



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

Power Supply Position in Northern Region For 28-Dec-2018

Date of Reporting:29-Dec-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
47,478	608	48,086	50.04	32,170	374	32,544	50.03	989	12.45

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	77.67	12.69	0	3.8	0	1.07	95.22	24.69	24.33	-0.36	119.55	0	119.55
HARYANA	61.92	0.51	0	0.1	0	1.13	63.66	66.42	66.93	0.51	130.59	0	130.59
RAJASTHAN	149.45	3.8	1.36	16.15	4.17	3.71	178.64	63.51	63.78	0.27	242.42	0	242.42
DELHI	-0.01	0	17.69	0	0	0.8	18.48	53.78	54.75	0.97	73.23	0	73.23
UTTAR PRADESH	155.69	7.31	0	2.52	0	21.6	187.12	109.13	108.67	-0.46	295.79	0	295.79
UTTARAKHAND	0	8.45	2.44	0.55	0	0.83	12.27	26.81	27.07	0.26	39.34	0	39.34
HIMACHAL PRADESH	0	3.44	0	0	0	2.24	5.68	25.18	25.89	0.71	31.58	0.01	31.57
JAMMU & KASHMIR	0	5	0	0	0	0	5	45.44	47.78	2.34	65.22	12.44	52.78
CHANDIGARH	0	0	0	0	0	0	0	3.38	3.94	0.56	3.94	0	3.94
Region	444.72	41.2	21.49	23.12	4.17	31.38	566.07	418.34	423.14	4.8	1,001.66	12.45	989.21

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	5,895	0	46	-1,692	3,432	0	56	-1,495
HARYANA	6,579	0	-24	-975	4,381	0	-22	-822
RAJASTHAN	10,392	0	24	-858	8,058	0	5	-400
DELHI	3,619	0	-50	-885	1,632	0	6	-1,399
UTTAR PRADESH	14,706	0	26	112	10,265	0	54	122
UTTARAKHAND	2,076	0	26	584	1,308	0	39	528
HIMACHAL PRADESH	1,576	0	-41	717	886	0	-24	437
JAMMU & KASHMIR	2,432	608	142	1,151	2,121	374	171	707
CHANDIGARH	203	0	17	0	88	0	7	-30
Region	47,478	608	166	-1,846	32,171	374	292	-2,352

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	5,950	12:00	0	5,950	5,950	12:00	0	5,950	3,432	3:00
HARYANA	6,579	19:00	0	6,579	6,579	19:00	0	6,579	4,292	2:00
RAJASTHAN	13,030	10:00	0	13,030	13,030	10:00	0	13,030	7,282	5:00
DELHI	4,396	11:00	0	4,396	4,396	11:00	0	4,396	1,572	4:00
UP	14,706	19:00	0	14,706	14,706	19:00	0	14,706	10,265	3:00
UTTARAKHAND	2,126	8:00	0	2,126	2,126	8:00	0	2,126	1,308	3:00
HP	1,700	10:00	0	1,700	1,700	10:00	0	1,700	886	3:00
J&K	2,605	8:00	651	3,256	3,256	8:00	651	2,605	1,842	17:00
CHANDIGARH	251	13:00	0	251	251	13:00	0	251	88	3:00
NR	47,645	11:00	986	48,631	48,631	11:00	986	47,645	32,078	4:00

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	0	0	0		-0.01	0
RAJGHAT TPS(2 * 67.5)	135	0	0	0			
Total THERMAL	840	0	0			-0.01	0
BAWANA GPS(2 * 253 + 4 * 216)	1,370	484	451	0		11.97	499
DELHI GAS TURBINES(3 * 34 + 6 * 30)	282	118	40	0		1.77	74
PRAGATI GAS TURBINES(1 * 121.2 + 2 * 104.6)	331	162	166	0		3.95	165
RITHALA GPS(3 * 36)	108	0	0	0			
Total GAS/NAPHTHA/DIESEL	2,091	764	657			17.69	738
WIND	0	0	0	0			
BIOMASS(1 * 16)	16	24	41	0		0.8	33
SOLAR(1 * 2)	2	0	0	0			
Total DELHI	2,949	788	698			18.48	771

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	566	491	572	13:00	12.32	513
JHAJJAR(CLP)(2 * 660)	1,320	1,232	739	1,235	13:00	24.92	1,038
MAGNUM DIESEL (IPP)(4 * 6.3)	25	0	0	0			
PANIPAT TPS(2 * 210 + 2 * 250)	920	613	582	636	09:00	14.44	602
RGTPP(KHEDAR)(2 * 600)	1,200	442	385	568	12:00	10.25	427
Total THERMAL	4,065	2,853	2,197			61.93	2,580
FARIDABAD GPS(1 * 156.07 + 2 * 137.75)	432	0	0	0			
Total GAS/NAPHTHA/DIESEL	432	0	0			0	0
TOTAL HYDRO HARYANA(1 * 62)	62	9	19	20	13:00	0.51	21
Total HYDEL	62	9	19			0.51	21
WIND	0	0	0	0			
BIOMASS(1 * 106)	106	0	0	0		1.13	47
SOLAR(1 * 50)	50	0	0	0		0.1	4
Total HARYANA	4,715	2,862	2,216			63.67	2,652

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	27	0	101	08:00	1.05	44
MALANA (IPP) HPS(2 * 43)	86	56	0	56	09:00	0.27	11
OTHER HYDRO HP(1 * 372)	372	162	49	0		2.12	88
Total HYDEL	758	245	49			3.44	143
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	11,809	13:00	0	0
SMALL HYDRO(1 * 486)	486	145	56	0		2.24	93
Total SMALL HYDRO	486	145	56			2.24	93
Total HP	1,244	390	105			5.68	236

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	148	148	0		3.55	148
OTHER HYDRO/IPP J&K(1 * 308)	308	92	38	0		1.45	60
Total HYDEL	1,208	240	186			5	208
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	240	186			5	208

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	400	290	491		8.73	364
GURU GOBIND SINGH TPS (ROPAR)(6 * 210)	1,260	146	146	192		3.72	155
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)(2 * 210 + 2 * 250)	920	162	161	230		3.74	156
GURU NANAK DEV TPS (BHATINDA)(4 * 110)	460	0	0	0		-0.09	-4
RAJPURA(NPL) TPS(2 * 700)	1,400	1,320	735	1,320		26.81	1,117
TALWANDI SABO TPS(3 * 660)	1,980	1,841	924	1,841		34.76	1,448
Total THERMAL	6,560	3,869	2,256			77.67	3,236
TOTAL HYDRO PUNJAB(1 * 1000)	1,000	453	456	570		12.69	529
Total HYDEL	1,000	453	456			12.69	529
WIND	0	0	0	0			
BIOMASS(1 * 303)	303	0	0	0		1.07	45
SOLAR(1 * 859)	859	0	0	560		3.8	158
Total PUNJAB	8,722	4,322	2,712			95.23	3,968

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	237	0		5.25	219
CHHABRA TPS(1 * 660 + 4 * 250)	1,660	1,899	1,595	0		43.9	1,829
GIRAL (IPP) LTPS(2 * 125)	250	0	0	0			
KALISINDH TPS(2 * 600)	1,200	1,130	807	0		24.57	1,024
KAWAI TPS(2 * 660)	1,320	1,157	858	0		26.27	1,095
KOTA TPS(2 * 110 + 2 * 195 + 3 * 210)	1,240	1,219	924	0		23.54	981
RAJWEST (IPP) LTPS(8 * 135)	1,080	656	436	0		16.56	690
SURATGARH TPS(6 * 250)	1,500	174	360	0		6.92	288
VSLPP (IPP)(1 * 135)	135	104	103	0		2.45	102
Total THERMAL	8,635	6,562	5,320			149.46	6,228
DHOLPUR GPS(3 * 110)	330	0	0	0			
RAMGARH GPS(1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5)	271	53	55	0		1.36	57
Total GAS/NAPHTHA/DIESEL	601	53	55			1.36	57
RAPS-A(1 * 100 + 1 * 200)	300	145	126	0		3.23	135
Total NUCLEAR	300	145	126			3.23	135
TOTAL HYDRO RAJASTHAN(1 * 550)	550	141	132	0		3.8	158
Total HYDEL	550	141	132			3.8	158
WIND	4,292	173	241	0		4.17	174
BIOMASS(1 * 102)	102	20	20	0		0.48	20
SOLAR(1 * 1995)	1,995	1	0	0		16.15	673
Total RAJASTHAN	16,475	7,095	5,894			178.65	7,445

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	1,455	1,226	0		33.61	1,400
ANPARA-C TPS(2 * 600)	1,200	1,087	585	0		24.2	1,008
ANPARA-D TPS(2 * 500)	1,000	943	931	0		21.78	908
BAJAJ ENERGY PVT LTD (IPP) TPS(10 * 45)	450	0	0	0			
BARA PPGCL TPS(3 * 660)	1,980	1,094	662	0		23.56	982
HARDUAGANJ TPS(1 * 105 + 1 * 60 + 2 * 250)	665	447	295	0		9.29	387
LALITPUR TPS(3 * 660)	1,980	584	343	0		11.73	489
MEJA TPS(1 * 660)	660	0	0	0			
OBRA TPS (2 * 94 + 5 * 200)	1,188	527	334	0		11.42	476
PANKI TPS(2 * 105)	210	0	0	0			
PARICHA TPS(2 * 110 + 2 * 210 + 2 * 250)	1,160	599	341	0		12.18	508
ROSA TPS(4 * 300)	1,200	0	0	0			
TANDA TPS(4 * 110)	440	378	212	0		7.93	330
Total THERMAL	13,763	7,114	4,929			155.7	6,488
ALAKHANDA HEP(4 * 82.5)	330	73	82	0		1.43	60
VISHNUPARYAG HPS(4 * 110)	440	83	78	0		1.92	80
OTHER HYDRO UP(1 * 527)	527	179	143	0		3.96	165
Total HYDEL	1,297	335	303			7.31	305
WIND	0	0	0	0			
BIOMASS(1 * 26)	26	0	0	0			
SOLAR(1 * 472)	472	0	0	0		2.52	105
CO-GENERATION(1 * 1360)	1,360	900	900	0		21.6	900
Total OTHERs	1,360	900	900			21.6	900
Total UP	16,918	8,349	6,132			187.13	7,798

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	103	100	105	08:00	2.44	102			
Total GAS/NAPTHA/DIESEL	450	103	100			2.44	102			
OTHER HYDRO UK(1 * 1250)	1,250	658	204	687	20:00	8.45	352			
Total HYDEL	1,250	658	204			8.45	352			
WIND	0	0	0	0						
BIOMASS(1 * 127)	127	37	34	38	13:00	0.83	35			
SOLAR(1 * 100)	100	0	0	88	12:00	0.55	23			
SMALL HYDRO(1 * 180)	180	0	0	0						
Total SMALL HYDRO	180	0	0			0	0			
Total UTTARAKHAND	2,107	798	338			12.27	512			

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	676.93	1,092	418	1,092	19:00	16.25	16.31	680	0.06
DEHAR HPS(6 * 165)	990	144.06	495	0	495	19:00	3.46	3.66	153	0.2
PONG HPS(6 * 66)	396	260	264	264	264	19:00	6.24	6.26	261	0.02
Sub-Total	2,765	1,080.99	1,851	682	-	-	25.95	26.23	1,094	0.28
NHPC										
BAIRASIUL HPS(3 * 60)	180	0	0	0	0	-	0	-	-	0
CHAMERA HPS(3 * 180)	540	535.58	381	0	546	18:15	2	2.16	90	0.16
CHAMERA II HPS(3 * 100)	300	178.19	202	22	205	07:00	1.18	1.37	57	0.19
CHAMERA III HPS(3 * 77)	231	153	120	0	154	07:00	0.6	0.67	28	0.07
DHAULIGANGA HPS(4 * 70)	280	281.38	285	0	285	19:00	1.05	1.09	45	0.04
DULHASTI HPS(3 * 130)	390	386.9	390	0	395	07:00	2.9	3.01	125	0.11
KISHANGANGA(2 * 110)	220	34.44	219	12	220	07:00	0.83	0.93	39	0.1
PARBATI III HEP(4 * 130)	520	0	0	0	0	-	0	-	-	0
SALAL HPS(6 * 115)	690	115.94	348	55	348	19:00	2.78	3.09	129	0.31
SEWA-II HPS(3 * 40)	120	120.2	38	0	122	07:00	0.39	0.42	18	0.03
TANAKPUR HPS(1 * 31.42 + 2 * 31.4)	94	27.19	22	67	67	03:00	0.65	0.66	28	0.01
URI HPS(4 * 120)	480	131.25	240	136	263	08:00	3.15	3.49	145	0.34
URI-II HPS(4 * 60)	480	77.29	182	80	183	10:00	1.86	2.04	85	0.18
Sub-Total	4,525	2,041.36	2,427	372	-	-	17.39	18.93	789	1.54
NPCL										
NAPS(2 * 220)	440	398.5	453	455	458	06:00	9.56	9.49	395	-0.07
RAPS-B(2 * 220)	440	315.31	208	359	429	15:00	7.57	6.75	281	-0.82
RAPS-C(2 * 220)	440	430	473	475	473	19:00	10.32	10.24	427	-0.08
Sub-Total	1,320	1,143.81	1,134	1,289	-	-	27.45	26.48	1,103	-0.97
NTPC										
ANTA GPS(1 * 153.2 + 3 * 88.71)	419	418.17	0	0	0	-	0	0.03	1	0.03
AURAIYA GPS(2 * 109.3 + 4 * 111.19)	663	646.5	0	0	0	-	0	0.05	2	0.05
DADRI GPS(2 * 154.51 + 4 * 130.19)	830	413.96	414	226	421	17:00	7.46	7.4	308	-0.06
DADRI SOLAR(1 * 5)	5	0.65	0	0	3	12:02	0.02	0.02	1	0
DADRI-I TPS(4 * 210)	840	576.45	551	325	551	19:00	11	10.93	455	-0.07
DADRI-II TPS(2 * 490)	980	928.55	881	703	881	19:00	19.53	20.13	839	0.6
ISTPP (JHAJJAR)(3 * 500)	1,500	947.5	976	569	1,014	15:21	18.86	18.66	778	-0.2
KOLDAM HPS(4 * 200)	800	872	414	0	753	18:00	2.62	2.72	113	0.1
RIHAND-I STPS(2 * 500)	1,000	922.5	1,002	999	1,002	19:00	22.13	23.96	998	1.83
RIHAND-II STPS(2 * 500)	1,000	942.5	1,017	1,005	1,017	19:00	22.58	24.1	1,004	1.52
RIHAND-III STPS(2 * 500)	1,000	471.25	509	485	509	19:00	10.94	11.88	495	0.94
SINGRAULI STPS(2 * 500 + 5 * 200)	2,000	1,862.5	2,047	1,918	2,047	19:00	44.49	44.97	1,874	0.48
SINGRAULI SOLAR(1 * 15)	15	2.28	0	0	0	-	0.05	0.07	3	0.02
UNCHAHAH II TPS(2 * 210)	420	382.2	395	221	395	19:00	7.49	8.01	334	0.52
UNCHAHAH III TPS(1 * 210)	210	191.1	181	120	181	19:00	3.73	3.94	164	0.21
UNCHAHAH IV TPS(1 * 500)	500	471.25	431	341	431	19:00	8.98	9.23	385	0.25
UNCHAHAH SOLAR(1 * 10)	10	1.71	0	0	0	-	0.04	0.04	2	0
UNCHAHAH TPS(2 * 210)	420	377.4	362	232	362	19:00	7.61	8.05	335	0.44
Sub-Total	12,612	10,428.47	9,180	7,144	-	-	187.53	194.19	8,091	6.66
SJVNL										
NATHPA-JHAKRI HPS(6 * 250)	1,500	1,497.38	925	0	1,316	18:00	6.8	6.89	287	0.09
RAMPUR HEP(6 * 68.67)	412	344.38	242	0	367	07:00	1.86	1.89	79	0.03
Sub-Total	1,912	1,841.76	1,167	0	-	-	8.66	8.78	366	0.12
THDC										
KOTESHWAR HPS(4 * 100)	400	131.88	399	92	405	18:00	3.16	3.24	135	0.08
TEHRI HPS(4 * 250)	1,000	1,064	998	0	1,010	07:00	9.3	9.52	397	0.22
Sub-Total	1,400	1,195.88	1,397	92	-	-	12.46	12.76	532	0.3
Total	24,534	17,732.27	17,156	9,579	-	-	279.44	287.37	11,975	7.93

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	87	0	98	10:00	0.47	0.49	20	0.02
BUDHIL HPS (IPP)(2 * 35)	70	0	0	0	35	11:00	0.24	0.19	8	-0.05
KARCHAM WANGTOO HPS(4 * 250)	1,000	0	825	0	825	19:00	3.44	3.49	145	0.05
MALANA2(2 * 50)	100	0	0	0	84	10:00	0.24	0.25	10	0.01
SAINJ HEP(2 * 50)	50	0	101	0	101	00:00	0.42	0.42	18	0
SHREE CEMENT (IPP) TPS(2 * 150)	300	0	145	135	148	08:00	3.37	3.33	139	-0.04
Sub-Total	1,712	0	1,158	135	-	-	8.18	8.17	340	-0.01
Total	1,712	0	1,158	135	-	-	8.18	8.17	340	-0.01

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	54,626	24,844	18,281	566.11	23,588
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		5,481	5,374	154.68	9,372
Total Regional Availability(Gross)	80,872	48,639	33,369	1,016.33	45,274

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	8,269	1,146	74.26	3,094
State Control Area Hydro	6,125	2,081	1,349	41.2	1,717
Total Regional Hydro	18,939	10,350	2,495	115.46	4,811

Total Renewable Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Renewable	30	0	0	0.13	5
State Control Area Renewable	9,214	400	392	33.84	1,410
Total Regional Renewable	9,244	400	392	33.97	1,415

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 ..	-	-	-	-	0.96	0	0.96
3	132KV-Rihand-Sonnagar(PG)	-	-	-	-	0	0.62	-0.62
4	220KV-Pusauli(PG)-Sahupuri(UP)	116	75	125	-	2.46	0	2.46
5	400KV-Biharsharif(PG)-Baliala(PG)	166	100	217	-	3.61	0	3.61
6	400KV-Biharsharif(PG)-Varanasi(P..	12	29	174	41	1.33	0	1.33
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-
8	400KV-Motihari(DMT)-Gorakhpur ..	154	276	404	0	7.05	0	7.05
9	400KV-Muzaffarpur(PG)-Gorakhp ..	312	216	492	0	7.03	0	7.03
10	400KV-Patna(PG)-Baliala(PG)	397	674	859	-	15.4	0	15.4
11	400KV-Sasaram-Allahabad(PG)	28	53	68	-	1.13	0	1.13
12	400KV-Sasaram-Varanasi(PG)	116	91	116	0	2.25	0	2.25
13	765KV-Fatehpur(PG)-Sasaram.	23	48	229	10	2.45	0	2.45
14	765KV-Gaya(PG)-Baliala(PG)	203	140	235	-	4.19	0	4.19
15	765KV-Gaya(PG)-Varanasi(PG)	133	207	511	0	6.77	0	6.77
16	HVDC800KV-Alipurduar-Agra(PG)	-	-	-	-	-	-	-
Sub-Total EAST REGION		1,660	1,909	3,430	51	54.63	0.62	54.01
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli- ..	-500	-500	-	500	0	12.16	-12.16
Sub-Total NORTH_EAST REGION		-500	-500	0	500	0	12.16	-12.16
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya(NT)-Malanpur(PG)	-28	-69	-	137	0	1.98	-1.98
2	220KV-Badod(MP)-Kota(PG)	38	-29	137	39	0.85	0	0.85
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-
4	400KV-RAPS C(NP)-Sujalpur	-140	-156	-	312	0	4.11	-4.11
5	400KV-Vindhyachal(PG)-Rihand(N ..	-473	-365	-	477	0	11.06	-11.06
6	400KV-Zerda(PG)-Bhinmal(PG)	84	-121	310	146	1.64	0	1.64
7	400KV-Zerda(PG)-Kankroli(RJ)	-39	-294	62	294	0	2.29	-2.29
8	765KV-0rai-Gwalior(PG)	-386	-348	0	573	0	9.92	-9.92
9	765KV-0rai-Jabalpur	176	283	698	0	9.16	0	9.16
10	765KV-0rai-Satna	1,424	1,326	1,569	0	34.99	0	34.99
11	765KV-Gwalior(PG)-Agra(PG)	1,386	1,261	2,243	-	35.58	0	35.58
12	765KV-Phagi(RJ)-Gwalior(PG)	530	724	1,094	-	17.39	0	17.39
13	HVDC500KV-Mundra(JH)-Mohind..	1,999	2,003	2,008	0	47.97	0	47.97
14	HVDC500KV-Vindhyachal(PG)-Vindhaychal B/B	-250	-250	0	250	0	5.99	-5.99
15	HVDC800KV-Champa(PG)-Kuruku..	0	0	600	0	0.6	0	0.6
Sub-Total WEST REGION		4,321	3,965	8,721	2,228	148.18	35.35	112.83
TOTAL IR EXCHANGE		5,481	5,374	12,151	2,779	202.81	48.13	154.68

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	46.93	-16.3	3.39	34.02	54.01	19.99

NR-WR	156.87	-30.83	-2.82	123.22	112.83	-10.39
Total	203.8	-47.13	0.57	157.24	154.68	-2.56

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)	-25.13	-22.58		29		0.6043	-0.6043

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	13.1	62.7	76.5	9	1.4	0	10.4

<-----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.	
50.14	17:01:40	49.75	12:20:00	49.98	0.048	0.065	50.09	49.83	23.5

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	426	02:20	409	11:10	0	0	35.42	0	35.42
Amritsar(PG) - 400KV	427	02:20	409	12:20	0	0	27.78	0	27.78
Ballabgarh(PG) - 400KV	423	04:00	401	10:25	0	0	18.75	0	18.75
Bareilly II(PG) - 400KV	417	03:25	394	12:45	0	0	0	0	0
Bareilly(UP) - 400KV	418	03:25	395	12:45	0	0	0	0	0
Baspa(HP) - 400KV	430	02:25	412	18:20	0	0	39.24	.35	39.24
Bassi(PG) - 400KV	418	04:00	389	09:20	0	1.39	0	0	0
Bawana(DTL) - 400KV	426	03:25	406	10:25	0	0	32.99	0	32.99
Dadri HVDC(PG) - 400KV	423	03:25	423	03:25	.35	.35	21.18	0	21.53
Gorakhpur(PG) - 400KV	415	03:25	398	10:25	0	0	0	0	0
Hisar(PG) - 400KV	421	04:00	401	09:25	0	0	8.33	0	8.33
Kanpur(PG) - 400KV	419	20:05	404	10:25	0	0	0	0	0
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	423	02:15	404	11:10	0	0	4.17	0	4.17
Moga(PG) - 400KV	419	02:20	387	11:15	0	4.17	0	0	0
Nallagarh(PG) - 400KV	430	02:25	412	18:20	0	0	39.24	.35	39.24
Rihand HVDC(PG) - 400KV	405	03:00	405	03:00	1.04	1.04	0	0	1.04
Rihand(NT) - 400KV	404	03:00	400	10:25	0	0	0	0	0

6.1 Voltage Profile: 765kV

STATION	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index (% of time)
	VOLTAGE	TIME	VOLTAGE	TIME	< 728	< 742	> 800	> 820	
Anta RS(RJ) - 765KV	789	03:05	762	09:10	0	0	0	0	0
Balia(PG) - 765KV	781	03:20	753	10:25	0	0	0	0	0
Bareilly II(PG) - 765KV	795	03:25	721	13:45	.35	.35	0	0	.35
Bhiwani(PG) - 765KV	799	19:55	764	09:20	0	0	0	0	0
Fatehpur(PG) - 765KV	785	20:05	751	06:55	0	0	0	0	0
Jhatikara(PG) - 765KV	801	04:00	763	10:25	0	0	.69	0	.69
Lucknow II(PG) - 765KV	791	03:25	754	10:25	0	0	0	0	0
Meerut(PG) - 765KV	797	03:25	760	09:20	0	0	0	0	0
Moga(PG) - 765KV	786	20:00	756	11:20	0	0	0	0	0
Phagi(RJ) - 765KV	796	03:20	758	09:10	0	0	0	0	0
Unnao(UP) - 765KV	772	03:25	739	10:25	0	5.9	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	-1,692.21	197.18	0	-1,692.21	0	0	63.11	-40.61	2.2	24.69
HARYANA	-995.77	174.06	0	-1,018.54	43.44	0	90.35	-25.53	1.61	66.42
RAJASTHAN	-96.65	-302.85	0	-96.65	-760.95	0	64.8	2.24	-3.54	63.51
DELHI	-772.09	-626.84	0	-622.85	-261.69	0	75.27	-18.34	-3.16	53.78
UTTAR PRADESH	122.03	0	0	112.15	0	0	114.05	-4.39	-0.52	109.13
UTTARAKHAND	633.94	-105.9	0	526.87	56.92	0	12.36	13.69	0.75	26.81
HIMACHAL PRADESH	444.06	-7.07	0	265.82	450.86	0	13.54	11.69	-0.05	25.18
JAMMU & KASHMIR	608.59	98.59	0	608.59	542.24	0	26.4	14.6	4.43	45.44
CHANDIGARH	0	-30.43	0	0	0	0	3.95	0	-0.57	3.38
TOTAL	-1,748.1	-603.26	0	-1,916.82	70.82	0	463.83	-46.65	1.15	418.34

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	3,531.23	2,292.91	-1,692.21	-1,692.21	492.95	-202.86	0	0
HARYANA	4,710.57	2,878.92	-770.77	-1,329.75	175.82	-259.09	0	0
RAJASTHAN	3,744.39	1,971.91	748.52	-96.65	1,292.37	-1,376.98	0	0
DELHI	3,910	2,292.42	-592.26	-905.1	649.71	-636.98	0	0
UTTAR PRADESH	6,337.26	3,829.18	122.03	-793.84	68.14	-851.73	0	0
UTTARAKHAND	980.26	341.56	633.94	526.87	343.61	-193.84	0	0
HIMACHAL PRADESH	1,377.29	230.12	741.36	265.82	520.54	-474.43	0	0
JAMMU & KASHMIR	1,658.97	767.64	608.59	608.59	542.24	-253.58	0	0
CHANDIGARH	284.26	115.31	0	0	19.52	-99.91	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	505.17	1,312	499.53	1,077	177.66	440.84
Chamera-I	748.75	760	-	-	-	-	-	0
Gandhisagar	295.78	295.78	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	-	-	-	-	-	0
Koteshwar	598.5	612.5	610.99	5	610.42	5	217	213.9
Pong	384.05	426.72	415.73	706	410.56	514	66.74	379.22
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	516.87	3	505.07	3	69.03	132.9
Rihand	252.98	268.22	-	-	-	-	-	0
Tehri	740.04	829.79	814.13	885	810.95	821	49.38	217
TOTAL	-	-	-	2,911	-	2,420	579.81	1,383.86

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	36
DELHI	3	25
HARYANA	0	8
HIMACHAL PRADESH	1	18
JAMMU & KASHMIR	5	65
PUNJAB	0	9
RAJASTHAN	0	12
UTTAR PRADESH	0	10
UTTARAKHAND	2	24

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 :

315MVA ICT-3 at Fatehabad(PG) first time charged on no-load from 400kV side through 412 Bay at 2030 Hrs of 28.12.18

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