



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

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

Date of Reporting:31-Aug-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
55,238	896	56,134	49.92	49,300	275	49,575	50.05	1,219	10.14

2(A)State's Load Deals (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	89.04	15.58	0	5.8	0	2.26	112.68	141.74	141.29	-0.45	253.97	0	253.97
HARYANA	30.87	0.97	0	0.15	0	0.49	32.47	143.09	144.44	1.35	176.91	0	176.91
RAJASTHAN	110.99	0	2.94	11.09	38.97	0.24	164.22	52.92	53.98	1.06	218.2	0	218.2
DELHI	6.72	0	16.04	0	0	0.46	23.22	88.13	87.79	-0.34	111.01	0	111.01
UTTAR PRADESH	142.8	16.36	0	1.61	0	1.2	161.98	180.66	180.94	0.28	342.92	0	342.92
UTTARAKHAND	0	21.56	0	0.46	0	0	22.02	16.29	16.98	0.69	39.24	0.24	39
HIMACHAL PRADESH	0	18.5	0	0	0	9.29	27.79	-0.69	1.96	2.65	29.75	0	29.75
JAMMU & KASHMIR	0	24.65	0	0	0	0	24.65	20.87	17	-3.87	51.55	9.9	41.65
CHANDIGARH	0	0	0	0	0	0	0	6.45	5.9	-0.55	5.9	0	5.9
Region	380.42	97.62	18.98	19.11	38.97	13.94	569.03	649.46	650.28	0.82	1,229.45	10.14	1,219.31

2(B)State Demand Met (Peak and off-peak Hrs)

State	Evening Peak (20:00) MW				Off-Peak (03:00) MW			
	Demand Met	Shortage(-)/Surpl ..	UI	STOA/PX Transaction	Demand Met	Shortage(-)/Surpl ..	UI	STOA/PX Transaction
PUNJAB	10,661	0	23	1,591	9,765	0	-161	2,088
HARYANA	8,631	0	73	2,319	7,129	0	24	2,378
RAJASTHAN	9,295	0	-41	-684	8,799	0	501	-3
DELHI	5,013	0	48	325	4,142	0	57	453
UTTAR PRADESH	16,123	300	-241	1,782	15,324	40	11	2,359
UTTARAKHAND	1,846	80	151	42	1,545	0	121	-253
HIMACHAL PRADESH	1,334	0	142	-1,642	1,061	0	103	-1,773
JAMMU & KASHMIR	2,064	516	50	-463	1,330	235	-229	-1,117
CHANDIGARH	272	0	-26	-35	205	0	-19	-60
Region	55,239	896	179	3,235	49,300	275	408	4,072

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
PUNJAB	11,062	15:00	0	11,062	11,062	15:00	0	11,062
HARYANA	8,729	22:00	0	8,729	8,729	22:00	0	8,729
RAJASTHAN	10,090	24:00	0	10,090	10,090	24:00	0	10,090
DELHI	5,530	24:00	0	5,530	5,530	24:00	0	5,530
UP	16,748	22:00	0	16,748	16,748	22:00	0	16,748
UTTARAKHAND	1,846	20:00	80	1,926	1,926	20:00	80	1,846
HP	1,390	8:00	0	1,390	1,390	8:00	0	1,390
J&K	2,064	20:00	516	2,580	2,580	20:00	516	2,064
CHANDIGARH	295	15:00	0	295	295	15:00	0	295
NR	55,765	21:00	575	56,340	56,340	21:00	575	55,765

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	316	300	0		6.72	280
RAJGHAT TPS(2 * 67.5)	135	0	0	0		0	0
Total THERMAL	840	316	300			6.72	280
BAWANA GPS(2 * 253 + 4 * 216)	1,370	446	428	0		10.7	446
DELHI GAS TURBINES(3 * 34 + 6 * 30)	282	69	73	0		1.79	75
PRAGATI GAS TURBINES(1 * 121.2 + 2 * 104.6)	331	142	147	0		3.55	148
RITHALA GPS(3 * 36)	108	0	0	0		0	0
Total GAS/NAPHTHA/DIESEL	2,091	657	648			16.04	669
WIND	0	0	0	0		0	0
BIOMASS(1 * 16)	16	14	15	0		0.46	19
SOLAR(1 * 2)	2	0	0	0		0	0
Total DELHI	2,949	987	963			23.22	968

HARYANA							
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	238	235	275	15:00	5.57	232
JHAJJAR(CLP)(2 * 660)	1,320	1,005	740	1,193	22:00	20.46	853
MAGNUM DIESEL (IPP)(4 * 6.3)	25	0	0	0		0	0
PANIPAT TPS(2 * 210 + 2 * 250)	920	199	201	201	01:00	4.84	202
RGTPP(KHEGAR)(2 * 600)	1,200	0	0	0	00:00	0	0
Total THERMAL	4,065	1,442	1,176			30.87	1,287
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	28	26	28	10:00	0.97	40
Total HYDEL	62	28	26			0.97	40
WIND	0	0	0	0		0	0
BIOMASS(1 * 106)	106	0	0	0		0.49	20
SOLAR(1 * 50)	50	0	0	0		0.15	6
Total HARYANA	4,715	1,470	1,202			32.48	1,353

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	331	331		7.92	330
MALANA (IPP) HPS(2 * 43)	86	88	90	90	07:00	2.12	88
OTHER HYDRO HP(1 * 372)	372	361	366	0		8.45	352
Total HYDEL	758	780	787			18.49	770
WIND	0	0	0	0		0	0
BIOMASS	0	0	0	0		0	0
SOLAR	0	0	0	0		0	0
SMALL HYDRO(1 * 486)	486	390	380	0		9.29	387
Total SMALL HYDRO	486	390	380			9.29	387
Total HP	1,244	1,170	1,167			27.78	1,157

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		0	0
Total GAS/NAPHTHA/DIESEL	190	0	0			0	0
BAGLIHAR (IPP) HPS(6 * 150)	900	883	883	0		21.19	883
OTHER HYDRO/IPP J&K(1 * 308)	308	174	155	0		3.47	145
Total HYDEL	1,208	1,057	1,038			24.66	1,028
WIND	0	0	0	0		0	0
BIOMASS	0	0	0	0		0	0
SOLAR	0	0	0	0		0	0
SMALL HYDRO(1 * 98)	98	0	0	0		0	0
Total SMALL HYDRO	98	0	0			0	0
Total J&K	1,496	1,057	1,038			24.66	1,028

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	246	145	246		4.52	188
GURU GOBIND SINGH TPS (ROPAR)(6 * 210)	1,260	384	458	458		9.54	398
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)(2 * 210 + 2 * 250)	920	423	507	507		10.23	426
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		30.29	1,262
TALWANDI SABO TPS(3 * 660)	1,980	1,841	1,060	1,841		34.48	1,437
Total THERMAL	6,560	4,214	3,490			89.04	3,710
TOTAL HYDRO PUNJAB(1 * 1000)	1,000	637	529	673		15.58	649
Total HYDEL	1,000	637	529			15.58	649
WIND	0	0	0	0		0	0
BIOMASS(1 * 303)	303	0	0	0		2.26	94
SOLAR(1 * 859)	859	0	0	525		5.8	242
Total PUNJAB	8,722	4,851	4,019			112.68	4,695

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	224	226	0		5.26	219
CHHABRA TPS(1 * 660 + 4 * 250)	1,660	1,289	1,148	0		28.54	1,189
GIRAL (IPP) LTPS(2 * 125)	250	0	0	0		0	0
KALISINDH TPS(2 * 600)	1,200	525	403	0		9.91	413
KAWAI TPS(2 * 660)	1,320	1,125	860	0		21.19	883
KOTA TPS(2 * 110 + 2 * 195 + 3 * 210)	1,240	666	641	0		15.7	654
RAJWEST (IPP) LTPS(8 * 135)	1,080	835	471	0		13.6	567
SURATGARH TPS (6 * 250)	1,500	563	703	0		14.8	617
VSLPP (IPP)(1 * 135)	135	106	81	0		2	83
Total THERMAL	8,635	5,333	4,533			111	4,625
DHOLPUR GPS(3 * 110)	330	0	0	0		0	0
RAMGARH GPS(1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5)	271	118	120	0		2.94	123
Total GAS/NAPHTHA/DIESEL	601	118	120			2.94	123
RAPS-A(1 * 100 + 1 * 200)	300	0	0	0		0	0
Total NUCLEAR	300	0	0			0	0
TOTAL HYDRO RAJASTHAN(1 * 550)	550	0	0	0		0	0
Total HYDEL	550	0	0			0	0
WIND	4,292	1,760	1,623	0		38.97	1,624
BIOMASS(1 * 102)	102	10	10	0		0.24	10
SOLAR(1 * 1995)	1,995	37	0	0		11.09	462
Total RAJASTHAN	16,475	7,258	6,286			164.24	6,844

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	1,321	1,230	0		29.04	1,210
ANPARA-C TPS(2 * 600)	1,200	1,110	1,082	0		21.8	908
ANPARA-D TPS(2 * 500)	1,000	566	935	0		20.06	836
BAJAJ ENERGY PVT LTD (IPP) TPS(10 * 45)	450	0	0	0		0	0
BARA PPGCL TPS(3 * 660)	1,980	888	807	0		17.93	747
HARDUAGANJ TPS(1 * 105 + 1 * 60 + 2 * 250)	665	448	284	0		6.26	261
LALITPUR TPS(3 * 660)	1,980	0	0	0		0	0
OBRA TPS (2 * 94 + 5 * 200)	1,188	498	498	0		10.2	425
PANKI TPS(2 * 105)	210	0	0	0		0	0
PARICHA TPS(2 * 110 + 2 * 210 + 2 * 250)	1,160	861	539	0		14.36	598
ROSA TPS(4 * 300)	1,200	1,051	587	0		16.72	697
TANDA TPS(4 * 110)	440	371	244	0		6.44	268
Total THERMAL	13,103	7,114	6,206			142.81	5,950
ALAKHANDA HEP(4 * 82.5)	330	332	261	0		4.54	189
VISHNUPARYAG HPS(4 * 110)	440	395	435	0		10.24	427
OTHER HYDRO UP(1 * 527)	527	176	77	0		1.59	66
Total HYDEL	1,297	903	773			16.37	682
WIND	0	0	0	0		0	0
BIOMASS(1 * 26)	26	0	0	0		0	0
SOLAR(1 * 472)	472	0	0	0		1.61	67
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	8,067	7,029			161.99	6,749

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		0	0			
Total GAS/NAPTHA/DIESEL	450	0	0			0	0			
OTHER HYDRO UK(1 * 1250)	1,250	856	926	989	15:00	21.56	898			
Total HYDEL	1,250	856	926			21.56	898			
WIND	0	0	0	0		0	0			
BIOMASS(1 * 127)	127	0	0	0		0	0			
SOLAR(1 * 100)	100	0	0	60	13:00	0.46	19			
SMALL HYDRO(1 * 180)	180	0	0	0		0	0			
Total SMALL HYDRO	180	0	0			0	0			
Total UTTARAKHAND	2,107	856	926			22.02	917			

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	715.14	1,186	542	1,186	20:00	17.16	17.24	718	0.08
DEHAR HPS(6 * 165)	990	605.42	975	495	975	20:00	14.53	14.66	611	0.13
PONG HPS(6 * 66)	396	208.54	264	198	264	20:00	5	5.08	212	0.08
Sub-Total	2,765	1,529.1	2,425	1,235	-	-	36.69	36.98	1,541	0.29
NHPC										
BAIRASIUL HPS(3 * 60)	180	88.77	121	103	121	20:00	2.13	2.29	95	0.16
CHAMERA HPS(3 * 180)	540	534.33	540	540	542	11:45	12.8	12.96	540	0.16
CHAMERA II HPS(3 * 100)	300	296.85	302	302	306	07:00	7.12	7.23	301	0.11
CHAMERA III HPS(3 * 77)	231	202.21	237	238	238	03:00	4.83	4.96	207	0.13
DHAULIGANGA HPS(4 * 70)	280	96.59	0	284	292	06:00	2.32	2.37	99	0.05
DULHASTI HPS(3 * 130)	390	380.66	391	396	397	14:00	9.14	9.27	386	0.13
KISHANGANGA(2 * 110)	220	158.28	173	148	174	18:00	3.8	3.91	163	0.11
PARBATI III HEP(4 * 130)	520	154.57	501	0	524	03:00	3.71	3.72	155	0.01
SALAL HPS(6 * 115)	690	684.17	705	703	718	08:00	16.42	16.94	706	0.52
SEWA-II HPS(3 * 40)	120	119.54	120	119	120	20:00	1	1.02	43	0.02
TANAKPUR HPS(1 * 31.42 + 2 * 31.4)	94	89.5	94	94	98	17:00	2.15	2.21	92	0.06
URI HPS(4 * 120)	480	266.35	315	382	465	11:30	6.39	7.06	294	0.67
URI-II HPS(4 * 60)	480	156.04	115	152	222	22:00	3.74	3.81	159	0.07
Sub-Total	4,525	3,227.86	3,614	3,461	-	-	75.55	77.75	3,240	2.2
NPCL										
NAPS(2 * 220)	440	376	416	416	421	02:00	9.02	9.09	379	0.07
RAPS-B(2 * 220)	440	357	397	397	401	06:00	8.57	8.52	355	-0.05
RAPS-C(2 * 220)	440	409	451	449	451	20:00	9.82	9.69	404	-0.13
Sub-Total	1,320	1,142	1,264	1,262	-	-	27.41	27.3	1,138	-0.11
NTPC										
ANTA GPS(1 * 153.2 + 3 * 88.71)	419	404.86	0	0	0	-	0	0	0	0
AURAIYA GPS(2 * 109.3 + 4 * 111.19)	663	638.09	0	0	0	-	0	0	0	0
DADRI GPS(2 * 154.51 + 4 * 130.19)	830	609.58	149	114	149	20:00	2.85	2.92	122	0.07
DADRI SOLAR(1 * 5)	5	0.82	0	0	0	-	0.02	0.01	0	-0.01
DADRI-I TPS(4 * 210)	840	768.6	571	311	571	20:00	9.3	10.12	422	0.82
DADRI-II TPS(2 * 490)	980	928.55	895	513	895	20:00	15.54	16.55	690	1.01
ISTPP (JHAJJAR)(3 * 500)	1,500	947.5	992	580	992	20:00	16.39	16.12	672	-0.27
KOLDAM HPS(4 * 200)	800	872	713	779	713	20:00	19.01	19.5	813	0.49
RIHAND-I STPS(2 * 500)	1,000	918.2	997	867	997	20:00	21.04	22.74	948	1.7
RIHAND-II STPS(2 * 500)	1,000	942.5	1,005	878	1,005	20:00	22.34	23.64	985	1.3
RIHAND-III STPS(2 * 500)	1,000	942.5	1,003	802	1,003	20:00	21.04	22.9	954	1.86
SINGRAULI STPS(2 * 500 + 5 * 200)	2,000	1,070.57	1,415	746	1,415	20:00	22.78	23.3	971	0.52
SINGRAULI SOLAR(1 * 15)	15	2.22	0	0	0	-	0.05	0.05	2	0
UNCHAHAH II TPS(2 * 210)	420	382.2	345	237	345	20:00	6.2	5.8	242	-0.4
UNCHAHAH III TPS(1 * 210)	210	191.1	193	127	193	20:00	2.98	3.08	128	0.1
UNCHAHAH IV TPS(1 * 500)	500	0	0	0	0	-	0	0	0	0
UNCHAHAH SOLAR(1 * 10)	10	1.53	0	0	8	12:54	0.04	0.03	1	-0.01
UNCHAHAH TPS(2 * 210)	420	191.1	201	119	201	20:00	2.95	2.86	119	-0.09
Sub-Total	12,612	9,811.92	8,479	6,073	-	-	162.53	169.62	7,069	7.09
SJVNL										
NATHPA-JHAKRI HPS(6 * 250)	1,500	1,605	1,628	1,633	1,644	05:00	38.52	38.94	1,623	0.42
RAMPUR HEP(6 * 68.67)	412	442	455	454	458	18:00	10.61	10.86	453	0.25
Sub-Total	1,912	2,047	2,083	2,087	-	-	49.13	49.8	2,076	0.67
THDC										
KOTESHWAR HPS(4 * 100)	400	355.83	410	363	410	20:00	8.54	8.6	358	0.06
TEHRI HPS(4 * 250)	1,000	1,064	1,069	1,070	1,072	07:00	25.54	25.54	1,064	0
Sub-Total	1,400	1,419.83	1,479	1,433	-	-	34.08	34.14	1,422	0.06
Total	24,534	19,177.71	19,344	15,551			385.39	395.59	16,486	10.2

IPP/JV

Station/Constituents	Inst. Capacity	Declared Capacity	20:00	03:00	Day Peak		Day Energy		AVG. MW	UI
	(MW)	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	SCHD (MU)	ACT (MU)		
IPP										
ADHPL(IPP) HPS(2 * 96)	192	0	187	97	208	22:00	2.77	3.08	128	0.31
BUDHIL HPS (IPP)(2 * 35)	70	0	70	70	70	20:00	1.78	1.6	67	-0.18
KARCHAM WANGTOO HPS(4 * 250)	1,000	0	1,100	1,100	1,100	19:00	26.08	26.45	1,102	0.37
MALANA2(2 * 50)	100	0	110	106	111	22:00	2.35	2.49	104	0.14
SAINJ HEP(2 * 50)	50	0	110	110	110	00:00	2.59	2.6	108	0.01
SHREE CEMENT (IPP) TPCS 2 * 150)	300	0	292	144	293	21:00	4.29	4.2	175	-0.09
Sub-Total	1,712	0	1,869	1,627	-	-	39.86	40.42	1,684	0.56
Total	1,712	0	1,869	1,627	-	-	39.86	40.42	1,684	0.56

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	53,966	25,716	22,630	569.07	23,711
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		12,094	12,270	254.71	13,738
Total Regional Availability(Gross)	80,212	59,023	52,078	1,259.79	55,616

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	11,891	10,478	254.39	10,600
State Control Area Hydro	6,125	4,261	4,079	97.63	4,068
Total Regional Hydro	18,939	16,152	14,557	352.02	14,668

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	2,211	2,028	70.82	2,951
Total Regional Renewable	9,244	2,211	2,028	70.91	2,955

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	-	-	-	-	0	0	0	
2	132KV-Karmnasa(PG)-Sahupuri(UP)	-	-	-	-	1.44	0	1.44	
3	132KV-Rihand-Sonnagar(PG)	-	-	-	-	0	0	0	
4	220KV-Pusauli(PG)-Sahupuri(UP)	-	-	-	-	0	0	0	
5	400KV-Biharsharif(PG)-Baliala(PG)	104	121	221	0	3.16	0	3.16	
6	400KV-Biharsharif(PG)-Varanasi(PG)	92	78	79	160	0	0.99	-0.99	
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-	
8	400KV-Motihari(DMT)-Gorakhpur(UP)	-272	-206	0	284	0	4.68	-4.68	
9	400KV-Muzaffarpur(PG)-Gorakhpur(UP)	310	335	601	0	8.75	0	8.75	
10	400KV-Patna(PG)-Baliala(PG)	453	478	556	0	11.68	0	11.68	
11	400KV-Sasaram-Allahabad(PG)	1	14	51	4	0.44	0	0.44	
12	400KV-Sasaram-Varanasi(PG)	145	131	151	0	4.58	0	4.58	
13	765KV-Fatehpur(PG)-Sasaram.	-261	-247	0	283	0	4.19	-4.19	
14	765KV-Gaya(PG)-Baliala(PG)	249	256	268	0	5.24	0	5.24	
15	765KV-Gaya(PG)-Varanasi(PG)	135	106	260	10	3.15	0	3.15	
16	HVDC800KV-Alipurduar-Agra(PG)	400	500	1,600	0	11.41	0	11.41	
Sub-Total EAST REGION		1,356	1,566	3,787	741	49.85	9.86	39.99	
Import/Export between NORTH_EAST REGION and NORTH REGION									
1	HVDC800KV-BiswanathCharialli-Agra(PG)	500	500	500	0	22	0	22	
Sub-Total NORTH_EAST REGION		500	500	500	0	22	0	22	
Import/Export between WEST REGION and NORTH REGION									
1	220KV-Auraiya(NT)-Malanpur(PG)	56	29	0	46	0.85	0	0.85	
2	220KV-Badod(MP)-Kota(PG)	51	-18	75	18	0.94	0	0.94	
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-	
4	400KV-RAPS C(NP)-Sujalpur	170	108	240	55	2.55	0	2.55	
5	400KV-Vindhyachal(PG)-Rihand(NT)	950	739	-	953	0	21.45	-21.45	
6	400KV-Zerda(PG)-Bhinmal(PG)	16	67	79	178	0	0.68	-0.68	
7	400KV-Zerda(PG)-Kankroli(RJ)	-48	-60	75	288	0	1.84	-1.84	
8	765KV-Orai-Gwalior(PG)	-387	-313	0	-387	0	8.07	-8.07	
9	765KV-Orai-Jabalpur	1,108	935	1,125	0	21.06	0	21.06	
10	765KV-Orai-Satna	1,874	1,744	1,921	0	43.36	0	43.36	
11	765KV-Gwalior(PG)-Agra(PG)	2,640	2,244	2,704	0	53.86	0	53.86	
12	765KV-Phagi(RJ)-Gwalior(PG)	858	929	1,171	-	24.03	0	24.03	
13	HVDC500KV-Mundra(JH)-Mohindergarh(JH)	1,200	1,800	1,803	0	37.37	0	37.37	
14	HVDC500KV-Vindhyachal(PG)-Vindhyachal B/B	-250	0	0	250	0	3.57	-3.57	
15	HVDC800KV-Champa(PG)-Kurukshetra(PG)(PG)	2,000	2,000	2,400	0	44.31	0	44.31	
Sub-Total WEST REGION		10,238	10,204	11,593	1,401	228.33	35.61	192.72	
TOTAL IR EXCHANGE		12,094	12,270	15,880	2,142	300.18	45.47	254.71	

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-WR	135.08	61.89	-3.38	193.59	192.72	-0.87
NR-ER	49.23	37.44	-19.97	66.7	61.99	-4.71

Total	184.31	99.33	-23.35	260.29	254.71	-5.58
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5. Inter National Exchange with Nepal [Import (+ve)/Export(-ve)] [Linkwise]

Element	Peak	Off-Peak	Maximum Interchange(MW)		Energy (MU)		Net Energy
	MW	MW	Import	Export	Import	Export	(MU)
132KV-Tanakpur(NH)-Mahendranagar(PG)	22.02	0		22		0.2293	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	.9	11.3	59.7	80.1	8.6	.5	0	8.6

<-----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.	
50.17	16:01:30	49.72	18:22:20	49.98	0.044	0.062	50.07	49.81	19.9

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	413	07:30	395	19:25	0	0	0	0	0
Abdullapur(PG) - 400KV	413	07:30	395	19:25	0	0	0	0	0
Amritsar(PG) - 400KV	407	08:00	391	14:40	0	0	0	0	0
Ballabgarh(PG) - 400KV	416	07:05	394	19:25	0	0	0	0	0
Bareilly II(PG) - 400KV	412	07:05	395	19:25	0	0	0	0	0
Bareilly(UP) - 400KV	410	04:00	396	19:25	0	0	0	0	0
Baspa(HP) - 400KV	408	08:00	395	19:30	0	0	0	0	0
Bassi(PG) - 400KV	418	04:00	396	19:25	0	0	0	0	0
Bawana(DTL) - 400KV	413	07:10	395	19:25	0	0	0	0	0
Dadri HVDC(PG). - 400KV	413	07:05	413	07:05	1.74	1.74	0	0	1.74
Gorakhpur(PG) - 400KV	414	16:00	395	20:45	0	0	0	0	0
Hisar(PG) - 400KV	410	07:00	389	19:25	0	1.04	0	0	0
Kanpur(PG) - 400KV	421	07:05	404	19:25	0	0	1.39	0	1.39
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	410	04:00	399	14:40	0	0	0	0	0
Moga(PG) - 400KV	408	07:05	391	14:40	0	0	0	0	0
Nallagarh(PG) - 400KV	408	08:00	395	19:30	0	0	0	0	0
Rihand HVDC(PG) - 400KV	408	07:00	408	07:00	1.39	1.39	0	0	1.39
Rihand(NT) - 400KV	407	07:00	407	07:00	1.39	1.39	0	0	1.39

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	791	03:45	770	19:10	0	0	0	0	0
Balia(PG) - 765KV	782	07:05	754	19:10	0	0	0	0	0
Bareilly II(PG) - 765KV	780	16:00	755	19:25	0	0	0	0	0
Bhiwani(PG) - 765KV	795	07:05	760	19:25	0	0	0	0	0
Fatehpur(PG) - 765KV	784	07:05	746	09:15	0	0	0	0	0
Jhatikara(PG) - 765KV	791	07:05	753	19:25	0	0	0	0	0
Lucknow II(PG) - 765KV	786	07:05	755	19:10	0	0	0	0	0
Meerut(PG) - 765KV	800	07:05	764	19:25	0	0	.35	0	.35
Moga(PG) - 765KV	790	07:05	759	14:40	0	0	0	0	0
Phagi(RJ) - 765KV	792	05:50	763	19:25	0	0	0	0	0
Unnao(UP) - 765KV	769	07:05	741	19:25	0	1.04	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)
UTTAR PRADESH	2,358.92	0	0	1,781.77	0	0	137.06	48.65	-5.05	180.66
PUNJAB	2,087.96	0	0	2,093.47	-502.46	0	93.2	50.15	-1.61	141.74
DELHI	949.57	-496.43	0	743.99	-419.05	0	75.87	21.55	-9.29	88.13
HIMACHAL PRADESH	-1,617.47	-155.62	0	-1,669.38	27.09	0	38.23	-36.86	-2.06	-0.69
JAMMU & KASHMIR	-1,046.16	-70.7	0	-1,046.16	582.68	0	36.04	-25.11	9.94	20.87
CHANDIGARH	0	-60.3	0	0	-35.17	0	7.18	0	-0.74	6.45
HARYANA	2,226.78	150.83	0	2,318.66	0.59	0	97.65	47.14	-1.69	143.09
RAJASTHAN	-85.42	82.91	0	-334.02	-349.71	0	57.55	-2.6	-2.04	52.92
UTTARAKHAND	144.06	-397.22	0	114.78	-73.14	0	18.46	3.8	-5.97	16.29
TOTAL	5,018.24	-946.53	0	4,003.11	-769.17	0	561.24	106.72	-18.51	649.46

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
UTTAR PRADESH	6,666.79	5,047.47	2,381.29	1,771.63	0	-1,083.34	0	0
PUNJAB	4,250.21	3,631.36	2,093.47	2,076.59	0	-502.46	0	0
DELHI	3,871.01	2,449.45	1,030.56	743.99	-18.23	-856.2	0	0
HIMACHAL PRADESH	1,743.51	1,490.62	-1,436.09	-1,846.34	155.64	-231.19	0	0
JAMMU & KASHMIR	1,614.54	1,415.17	-1,046.16	-1,046.16	622.19	-70.7	0	0
CHANDIGARH	348.43	275.12	0	0	0	-80.39	0	0
HARYANA	5,007.82	3,356.65	2,440.63	1,725.55	159.77	-962.78	0	0
RAJASTHAN	3,294.47	1,720.2	96.7	-742.15	95.56	-1,718.96	0	0
UTTARAKHAND	983.37	651.43	215.78	64.28	11.3	-397.22	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	499.82	1,088	508.85	1,485	1,007.63	491.89
Chamera-I	748.75	760	755.26	-	-	-	270.3	352.11
Gandhisagar	295.78	295.78	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	-	-	-	-	-	0
Koteshwar	598.5	612.5	611.66	5	611.31	5	570	567.69
Pong	384.05	426.72	417.9	795	420.95	931	743.32	296.73
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	520.61	5	520.22	9	339.26	216.86
Rihand	252.98	268.22	261.61	396	-	-	-	0
Tehri	740.04	829.79	819.8	998	816.75	837	650.21	570
TOTAL	-	-	-	3,287	-	3,267	3,580.72	2,495.28

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	3	21
HARYANA	0	1
HIMACHAL PRADESH	1	20
JAMMU & KASHMIR	0	11
PUNJAB	0	9
RAJASTHAN	1	17
UP	0	11
UTTARAKHAND	2	17

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