



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

Power Supply Position in Northern Region For 01-Dec-2018

Date of Reporting:02-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
42,644	529	43,173	49.99	30,932	283	31,215	50.06	911	10.67

2(A)State's Load Deails (At State Periphery) in MU:

State	State's Control Area Generation (Net MU)							Drawal Sch	Act Drawal	UI	Requirement	Shortage	Consumption
	Thermal	Hydro	Gas/Naptha/ Diesel	Solar	Wind	OthersBiomass/Small Hyd/Co-gen etc.)	Total	(Net MU)	(Net MU)	(Net MU)	(Net MU)	(Net MU)	(Net MU)
PUNJAB	62.67	11.44	0	3.66	0	7.99	85.76	40.23	40.43	0.2	126.19	0	126.19
HARYANA	50.64	0.54	3.89	0.13	0	1.08	56.27	64.75	69.08	4.33	125.35	0	125.35
RAJASTHAN	120.62	2.72	1.59	14.11	2.94	4.23	146.21	81.54	82.7	1.16	228.91	0	228.91
DELHI	0	0	15.57	0	0	-0.02	15.55	43.83	44.28	0.45	59.85	0.02	59.83
UTTAR PRADESH	127.1	5.6	0	2.1	0	21.6	156.4	103.89	104.03	0.14	260.43	0	260.43
UTTARAKHAND	0	7.75	2.44	0.51	0	0.46	11.16	23.63	24.03	0.4	35.19	0	35.19
HIMACHAL PRADESH	0	4.34	0	0	0	3.2	7.54	19.76	19.58	-0.18	27.12	0	27.12
JAMMU & KASHMIR	0	7.82	0	0	0	0	7.82	37.57	37.2	-0.37	55.67	10.65	45.02
CHANDIGARH	0	0	0	0	0	0	0	3.31	3.14	-0.17	3.14	0	3.14
Region	361.03	40.21	23.49	20.51	2.94	38.54	486.71	418.51	424.47	5.96	921.85	10.67	911.18

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	5,231	0	-13	-1,467	3,933	0	-24	-381
HARYANA	6,339	0	253	-1,210	4,193	0	213	-922
RAJASTHAN	9,713	0	203	34	7,996	0	207	321
DELHI	3,081	0	16	-1,248	1,621	0	64	-1,610
UTTAR PRADESH	12,901	0	88	113	9,512	0	-155	132
UTTARAKHAND	1,771	0	61	455	1,176	0	41	430
HIMACHAL PRADESH	1,330	0	-15	152	816	0	-73	402
JAMMU & KASHMIR	2,118	529	24	599	1,605	283	-54	668
CHANDIGARH	160	0	-21	0	79	0	-16	-15
Region	42,644	529	596	-2,572	30,931	283	203	-975

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	5,791	8:00	0	5,791	5,791	8:00	0	5,791	3,901	2:00
HARYANA	6,339	19:00	0	6,339	6,339	19:00	0	6,339	4,169	2:00
RAJASTHAN	11,736	10:00	0	11,736	11,736	10:00	0	11,736	7,349	5:00
DELHI	3,290	11:00	0	3,290	3,290	11:00	0	3,290	1,571	4:00
UP	12,901	19:00	0	12,901	12,901	19:00	0	12,901	9,512	3:00
UTTARAKHAND	1,860	8:00	0	1,860	1,860	8:00	0	1,860	1,176	3:00
HP	1,486	9:00	0	1,486	1,486	9:00	0	1,486	816	3:00
J&K	2,302	8:00	576	2,878	2,878	8:00	576	2,302	1,590	2:00
CHANDIGARH	183	9:00	0	183	183	9:00	0	183	79	3:00
NR	43,033	8:00	576	43,608	43,608	8:00	576	43,033	30,932	3:00

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			
RAJGHAT TPS(2 * 67.5)	135	0	0	0			
Total THERMAL	840	0	0			0	0
BAWANA GPS(2 * 253 + 4 * 216)	1,370	429	426	449		10.3	429
DELHI GAS TURBINES(3 * 34 + 6 * 30)	282	29	69	74.92		1.5	63
PRAGATI GAS TURBINES(1 * 121.2 + 2 * 104.6)	331	155	148	161.06		3.76	157
RITHALA GPS(3 * 36)	108	0	0	0			
Total GAS/NAPTHA/DIESEL	2,091	613	643			15.56	649
WIND	0	0	0	0			
BIOMASS(1 * 16)	16	37	41	42.85		-0.02	-1
SOLAR(1 * 2)	2	0	0	0			
Total DELHI	2,949	650	684			15.54	648

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	291	238	0		5.95	248
JHAJJAR(CLP)(2 * 660)	1,320	585	373	0		11.6	483
MAGNUM DIESEL (IPP)(4 * 6.3)	25	0	0	0			
PANIPAT TPS(2 * 210 + 2 * 250)	920	458	577	0		12.74	531
RGTPP(KHEDAR)(2 * 600)	1,200	1,031	766	0		20.35	848
Total THERMAL	4,065	2,365	1,954			50.64	2,110
FARIDABAD GPS(1 * 156.07 + 2 * 137.75)	432	151	167	0		3.89	162
Total GAS/NAPTHA/DIESEL	432	151	167			3.89	162
TOTAL HYDRO HARYANA(1 * 62)	62	7	20	0		0.54	23
Total HYDEL	62	7	20			0.54	23
WIND	0	0	0	0			
BIOMASS(1 * 106)	106	0	0	0		1.08	45
SOLAR(1 * 50)	50	0	0	0		0.13	5
Total HARYANA	4,715	2,523	2,141			56.28	2,345

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	62	31	0		1.37	57
MALANA (IPP) HPS(2 * 43)	86	18	0	0		0.18	8
OTHER HYDRO HP(1 * 372)	372	145	82	0		2.8	117
Total HYDEL	758	225	113			4.35	182
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO(1 * 486)	486	185	115	0		3.2	133
Total SMALL HYDRO	486	185	115			3.2	133
Total HP	1,244	410	228			7.55	315

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/NAPTHA/DIESEL	190	0	0			0	0
BAGLIHAR (IPP) HPS(6 * 150)	900	237	237	0		5.68	237
OTHER HYDRO/IPP J&K(1 * 308)	308	108	63	0		2.14	89
Total HYDEL	1,208	345	300			7.82	326
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	345	300			7.82	326

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	203	145	210		3.91	163
GURU GOBIND SINGH TPS (ROPAR)(6 * 210)	1,260	0	0	0		-0.09	-4
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)(2 * 210 + 2 * 250)	920	855	650	863		18.52	772
GURU NANAK DEV TPS (BHATINDA)(4 * 110)	460	0	0	0		-0.09	-4
RAJPURA(NPL) TPS(2 * 700)	1,400	660	330	660		14.59	608
TALWANDI SABO TPS(3 * 660)	1,980	1,228	616	1,228		25.83	1,076
Total THERMAL	6,560	2,946	1,741			62.67	2,611
TOTAL HYDRO PUNJAB(1 * 1000)	1,000	616	258	616		11.44	477
Total HYDEL	1,000	616	258			11.44	477
WIND	0	0	0	0			
BIOMASS(1 * 303)	303	0	0	0		7.99	333
SOLAR(1 * 859)	859	0	0	535		3.66	153
Total PUNJAB	8,722	3,562	1,999			85.76	3,574

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	224	225	0		5.13	214
CHHABRA TPS(1 * 660 + 4 * 250)	1,660	1,388	1,389	0		32.83	1,368
GIRAL (IPP) LTPS(2 * 125)	250	0	0	0			
KALISINDH TPS(2 * 600)	1,200	0	0	0			
KAWAI TPS(2 * 660)	1,320	588	479	0		13.68	570
KOTA TPS(2 * 110 + 2 * 195 + 3 * 210)	1,240	1,146	901	0		25.64	1,068
RAJWEST (IPP) LTPS(8 * 135)	1,080	703	604	0		15.78	658
SURATGARH TPS (6 * 250)	1,500	1,116	905	0		25.1	1,046
VSLPP (IPP)(1 * 135)	135	105	104	0		2.46	103
Total THERMAL	8,635	5,270	4,607			120.62	5,027
DHOLPUR GPS(3 * 110)	330	0	0	0			
RAMGARH GPS(1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5)	271	68	70	0		1.59	66
Total GAS/NAPTHA/DIESEL	601	68	70			1.59	66
RAPS-A(1 * 100 + 1 * 200)	300	163	162	0		3.77	157
Total NUCLEAR	300	163	162			3.77	157
TOTAL HYDRO RAJASTHAN(1 * 550)	550	103	90	0		2.72	113
Total HYDEL	550	103	90			2.72	113
WIND	4,292	95	55	0		2.94	123
BIOMASS(1 * 102)	102	19	19	0		0.46	19
SOLAR(1 * 1995)	1,995	12	0	0		14.11	588
Total RAJASTHAN	16,475	5,730	5,003			146.21	6,093

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	1,430	1,227	0		33.3	1,388
ANPARA-C TPS(2 * 600)	1,200	1,088	851	0		25.8	1,075
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	931	679	0		21.8	908
HARDUAGANJ TPS(1 * 105 + 1 * 60 + 2 * 250)	665	442	252	0		8.5	354
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	77	201	0		8.5	354
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	374	216	0		7.4	308
Total THERMAL	13,763	5,300	4,377			127.1	5,295
ALAKHANDA HEP(4 * 82.5)	330	83	63	0		2	83
VISHNUPARYAG HPS(4 * 110)	440	103	98	0		2.4	100
OTHER HYDRO UP(1 * 527)	527	45	64	0		1.2	50
Total HYDEL	1,297	231	225			5.6	233
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		21.6	900
Total OTHERs	1,360	900	900			21.6	900
Total UP	16,918	6,431	5,502			156.4	6,516

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	01:00	2.44	102
Total GAS/NAPTHA/DIESEL	450	95	95			2.44	102
OTHER HYDRO UK(1 * 1250)	1,250	382	210	576	09:00	7.75	323
Total HYDEL	1,250	382	210			7.75	323
WIND	0	0	0	0			
BIOMASS(1 * 127)	127	22	20	23	11:00	0.46	19
SOLAR(1 * 100)	100	0	0	84	13:00	0.51	21
SMALL HYDRO(1 * 180)	180	0	0	0			
Total SMALL HYDRO	180	0	0			0	0
Total UTTARAKHAND	2,107	499	325			11.16	465

3(B) Regional Entities Generation

Station/Constituents	Inst. Capacity	Declared Capacity	19:00	03:00	Day Peak		Day Energy		AVG. MW	UI
	(MW)			Peak MW	Off Peak MW	(MW)	Hrs	SCHD (MU)		
BBMB										
BHAKRA HPS(2 * 108 + 3 * 126 + 5 * 157)	1,379	413.38	496	370	496	19:00	9.92	10.04	418	0.12
DEHAR HPS(6 * 165)	990	183.65	480	0	480	19:00	4.41	4.5	188	0.09
PONG HPS(6 * 66)	396	243.07	330	132	330	19:00	5.83	5.85	244	0.02
Sub-Total	2,765	840.1	1,306	502	-	-	20.16	20.39	850	0.23
NHPC										
BAIRASIUL HPS(3 * 60)	180	0	0	0	0	-	0	0	0	0
CHAMERA HPS(3 * 180)	540	535.58	530	0	547	07:00	2.3	2.54	106	0.24
CHAMERA II HPS(3 * 100)	300	170.25	202	49	206	20:00	1.74	1.95	81	0.21
CHAMERA III HPS(3 * 77)	231	42.92	160	0	160	19:00	1.01	1.15	48	0.14
DHAULIGANGA HPS(4 * 70)	280	54.39	281	0	290	07:00	1.26	1.3	54	0.04
DULHASTI HPS(3 * 130)	390	386.9	391	0	391	19:00	3.8	3.98	166	0.18
KISHANGANGA(2 * 110)	220	0	0	0	0	-	0	0	0	0
PARBATI III HEP(4 * 130)	520	27.81	128	0	266	06:45	0.67	0.69	29	0.02
SALAL HPS(6 * 115)	690	148.96	345	230	350	07:00	3.58	4.24	177	0.66
SEWA-II HPS(3 * 40)	120	120.2	82	0	122	18:00	0.39	0.43	18	0.04
TANAKPUR HPS(1 * 31.42 + 2 * 31.4)	94	36.25	34	58	66	13:00	0.87	0.92	38	0.05
URI HPS(4 * 120)	480	175.78	250	150	250	19:00	4.22	4.69	195	0.47
URI-II HPS(4 * 60)	480	105.05	79	85	182	07:00	2.52	2.64	110	0.12
Sub-Total	4,525	1,804.09	2,482	572	-	-	22.36	24.53	1,022	2.17
NPCL										
NAPS(2 * 220)	440	405	444	451	452	07:00	9.72	9.78	408	0.06
RAPS-B(2 * 220)	440	195	221	223	223	03:00	4.68	4.67	195	-0.01
RAPS-C(2 * 220)	440	420	474	474	474	03:00	10.08	10.24	427	0.16
Sub-Total	1,320	1,020	1,139	1,148	-	-	24.48	24.69	1,030	0.21
NTPC										
ANTA GPS(1 * 153.2 + 3 * 88.71)	419	403.8	0	0	0	-	0	0	0	0
AURAIYA GPS(2 * 109.3 + 4 * 111.19)	663	488.33	0	0	0	-	0	0.05	2	0.05
DADRI GPS(2 * 154.51 + 4 * 130.19)	830	409.58	230	230	393	18:00	5.54	5.48	228	-0.06
DADRI SOLAR(1 * 5)	5	0.86	0	0	3	12:04	0.02	0.02	1	0
DADRI-I TPS(4 * 210)	840	768.6	250	204	250	19:00	6.71	6.53	272	-0.18
DADRI-II TPS(2 * 490)	980	928.55	823	553	823	19:00	17.11	17.97	749	0.86
ISTPP (JHAJJAR)(3 * 500)	1,500	1,421.25	1,186	853	1,186	19:00	27.32	27.06	1,128	-0.26
KOLDAM HPS(4 * 200)	800	872	791	0	870	07:00	3.3	3.35	140	0.05
RIHAND-I STPS(2 * 500)	1,000	461.25	501	502	501	19:00	11.03	11.14	464	0.11
RIHAND-II STPS(2 * 500)	1,000	942.5	1,032	1,007	1,032	19:00	22.6	22.86	953	0.26
RIHAND-III STPS(2 * 500)	1,000	942.5	998	1,016	998	19:00	22.41	23.23	968	0.82
SINGRAULI STPS(2 * 500 + 5 * 200)	2,000	1,862.5	2,027	2,031	2,054	14:00	44.7	45.65	1,902	0.95
SINGRAULI SOLAR(1 * 15)	15	1.96	0	0	0	-	0.05	0.04	2	-0.01
UNCHAHAH II TPS(2 * 210)	420	382.2	382	230	382	19:00	7.63	7.7	321	0.07
UNCHAHAH III TPS(1 * 210)	210	191.1	184	118	184	19:00	3.75	3.64	152	-0.11
UNCHAHAH IV TPS(1 * 500)	500	0	0	0	0	-	0	-	-	0
UNCHAHAH SOLAR(1 * 10)	10	1.41	0	0	0	-	0.03	0.03	1	0
UNCHAHAH TPS(2 * 210)	420	382.2	399	243	399	19:00	7.41	7.63	318	0.22
Sub-Total	12,612	10,460.59	8,803	6,987	-	-	179.61	182.38	7,601	2.77
SJVNL										
NATHPA-JHAKRI HPS(6 * 250)	1,500	1,249.38	1,258	0	1,276	07:00	9	9.2	383	0.2
RAMPUR HEP(6 * 68.67)	412	344.38	366	0	367	07:00	2.51	2.61	109	0.1
Sub-Total	1,912	1,593.76	1,624	0	-	-	11.51	11.81	492	0.3
THDC										
KOTESHWAR HPS(4 * 100)	400	91.25	100	93	101	07:00	2.19	2.24	93	0.05
TEHRI HPS(4 * 250)	1,000	1,064	1,002	0	1,021	07:00	6.85	6.95	290	0.1
Sub-Total	1,400	1,155.25	1,102	93	-	-	9.04	9.19	383	0.15
Total	24,534	16,873.79	16,456	9,302			267.16	272.99	11,378	5.83

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	70	17:00	0.27	0.28	12	0.01
KARCHAM WANGTOO HPS(4 * 250)	1,000	0	825	0	825	17:45	4.74	4.74	198	0
MALANA2(2 * 50)	100	0	0	0	0	-	0	-	-	0
SAINJ HEP(2 * 50)	50	0	100	20	100	00:00	0.55	0.55	23	0
SHREE CEMENT (IPP) TPS(2 * 150)	300	0	145	150	150	03:00	3.69	3.47	145	-0.22
Sub-Total	1,712	0	1,139	170	-	-	9.25	9.04	378	-0.21
Total	1,712	0	1,139	170			9.25	9.04	378	-0.21

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	54,626	20,150	16,182	486.72	20,280
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		5,475	6,204	159.67	8,190
Total Regional Availability(Gross)	80,872	43,220	31,858	928.42	40,221

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	8,299	1,187	74.84	3,118
State Control Area Hydro	6,125	1,909	1,216	40.22	1,676
Total Regional Hydro	18,939	10,208	2,403	115.06	4,794

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	370	250	36.62	1,526
Total Regional Renewable	9,244	370	250	36.71	1,530

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	-22	-26	-	37	0	0.71	-0.71
2	132KV-Karmnasa(PG)-Sahupuri(U ..	-	-	-	-	-	-	-
3	132KV-Rihand-Sonnagar(PG)	-	-	-	-	-	-	-
4	220KV-Pusauli(PG)-Sahupuri(UP)	145	107	149	0	2.97	0	2.97
5	400KV-Biharsharif(PG)-Balia(PG)	105	119	223	0	4.14	0	4.14
6	400KV-Biharsharif(PG)-Varanasi(P..	66	39	100	66	0.29	0	0.29
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-
8	400KV-Motihari(DMT)-Gorakhpur ..	198	204	276	0	5.91	0	5.91
9	400KV-Muzaffarpur(PG)-Gorakhp ..	6	-56	266	90	1.94	0	1.94
10	400KV-Patna(PG)-Balia(PG)	305	382	529	0	11.11	0	11.11
11	400KV-Sasaram-Allahabad(PG)	-69	-33	19	69	0	0.74	-0.74
12	400KV-Sasaram-Varanasi(PG)	-30	-1	0	30	0	0.36	-0.36
13	765KV-Fatehpur(PG)-Sasaram.	40	96	232	0	3.22	0	3.22
14	765KV-Gaya(PG)-Balia(PG)	174	205	269	0	5.7	0	5.7
15	765KV-Gaya(PG)-Varanasi(PG)	-140	-242	477	0	6.88	0	6.88
16	HVDC800KV-Alipurduar-Agra(PG)	350	200	350	0	5.61	0	5.61
Sub-Total EAST REGION		1,128	994	2,890	292	47.77	1.81	45.96
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli- ..	300	500	500	0	10.02	0	10.02
Sub-Total	NORTH_EAST REGION	300	500	500	0	10.02	0	10.02
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya(NT)-Malanpur(PG)	-39	-45	-	149	0	1.86	-1.86
2	220KV-Badod(MP)-Kota(PG)	-79	-37	27	171	0	1.25	-1.25
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-
4	400KV-RAPS C(NP)-Sujalpur	-33	23	131	164	0	0.66	-0.66
5	400KV-Vindhyachal(PG)-Rihand(N ..	-969	-929	-	985	0	22.23	-22.23
6	400KV-Zerda(PG)-Bhinmal(PG)	20	54	284	38	1.7	0	1.7
7	400KV-Zerda(PG)-Kankroli(RJ)	-139	-109	71	202	0	1.19	-1.19
8	765KV-0rai-Gwalior(PG)	-281	-343	0	539	0	8.13	-8.13
9	765KV-0rai-Jabalpur	329	514	807	0	11.23	0	11.23
10	765KV-0rai-Satna	1,539	1,659	1,659	0	36.05	0	36.05
11	765KV-Gwalior(PG)-Agra(PG)	1,232	1,489	1,554	0	30.53	0	30.53
12	765KV-Phagi(RJ)-Gwalior(PG)	969	1,086	1,453	-	25.97	0	25.97
13	HVDC500KV-Mundra(JH)-Mohind..	598	598	604	0	14.59	0	14.59
14	HVDC500KV-Vindhyachal(PG)-Vindhaychal B/B	-100	-250	0	250	0	4.14	-4.14
15	HVDC800KV-Champa(PG)-Kuruks..	1,000	1,000	1,000	0	23.08	0	23.08
Sub-Total WEST REGION		4,047	4,710	7,590	2,498	143.15	39.46	103.69
TOTAL IR EXCHANGE		5,475	6,204	10,980	2,790	200.94	41.27	159.67

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	53.53	-19.38	9.98	44.13	45.96	1.83

NR-WR	151.57	-26.01	-2.36	123.2	103.69	-19.51
Total	205.1	-45.39	7.62	167.33	159.67	-7.66

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)	-24.14	0.02	0	26	0	0.0873	-0.0873

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	0	8.8	64.3	82.7	7.7	.9	0	8.6

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

Maximum		Minimum		Average	Freq Variation	Standard	Freq. in 15 mnt blk		Freq Dev Index
Frequency	Time	Frequency	Time				Max.	Min.	
50.14	00:01:50	49.84	10:09:00	49.98	0.033	0.053	50.05	49.89	17.3

6.Voltage Profile: 400kV

	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index (% of time)
STATION	VOLTAGE	TIME	VOLTAGE	TIME	< 380	< 390	> 420	> 430	
Abdullapur(PG) - 400KV	426	04:00	412	10:35	0	0	48.96	0	48.96
Amritsar(PG) - 400KV	427	04:00	413	10:35	0	0	48.61	0	48.61
Ballabgarh(PG) - 400KV	424	20:25	407	10:35	0	0	20.49	0	20.49
Bareilly II(PG) - 400KV	418	04:00	403	14:50	0	0	0	0	0
Bareilly(UP) - 400KV	420	04:00	404	14:50	0	0	0	0	0
Baspa(HP) - 400KV	429	04:05	414	10:40	0	0	54.17	0	54.17
Bassi(PG) - 400KV	420	20:20	398	10:20	0	0	.35	0	.35
Bawana(DTL) - 400KV	426	04:00	413	10:35	0	0	49.65	0	49.65
Dadri HVDC(PG). - 400KV	428	20:25	416	10:35	0	0	70.49	0	70.49
Gorakhpur(PG) - 400KV	419	04:00	405	18:10	0	0	0	0	0
Hisar(PG) - 400KV	423	04:00	408	10:35	0	0	18.06	0	18.06
Kanpur(PG) - 400KV	422	04:00	409	10:35	0	0	10.76	0	10.76
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	418	03:55	406	10:35	0	0	0	0	0
Moga(PG) - 400KV	419	19:25	407	10:35	0	0	0	0	0
Nallagarh(PG) - 400KV	429	04:05	414	10:40	0	0	54.17	0	54.17
Rihand HVDC(PG) - 400KV	405	19:05	405	19:05	1.74	1.74	0	0	1.74
Rihand(NT) - 400KV	405	19:10	401	06:20	0	0	0	0	0

6.1 Voltage Profile: 765kV

	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index (% of time)
STATION	VOLTAGE	TIME	VOLTAGE	TIME	< 728	< 742	> 800	> 820	
Anta RS(RJ) - 765KV	796	04:05	772	06:25	0	0	0	0	0
Balia(PG) - 765KV	784	04:00	763	18:10	0	0	0	0	0
Bareilly II(PG) - 765KV	797	04:00	769	14:50	0	0	0	0	0
Bhiwani(PG) - 765KV	806	19:25	779	06:15	0	0	3.82	0	3.82
Fatehpur(PG) - 765KV	773	04:00	749	10:15	0	0	0	0	0
Jhatikara(PG) - 765KV	802	19:25	774	10:35	0	0	1.74	0	1.74
Lucknow II(PG) - 765KV	793	04:00	768	10:15	0	0	0	0	0
Meerut(PG) - 765KV	807	19:25	777	06:25	0	0	5.21	0	5.21
Moga(PG) - 765KV	798	19:25	762	06:25	0	0	0	0	0
Phagi(RJ) - 765KV	799	19:25	772	06:20	0	0	0	0	0
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	-1,565.32	1,184.04	0	-1,565.32	98.67	0	62.75	-37.57	15.05	40.23
HARYANA	-1,026.06	103.6	0	-1,322.66	113	0	90.07	-26.33	1.02	64.75
RAJASTHAN	270.14	50.95	0	90.62	-56.63	0	69.21	5.96	6.36	81.54
DELHI	-802.16	-807.64	0	-779.69	-468.13	0	74.62	-19.93	-10.85	43.83
UTTAR PRADESH	131.86	0	0	113.4	0	0	107.92	-3.91	-0.12	103.89
UTTARAKHAND	526.46	-96.28	0	584.33	-129.02	0	12.01	12.86	-1.25	23.63
HIMACHAL PRADESH	404.51	-2.15	0	226.11	-73.76	0	12.79	10.13	-3.16	19.76
JAMMU & KASHMIR	599.09	69.07	0	599.09	0	0	22.1	14.38	1.09	37.57
CHANDIGARH	0	-15.2	0	0	0	0	3.54	0	-0.23	3.31
TOTAL	-1,461.48	486.39	0	-2,054.12	-515.87	0	455.01	-44.41	7.91	418.51

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	3,271.75	2,289.3	-1,565.32	-1,565.32	1,184.04	0	0	0
HARYANA	4,610.59	2,672.34	-881	-1,399.09	124.06	-384.73	0	0
RAJASTHAN	3,686.93	2,337.34	510.85	-103.97	1,749.66	-237.92	0	0
DELHI	3,738.52	2,466.43	-627.74	-919.97	105.33	-938.89	0	0
UTTAR PRADESH	6,114.17	3,721.23	131.86	-493.18	37.02	-444.59	0	0
UTTARAKHAND	806.35	297.87	584.33	526.26	122.16	-233.02	0	0
HIMACHAL PRADESH	1,318.42	113.7	590.64	226.03	166.64	-767.48	0	0
JAMMU & KASHMIR	1,465.32	649.8	599.09	599.09	315.74	-378.23	0	0
CHANDIGARH	235.3	106.06	0	0	0	-45.61	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	507.91	1,441	504.2	1,272	220.84	270.43
Chamera-I	748.75	760	-	-	-	-	-	0
Gandhisagar	295.78	295.78	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	-	-	-	-	-	0
Koteshwar	598.5	612.5	-	-	-	-	-	0
Pong	384.05	426.72	419.22	848	414.23	645	85.83	344.16
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	520.93	5	508.88	2	85.33	212.49
Rihand	252.98	268.22	-	-	-	-	-	0
Tehri	740.04	829.79	821.6	1,036	818.4	970	116.58	153
TOTAL	-	-	-	3,330	-	2,889	508.58	980.08

9. System Reliability Indices(Violation of TTC and ATC):

(i)%age of times N-1 Criteria was violated in the inter - regional corridors	
WR	0
ER	0
Simultaneous	0

ii)%age of times ATC violated on the inter-regional corridors

WR	0
ER	0
Simultaneous	0

iii)%age of times Angular Difference on Important Buses was beyond permissible limits(40 deg.)

Rihand-Dadri	0
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10. Zero Crossing Violations

State	No. of violations(Maximum 8 in a day)	Maximum number of continuous blocks without sign change
CHANDIGARH	4	28
DELHI	4	26
HARYANA	1	13
HIMACHAL PRADESH	0	10
JAMMU & KASHMIR	2	21
PUNJAB	1	18
RAJASTHAN	1	14
UTTAR PRADESH	2	13
UTTARAKHAND	5	40

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 :

A). 12 Ohm Series line Reactor of 400 kV Dadri - Mandola 2 at Mandola (PG) first time charged at 1707 Hrs on 01.12.2018.
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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