



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

Power Supply Position in Northern Region For 30-Oct-2018

Date of Reporting:31-Oct-2018

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
43,028	457	43,485	49.95	33,796	195	33,991	50.02	925	8.13

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	63.08	14.79	0	4.21	0	7.99	90.07	33.65	32.95	-0.7	123.02	0	123.02
HARYANA	35.62	0.89	0	0.1	0	0.61	37.22	87.86	87.74	-0.12	125.42	0.46	124.96
RAJASTHAN	138.45	4	1.97	13.83	8.05	3.65	169.93	50.85	53.04	2.19	222.97	0	222.97
DELHI	-0.01	0	17.8	0	0	1.01	18.8	53.15	52.99	-0.16	71.8	0.01	71.79
UTTAR PRADESH	151.8	12.1	0	2.8	0	2.4	169.1	115.8	116.29	0.49	285.69	0.3	285.39
UTTARAKHAND	0	11.26	7.09	0.58	0	0	18.94	15.45	16.08	0.63	35.02	0	35.02
HIMACHAL PRADESH	0	6.05	0	0	0	4.11	10.15	15.86	17.69	1.83	27.87	0.03	27.84
JAMMU & KASHMIR	0	7.16	0	0	0	0	7.16	37.59	23.4	-14.19	37.89	7.33	30.56
CHANDIGARH	0	0	0	0	0	0	0	3.21	3.29	0.08	3.29	0	3.29
Region	388.94	56.25	26.86	21.52	8.05	19.77	521.37	413.42	403.47	-9.95	932.97	8.13	924.84

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	5,758	0	-41	-1,599	3,544	0	-181	-1,296
HARYANA	6,304	100	56	-935	4,686	0	51	197
RAJASTHAN	9,542	0	59	-958	8,457	0	191	-1,277
DELHI	3,645	0	3	-841	2,134	0	-61	-1,256
UTTAR PRADESH	12,938	0	-265	97	11,642	0	-125	495
UTTARAKHAND	1,854	0	102	113	1,262	0	54	74
HIMACHAL PRADESH	1,382	0	37	-305	885	0	64	62
JAMMU & KASHMIR	1,426	357	-482	391	1,103	195	-719	341
CHANDIGARH	179	0	-5	-40	83	0	-8	-25
Region	43,028	457	-536	-4,077	33,796	195	-734	-2,685

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	5,758	19:00	0	5,758	5,758	19:00	0	5,758
HARYANA	6,304	19:00	100	6,404	6,404	19:00	100	6,304
RAJASTHAN	11,001	8:00	0	11,001	11,001	8:00	0	11,001
DELHI	3,664	13:00	0	3,664	3,664	13:00	0	3,664
UP	13,268	20:00	210	13,478	13,478	20:00	210	13,268
UTTARAKHAND	1,860	7:00	0	1,860	1,860	7:00	0	1,860
HP	1,481	8:00	0	1,481	1,481	8:00	0	1,481
J&K	1,657	22:00	414	2,071	2,071	22:00	414	1,657
CHANDIGARH	179	19:00	0	179	179	19:00	0	179
NR	43,028	19:00	457	43,485	43,485	19:00	457	43,028

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	329	312	0		-0.01	0
RAJGHAT TPS(2 * 67.5)	135	0	0	0			
Total THERMAL	840	329	312			-0.01	0
BAWANA GPS(2 * 253 + 4 * 216)	1,370	716	690	0		13.04	543
DELHI GAS TURBINES(3 * 34 + 6 * 30)	282	35	36	0		0.9	38
PRAGATI GAS TURBINES(1 * 121.2 + 2 * 104.6)	331	153	156	0		3.86	161
RITHALA GPS(3 * 36)	108	0	0	0			
Total GAS/NAPHTHA/DIESEL	2,091	904	882			17.8	742
WIND	0	0	0	0			
BIOMASS(1 * 16)	16	34	34	0		1.01	42
SOLAR(1 * 2)	2	0	0	0			
Total DELHI	2,949	1,267	1,228			18.8	784

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	0	0	0	00:00	0	0
JHAJJAR(CLP)(2 * 660)	1,320	1,240	742	1,240	20:00	25.95	1,081
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	487	385	489	21:00	9.67	403
Total THERMAL	4,065	1,727	1,127			35.62	1,484
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	27	29	29	01:00	0.89	37
Total HYDEL	62	27	29			0.89	37
WIND	0	0	0	0			
BIOMASS(1 * 106)	106	0	0	0		0.61	25
SOLAR(1 * 50)	50	0	0	0		0.1	4
Total HARYANA	4,715	1,754	1,156			37.22	1,550

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	92	61	184	11:00	1.88	78
MALANA (IPP) HPS(2 * 43)	86	50	0	51	08:00	0.38	16
OTHER HYDRO HP(1 * 372)	372	206	141	0		3.79	158
Total HYDEL	758	348	202			6.05	252
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	7.8663	13:00	0	0
SMALL HYDRO(1 * 486)	486	200	157	0		4.11	171
Total SMALL HYDRO	486	200	157			4.11	171
Total HP	1,244	548	359			10.16	423

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/NAPHTHA/DIESEL	190	0	0			0	0
BAGLIHAR (IPP) HPS(6 * 150)	900	236	236	0		5.63	235
OTHER HYDRO/IPP J&K(1 * 308)	308	79	52	0		1.53	64
Total HYDEL	1,208	315	288			7.16	299
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	315	288			7.16	299

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	210	210	246		5.09	212
GURU GOBIND SINGH TPS (ROPAR)(6 * 210)	1,260	183	146	192		3.75	156
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)(2 * 210 + 2 * 250)	920	0	0	0		-0.23	-10
GURU NANAK DEV TPS (BHATINDA)(4 * 110)	460	0	0	0		-0.01	0
RAJPURA(NPL) TPS(2 * 700)	1,400	1,320	1,320	1,320		31.59	1,316
TALWANDI SABO TPS(3 * 660)	1,980	1,050	700	1,050		22.89	954
Total THERMAL	6,560	2,763	2,376			63.08	2,628
TOTAL HYDRO PUNJAB(1 * 1000)	1,000	604	415	669		14.79	616
Total HYDEL	1,000	604	415			14.79	616
WIND	0	0	0	0			
BIOMASS(1 * 303)	303	0	0	0		7.99	333
SOLAR(1 * 859)	859	0	0	380		4.21	175
Total PUNJAB	8,722	3,367	2,791			90.07	3,752

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	0	0	0			
CHHABRA TPS(1 * 660 + 4 * 250)	1,660	1,529	1,504	0		36.16	1,507
GIRAL (IPP) LTPS(2 * 125)	250	0	0	0			
KALISINDH TPS(2 * 600)	1,200	236	559	0		10.59	441
KAWAI TPS(2 * 660)	1,320	1,247	1,182	0		28.12	1,172
KOTA TPS(2 * 110 + 2 * 195 + 3 * 210)	1,240	636	644	0		14.62	609
RAJWEST (IPP) LTPS(8 * 135)	1,080	855	727	0		18.55	773
SURATGARH TPS (6 * 250)	1,500	1,337	1,100	0		28.11	1,171
VSLPP (IPP)(1 * 135)	135	96	97	0		2.31	96
Total THERMAL	8,635	5,936	5,813			138.46	5,769
DHOLPUR GPS(3 * 110)	330	0	0	0			
RAMGARH GPS(1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5)	271	90	81	0		1.97	82
Total GAS/NAPHTHA/DIESEL	601	90	81			1.97	82
RAPS-A(1 * 100 + 1 * 200)	300	165	163	0		3.19	133
Total NUCLEAR	300	165	163			3.19	133
TOTAL HYDRO RAJASTHAN(1 * 550)	550	189	133	0		4	167
Total HYDEL	550	189	133			4	167
WIND	4,292	237	225	0		8.05	335
BIOMASS(1 * 102)	102	19	19	0		0.46	19
SOLAR(1 * 1995)	1,995	10	0	0		13.83	576
Total RAJASTHAN	16,475	6,646	6,434			169.96	7,081

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	1,356	1,340	0		34.3	1,429
ANPARA-C TPS(2 * 600)	1,200	1,092	1,098	0		23.8	992
ANPARA-D TPS(2 * 500)	1,000	479	483	0		11	458
BAJAJ ENERGY PVT LTD (IPP) TPS(10 * 45)	450	0	0	0			
BARA PPGCL TPS(3 * 660)	1,980	1,049	1,035	0		24.7	1,029
HARDUAGANJ TPS(1 * 105 + 1 * 60 + 2 * 250)	665	310	314	0		7.2	300
LALITPUR TPS(3 * 660)	1,980	0	0	0		0	0
MEJA TPS(1 * 660)	660	0	0	0			
OBRA TPS (2 * 94 + 5 * 200)	1,188	0	0	0			
PANKI TPS(2 * 105)	210	0	0	0			
PARICHA TPS(2 * 110 + 2 * 210 + 2 * 250)	1,160	877	666	0		18.6	775
ROSA TPS(4 * 300)	1,200	1,080	1,065	0		24.1	1,004
TANDA TPS(4 * 110)	440	280	380	0		8.1	338
Total THERMAL	13,763	6,523	6,381			151.8	6,325
ALAKHANDA HEP(4 * 82.5)	330	82	83	0		2.6	108
VISHNUPARYAG HPS(4 * 110)	440	152	142	0		3.5	146
OTHER HYDRO UP(1 * 527)	527	294	270	0		6	250
Total HYDEL	1,297	528	495			12.1	504
WIND	0	0	0	0			
BIOMASS(1 * 26)	26	0	0	0			
SOLAR(1 * 472)	472	0	0	0		2.8	117
CO-GENERATION(1 * 1360)	1,360	100	100	0		2.4	100
Total OTHERs	1,360	100	100			2.4	100
Total UP	16,918	7,151	6,976			169.1	7,046

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	291	301	304	07:00	7.09	295			
Total GAS/NAPHTHA/DIESEL	450	291	301			7.09	295			
OTHER HYDRO UK(1 * 1250)	1,250	686	390	686	19:00	11.26	469			
Total HYDEL	1,250	686	390			11.26	469			
WIND	0	0	0	0						
BIOMASS(1 * 127)	127	0	0	0						
SOLAR(1 * 100)	100	0	0	83	12:00	0.58	24			
SMALL HYDRO(1 * 180)	180	0	0	0						
Total SMALL HYDRO	180	0	0			0	0			
Total UTTARAKHAND	2,107	977	691			18.93	788			

3(B) Regional Entities Generation

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)		
BBMB										
BHAKRA HPS(2 * 108 + 3 * 126 + 5 * 157)	1,379	583.52	1,089	415	1,089	19:00	14	14.44	602	0.44
DEHAR HPS(6 * 165)	990	253.33	645	165	645	19:00	6.08	6.25	260	0.17
PONG HPS(6 * 66)	396	260	264	264	264	19:00	6.24	6.24	260	0
Sub-Total	2,765	1,096.85	1,998	844	-	-	26.32	26.93	1,122	0.61
NHPC										
BAIRASIUL HPS(3 * 60)	180	0	0	0	0	-	0	0	0	0
CHAMERA HPS(3 * 180)	540	535.58	547	0	547	18:45	3.82	4.02	168	0.2
CHAMERA II HPS(3 * 100)	300	104.83	301	0	302	20:00	2.45	2.69	112	0.24
CHAMERA III HPS(3 * 77)	231	231.5	228	0	231	06:00	1.51	1.63	68	0.12
DHAULIGANGA HPS(4 * 70)	280	78.64	143	70	146	20:00	1.85	1.93	80	0.08
DULHASTI HPS(3 * 130)	390	386.9	395	0	396	06:00	5.1	5.24	218	0.14
KISHANGANGA(2 * 110)	220	33.44	0	62	200	07:00	0.8	0.84	35	0.04
PARBATI III HEP(4 * 130)	520	37.81	265	0	387	18:30	0.91	0.93	39	0.02
SALAL HPS(6 * 115)	690	161.35	302	144	515	08:00	3.87	4.54	189	0.67
SEWA-II HPS(3 * 40)	120	119.54	120	0	122	20:00	0.5	0.53	22	0.03
TANAKPUR HPS(1 * 31.42 + 2 * 31.4)	94	53.07	92	56	96	07:00	1.27	1.31	55	0.04
URI HPS(4 * 120)	480	138.44	329	148	334	12:00	3.32	4.03	168	0.71
URI-II HPS(4 * 60)	480	79.56	79	46	182	06:00	1.91	2.09	87	0.18
Sub-Total	4,525	1,960.66	2,801	526	-	-	27.31	29.78	1,241	2.47
NPCL										
NAPS(2 * 220)	440	400	430	439	446	07:00	9.6	9.55	398	-0.05
RAPS-B(2 * 220)	440	195	218	218	218	19:00	4.68	4.69	195	0.01
RAPS-C(2 * 220)	440	415	470	467	471	14:00	9.96	10.14	423	0.18
Sub-Total	1,320	1,010	1,118	1,124	-	-	24.24	24.38	1,016	0.14
NTPC										
ANTA GPS(1 * 153.2 + 3 * 88.71)	419	0	325	232	404	23:21	7.68	7.55	315	-0.13
AURAIYA GPS(2 * 109.3 + 4 * 111.19)	663	0	515	393	616	17:00	10.89	11.03	460	0.14
DADRI GPS(2 * 154.51 + 4 * 130.19)	830	0	673	457	673	19:00	12.65	12.79	533	0.14
DADRI SOLAR(1 * 5)	5	0.87	0	0	0	-	0.02	0.02	1	0
DADRI-I TPS(4 * 210)	840	576.42	578	348	578	19:00	11.45	11.24	468	-0.21
DADRI-II TPS(2 * 490)	980	715.72	310	934	310	19:00	16.94	16.63	693	-0.31
ISTPP (JHAJJAR)(3 * 500)	1,500	947.5	977	948	1,009	19:23	22.26	21.96	915	-0.3
KOLDAM HPS(4 * 200)	800	872	742	0	869	18:00	4.25	4.55	190	0.3
RIHAND-I STPS(2 * 500)	1,000	922.5	1,001	1,000	1,001	19:00	22.05	22.5	938	0.45
RIHAND-II STPS(2 * 500)	1,000	942.5	986	1,006	986	19:00	22.56	22.74	948	0.18
RIHAND-III STPS(2 * 500)	1,000	471.25	507	508	507	19:00	11.28	11.62	484	0.34
SINGRAULI STPS(2 * 500 + 5 * 200)	2,000	1,810	1,970	1,962	1,985	22:00	43.36	43.74	1,823	0.38
SINGRAULI SOLAR(1 * 15)	15	2.53	0	0	0	-	0.06	0.05	2	-0.01
UNCHAHAH II TPS(2 * 210)	420	382.2	394	344	394	19:00	8.74	9.2	383	0.46
UNCHAHAH III TPS(1 * 210)	210	191.1	210	159	210	19:00	4.24	4.52	188	0.28
UNCHAHAH IV TPS(1 * 500)	500	0	0	0	0	-	0	-	-	0
UNCHAHAH SOLAR(1 * 10)	10	1.9	0	0	0	-	0.05	0.05	2	0
UNCHAHAH TPS(2 * 210)	420	382.2	377	272	377	19:00	8.5	8.83	368	0.33
Sub-Total	12,612	8,218.69	9,565	8,563	-	-	206.98	209.02	8,711	2.04
SJVNL										
NATHPA-JHAKRI HPS(6 * 250)	1,500	1,497.38	1,534	0	1,534	19:00	11.5	11.77	490	0.27
RAMPUR HEP(6 * 68.67)	412	442	422	0	444	18:00	3.19	3.36	140	0.17
Sub-Total	1,912	1,939.38	1,956	0	-	-	14.69	15.13	630	0.44
THDC										
KOTESHWAR HPS(4 * 100)	400	103.75	200	92	201	18:00	2.49	2.56	107	0.07
TEHRI HPS(4 * 250)	1,000	1,064	1,008	0	1,027	20:00	7	7.21	300	0.21
Sub-Total	1,400	1,167.75	1,208	92	-	-	9.49	9.77	407	0.28
Total	24,534	15,393.33	18,646	11,149			309.03	315.01	13,127	5.98

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	184	0	184	19:00	0.96	1.02	43	0.06
BUDHIL HPS (IPP)(2 * 35)	70	0	69	0	69	18:00	0.51	0.43	18	-0.08
KARCHAM WANGTOO HPS(4 * 250)	1,000	0	1,000	0	1,000	19:00	5.96	6.06	253	0.1
MALANA2(2 * 50)	100	0	0	0	106	11:00	0.34	0.36	15	0.02
SAINJ HEP(2 * 50)	50	0	55	25	55	06:30	0.75	0.85	35	0.1
SHREE CEMENT (IPP) TPS(2 * 150)	300	0	298	260	298	19:00	6.96	6.84	285	-0.12
Sub-Total	1,712	0	1,606	285	-	-	15.48	15.56	649	0.08
Total	1,712	0	1,606	285	-	-	15.48	15.56	649	0.08

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	54,626	22,025	19,923	521.4	21,725
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		3,562	5,294	105.27	4,801
Total Regional Availability(Gross)	80,872	45,839	36,651	957.24	40,300

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	10,013	1,487	94.88	3,953
State Control Area Hydro	6,125	2,697	1,952	56.25	2,344
Total Regional Hydro	18,939	12,710	3,439	151.13	6,297

Total Renewable Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Renewable	30	0	0	0.12	5
State Control Area Renewable	9,214	500	435	43.75	1,823
Total Regional Renewable	9,244	500	435	43.87	1,828

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 ..	-	-	-	-	0.48	0	0.48
3	132KV-Rihand-Sonnagar(PG)	-	-	-	-	0	0.67	-0.67
4	220KV-Pusauli(PG)-Sahupuri(UP)	139	115	142	0	3.08	0	3.08
5	400KV-Biharsharif(PG)-Baliala(PG)	42	27	121	89	0.17	0	0.17
6	400KV-Biharsharif(PG)-Varanasi(P..	-193	-149	29	219	0	2.8	-2.8
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-
8	400KV-Motihari(DMT)-Gorakhpur ..	188	284	298	0	5.65	0	5.65
9	400KV-Muzaffarpur(PG)-Gorakhp ..	21	34	376	72	1.26	0	1.26
10	400KV-Patna(PG)-Baliala(PG)	341	437	621	0	9.53	0	9.53
11	400KV-Sasaram-Allahabad(PG)	118	128	159	0	3.13	0	3.13
12	400KV-Sasaram-Varanasi(PG)	274	263	282	0	6.56	0	6.56
13	765KV-Fatehpur(PG)-Sasaram.	-240	-210	4	248	0	3.78	-3.78
14	765KV-Gaya(PG)-Baliala(PG)	10	39	88	-9	0.93	0	0.93
15	765KV-Gaya(PG)-Varanasi(PG)	-166	-35	0	205	0	0.67	-0.67
16	HVDC800KV-Alipurduar-Agra(PG)	0	200	200	0	3.4	0	3.4
Sub-Total EAST REGION		534	1,133	2,320	824	34.19	7.92	26.27
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli- ..	500	650	650	0	11.56	0	11.56
Sub-Total NORTH_EAST REGION		500	650	650	0	11.56	0	11.56
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya(NT)-Malanpur(PG)	-136	-89	-	199	0	4.12	-4.12
2	220KV-Badod(MP)-Kota(PG)	-95	-110	27	130	0	2.08	-2.08
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-
4	400KV-RAPS C(NP)-Sujalpur	-275	-271	0	445	0	7.33	-7.33
5	400KV-Vindhyachal(PG)-Rihand(N ..	-475	-477	-	487	0	11.62	-11.62
6	400KV-Zerda(PG)-Bhinmal(PG)	-37	-170	67	358	0	2.87	-2.87
7	400KV-Zerda(PG)-Kankroli(RJ)	-300	-268	0	419	0	7.17	-7.17
8	765KV-0rai-Gwalior(PG)	-344	-323	0	485	0	8.54	-8.54
9	765KV-0rai-Jabalpur	-335	72	391	492	0	0.31	-0.31
10	765KV-0rai-Satna	1,385	1,505	1,553	0	35.01	0	35.01
11	765KV-Gwalior(PG)-Agra(PG)	700	1,001	1,706	0	26.67	0	26.67
12	765KV-Phagi(RJ)-Gwalior(PG)	539	743	523	-	16.45	0	16.45
13	HVDC500KV-Mundra(JH)-Mohind..	1,001	998	1,003	0	24.24	0	24.24
14	HVDC500KV-Vindhyachal(PG)-Vindhaychal B/B	250	250	0	250	0	6.04	-6.04
15	HVDC800KV-Champa(PG)-Kuruku..	650	650	650	0	15.15	0	15.15
Sub-Total WEST REGION		2,528	3,511	5,920	3,265	117.52	50.08	67.44
TOTAL IR EXCHANGE		3,562	5,294	8,890	4,089	163.27	58	105.27

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	44.06	-3.13	0.04	40.97	26.27	-14.7

NR-WR	155.61	-13.61	-48.51	93.49	67.44	-26.05
Total	199.67	-16.74	-48.47	134.46	105.27	-29.19

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)	0	0		25		0.1651	-0.1651

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	.8	14.8	78.4	80.6	4.4	.2	0	4.6

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

Maximum		Minimum		Average	Freq Variation	Standard	Freq. in 15 mnt blk		Freq Dev Index
Frequency	Time	Frequency	Time				Frequency	Index	
50.12	06:02:00	49.74	19:22:40	49.96	0.051	0.056	50.07	49.83	19.4

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	428	04:00	412	09:35	0	0	50	0	50
Abdullapur(PG) - 400KV	428	04:00	412	09:35	0	0	50	0	50
Amritsar(PG) - 400KV	429	04:00	411	09:15	0	0	52.08	0	52.08
Ballabgarh(PG) - 400KV	425	20:15	407	09:35	0	0	24.65	0	24.65
Bareilly II(PG) - 400KV	415	04:00	404	17:40	0	0	0	0	0
Bareilly(UP) - 400KV	416	04:00	406	17:40	0	0	0	0	0
Baspa(HP) - 400KV	429	04:00	410	18:20	0	0	49.65	0	49.65
Bassi(PG) - 400KV	419	20:05	397	09:35	0	0	0	0	0
Bawana(DTL) - 400KV	424	04:00	410	09:35	0	0	35.76	0	35.76
Dadri HVDC(PG). - 400KV	423	04:00	410	09:40	0	0	25.69	0	25.69
Gorakhpur(PG) - 400KV	416	08:00	403	19:25	0	0	0	0	0
Hisar(PG) - 400KV	421	20:10	404	09:35	0	0	3.13	0	3.13
Kanpur(PG) - 400KV	420	04:00	410	09:45	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	405	07:10	0	0	3.82	0	3.82
Moga(PG) - 400KV	420	13:05	403	09:15	0	0	.69	0	.69
Nallagarh(PG) - 400KV	429	04:00	410	18:20	0	0	49.65	0	49.65
Rihand HVDC(PG) - 400KV	410	12:00	410	12:00	.69	.69	0	0	.69
Rihand(NT) - 400KV	408	04:00	400	10:50	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	795	20:15	767	09:20	0	0	0	0	0
Balia(PG) - 765KV	782	08:00	764	19:25	0	0	0	0	0
Bareilly II(PG) - 765KV	792	04:00	773	17:40	0	0	0	0	0
Bhiwani(PG) - 765KV	806	20:10	773	09:20	0	0	6.25	0	6.25
Fatehpur(PG) - 765KV	780	13:05	743	09:50	0	0	0	0	0
Jhatikara(PG) - 765KV	800	20:05	768	09:35	0	0	.69	0	.69
Lucknow II(PG) - 765KV	788	04:00	771	19:25	0	0	0	0	0
Meerut(PG) - 765KV	809	20:05	773	09:20	0	0	8.33	0	8.33
Moga(PG) - 765KV	802	20:05	760	09:15	0	0	2.43	0	2.43
Phagi(RJ) - 765KV	800	20:10	768	09:20	0	0	.35	0	.35
Unnao(UP) - 765KV	779	04:00	764	10:15	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	-1,144.71	-151.35	0	-741.11	-857.63	0	61.56	-20.01	-7.91	33.65
HARYANA	196.27	0.49	0	-24.45	-910.38	0	94.27	1.93	-8.36	87.86
RAJASTHAN	-99.98	-1,177.19	0	-99.98	-858.27	0	67.27	-2.45	-13.97	50.85
DELHI	-291.79	-964.07	0	-281.57	-559.58	0	76.23	-8.81	-14.26	53.15
UTTAR PRADESH	495.28	0	0	96.51	0	0	112.95	3.29	-0.43	115.8
UTTARAKHAND	150.15	-76.59	0	107.72	5.41	0	12.1	3.74	-0.39	15.45
HIMACHAL PRADESH	62.45	-0.1	0	61.79	-366.63	0	16.72	3.19	-4.05	15.86
JAMMU & KASHMIR	143.69	197.72	0	143.69	247.15	0	26.54	3.45	7.6	37.59
CHANDIGARH	0	-25.16	0	0	-40.26	0	3.92	0	-0.71	3.21
TOTAL	-488.64	-2,196.25	0	-737.4	-3,340.19	0	471.56	-15.67	-42.48	413.42

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	3,612.75	2,148.43	-741.11	-1,144.71	-151.35	-958.53	0	0
HARYANA	4,999.85	3,203.3	238.06	-201.38	0.49	-1,112.68	0	0
RAJASTHAN	3,597.32	2,153.26	-99.98	-108.15	653.14	-1,691.25	0	0
DELHI	3,647.83	2,289.02	-280.44	-477.72	-11.32	-1,382.85	0	0
UTTAR PRADESH	6,123.17	3,745.72	495.28	-4.27	44.15	-508.34	0	0
UTTARAKHAND	830.14	240.49	208.87	78.31	211.28	-267.7	0	0
HIMACHAL PRADESH	1,445.48	323.95	257.57	60.62	189.72	-864.44	0	0
JAMMU & KASHMIR	1,648.96	663.05	143.69	143.69	593.16	0	0	0
CHANDIGARH	282.9	115.21	0	0	0	-99.94	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	508.52	1,470	507.09	1,411	283.31	371.46
Chamera-I	748.75	760	756.4	-	-	-	99.49	108.28
Gandhisagar	295.78	295.78	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	-	-	-	-	-	0
Koteshwar	598.5	612.5	608.92	4	611.79	5	155	168.87
Pong	384.05	426.72	422.16	991	417.09	756	100.38	353.11
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	525.12	5	514.28	4	120.33	168.24
Rihand	252.98	268.22	262.77	465	262.62	455	-	0
Tehri	740.04	829.79	826.55	1,141	823.3	1,072	77.42	155
TOTAL	-	-	-	4,076	-	3,703	835.93	1,324.96

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	4	40
DELHI	4	28
HARYANA	1	17
HIMACHAL PRADESH	5	25
JAMMU & KASHMIR	1	19
PUNJAB	1	14
RAJASTHAN	1	15
UTTAR PRADESH	1	15
UTTARAKHAND	5	49

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