



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

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

Date of Reporting:30-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
53,441	1,048	54,489	49.93	48,870	240	49,110	50.01	1,194	10.07

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	89.91	13.82	0	3.64	0	2.26	109.62	143.1	142.8	-0.3	252.42	0	252.42
HARYANA	28.55	0.83	0	0.13	0	0.37	29.88	136.95	137.2	0.25	167.08	0	167.08
RAJASTHAN	116.81	0	2.85	6.95	18.36	0.19	145.16	68.94	69.64	0.7	214.8	0	214.8
DELHI	6.62	0	15.2	0	0	0.54	22.36	84.59	84.02	-0.57	106.46	0.08	106.38
UTTAR PRADESH	138.91	19.86	0	1.72	0	1.2	161.69	175.42	174.83	-0.59	336.52	0	336.52
UTTARAKHAND	0	21.28	0	0.45	0	0	21.73	16.54	17.32	0.78	39.05	0	39.05
HIMACHAL PRADESH	0	18.57	0	0	0	9.56	28.14	-0.86	2.11	2.97	30.25	0	30.25
JAMMU & KASHMIR	0	24.11	0	0	0	0	24.11	20.54	17.93	-2.61	52.03	9.99	42.04
CHANDIGARH	0	0	0	0	0	0	0	6.26	5.91	-0.35	5.91	0	5.91
Region	380.8	98.47	18.05	12.89	18.36	14.12	542.69	651.48	651.76	0.28	1,204.52	10.07	1,194.45

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

State	Evening Peak (20:00) MW				Off-Peak (03:00) MW			
	Demand Met	Shortage(-)/Surpl ..	UI	STOA/PX Transaction	Demand Met	Shortage(-)/Surpl ..	UI	STOA/PX Transaction
PUNJAB	10,708	0	-44	1,742	9,793	0	-113	2,088
HARYANA	7,900	0	-7	1,820	6,940	0	59	2,318
RAJASTHAN	9,020	0	-503	-263	8,830	0	237	166
DELHI	4,730	0	-43	308	4,138	0	51	366
UTTAR PRADESH	15,886	610	-237	1,799	15,099	0	93	2,360
UTTARAKHAND	1,803	0	-37	153	1,425	0	86	-237
HIMACHAL PRADESH	1,374	0	187	-1,743	1,073	0	113	-1,806
JAMMU & KASHMIR	1,750	438	-204	-513	1,361	240	-106	-1,117
CHANDIGARH	271	0	-12	-55	211	0	3	-85
Region	53,442	1,048	-900	3,248	48,870	240	423	4,053

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	Demand Met at maximum requiremnet	Time	Shortage(-)/Surplus(+) during at maximum Requirement	Maximum Requirement of the day
PUNJAB	10,975	12:00	0	10,975	10,975	12:00	0	10,975
HARYANA	8,006	21:00	0	8,006	8,006	21:00	0	8,006
RAJASTHAN	9,556	24:00	0	9,556	9,556	24:00	0	9,556
DELHI	5,049	17:00	0	5,049	5,049	17:00	0	5,049
UP	16,239	21:00	0	16,239	16,239	21:00	0	16,239
UTTARAKHAND	1,803	20:00	0	1,803	1,803	20:00	0	1,803
HP	1,413	11:00	0	1,413	1,413	11:00	0	1,413
J&K	2,086	13:00	522	2,608	2,086	13:00	522	2,608
CHANDIGARH	299	15:00	0	299	299	15:00	0	299
NR	54,226	21:00	509	54,734	54,226	21:00	509	54,734

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	300	299	0		6.62	276
RAJGHAT TPS(2 * 67.5)	135	0	0	0		0	0
Total THERMAL	840	300	299			6.62	276
BAWANA GPS(2 * 253 + 4 * 216)	1,370	428	428	0		10	417
DELHI GAS TURBINES(3 * 34 + 6 * 30)	282	74	74	0		1.79	75
PRAGATI GAS TURBINES(1 * 121.2 + 2 * 104.6)	331	147	147	0		3.4	142
RITHALA GPS(3 * 36)	108	0	0	0		0	0
Total GAS/NAPHTHA/DIESEL	2,091	649	649			15.19	634
WIND	0	0	0	0		0	0
BIOMASS(1 * 16)	16	13	26	0		0.54	23
SOLAR(1 * 2)	2	0	0	0		0	0
Total DELHI	2,949	962	974			22.35	933

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	237	239	244	09:00	5.45	227
JHAJJAR(CLP)(2 * 660)	1,320	869	737	917	21:00	18.22	759
MAGNUM DIESEL (IPP)(4 * 6.3)	25	0	0	0		0	0
PANIPAT TPS(2 * 210 + 2 * 250)	920	202	198	202	11:00	4.89	204
RGTPP(KHEDAR)(2 * 600)	1,200	0	0	0		0	0
Total THERMAL	4,065	1,308	1,174			28.56	1,190
FARIDABAD GPS(1 * 156.07 + 2 * 137.75)	432	0	0	0		0	0
Total GAS/NAPHTHA/DIESEL	432	0	0			0	0
TOTAL HYDRO HARYANA(1 * 62)	62	25	27	29	02:00	0.83	35
Total HYDEL	62	25	27			0.83	35
WIND	0	0	0	0		0	0
BIOMASS(1 * 106)	106	0	0	0		0.37	15
SOLAR(1 * 50)	50	0	0	0		0.13	5
Total HARYANA	4,715	1,333	1,201			29.89	1,245

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		7.93	330
MALANA (IPP) HPS(2 * 43)	86	89	90	98	11:00	2.12	88
OTHER HYDRO HP(1 * 372)	372	373	370	0		8.52	355
Total HYDEL	758	793	791			18.57	773
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	417	400	0		9.56	398
Total SMALL HYDRO	486	417	400			9.56	398
Total HP	1,244	1,210	1,191			28.13	1,171

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	125	124	0		2.92	122
Total HYDEL	1,208	1,008	1,007			24.11	1,005
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	1,008	1,007			24.11	1,005

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		4.88	203
GURU GOBIND SINGH TPS (ROPAR)(6 * 210)	1,260	558	476	576		12.12	505
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)(2 * 210 + 2 * 250)	920	616	507	682		13.45	560
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		31.67	1,320
TALWANDI SABO TPS(3 * 660)	1,980	1,220	1,045	0		27.8	1,158
Total THERMAL	6,560	3,960	3,493			89.9	3,745
TOTAL HYDRO PUNJAB(1 * 1000)	1,000	691	552	693		13.82	576
Total HYDEL	1,000	691	552			13.82	576
WIND	0	0	0	0		0	0
BIOMASS(1 * 303)	303	0	0	0		2.26	94
SOLAR(1 * 859)	859	0	0	0		3.64	152
Total PUNJAB	8,722	4,651	4,045			109.62	4,567

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	223	227	0		5.28	220
CHHABRA TPS(1 * 660 + 4 * 250)	1,660	1,267	1,065	0		27.67	1,153
GIRAL (IPP) LTPS(2 * 125)	250	0	0	0		0	0
KALISINDH TPS(2 * 600)	1,200	511	408	0		10.69	445
KAWAI TPS(2 * 660)	1,320	884	878	0		21.49	895
KOTA TPS(2 * 110 + 2 * 195 + 3 * 210)	1,240	656	650	0		16	667
RAJWEST (IPP) LTPS(8 * 135)	1,080	811	590	0		16.37	682
SURATGARH TPS (6 * 250)	1,500	772	713	0		17.32	722
VSLPP (IPP)(1 * 135)	135	105	105	0		1.99	83
Total THERMAL	8,635	5,229	4,636			116.81	4,867
DHOLPUR GPS(3 * 110)	330	0	0	0		0	0
RAMGARH GPS(1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5)	271	116	114	0		2.85	119
Total GAS/NAPHTHA/DIESEL	601	116	114			2.85	119
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	1,426	626	0		18.36	765
BIOMASS(1 * 102)	102	8	8	0		0.19	8
SOLAR(1 * 1995)	1,995	23	0	0		6.95	290
Total RAJASTHAN	16,475	6,802	5,384			145.16	6,049

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	0	0	0		29.08	1,212
ANPARA-C TPS(2 * 600)	1,200	0	0	0		22.21	925
ANPARA-D TPS(2 * 500)	1,000	0	0	0		21.68	903
BAJAJ ENERGY PVT LTD (IPP) TPS(10 * 45)	450	0	0	0		0	0
BARA PPGCL TPS(3 * 660)	1,980	0	0	0		9.82	409
HARDUAGANJ TPS(1 * 105 + 1 * 60 + 2 * 250)	665	0	0	0		8.06	336
LALITPUR TPS(3 * 660)	1,980	0	0	0		0	0
OBRA TPS (2 * 94 + 5 * 200)	1,188	0	0	0		9.86	411
PANKI TPS(2 * 105)	210	0	0	0		0	0
PARICHA TPS(2 * 110 + 2 * 210 + 2 * 250)	1,160	0	0	0		15.21	634
ROSA TPS(4 * 300)	1,200	0	0	0		17.62	734
TANDA TPS(4 * 110)	440	0	0	0		5.39	225
Total THERMAL	13,103	0	0			138.93	5,789
ALAKHANDA HEP(4 * 82.5)	330	0	0	0		7.32	305
VISHNUPARYAG HPS(4 * 110)	440	0	0	0		10.43	435
OTHER HYDRO UP(1 * 527)	527	0	0	0		2.11	88
Total HYDEL	1,297	0	0			19.86	828
WIND	0	0	0	0		0	0
BIOMASS(1 * 26)	26	0	0	0		0	0
SOLAR(1 * 472)	472	0	0	0		1.72	72
CO-GENERATION(1 * 1360)	1,360	0	0	0		1.2	50
Total OTHERs	1,360	0	0			1.2	50
Total UP	16,258	0	0			161.71	6,739

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	896	857	904	18:00	21.28	887			
Total HYDEL	1,250	896	857			21.28	887			
WIND	0	0	0	0		0	0			
BIOMASS(1 * 127)	127	0	0	0		0	0			
SOLAR(1 * 100)	100	0	0	72	13:00	0.45	19			
SMALL HYDRO(1 * 180)	180	0	0	0		0	0			
Total SMALL HYDRO	180	0	0			0	0			
Total UTTARAKHAND	2,107	896	857			21.73	906			

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	716.39	1,197	542	1,197	20:00	17.19	17.28	720	0.09
DEHAR HPS(6 * 165)	990	601.42	825	495	825	20:00	14.43	14.48	603	0.05
PONG HPS(6 * 66)	396	216.67	264	198	264	20:00	5.2	5.24	218	0.04
Sub-Total	2,765	1,534.48	2,286	1,235	-	-	36.82	37	1,541	0.18
NHPC										
BAIRASIUL HPS(3 * 60)	180	87.98	121	83	174	19:00	2.11	2.25	94	0.14
CHAMERA HPS(3 * 180)	540	534.33	543	545	547	00:15	12.8	12.98	541	0.18
CHAMERA II HPS(3 * 100)	300	296.85	301	300	304	05:00	6.7	6.83	285	0.13
CHAMERA III HPS(3 * 77)	231	192.63	238	233	239	18:00	4.61	4.68	195	0.07
DHAULIGANGA HPS(4 * 70)	280	278.44	287	279	292	11:00	6.68	6.8	283	0.12
DULHASTI HPS(3 * 130)	390	74.51	266	0	397	00:00	1.79	1.75	73	-0.04
KISHANGANGA(2 * 110)	220	97.71	146	77	152	21:00	2.34	2.49	104	0.15
PARBATI III HEP(4 * 130)	520	160.34	498	119	501	03:00	3.85	3.86	161	0.01
SALAL HPS(6 * 115)	690	688.25	708	708	718	06:00	16.52	16.99	708	0.47
SEWA-II HPS(3 * 40)	120	119.54	121	121	123	02:00	1	1.03	43	0.03
TANAKPUR HPS(1 * 31.42 + 2 * 31.4)	94	83.65	90	93	97	05:00	2.01	2.18	91	0.17
URI HPS(4 * 120)	480	270.62	271	293	423	08:00	6.5	6.92	288	0.42
URI-II HPS(4 * 60)	480	162.04	153	154	241	02:00	3.89	3.92	163	0.03
Sub-Total	4,525	3,046.89	3,743	3,005	-	-	70.8	72.68	3,029	1.88
NPCL										
NAPS(2 * 220)	440	375	417	421	421	09:00	9	9.04	377	0.04
RAPS-B(2 * 220)	440	357	395	399	401	12:00	8.57	8.54	356	-0.03
RAPS-C(2 * 220)	440	409	450	453	450	20:00	9.82	9.62	401	-0.2
Sub-Total	1,320	1,141	1,262	1,273	-	-	27.39	27.2	1,134	-0.19
NTPC										
ANTA GPS(1 * 153.2 + 3 * 88.71)	419	404.86	0	0	0	-	0	0.03	1	0.03
AURAIYA GPS(2 * 109.3 + 4 * 111.19)	663	637	0	0	0	-	0	0	0	0
DADRI GPS(2 * 154.51 + 4 * 130.19)	830	609.49	115	115	115	20:00	2.65	2.8	117	0.15
DADRI SOLAR(1 * 5)	5	0.7	0	0	0	-	0.02	0.01	0	-0.01
DADRI-I TPS(4 * 210)	840	768.6	393	348	393	20:00	8.82	8.55	356	-0.27
DADRI-II TPS(2 * 490)	980	928.55	696	557	696	20:00	14.69	14.44	602	-0.25
ISTPP (JHAJJAR)(3 * 500)	1,500	947.5	971	592	971	20:00	16.02	15.76	657	-0.26
KOLDAM HPS(4 * 200)	800	872	775	868	871	19:00	19	19.65	819	0.65
RIHAND-I STPS(2 * 500)	1,000	847.66	731	703	731	20:00	20.11	19.81	825	-0.3
RIHAND-II STPS(2 * 500)	1,000	942.5	999	1,006	999	20:00	22.51	23.94	998	1.43
RIHAND-III STPS(2 * 500)	1,000	942.5	994	994	994	20:00	21.99	23.32	972	1.33
SINGRAULI STPS(2 * 500 + 5 * 200)	2,000	1,261.34	1,416	1,427	1,416	20:00	28.9	29.09	1,212	0.19
SINGRAULI SOLAR(1 * 15)	15	1.87	0	0	0	-	0.04	0.05	2	0.01
UNCHAHAH II TPS(2 * 210)	420	382.2	413	210	413	20:00	7.29	6.83	285	-0.46
UNCHAHAH III TPS(1 * 210)	210	191.1	202	130	202	20:00	3.14	3.09	129	-0.05
UNCHAHAH IV TPS(1 * 500)	500	0	0	0	0	-	0	0	0	0
UNCHAHAH SOLAR(1 * 10)	10	1.13	0	0	8	11:01	0.03	0.02	1	-0.01
UNCHAHAH TPS(2 * 210)	420	191.1	191	120	191	20:00	3.5	3.39	141	-0.11
Sub-Total	12,612	9,930.1	7,896	7,070	-	-	168.71	170.78	7,117	2.07
SJVNL										
NATHPA-JHAKRI HPS(6 * 250)	1,500	1,605	1,629	1,632	1,629	20:00	38.03	37.88	1,578	-0.15
RAMPUR HEP(6 * 68.67)	412	442	453	457	458	01:00	10.48	10.58	441	0.1
Sub-Total	1,912	2,047	2,082	2,089	-	-	48.51	48.46	2,019	-0.05
THDC										
KOTESHWAR HPS(4 * 100)	400	358.96	400	362	407	22:00	8.62	8.66	361	0.04
TEHRI HPS(4 * 250)	1,000	1,064	1,068	1,046	1,072	19:00	24.64	25.19	1,050	0.55
Sub-Total	1,400	1,422.96	1,468	1,408	-	-	33.26	33.85	1,411	0.59
Total	24,534	19,122.43	18,737	16,080			385.49	389.97	16,251	4.48

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	199	119	211	21:00	3.06	3.23	135	0.17
BUDHIL HPS (IPP)(2 * 35)	70	0	74	69	74	20:00	1.78	1.61	67	-0.17
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	111	111	112	01:00	2.36	2.5	104	0.14
SAINJ HEP(2 * 50)	50	0	110	110	110	00:00	2.59	2.61	109	0.02
SHREE CEMENT (IPP) TPS(2 * 150)	300	0	288	142	295	22:00	4.29	4.28	178	-0.01
Sub-Total	1,712	0	1,882	1,651	-	-	40.16	40.68	1,695	0.52
Total	1,712	0	1,882	1,651	-	-	40.16	40.68	1,695	0.52

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	53,966	16,862	14,659	542.7	22,613
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		13,121	13,706	257.64	13,342
Total Regional Availability(Gross)	80,212	50,602	46,096	1,230.99	53,898

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	11,948	10,114	248.04	10,335
State Control Area Hydro	6,125	3,413	3,234	98.47	4,103
Total Regional Hydro	18,939	15,361	13,348	346.51	14,438

Total Renewable Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Renewable	30	0	0	0.08	3
State Control Area Renewable	9,214	1,887	1,060	44.17	1,840
Total Regional Renewable	9,244	1,887	1,060	44.25	1,843

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)	-	-	-	-	0.93	0	0.93	
3	132KV-Rihand-Sonnagar(PG)	-	-	-	-	0	0.57	-0.57	
4	220KV-Pusauli(PG)-Sahupuri(UP)	151	139	156	0	3.41	0	3.41	
5	400KV-Biharsharif(PG)-Baliala(PG)	67	142	210	0	3.53	0	3.53	
6	400KV-Biharsharif(PG)-Varanasi(PG)	153	78	122	194	0	1.19	-1.19	
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-	
8	400KV-Motihari(DMT)-Gorakhpur(UP)	-214	-288	0	302	0	5.56	-5.56	
9	400KV-Muzaffarpur(PG)-Gorakhpur(UP)	279	154	659	0	7.88	0	7.88	
10	400KV-Patna(PG)-Baliala(PG)	241	402	876	0	10.94	0	10.94	
11	400KV-Sasaram-Allahabad(PG)	4	19	53	0	2.51	0	2.51	
12	400KV-Sasaram-Varanasi(PG)	133	121	137	0	2.94	0	2.94	
13	765KV-Fatehpur(PG)-Sasaram.	310	249	0	352	0	4.64	-4.64	
14	765KV-Gaya(PG)-Baliala(PG)	219	290	338	0	6.01	0	6.01	
15	765KV-Gaya(PG)-Varanasi(PG)	-24	-157	331	38	3.95	0	3.95	
16	HVDC800KV-Alipurduar-Agra(PG)	500	444	1,000	-	14.7	0	14.7	
Sub-Total EAST REGION		1,819	1,593	3,882	886	56.8	11.96	44.84	
Import/Export between NORTH_EAST REGION and NORTH REGION									
1	HVDC800KV-BiswanathCharialli-Agra(PG)	500	1,236	1,500	-	17.83	0	17.83	
Sub-Total NORTH_EAST REGION		500	1,236	1,500	0	17.83	0	17.83	
Import/Export between WEST REGION and NORTH REGION									
1	220KV-Auraiya(NT)-Malanpur(PG)	35	25	-	28	0.61	0	0.61	
2	220KV-Badod(MP)-Kota(PG)	-6	54	56	35	0.58	0	0.58	
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-	
4	400KV-RAPS C(NP)-Sujalpur	124	248	340	-	4.18	0	4.18	
5	400KV-Vindhyachal(PG)-Rihand(NT)	944	953	-	971	0	22.26	-22.26	
6	400KV-Zerda(PG)-Bhinmal(PG)	125	30	153	115	0.03	0	0.03	
7	400KV-Zerda(PG)-Kankroli(RJ)	-47	-25	26	226	0	1.82	-1.82	
8	765KV-Orai-Gwalior(PG)	-372	-336	0	436	0	8.59	-8.59	
9	765KV-Orai-Jabalpur	934	1,103	1,268	0	23.6	0	23.6	
10	765KV-Orai-Satna	1,879	1,817	1,879	0	43.1	0	43.1	
11	765KV-Gwalior(PG)-Agra(PG)	2,471	2,340	2,518	-	52.57	0	52.57	
12	765KV-Phagi(RJ)-Gwalior(PG)	663	1,166	663	-	26.99	0	26.99	
13	HVDC500KV-Mundra(JH)-Mohindergarh(JH)	1,802	2,002	2,004	0	43.66	0	43.66	
14	HVDC500KV-Vindhyachal(PG)-Vindhyachal B/B	250	250	-	250	0	5.09	-5.09	
15	HVDC800KV-Champa(PG)-Kurukshetra(PG)(PG)	2,000	1,250	2,000	0	37.41	0	37.41	
Sub-Total WEST REGION		10,802	10,877	10,907	2,061	232.73	37.76	194.97	
TOTAL IR EXCHANGE		13,121	13,706	16,289	2,947	307.36	49.72	257.64	

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	50.49	35.47	-18.85	67.11	62.67	-4.44
NR-WR	133.69	65.45	-4.77	194.37	194.97	0.6

Total	184.18	100.92	-23.62	261.48	257.64	-3.84
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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)	21.43	10.28		21		0.2815	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	.2	1.4	15.9	66.1	75.4	8.5	.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.	
50.15	13:01:40	49.65	06:13:40	49.97	0.06	0.067	50.08	49.81	24.6

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	414	06:00	396	19:20	0	0	0	0	0
Abdullapur(PG) - 400KV	414	06:00	396	19:20	0	0	0	0	0
Amritsar(PG) - 400KV	407	04:00	393	14:50	0	0	0	0	0
Ballabgarh(PG) - 400KV	415	06:00	399	19:15	0	0	0	0	0
Bareilly II(PG) - 400KV	413	06:00	397	19:15	0	0	0	0	0
Bareilly(UP) - 400KV	414	06:00	398	19:15	0	0	0	0	0
Baspa(HP) - 400KV	409	04:15	396	14:25	0	0	0	0	0
Bassi(PG) - 400KV	414	04:00	400	00:05	0	0	0	0	0
Bawana(DTL) - 400KV	414	06:00	398	19:15	0	0	0	0	0
Dadri HVDC(PG). - 400KV	413	06:00	413	06:00	.69	.69	0	0	.69
Gorakhpur(PG) - 400KV	413	05:45	390	19:10	0	0	0	0	0
Hisar(PG) - 400KV	408	08:00	393	19:20	0	0	0	0	0
Kanpur(PG) - 400KV	416	17:05	406	19:15	0	0	0	0	0
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	415	04:00	402	14:20	0	0	0	0	0
Moga(PG) - 400KV	408	04:00	395	14:20	0	0	0	0	0
Nallagarh(PG) - 400KV	409	04:15	396	14:25	0	0	0	0	0
Rihand HVDC(PG) - 400KV	409	10:45	403	00:20	0	0	0	0	0
Rihand(NT) - 400KV	408	10:45	401	00:25	0	0	0	0	0

6.1 Voltage Profile: 765kV

STATION	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index (% of time)
	VOLTAGE	TIME	VOLTAGE	TIME	N/A	N/A	N/A	N/A	
Anta RS(RJ) - 765KV	788	03:05	774	00:00	-	-	-	-	N/A
Balia(PG) - 765KV	781	08:00	751	19:15	-	-	-	-	N/A
Bareilly II(PG) - 765KV	788	08:00	757	19:15	-	-	-	-	N/A
Bhiwani(PG) - 765KV	794	08:00	766	19:15	-	-	-	-	N/A
Fatehpur(PG) - 765KV	783	08:00	754	19:15	-	-	-	-	N/A
Jhatikara(PG) - 765KV	789	08:00	759	19:15	-	-	-	-	N/A
Lucknow II(PG) - 765KV	785	08:00	753	19:15	-	-	-	-	N/A
Meerut(PG) - 765KV	799	08:00	768	19:15	-	-	-	-	N/A
Moga(PG) - 765KV	788	06:00	763	19:15	-	-	-	-	N/A
Phagi(RJ) - 765KV	0	00:00	0	00:00	-	-	-	-	N/A
Unnao(UP) - 765KV	769	08:00	742	19:15	-	-	-	-	N/A

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)
RAJASTHAN	88.78	77.65	0	-138.12	-125.11	0	69.02	0.68	-0.75	68.94
PUNJAB	2,087.92	0	0	2,093.43	-351.72	0	94.09	50.17	-1.16	143.1
JAMMU & KASHMIR	-1,046.16	-70.7	0	-1,046.16	533.3	0	35.79	-25.11	9.85	20.54
HARYANA	2,168.81	149.45	0	2,222.85	-402.98	0	94.79	45.29	-3.15	136.95
DELHI	950.84	-584.87	0	742.76	-435.13	0	72.88	21.55	-9.84	84.59
UTTAR PRADESH	2,359.9	0	0	1,799.41	0	0	130.3	48.65	-3.52	175.42
HIMACHAL PRADESH	-1,636.37	-169.53	0	-1,685.71	-56.86	0	39.8	-37.28	-3.37	-0.86
UTTARAKHAND	161.09	-398.1	0	162.11	-9.55	0	17.61	4.3	-5.37	16.54
CHANDIGARH	0	-85.42	0	0	-55.27	0	7.31	0	-1.06	6.26
TOTAL	5,134.81	-1,081.52	0	4,150.57	-903.32	0	561.59	108.25	-18.37	651.48

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
RAJASTHAN	3,325.4	2,512.62	88.78	-138.12	90.2	-1,174.86	0	0
PUNJAB	4,387.15	3,744.59	2,093.43	2,086.11	0	-351.72	0	0
JAMMU & KASHMIR	1,632.76	1,368.28	-1,046.16	-1,046.16	582.68	-70.7	0	0
HARYANA	4,891.8	3,075.44	2,382.04	1,694.21	161.83	-959.93	0	0
DELHI	3,521.98	2,495.16	1,031.09	742.76	-74.6	-850.17	0	0
UTTAR PRADESH	6,470.32	4,261.1	2,382.27	1,772.61	0	-929.75	0	0
HIMACHAL PRADESH	1,810.46	1,319.75	-1,452.95	-1,864.48	117.03	-262.82	0	0
UTTARAKHAND	810.51	687.74	232.81	95.22	31.44	-398.1	0	0
CHANDIGARH	352.41	273.55	0	0	0	-90.44	0	0

8. Major Reservoir Particulars

RESERVOIR	Parameters			Present Parameters		LAST YEAR		LAST DAY	
	MDDL (Mts)	FRL (Mts)	Energy (MU)	Level (Mts)	Energy (MU)	Level (Mts)	Energy (MU)	Inflow (m3/s)	Usage (m3/s)
Bhakra	445.62	513.59	653	499.48	1,077	508.74	1,485	1,080.97	496.79
Chamera-I	748.75	760	0	756.23	-	-	-	272.55	352.6
Gandhisagar	295.78	295.78	0	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	0	-	-	-	-	-	0
Koteshwar	598.5	612.5	5	611.39	5	610.95	5	562	571.7
Pong	384.05	426.72	138	417.73	781	420.86	931	574.94	308.57
RPS	343.81	352.8	0	-	-	-	-	-	0
RSD	487.91	527.91	1	520.43	5	520.21	9	345.06	219.24
Rihand	252.98	268.22	0	261.37	382	-	-	-	0
Tehri	740.04	829.79	787	819.4	990	816.05	922	981.29	562
TOTAL	-	-	1,584	-	3,240	-	3,352	3,816.81	2,510.9

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	2	35
DELHI	1	13
HARYANA	0	1
HIMACHAL PRADESH	2	20
JAMMU & KASHMIR	3	27
PUNJAB	0	8
RAJASTHAN	2	19
UP	0	6
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