



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

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

Date of Reporting:30-Nov-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
42,519	532	43,051	50.07	31,300	302	31,602	49.89	911	11.17

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	65.9	12.7	0	4.21	0	7.99	90.79	35.7	35.36	-0.34	126.15	0	126.15
HARYANA	53.44	0.55	0	0.12	0	1.11	55.21	66.6	66.64	0.04	121.85	0	121.85
RAJASTHAN	131.39	4.08	1.73	13.36	8.15	4.42	163.13	63.46	64.69	1.23	227.82	0	227.82
DELHI	0	0	15.32	0	0	0	15.32	46.64	46.95	0.31	62.27	0	62.27
UTTAR PRADESH	126	6.2	0	2.1	0	16.8	151.1	107.87	108.5	0.63	259.6	0	259.6
UTTARAKHAND	0	8.43	2.43	0.49	0	0.49	11.84	22.19	23.13	0.94	34.97	0	34.97
HIMACHAL PRADESH	0	4.63	0	0	0	3.22	7.85	20.65	20.37	-0.28	28.22	0	28.22
JAMMU & KASHMIR	0	6.48	0	0	0	0	6.48	39.05	40.86	1.81	58.51	11.17	47.34
CHANDIGARH	0	0	0	0	0	0	0	2.83	3.21	0.38	3.21	0	3.21
Region	376.73	43.07	19.48	20.28	8.15	34.03	501.72	404.99	409.71	4.72	922.6	11.17	911.43

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	5,384	0	-85	-1,383	3,765	0	79	-695
HARYANA	6,207	0	103	-727	4,089	0	60	-716
RAJASTHAN	9,902	0	274	-586	8,162	0	120	-41
DELHI	3,307	0	-12	-1,108	1,589	0	10	-1,533
UTTAR PRADESH	12,429	20	18	91	9,851	0	-33	99
UTTARAKHAND	1,679	0	-97	464	1,178	0	33	423
HIMACHAL PRADESH	1,394	0	51	-107	879	0	-29	316
JAMMU & KASHMIR	2,047	512	-107	455	1,710	302	-3	653
CHANDIGARH	170	0	17	-51	78	0	11	-46
Region	42,519	532	162	-2,952	31,301	302	248	-1,540

2(C)State's Demand Met in MWs (Maximum Demand Met and Maximum requirement of the day details)

State	Maximum Demand, corresponding shortage and requirement details for the day				Maximum requirement, corresponding shortage and demand details for the day					
	Maximum Demand Met of the day	Time	Shortage(-) /Surplus(+) during at maximum demand	Requirement at the max demand met of the day	Maximum Requirement of the day	Time	Shortage(-) /Surplus(+) during at maximum Requirement	Demand Met at maximum requiremnet	Min Demand Met	Time
PUNJAB	5,581	16:00	0	5,581	5,581	16:00	0	5,581	3,765	3:00
HARYANA	6,207	19:00	0	6,207	6,207	19:00	0	6,207	4,079	2:00
RAJASTHAN	11,545	10:00	0	11,545	11,545	10:00	0	11,545	7,511	5:00
DELHI	3,394	11:00	0	3,394	3,394	11:00	0	3,394	1,550	5:00
UP	12,429	19:00	20	12,449	12,449	19:00	20	12,429	9,851	3:00
UTTARAKHAND	1,866	8:00	0	1,866	1,866	8:00	0	1,866	1,111	1:00
HP	1,529	9:00	0	1,529	1,529	9:00	0	1,529	846	4:00
J&K	2,318	10:00	579	2,897	2,897	10:00	579	2,318	1,710	3:00
CHANDIGARH	182	9:00	0	182	182	9:00	0	182	78	3:00
NR	42,519	19:00	532	43,051	43,051	19:00	532	42,519	31,261	4:00

3(A) State Entities Generation:

CHANDIGARH						
Station/Constituents	Inst. Capacity	N/A	N/A	Day Peak		Day Energy
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)
NIL						
Total	0	0	0			0
Total	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	-3	-3	-3	11:00	0	0
RAJGHAT TPS(2 * 67.5)	135	0	0	0			
Total THERMAL	840	-3	-3			0	0
BAWANA GPS(2 * 253 + 4 * 216)	1,370	427	428	519	18:00	10.61	442
DELHI GAS TURBINES(3 * 34 + 6 * 30)	282	40	40	56	23:00	0.97	40
PRAGATI GAS TURBINES(1 * 121.2 + 2 * 104.6)	331	154	145	158	18:00	3.73	155
RITHALA GPS(3 * 36)	108	0	0	0			
Total GAS/NAPHTHA/DIESEL	2,091	621	613			15.31	637
WIND	0	0	0	0			
BIOMASS(1 * 16)	16	0	0	0			
SOLAR(1 * 2)	2	0	0	0			
Total DELHI	2,949	618	610			15.31	637

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	281	246	291	11:00	6.1	254
JHAJJAR(CLP)(2 * 660)	1,320	614	370	614	19:00	12.22	509
MAGNUM DIESEL (IPP)(4 * 6.3)	25	0	0	0			
PANIPAT TPS(2 * 210 + 2 * 250)	920	807	754	844	09:00	18.33	764
RGTPP(KHEDAR)(2 * 600)	1,200	1,078	390	1,078	19:00	16.79	700
Total THERMAL	4,065	2,780	1,760			53.44	2,227
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	13	21	22	01:00	0.55	23
Total HYDEL	62	13	21			0.55	23
WIND	0	0	0	0			
BIOMASS(1 * 106)	106	0	0	0		1.11	46
SOLAR(1 * 50)	50	0	0	0		0.12	5
Total HARYANA	4,715	2,793	1,781			55.22	2,301

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	28	56	139		1.34	56
MALANA (IPP) HPS(2 * 43)	86	48	0	48		0.37	15
OTHER HYDRO HP(1 * 372)	372	159	98	0		2.92	122
Total HYDEL	758	235	154			4.63	193
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO(1 * 486)	486	171	114	0		3.22	134
Total SMALL HYDRO	486	171	114			3.22	134
Total HP	1,244	406	268			7.85	327

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	146	146	0		3.59	150
OTHER HYDRO/IPP J&K(1 * 308)	308	141	119	0		2.89	120
Total HYDEL	1,208	287	265			6.48	270
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	287	265			6.48	270

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	350	290	350		8.2	342
GURU GOBIND SINGH TPS (ROPAR)(6 * 210)	1,260	0	0	0		-0.1	-4
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)(2 * 210 + 2 * 250)	920	655	646	855		17.26	719
GURU NANAK DEV TPS (BHATINDA)(4 * 110)	460	0	0	0		-0.09	-4
RAJPURA(NPL) TPS(2 * 700)	1,400	660	398	660		14.94	623
TALWANDI SABO TPS(3 * 660)	1,980	1,202	616	1,228		25.68	1,070
Total THERMAL	6,560	2,867	1,950			65.89	2,746
TOTAL HYDRO PUNJAB(1 * 1000)	1,000	550	387	604		12.7	529
Total HYDEL	1,000	550	387			12.7	529
WIND	0	0	0	0			
BIOMASS(1 * 303)	303	0	0	0		7.99	333
SOLAR(1 * 859)	859	0	0	490		4.21	175
Total PUNJAB	8,722	3,417	2,337			90.79	3,783

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	223	220	0		5.26	219
CHHABRA TPS(1 * 660 + 4 * 250)	1,660	1,233	1,201	0		29.61	1,234
GIRAL (IPP) LTPS(2 * 125)	250	0	0	0			
KALISINDH TPS(2 * 600)	1,200	545	405	0		11.98	499
KAWAI TPS(2 * 660)	1,320	613	855	0		21.3	888
KOTA TPS(2 * 110 + 2 * 195 + 3 * 210)	1,240	1,030	835	0		22.49	937
RAJWEST (IPP) LTPS(8 * 135)	1,080	703	485	0		15.03	626
SURATGARH TPS(6 * 250)	1,500	1,103	908	0		23.26	969
VSLPP (IPP)(1 * 135)	135	104	105	0		2.47	103
Total THERMAL	8,635	5,554	5,014			131.4	5,475
DHOLPUR GPS(3 * 110)	330	0	0	0			
RAMGARH GPS(1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5)	271	69	70	0		1.73	72
Total GAS/NAPHTHA/DIESEL	601	69	70			1.73	72
RAPS-A(1 * 100 + 1 * 200)	300	161	161	0		3.74	156
Total NUCLEAR	300	161	161			3.74	156
TOTAL HYDRO RAJASTHAN(1 * 550)	550	218	194	0		4.08	170
Total HYDEL	550	218	194			4.08	170
WIND	4,292	281	579	0		8.15	340
BIOMASS(1 * 102)	102	28	28	0		0.67	28
SOLAR(1 * 1995)	1,995	10	0	0		13.36	557
Total RAJASTHAN	16,475	6,321	6,046			163.13	6,798

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	1,370	1,151	0		33.2	1,383
ANPARA-C TPS(2 * 600)	1,200	1,092	796	0		25.7	1,071
ANPARA-D TPS(2 * 500)	1,000	958	951	0		21.8	908
BAJAJ ENERGY PVT LTD (IPP) TPS(10 * 45)	450	0	0	0			
BARA PPGCL TPS(3 * 660)	1,980	819	683	0		21.7	904
HARDUAGANJ TPS(1 * 105 + 1 * 60 + 2 * 250)	665	298	253	0		8.6	358
LALITPUR TPS(3 * 660)	1,980	0	0	0			
MEJA TPS(1 * 660)	660	0	0	0			
OBRA TPS (2 * 94 + 5 * 200)	1,188	344	222	0		7.6	317
PANKI TPS(2 * 105)	210	0	0	0			
PARICHA TPS(2 * 110 + 2 * 210 + 2 * 250)	1,160	0	0	0			
ROSA TPS(4 * 300)	1,200	0	0	0			
TANDA TPS(4 * 110)	440	262	235	0		7.4	308
Total THERMAL	13,763	5,143	4,291			126	5,249
ALAKHANDA HEP(4 * 82.5)	330	82	103	0		2	83
VISHNUPARYAG HPS(4 * 110)	440	103	82	0		2.5	104
OTHER HYDRO UP(1 * 527)	527	112	63	0		1.7	71
Total HYDEL	1,297	297	248			6.2	258
WIND	0	0	0	0			
BIOMASS(1 * 26)	26	0	0	0			
SOLAR(1 * 472)	472	0	0	0		2.1	88
CO-GENERATION(1 * 1360)	1,360	900	900	0		16.8	700
Total OTHERs	1,360	900	900			16.8	700
Total UP	16,918	6,340	5,439			151.1	6,295

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	95	95	95	08:00	2.43	101			
Total GAS/NAPHTHA/DIESEL	450	95	95			2.43	101			
OTHER HYDRO UK(1 * 1250)	1,250	441	219	611	08:00	8.43	351			
Total HYDEL	1,250	441	219			8.43	351			
WIND	0	0	0	0						
BIOMASS(1 * 127)	127	18	22	23	08:00	0.49	20			
SOLAR(1 * 100)	100	0	0	70	12:00	0.49	20			
SMALL HYDRO(1 * 180)	180	0	0	0						
Total SMALL HYDRO	180	0	0			0	0			
Total UTTARAKHAND	2,107	554	336			11.84	492			

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	409.5	496	370	496	19:00	9.83	9.94	414	0.11
DEHAR HPS(6 * 165)	990	219.38	440	0	440	19:00	5.26	5.51	230	0.25
PONG HPS(6 * 66)	396	235.05	330	132	330	19:00	5.64	5.63	235	-0.01
Sub-Total	2,765	863.93	1,266	502	-	-	20.73	21.08	879	0.35
NHPC										
BAIRASIUL HPS(3 * 60)	180	0	0	0	0	-	0	0	0	0
CHAMERA HPS(3 * 180)	540	535.58	500	0	548	07:15	2.5	2.73	114	0.23
CHAMERA II HPS(3 * 100)	300	72.05	204	72	204	19:00	1.63	1.93	80	0.3
CHAMERA III HPS(3 * 77)	231	44.22	151	51	160	07:00	1.06	1.11	46	0.05
DHAULIGANGA HPS(4 * 70)	280	58.71	283	0	290	07:00	1.37	1.44	60	0.07
DULHASTI HPS(3 * 130)	390	386.9	390	0	393	16:00	3.74	4	167	0.26
KISHANGANGA(2 * 110)	220	0	0	0	0	-	0	0	0	0
PARBATI III HEP(4 * 130)	520	29.34	262	0	262	19:00	0.7	0.75	31	0.05
SALAL HPS(6 * 115)	690	101.25	351	32	382	08:00	2.43	2.94	123	0.51
SEWA-II HPS(3 * 40)	120	120.2	78	0	84	07:00	0.39	0.42	18	0.03
TANAKPUR HPS(1 * 31.42 + 2 * 31.4)	94	36.25	33	40	67	14:00	0.87	0.91	38	0.04
URI HPS(4 * 120)	480	175	138	157	356	08:00	4.2	4.9	204	0.7
URI-II HPS(4 * 60)	480	110.89	122	94	182	02:00	2.66	2.81	117	0.15
Sub-Total	4,525	1,670.39	2,512	446	-	-	21.55	23.94	998	2.39
NPCL										
NAPS(2 * 220)	440	405	441	449	449	03:00	9.72	9.73	405	0.01
RAPS-B(2 * 220)	440	194	220	221	221	21:00	4.66	4.67	195	0.01
RAPS-C(2 * 220)	440	420	473	476	476	03:00	10.08	10.27	428	0.19
Sub-Total	1,320	1,019	1,134	1,146	-	-	24.46	24.67	1,028	0.21
NTPC										
ANTA GPS(1 * 153.2 + 3 * 88.71)	419	403.8	0	0	0	-	0	0.03	1	0.03
AURAIYA GPS(2 * 109.3 + 4 * 111.19)	663	164.9	185	183	269	08:00	4.67	4.76	198	0.09
DADRI GPS(2 * 154.51 + 4 * 130.19)	830	402.08	223	231	354	-	5.69	5.65	235	-0.04
DADRI SOLAR(1 * 5)	5	0.73	0	0	3	13:20	0.02	0.01	0	-0.01
DADRI-I TPS(4 * 210)	840	628.48	624	366	624	19:00	10.13	10.13	422	0
DADRI-II TPS(2 * 490)	980	928.55	947	619	947	19:00	17.72	18.78	783	1.06
ISTPP (JHAJJAR)(3 * 500)	1,500	947.5	990	568	1,016	17:57	18.44	18.3	763	-0.14
KOLDAM HPS(4 * 200)	800	872	708	0	875	07:00	3.5	3.74	156	0.24
RIHAND-I STPS(2 * 500)	1,000	461.25	475	517	475	19:00	11	12.41	517	1.41
RIHAND-II STPS(2 * 500)	1,000	942.5	1,001	980	1,001	19:00	22.62	24.06	1,003	1.44
RIHAND-III STPS(2 * 500)	1,000	942.5	985	895	985	19:00	22.31	24.06	1,003	1.75
SINGRAULI STPS(2 * 500 + 5 * 200)	2,000	1,862.5	2,016	2,041	2,016	19:00	44.63	45.13	1,880	0.5
SINGRAULI SOLAR(1 * 15)	15	2.28	0	0	0	-	0.05	0.05	2	0
UNCHAHAH II TPS(2 * 210)	420	382.2	371	233	371	19:00	6.9	7.78	324	0.88
UNCHAHAH III TPS(1 * 210)	210	191.1	205	118	205	19:00	3.43	3.74	156	0.31
UNCHAHAH IV TPS(1 * 500)	500	0	0	0	0	-	0	-	-	0
UNCHAHAH SOLAR(1 * 10)	10	1.15	0	0	0	-	0.03	0.03	1	0
UNCHAHAH TPS(2 * 210)	420	382.2	283	240	283	19:00	6.67	7.34	306	0.67
Sub-Total	12,612	9,515.72	9,013	6,991	-	-	177.81	186	7,750	8.19
SJVNL										
NATHPA-JHAKRI HPS(6 * 250)	1,500	1,249.38	1,246	0	1,355	07:00	8.95	9.25	385	0.3
RAMPUR HEP(6 * 68.67)	412	344.38	338	0	371	07:00	2.48	2.6	108	0.12
Sub-Total	1,912	1,593.76	1,584	0	-	-	11.43	11.85	493	0.42
THDC										
KOTESHWAR HPS(4 * 100)	400	91.25	102	95	102	19:00	2.19	2.25	94	0.06
TEHRI HPS(4 * 250)	1,000	1,064	978	0	1,052	18:00	6.82	7	292	0.18
Sub-Total	1,400	1,155.25	1,080	95	-	-	9.01	9.25	386	0.24
Total	24,534	15,818.05	16,589	9,180			264.99	276.79	11,534	11.8

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	0	0	0	-	0	0	0	0
BUDHIL HPS (IPP)(2 * 35)	70	0	69	0	69	19:00	0.31	0.3	13	-0.01
KARCHAM WANGTOO HPS(4 * 250)	1,000	0	1,000	0	1,000	19:00	4.74	4.85	202	0.11
MALANA2(2 * 50)	100	0	0	0	0	-	0	-	-	0
SAINJ HEP(2 * 50)	50	0	100	25	100	00:00	0.63	0.63	26	0
SHREE CEMENT (IPP) TPS(2 * 150)	300	0	145	85	148	10:00	2.66	2.64	110	-0.02
Sub-Total	1,712	0	1,314	110	-	-	8.34	8.42	351	0.08
Total	1,712	0	1,314	110	-	-	8.34	8.42	351	0.08

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	54,626	20,736	17,082	501.72	20,905
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		4,372	6,138	159.05	9,199
Total Regional Availability(Gross)	80,872	43,011	32,510	945.98	41,988

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	8,319	1,068	75.64	3,152
State Control Area Hydro	6,125	2,041	1,488	43.07	1,795
Total Regional Hydro	18,939	10,360	2,556	118.71	4,947

Total Renewable Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Renewable	30	0	0	0.09	4
State Control Area Renewable	9,214	508	743	41.91	1,746
Total Regional Renewable	9,244	508	743	42	1,750

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	-34	-31	-	35	0	0.69	-0.69
2	132KV-Karmnasa(PG)-Sahupuri(U ..	-	-	-	-	-	-	-
3	132KV-Rihand-Sonnagar(PG)	-	-	-	-	-	-	-
4	220KV-Pusauli(PG)-Sahupuri(UP)	110	86	-	-	2.41	0	2.41
5	400KV-Biharsharif(PG)-Baliala(PG)	54	80	241	0	3.14	0	3.14
6	400KV-Biharsharif(PG)-Varanasi(P..	92	14	147	114	0.19	0	0.19
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-
8	400KV-Motihari(DMT)-Gorakhpur ..	178	290	290	0	4.97	0	4.97
9	400KV-Muzaffarpur(PG)-Gorakhp ..	-55	28	384	94	2.1	0	2.1
10	400KV-Patna(PG)-Baliala(PG)	159	586	631	0	9.05	0	9.05
11	400KV-Sasaram-Allahabad(PG)	-94	-22	95	34	0	0.8	-0.8
12	400KV-Sasaram-Varanasi(PG)	-48	-34	11	48	0	0.62	-0.62
13	765KV-Fatehpur(PG)-Sasaram.	49	103	290	0	3.64	0	3.64
14	765KV-Gaya(PG)-Baliala(PG)	109	169	268	0	4.72	0	4.72
15	765KV-Gaya(PG)-Varanasi(PG)	71	274	559	0	6.66	0	6.66
16	HVDC800KV-Alipurduar-Agra(PG)	200	200	200	0	4.6	0	4.6
Sub-Total EAST REGION		791	1,743	3,116	325	41.48	2.11	39.37
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli- ..	18	500	750	0	24.5	0	24.5
Sub-Total NORTH_EAST REGION		18	500	750	0	24.5	0	24.5
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya(NT)-Malanpur(PG)	-110	-88	-	171	0	2.82	-2.82
2	220KV-Badod(MP)-Kota(PG)	-82	-69	-	89	0	1.19	-1.19
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-
4	400KV-RAPS C(NP)-Sujalpur	-209	-80	124	281	0	2.44	-2.44
5	400KV-Vindhyachal(PG)-Rihand(N ..	-940	-949	0	500	0	22.88	-22.88
6	400KV-Zerda(PG)-Bhinmal(PG)	-136	-141	168	186	0	1.76	-1.76
7	400KV-Zerda(PG)-Kankroli(RJ)	-264	-289	0	310	0	5.34	-5.34
8	765KV-0rai-Gwalior(PG)	-260	-286	0	684	0	8.27	-8.27
9	765KV-0rai-Jabalpur	5	341	522	74	6.66	0	6.66
10	765KV-0rai-Satna	1,516	1,539	1,940	0	38.69	0	38.69
11	765KV-Gwalior(PG)-Agra(PG)	972	1,338	1,610	0	28.35	0	28.35
12	765KV-Phagi(RJ)-Gwalior(PG)	820	827	1,336	-	20.94	0	20.94
13	HVDC500KV-Mundra(JH)-Mohind..	1,001	1,002	1,003	0	23.67	0	23.67
14	HVDC500KV-Vindhyachal(PG)-Vindhaychal B/B	-250	-250	0	250	0	5.69	-5.69
15	HVDC800KV-Champa(PG)-Kuruku..	1,500	1,000	1,500	0	27.26	0	27.26
Sub-Total WEST REGION		3,563	3,895	8,203	2,545	145.57	50.39	95.18
TOTAL IR EXCHANGE		4,372	6,138	12,069	2,870	211.55	52.5	159.05

4(B) Inter Regional Schedule & Actual Exchange (Import=(+ve) /Export =(-ve)) in MU

	ISGS/(LT+MT) Schedule	BILT Schedule	PX Schedule	Total IR Schedule	Total IR Actual	NET IR UI
NR-ER	54.05	-22.08	12.79	44.76	39.37	-5.39

NR-WR	148.93	-37.29	0.39	112.03	95.18	-16.85
Total	202.98	-59.37	13.18	156.79	159.05	2.26

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)	-23.53	-9.9	0	26	0	0.2579	-0.2579

5. Frequency Profile

RANGE(Hz)	< 49.2	< 49.7	< 49.8	< 49.9	< 50.0	>= 49.9 - <= 50.05	> 50.05 - <= 50.1	> 50.1 - <= 50.2	> 50.2	> 50.05
%	0	0	1.6	27.3	73.7	65.7	5.9	1	0	6.9

<-----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	22:00:30	49.74	17:15:00	49.95	0.078	0.072	50.08	49.82	34.3

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	427	21:00	410	10:55	0	0	36.11	0	36.11
Amritsar(PG) - 400KV	426	21:00	411	12:20	0	0	37.85	0	37.85
Ballabgarh(PG) - 400KV	423	21:00	403	10:35	0	0	15.28	0	15.28
Bareilly II(PG) - 400KV	419	04:00	403	17:50	0	0	0	0	0
Bareilly(UP) - 400KV	420	04:00	404	17:50	0	0	.35	0	.35
Baspa(HP) - 400KV	429	21:00	413	17:55	0	0	42.01	0	42.01
Bassi(PG) - 400KV	420	21:00	401	12:40	0	0	0	0	0
Bawana(DTL) - 400KV	426	21:00	411	10:35	0	0	37.15	0	37.15
Dadri HVDC(PG) - 400KV	427	04:00	414	17:50	0	0	50.35	0	50.35
Gorakhpur(PG) - 400KV	419	04:00	407	17:50	0	0	0	0	0
Hisar(PG) - 400KV	424	21:00	424	21:00	21.53	21.53	11.81	0	33.34
Kanpur(PG) - 400KV	422	04:00	410	09:45	0	0	7.29	0	7.29
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	418	04:00	406	18:20	0	0	0	0	0
Moga(PG) - 400KV	419	21:00	407	12:20	0	0	0	0	0
Nallagarh(PG) - 400KV	429	21:00	413	17:55	0	0	42.01	0	42.01
Rihand HVDC(PG) - 400KV	404	04:00	401	17:50	0	0	0	0	0
Rihand(NT) - 400KV	404	04:00	401	17:50	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	796	20:00	774	10:20	0	0	0	0	0
Balia(PG) - 765KV	784	04:00	766	17:50	0	0	0	0	0
Bareilly II(PG) - 765KV	798	04:00	769	17:50	0	0	0	0	0
Bhiwani(PG) - 765KV	806	20:00	776	06:25	0	0	3.82	0	3.82
Fatehpur(PG) - 765KV	786	19:00	754	06:50	0	0	0	0	0
Jhatikara(PG) - 765KV	802	20:00	774	10:35	0	0	2.08	0	2.08
Lucknow II(PG) - 765KV	792	04:00	769	17:50	0	0	0	0	0
Meerut(PG) - 765KV	807	20:00	774	06:25	0	0	3.13	0	3.13
Moga(PG) - 765KV	798	20:00	761	06:25	0	0	0	0	0
Phagi(RJ) - 765KV	801	20:00	769	10:25	0	0	1.04	0	1.04
Unnao(UP) - 765KV	748	00:00	748	00:00	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	-1,681.87	986.7	0	-1,580.53	197.34	0	61.16	-38.74	13.29	35.7
HARYANA	-852.11	135.91	0	-819.75	92.53	0	85.64	-20.25	1.21	66.6
RAJASTHAN	-96.51	55.49	0	-96.51	-489.17	0	60.42	-0.92	3.96	63.46
DELHI	-1,026.97	-506.33	0	-1,038.9	-68.82	0	77.42	-26.15	-4.63	46.64
UTTAR PRADESH	99.44	0	0	89.36	1.95	0	111.92	-4.2	0.14	107.87
UTTARAKHAND	426.38	-3.23	0	459.19	4.36	0	12.22	10.2	-0.22	22.19
HIMACHAL PRADESH	321.81	-6.25	0	143.25	-250.37	0	14.23	7.26	-0.84	20.65
JAMMU & KASHMIR	505.36	148	0	505.36	-50.67	0	24.67	12.13	2.25	39.05
CHANDIGARH	0	-45.61	0	0	-50.67	0	3.77	0	-0.94	2.83
TOTAL	-2,304.47	764.68	0	-2,338.53	-613.52	0	451.45	-60.67	14.22	404.99

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	3,274.56	2,215.88	-1,580.53	-1,681.87	986.7	197.34	0	0
HARYANA	4,371.71	2,864.31	-640.2	-1,035.86	135.91	-301	0	0
RAJASTHAN	3,429.04	1,188.72	173.09	-96.51	1,543.1	-900.63	0	0
DELHI	3,957.9	2,414.13	-894.58	-1,206.25	249.66	-621.16	0	0
UTTAR PRADESH	6,042.51	4,071.1	99.44	-476.12	37.02	-119.49	0	0
UTTARAKHAND	811.26	350.11	459.19	400.98	146.02	-118.53	0	0
HIMACHAL PRADESH	1,318.8	241.67	409.87	143.15	276.87	-532.61	0	0
JAMMU & KASHMIR	1,535.1	764.45	505.36	505.36	315.74	-283.77	0	0
CHANDIGARH	255.58	109.98	0	0	0	-99.93	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	507.96	1,456	504.49	1,286	235.2	268.27
Chamera-I	748.75	760	-	-	-	-	-	0
Gandhisagar	295.78	295.78	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	-	-	-	-	-	0
Koteshwar	598.5	612.5	609.86	5	611.07	5	154	148.2
Pong	384.05	426.72	419.42	862	414.48	656	77.53	328.25
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	521.33	4	509.31	4	89.44	196.7
Rihand	252.98	268.22	261.98	418	433	262	-	336.69
Tehri	740.04	829.79	-	-	-	-	-	0
TOTAL	-	-	-	2,745	-	2,213	556.17	1,278.11

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	6	72
DELHI	3	21
HARYANA	0	10
HIMACHAL PRADESH	0	12
JAMMU & KASHMIR	6	29
PUNJAB	0	9
RAJASTHAN	2	22
UTTAR PRADESH	0	8
UTTARAKHAND	6	50

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