)	1,320	1,098	857	0		21.68	903
KOTA TPS(2 * 110 + 2 * 195 + 3 * 210)	1,240	664	666	0		15.87	661
RAJWEST (IPP) LTPS(8 * 135)	1,080	915	821	0		15.68	653
SURATGARH TPS(6 * 250)	1,500	526	532	0		12.59	525
VSLPP (IPP)(1 * 135)	135	0	0	0			
Total THERMAL	8,635	5,105	4,582			106.55	4,439
DHOLPUR GPS(3 * 110)	330	0	0	0			
RAMGARH GPS(1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5)	271	122	127	0		3.03	126
Total GAS/NAPHTHA/DIESEL	601	122	127			3.03	126
RAPS-A(1 * 100 + 1 * 200)	300	156	155	0		3.64	152
Total NUCLEAR	300	156	155			3.64	152
TOTAL HYDRO RAJASTHAN(1 * 550)	550	0	30	0		0.05	2
Total HYDEL	550	0	30			0.05	2
WIND	4,292	339	587	0		14.81	617
BIOMASS(1 * 102)	102	18	18	0		0.43	18
SOLAR(1 * 1995)	1,995	39	0	0		11.82	493
Total RAJASTHAN	16,475	5,779	5,499			140.33	5,847

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	1,341	1,142	0		27.41	1,142
ANPARA-C TPS(2 * 600)	1,200	638	597	0		14.68	612
ANPARA-D TPS(2 * 500)	1,000	938	943	0		19.53	814
BAJAJ ENERGY PVT LTD (IPP) TPS(10 * 45)	450	112	89	0		2.22	93
BARA PPGCL TPS(3 * 660)	1,980	868	682	0		16.82	701
HARDUAGANJ TPS(1 * 105 + 1 * 60 + 2 * 250)	665	0	0	0			
LALITPUR TPS(3 * 660)	1,980	0	356	0		3.28	137
OBRA TPS (2 * 94 + 5 * 200)	1,188	454	219	0		7.93	330
PANKI TPS(2 * 105)	210	0	0	0			
PARICHA TPS(2 * 110 + 2 * 210 + 2 * 250)	1,160	469	470	0		11.46	478
ROSA TPS(4 * 300)	1,200	728	592	0		14.78	616
TANDA TPS(4 * 110)	440	292	184	0		4.84	202
Total THERMAL	13,103	5,840	5,274			122.95	5,125
ALAKHANDA HEP(4 * 82.5)	330	339	346	0		8.26	344
VISHNUPARYAG HPS(4 * 110)	440	427	427	0		10.29	429
OTHER HYDRO UP(1 * 527)	527	171	94	0		2.09	87
Total HYDEL	1,297	937	867			20.64	860
WIND	0	0	0	0			
BIOMASS(1 * 26)	26	0	0	0			
SOLAR(1 * 472)	472	0	0	0		2.37	99
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	6,827	6,191			147.16	6,134

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/NAPTHA/DIESEL	450	0	0			0	0			
OTHER HYDRO UK(1 * 1250)	1,250	919	567	970	16:00	18.47	770			
Total HYDEL	1,250	919	567			18.47	770			
WIND	0	0	0	0						
BIOMASS(1 * 127)	127	0	0	0						
SOLAR(1 * 100)	100	0	0	34	16:00	0.18	8			
SMALL HYDRO(1 * 180)	180	0	0	0						
Total SMALL HYDRO	180	0	0			0	0			
Total UTTARAKHAND	2,107	919	567			18.65	778			

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	419.75	760	388	760	20:00	10.07	10.22	426	0.15
DEHAR HPS(6 * 165)	990	589.17	725	570	725	20:00	14.14	14.17	590	0.03
PONG HPS(6 * 66)	396	16.25	132	0	132	20:00	0.39	0.4	17	0.01
Sub-Total	2,765	1,025.17	1,617	958	-	-	24.6	24.79	1,033	0.19
NHPC										
BAIRASIUL HPS(3 * 60)	180	20.73	0	133	134	04:00	0.5	0.59	25	0.09
CHAMERA HPS(3 * 180)	540	534.33	546	365	548	22:00	10.51	10.71	446	0.2
CHAMERA II HPS(3 * 100)	300	92.62	0	306	307	04:00	2.22	2.28	95	0.06
CHAMERA III HPS(3 * 77)	231	68.94	0	237	237	03:00	1.65	1.66	69	0.01
DHAULIGANGA HPS(4 * 70)	280	278.44	282	289	291	15:00	6.64	6.76	282	0.12
DULHASTI HPS(3 * 130)	390	386.66	406	410	410	03:00	9.28	9.47	395	0.19
KISHANGANGA(2 * 110)	220	87.19	88	83	88	23:00	2.09	2.11	88	0.02
PARBATI III HEP(4 * 130)	520	253.76	366	367	380	06:15	6.09	6.16	257	0.07
SALAL HPS(6 * 115)	690	520.99	710	345	710	20:00	12.5	13.32	555	0.82
SEWA-II HPS(3 * 40)	120	127.67	99	121	132	19:00	3.06	3.07	128	0.01
TANAKPUR HPS(1 * 31.42 + 2 * 31.4)	94	90.22	99	98	100	18:00	2.17	2.29	95	0.12
URI HPS(4 * 120)	480	252.5	326	228	364	09:00	6.06	6.57	274	0.51
URI-II HPS(4 * 60)	480	144.27	172	131	175	21:00	3.46	3.6	150	0.14
Sub-Total	4,525	2,858.32	3,094	3,113	-	-	66.23	68.59	2,859	2.36
NPCL										
NAPS(2 * 220)	440	382	427	425	430	01:00	9.17	9.22	384	0.05
RAPS-B(2 * 220)	440	378	422	422	425	05:00	9.07	9.12	380	0.05
RAPS-C(2 * 220)	440	205	231	231	231	12:00	4.92	4.97	207	0.05
Sub-Total	1,320	965	1,080	1,078	-	-	23.16	23.31	971	0.15
NTPC										
ANTA GPS(1 * 153.2 + 3 * 88.71)	419	407.38	0	0	0	-	0	-	-	0
AURAIYA GPS(2 * 109.3 + 4 * 111.19)	663	635.25	0	0	0	-	0	-	-	0
DADRI GPS(2 * 154.51 + 4 * 130.19)	830	569.85	118	115	118	20:00	2.71	2.74	114	0.03
DADRI SOLAR(1 * 5)	5	0.51	0	0	0	-	0.01	0.01	0	0
DADRI-I TPS(4 * 210)	840	762.97	363	368	363	20:00	8.3	8.45	352	0.15
DADRI-II TPS(2 * 490)	980	928.55	588	609	588	20:00	13.14	14.01	584	0.87
ISTPP (JHAJJAR)(3 * 500)	1,500	1,421.25	877	1,251	1,451	20:17	19.65	20.49	854	0.84
KOLDAM HPS(4 * 200)	800	872	559	210	872	18:00	15.25	15.42	643	0.17
RIHAND-I STPS(2 * 500)	1,000	730	760	608	760	20:00	13.88	15.7	654	1.82
RIHAND-II STPS(2 * 500)	1,000	942.5	1,033	848	1,033	20:00	17.11	18.95	790	1.84
RIHAND-III STPS(2 * 500)	1,000	505.61	492	444	492	20:00	9.07	10.36	432	1.29
SINGRAULI STPS(2 * 500 + 5 * 200)	2,000	1,815	1,956	1,824	1,956	20:00	33.46	33.91	1,413	0.45
SINGRAULI SOLAR(1 * 15)	15	2.34	0	0	0	-	0.06	0.07	3	0.01
UNCHAHAH II TPS(2 * 210)	420	382.2	320	227	320	20:00	5.52	5.24	218	-0.28
UNCHAHAH III TPS(1 * 210)	210	191.1	188	117	188	20:00	2.74	2.75	115	0.01
UNCHAHAH IV TPS(1 * 500)	500	0	0	0	0	-	0	-	-	0
UNCHAHAH SOLAR(1 * 10)	10	1.99	0	0	7	11:41	0.05	0.05	2	0
UNCHAHAH TPS(2 * 210)	420	382.2	364	233	364	20:00	5.74	5.58	233	-0.16
Sub-Total	12,612	10,550.7	7,618	6,854	-	-	146.69	153.73	6,407	7.04
SJVNL										
NATHPA-JHAKRI HPS(6 * 250)	1,500	1,497.38	1,629	275	1,638	22:00	27.7	28.92	1,205	1.22
RAMPUR HEP(6 * 68.67)	412	442	442	75	456	01:00	7.68	8.17	340	0.49
Sub-Total	1,912	1,939.38	2,071	350	-	-	35.38	37.09	1,545	1.71
THDC										
KOTESHWAR HPS(4 * 100)	400	289.38	409	196	410	22:00	6.94	7.01	292	0.07
TEHRI HPS(4 * 250)	1,000	1,064	988	501	1,071	11:00	21.63	21.72	905	0.09
Sub-Total	1,400	1,353.38	1,397	697	-	-	28.57	28.73	1,197	0.16
Total	24,534	18,691.95	16,877	13,050			324.63	336.24	14,012	11.61

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	213	231	232	05:00	3.22	5.17	215	1.95
BUDHIL HPS (IPP)(2 * 35)	70	0	39	35	39	20:00	0.92	0.9	38	-0.02
KARCHAM WANGTOO HPS(4 * 250)	1,000	0	1,000	440	1,000	19:00	14.43	14.68	612	0.25
MALANA2(2 * 50)	100	0	111	111	111	00:00	2.17	2.6	108	0.43
SAINJ HEP(2 * 50)	50	0	110	104	110	20:00	1.59	2.51	105	0.92
SHREE CEMENT (IPP) TPS(2 * 150)	300	0	300	211	300	21:00	6.08	5.87	245	-0.21
Sub-Total	1,712	0	1,773	1,132	-	-	28.41	31.73	1,323	3.32
Total	1,712	0	1,773	1,132	-	-	28.41	31.73	1,323	3.32

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	53,966	17,090	15,938	405.11	16,880
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		6,242	6,555	105.5	4,171
Total Regional Availability(Gross)	80,212	41,982	36,675	878.58	36,383

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	10,211	6,249	200.48	8,353
State Control Area Hydro	6,125	3,494	2,777	76.16	3,173
Total Regional Hydro	18,939	13,705	9,026	276.64	11,526

Total Renewable Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Renewable	30	0	0	0.13	5
State Control Area Renewable	9,214	671	1,029	51.44	2,143
Total Regional Renewable	9,244	671	1,029	51.57	2,148

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)	-30	-32	-	35	0	0.68	-0.68
4	220KV-Pusauli(PG)-Sahupuri(UP)	176	160	184	0	3.7	0	3.7
5	400KV-Biharsharif(PG)-Baliala(PG)	-116	-27	28	144	0	1.18	-1.18
6	400KV-Biharsharif(PG)-Varanasi(P..	-416	-217	0	416	0	5.78	-5.78
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-
8	400KV-Motihari(DMT)-Gorakhpur ..	-336	-214	0	350	0	5.5	-5.5
9	400KV-Muzaffarpur(PG)-Gorakhp ..	156	33	286	178	0.71	0	0.71
10	400KV-Patna(PG)-Baliala(PG)	137	389	434	0	6.65	0	6.65
11	400KV-Sasaram-Allahabad(PG)	69	101	116	0	2.2	0	2.2
12	400KV-Sasaram-Varanasi(PG)	-	-	-	-	7.28	0	7.28
13	765KV-Fatehpur(PG)-Sasaram.	529	386	0	550	0	9.25	-9.25
14	765KV-Gaya(PG)-Baliala(PG)	138	130	161	15	2.16	0	2.16
15	765KV-Gaya(PG)-Varanasi(PG)	338	95	0	338	0	4.09	-4.09
16	HVDC800KV-Alipurduar-Agra(PG)	1,200	1,200	1,200	-	27.52	0	27.52
Sub-Total EAST REGION		1,845	2,004	2,409	2,026	51.18	26.48	24.7
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli- ..	700	700	700	-	16.57	0	16.57
Sub-Total NORTH_EAST REGION		700	700	700	0	16.57	0	16.57
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya(NT)-Malanpur(PG)	5	-14	-	99	0	0.58	-0.58
2	220KV-Badod(MP)-Kota(PG)	4	-50	4	-	0	0.52	-0.52
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-
4	400KV-RAPS C(NP)-Sujalpur	-90	-122	-	196	0	0.37	-0.37
5	400KV-Vindhyachal(PG)-Rihand(N ..	-457	-369	-	722	0	9.54	-9.54
6	400KV-Zerda(PG)-Bhinmal(PG)	-75	-140	17	422	0	5.21	-5.21
7	400KV-Zerda(PG)-Kankroli(RJ)	-101	-234	0	572	0	8.48	-8.48
8	765KV-0rai-Gwalior(PG)	-287	-224	0	338	0	7.82	-7.82
9	765KV-0rai-Jabalpur	558	460	598	0	6.16	0	6.16
10	765KV-0rai-Satna	1,462	1,340	1,519	0	31.14	0	31.14
11	765KV-Gwalior(PG)-Agra(PG)	1,366	1,264	1,366	-	22.97	0	22.97
12	765KV-Phagi(RJ)-Gwalior(PG)	564	740	830	-	13.28	0	13.28
13	HVDC500KV-Mundra(JH)-Mohind..	798	700	803	0	18.89	0	18.89
14	HVDC500KV-Vindhyachal(PG)-Vindhaychal B/B	-50	0	50	250	0.58	0.81	-0.23
15	HVDC800KV-Champa(PG)-Kuruku..	0	500	500	0	4.54	0	4.54
Sub-Total WEST REGION		3,697	3,851	5,687	2,599	97.56	33.33	64.23
TOTAL IR EXCHANGE		6,242	6,555	8,796	4,625	165.31	59.81	105.5

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	34.78	25.09	-47.46	12.41	24.7	12.29

NR-WR	102.07	53.86	-25.36	130.57	64.23	-66.34
Total	136.85	78.95	-72.82	142.98	105.5	-37.48

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)	-28.56	-0.05		29		0.3083	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	0	0	4.3	49.5	82.9	11.8	1	0	12.8

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

Maximum		Minimum		Average Frequency	Freq Variation Index	Standard Deviation	Freq. in 15 mnt blk		Freq Dev Index (% of Time)
Frequency	Time	Frequency	Time				Max.	Min.	
50.16	06:03:00	49.8	18:25:10	50	0.027	0.051	50.08	49.89	17.1

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	429	02:50	410	18:55	0	0	52.08	0	52.08
Abdullapur(PG) - 400KV	429	02:50	410	18:55	0	0	52.08	0	52.08
Amritsar(PG) - 400KV	431	07:50	412	18:55	0	0	53.13	1.39	53.13
Ballabgarh(PG) - 400KV	421	05:05	408	18:40	0	0	7.99	0	7.99
Bareilly II(PG) - 400KV	421	06:00	401	19:50	0	0	.69	0	.69
Bareilly(UP) - 400KV	422	06:00	403	18:50	0	0	6.6	0	6.6
Baspa(HP) - 400KV	431	05:05	414	18:55	0	0	59.38	1.04	59.38
Bassi(PG) - 400KV	422	04:00	409	18:50	0	0	2.43	0	2.43
Bawana(DTL) - 400KV	425	05:05	408	18:55	0	0	34.03	0	34.03
Dadri HVDC(PG). - 400KV	422	06:00	410	19:10	0	0	29.86	0	29.86
Gorakhpur(PG) - 400KV	414	05:40	391	19:40	0	0	0	0	0
Hisar(PG) - 400KV	423	05:05	405	18:55	0	0	26.39	0	26.39
Kanpur(PG) - 400KV	421	06:00	406	18:40	0	0	3.82	0	3.82
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	425	03:55	407	18:55	0	0	34.72	0	34.72
Moga(PG) - 400KV	422	07:50	400	18:55	0	0	7.99	0	7.99
Nallagarh(PG) - 400KV	431	05:05	414	18:55	0	0	59.38	1.04	59.38
Rihand HVDC(PG) - 400KV	416	12:35	416	12:35	.69	.69	0	0	.69
Rihand(NT) - 400KV	415	12:30	406	20:00	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	798	04:05	783	18:30	0	0	0	0	0
Balia(PG) - 765KV	782	15:05	751	19:40	0	0	0	0	0
Bareilly II(PG) - 765KV	801	06:00	766	19:40	0	0	.69	0	.69
Bhiwani(PG) - 765KV	805	05:05	776	18:40	0	0	29.17	0	29.17
Fatehpur(PG) - 765KV	770	04:00	741	18:20	0	.69	0	0	0
Jhatikara(PG) - 765KV	802	05:05	772	18:40	0	0	2.08	0	2.08
Lucknow II(PG) - 765KV	791	06:00	758	19:40	0	0	0	0	0
Meerut(PG) - 765KV	805	06:00	772	18:55	0	0	11.81	0	11.81
Moga(PG) - 765KV	790	01:30	739	19:00	0	6.25	0	0	0
Phagi(RJ) - 765KV	802	02:45	782	19:30	0	0	13.19	0	13.19
Unnao(UP) - 765KV	778	15:05	749	19:40	0	0	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	1,563.31	0	0	1,462.31	-807.18	0	51.87	37.1	-3.58	85.39
HARYANA	1,398.21	-1,111.7	0	747.5	-708.07	0	80.91	24.3	-14.55	90.67
RAJASTHAN	-52.15	-813.09	0	-52.15	-660.13	0	57.59	-1.25	-20.74	35.6
DELHI	560.56	-938	0	519.81	-1,204.71	0	73.74	13.65	-23.88	63.51
UTTAR PRADESH	1,822.22	-417.89	0	1,734.05	-203.33	0	118.41	38.49	-12.46	144.45
UTTARAKHAND	208.49	-44.28	0	107.33	10.52	0	13.16	4.44	-1.21	16.4
HIMACHAL PRADESH	-765.41	-61.16	0	-920.59	-597.8	0	29.84	-19.42	-6.27	4.15
JAMMU & KASHMIR	-654.63	240.33	0	-677.95	845.85	0	25.37	-15.94	15.56	24.99
CHANDIGARH	0	0	0	0	-85.55	0	5.76	0	-0.57	5.19
TOTAL	4,080.6	-3,145.79	0	2,920.31	-3,410.4	0	456.65	81.37	-67.7	470.35

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	3,690.14	1,565.67	1,618.44	1,414.75	0	-807.18	0	0
HARYANA	4,482.24	2,672.6	1,398.21	437.77	-192.4	-1,112.68	0	0
RAJASTHAN	3,405.81	1,197.5	-52.15	-52.15	0	-2,412.63	0	0
DELHI	3,606.47	2,720.28	691.47	461.69	-509.26	-1,662.64	0	0
UTTAR PRADESH	6,150.04	4,225.87	1,852.47	1,405.75	49.06	-1,016.67	0	0
UTTARAKHAND	691.93	377.34	238.1	107.33	79.18	-202.49	0	0
HIMACHAL PRADESH	1,767.69	753.95	-663.49	-1,022.05	-61.16	-600.24	0	0
JAMMU & KASHMIR	1,340.52	815.42	-654.63	-677.95	855.53	240.33	0	0
CHANDIGARH	280.38	183.35	0	0	0	-90.58	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	-	-	-	-	-	0
Chamera-I	748.75	760	-	-	-	-	-	0
Gandhisagar	295.78	295.78	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	-	-	-	-	-	0
Koteshwar	598.5	612.5	610.98	5	611.69	5	470	462.74
Pong	384.05	426.72	-	-	-	-	-	0
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	523.25	1	519.97	7	156.03	149.15
Rihand	252.98	268.22	264.32	576	-	-	-	0
Tehri	740.04	829.79	825.35	1,115	824.5	1,091	294.01	470
TOTAL	-	-	-	1,697	-	1,103	920.04	1,081.89

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 8 in a day)	Maximum number of continuous blocks without sign change
CHANDIGARH	7	76
DELHI	5	72
HARYANA	0	12
HIMACHAL PRADESH	2	31
JAMMU & KASHMIR	6	83
PUNJAB	4	32
RAJASTHAN	2	18
UTTAR PRADESH	2	25
UTTARAKHAND	7	69

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 :

(i) Bay No 205 , 203 along with 315 MVA ICT-1 at Tanda(UP) first time charged at 14.23 Hrs from 220 kV side. (ii) 220 kV Roorkee-Pirankaliyar (Uttarakhand line) first time charged at 16.30 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