



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

Power Supply Position in Northern Region For 27-Dec-2018

Date of Reporting:28-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
46,675	792	47,467	50.03	31,570	346	31,916	49.97	971	12.77

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	79.67	10.67	0	3.35	0	1.07	94.76	23.7	23.05	-0.65	117.81	0	117.81
HARYANA	60.48	0.53	0	0.11	0	1.17	62.29	68.18	68.93	0.75	131.22	0	131.22
RAJASTHAN	143.6	5.34	1.72	15.35	6.81	3.41	176.23	62.3	64.95	2.65	241.18	0	241.18
DELHI	-0.02	0	16.42	0	0	0.93	17.33	51.44	52.22	0.78	69.55	0	69.55
UTTAR PRADESH	154.98	7.11	0	2.27	0	21.6	185.96	100.84	100.58	-0.26	287.17	0.63	286.54
UTTARAKHAND	0	9.39	2.35	0.53	0	0.83	13.1	25.79	26.22	0.43	39.32	0	39.32
HIMACHAL PRADESH	0	3.6	0	0.06	0	2.12	5.78	24.34	25.44	1.1	31.42	0.2	31.22
JAMMU & KASHMIR	0	5.16	0	0	0	0	5.16	46.43	45.53	-0.9	62.63	11.94	50.69
CHANDIGARH	0	0	0	0	0	0	0	3.25	3.7	0.45	3.7	0	3.7
Region	438.71	41.8	20.49	21.67	6.81	31.13	560.61	406.27	410.62	4.35	984	12.77	971.23

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	5,883	0	-64	-1,692	3,445	0	61	-1,495
HARYANA	6,635	0	-35	-991	4,402	0	85	-833
RAJASTHAN	10,315	0	-159	-570	7,831	0	306	-21
DELHI	3,595	0	0	-888	1,511	0	14	-1,377
UTTAR PRADESH	14,078	210	-164	112	10,141	0	-11	122
UTTARAKHAND	2,071	0	111	571	1,276	0	25	522
HIMACHAL PRADESH	1,576	0	-61	711	914	0	59	437
JAMMU & KASHMIR	2,325	581	86	1,151	1,959	346	-9	707
CHANDIGARH	197	0	21	0	90	0	10	-30
Region	46,675	791	-265	-1,596	31,569	346	540	-1,968

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	5,900	12:00	0	5,900	5,900	12:00	0	5,900	3,445	3:00
HARYANA	6,635	19:00	0	6,635	6,635	19:00	0	6,635	4,309	2:00
RAJASTHAN	12,682	10:00	0	12,682	12,682	10:00	0	12,682	7,251	5:00
DELHI	4,057	11:00	0	4,057	4,057	11:00	0	4,057	1,458	4:00
UP	14,078	19:00	210	14,288	14,288	19:00	210	14,078	10,141	3:00
UTTARAKHAND	2,102	8:00	0	2,102	2,102	8:00	0	2,102	1,248	4:00
HP	1,622	10:00	30	1,652	1,652	10:00	30	1,622	909	4:00
J&K	2,767	20:00	692	3,459	3,459	20:00	692	2,767	1,859	6:00
CHANDIGARH	229	9:00	0	229	229	9:00	0	229	88	2:00
NR	46,675	19:00	792	47,467	47,467	19:00	792	46,675	31,502	4:00

3(A) State Entities Generation:

CHANDIGARH						
Station/Constituents	Inst. Capacity	N/A	N/A	Day Peak		Day Energy
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)
NIL						
Total	0	0	0			0
Total	0	0	0			0

DELHI							
Station/Constituents	Inst. Capacity	19:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
BADARPUR TPS(2 * 210 + 3 * 100)	705	0	0	0		-0.02	-1
RAJGHAT TPS(2 * 67.5)	135	0	0	0			
Total THERMAL	840	0	0			-0.02	-1
BAWANA GPS(2 * 253 + 4 * 216)	1,370	470	452	0		11.55	481
DELHI GAS TURBINES(3 * 34 + 6 * 30)	282	40	40	0		0.93	39
PRAGATI GAS TURBINES(1 * 121.2 + 2 * 104.6)	331	163	162	0		3.95	165
RITHALA GPS(3 * 36)	108	0	0	0			
Total GAS/NAPHTHA/DIESEL	2,091	673	654			16.43	685
WIND	0	0	0	0			
BIOMASS(1 * 16)	16	33	41	0		0.93	39
SOLAR(1 * 2)	2	0	0	0			
Total DELHI	2,949	706	695			17.34	723

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	561	494	572	13:00	12.08	503
JHAJJAR(CLP)(2 * 660)	1,320	1,209	741	1,238	12:00	24.32	1,013
MAGNUM DIESEL (IPP)(4 * 6.3)	25	0	0	0			
PANIPAT TPS(2 * 210 + 2 * 250)	920	577	578	647	11:00	14.33	597
RGTPP(KHEDAR)(2 * 600)	1,200	394	386	562	13:00	9.75	406
Total THERMAL	4,065	2,741	2,199			60.48	2,519
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	12	20	21	02:00	0.53	22
Total HYDEL	62	12	20			0.53	22
WIND	0	0	0	0			
BIOMASS(1 * 106)	106	0	0	0		1.17	49
SOLAR(1 * 50)	50	0	0	0		0.11	5
Total HARYANA	4,715	2,753	2,219			62.29	2,595

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	95	0	105	02:00	1.14	48
MALANA (IPP) HPS(2 * 43)	86	46	0	46	19:00	0.26	11
OTHER HYDRO HP(1 * 372)	372	121	38	0		2.19	91
Total HYDEL	758	262	38			3.59	150
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	12.2613	13:00	0.06	3
SMALL HYDRO(1 * 486)	486	147	54	0		2.12	88
Total SMALL HYDRO	486	147	54			2.12	88
Total HP	1,244	409	92			5.77	241

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	0	0	0		3.55	148
OTHER HYDRO/IPP J&K(1 * 308)	308	0	0	0		1.61	67
Total HYDEL	1,208	0	0			5.16	215
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	0	0			5.16	215

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	491	290	491		9.37	390
GURU GOBIND SINGH TPS (ROPAR)(6 * 210)	1,260	146	146	192		3.76	157
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)(2 * 210 + 2 * 250)	920	161	166	232		4.07	170
GURU NANAK DEV TPS (BHATINDA)(4 * 110)	460	0	0	0		-0.09	-4
RAJPURA(NPL) TPS(2 * 700)	1,400	1,320	845	1,320		27.84	1,160
TALWANDI SABO TPS(3 * 660)	1,980	1,841	924	1,841		34.72	1,447
Total THERMAL	6,560	3,959	2,371			79.67	3,320
TOTAL HYDRO PUNJAB(1 * 1000)	1,000	484	419	570		10.67	445
Total HYDEL	1,000	484	419			10.67	445
WIND	0	0	0	0			
BIOMASS(1 * 303)	303	0	0	0		1.07	45
SOLAR(1 * 859)	859	0	0	505		3.35	140
Total PUNJAB	8,722	4,443	2,790			94.76	3,950

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	237	222	0		5.21	217
CHHABRA TPS(1 * 660 + 4 * 250)	1,660	1,846	1,351	0		38.94	1,623
GIRAL (IPP) LTPS(2 * 125)	250	0	0	0			
KALISINDH TPS(2 * 600)	1,200	1,104	826	0		23.7	988
KAWAI TPS(2 * 660)	1,320	1,187	855	0		25.99	1,083
KOTA TPS(2 * 110 + 2 * 195 + 3 * 210)	1,240	983	872	0		22.67	945
RAJWEST (IPP) LTPS(8 * 135)	1,080	565	355	0		13.12	547
SURATGARH TPS(6 * 250)	1,500	352	542	0		11.48	478
VSLPP (IPP)(1 * 135)	135	105	105	0		2.49	104
Total THERMAL	8,635	6,379	5,128			143.6	5,985
DHOLPUR GPS(3 * 110)	330	0	0	0			
RAMGARH GPS(1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5)	271	71	71	0		1.72	72
Total GAS/NAPHTHA/DIESEL	601	71	71			1.72	72
RAPS-A(1 * 100 + 1 * 200)	300	124	126	0		2.87	120
Total NUCLEAR	300	124	126			2.87	120
TOTAL HYDRO RAJASTHAN(1 * 550)	550	264	119	0		5.34	223
Total HYDEL	550	264	119			5.34	223
WIND	4,292	275	461	0		6.81	284
BIOMASS(1 * 102)	102	22	22	0		0.53	22
SOLAR(1 * 1995)	1,995	10	0	0		15.35	640
Total RAJASTHAN	16,475	7,145	5,927			176.22	7,346

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	1,447	1,224	0		33.53	1,397
ANPARA-C TPS(2 * 600)	1,200	1,087	590	0		24.13	1,005
ANPARA-D TPS(2 * 500)	1,000	956	948	0		21.85	910
BAJAJ ENERGY PVT LTD (IPP) TPS(10 * 45)	450	0	0	0			
BARA PPGCL TPS(3 * 660)	1,980	1,042	676	0		22.53	939
HARDUAGANJ TPS(1 * 105 + 1 * 60 + 2 * 250)	665	445	253	0		9.44	393
LALITPUR TPS(3 * 660)	1,980	524	347	0		11.73	489
MEJA TPS(1 * 660)	660	0	0	0			
OBRA TPS (2 * 94 + 5 * 200)	1,188	507	323	0		11.15	465
PANKI TPS(2 * 105)	210	0	0	0			
PARICHA TPS(2 * 110 + 2 * 210 + 2 * 250)	1,160	594	344	0		12.6	525
ROSA TPS(4 * 300)	1,200	0	0	0			
TANDA TPS(4 * 110)	440	385	214	0		8.02	334
Total THERMAL	13,763	6,987	4,919			154.98	6,457
ALAKHANDA HEP(4 * 82.5)	330	83	140	0		1.45	60
VISHNUPARYAG HPS(4 * 110)	440	83	78	0		1.96	82
OTHER HYDRO UP(1 * 527)	527	142	135	0		3.71	155
Total HYDEL	1,297	308	353			7.12	297
WIND	0	0	0	0			
BIOMASS(1 * 26)	26	0	0	0			
SOLAR(1 * 472)	472	0	0	0		2.27	95
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	8,195	6,172			185.97	7,749

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	100	101	106	02:00	2.35	98			
Total GAS/NAPHTHA/DIESEL	450	100	101			2.35	98			
OTHER HYDRO UK(1 * 1250)	1,250	678	212	678	19:00	9.39	391			
Total HYDEL	1,250	678	212			9.39	391			
WIND	0	0	0	0						
BIOMASS(1 * 127)	127	35	33	36	08:00	0.83	35			
SOLAR(1 * 100)	100	0	0	84	12:00	0.53	22			
SMALL HYDRO(1 * 180)	180	0	0	0						
Total SMALL HYDRO	180	0	0			0	0			
Total UTTARAKHAND	2,107	813	346			13.1	546			

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	684.52	1,092	417	1,092	19:00	16.43	16.45	685	0.02
DEHAR HPS(6 * 165)	990	144.06	495	0	495	19:00	3.46	3.59	150	0.13
PONG HPS(6 * 66)	396	260	264	264	264	19:00	6.24	6.26	261	0.02
Sub-Total	2,765	1,088.58	1,851	681	-	-	26.13	26.3	1,096	0.17
NHPC										
BAIRASIUL HPS(3 * 60)	180	0	0	0	0	-	0	-	-	0
CHAMERA HPS(3 * 180)	540	535.58	347	0	540	06:45	2	2.02	84	0.02
CHAMERA II HPS(3 * 100)	300	149.63	202	25	203	07:00	1.33	1.48	62	0.15
CHAMERA III HPS(3 * 77)	231	153	133	0	161	07:00	0.7	0.78	33	0.08
DHAULIGANGA HPS(4 * 70)	280	281.38	282	0	285	07:00	1.04	1.05	44	0.01
DULHASTI HPS(3 * 130)	390	386.9	389	0	396	07:00	3	3.07	128	0.07
KISHANGANGA(2 * 110)	220	34.75	216	12	219	03:00	0.83	0.88	37	0.05
PARBATI III HEP(4 * 130)	520	0	0	0	0	-	0	-	-	0
SALAL HPS(6 * 115)	690	99.9	351	35	351	19:00	2.4	2.74	114	0.34
SEWA-II HPS(3 * 40)	120	120.2	39	0	122	07:00	0.39	0.38	16	-0.01
TANAKPUR HPS(1 * 31.42 + 2 * 31.4)	94	26.54	21	67	67	03:00	0.64	0.67	28	0.03
URI HPS(4 * 120)	480	121.46	361	76	361	19:00	2.92	3.34	139	0.42
URI-II HPS(4 * 60)	480	78.56	183	80	183	19:00	1.89	2.01	84	0.12
Sub-Total	4,525	1,987.9	2,524	295	-	-	17.14	18.42	769	1.28
NPCL										
NAPS(2 * 220)	440	414	452	457	457	03:00	9.94	9.92	413	-0.02
RAPS-B(2 * 220)	440	195.56	208	208	342	23:55	4.69	4.33	180	-0.36
RAPS-C(2 * 220)	440	430	473	471	475	-	10.32	10.3	429	-0.02
Sub-Total	1,320	1,039.56	1,133	1,136	-	-	24.95	24.55	1,022	-0.4
NTPC										
ANTA GPS(1 * 153.2 + 3 * 88.71)	419	337.67	0	0	0	-	1.39	1.4	58	0.01
AURAIYA GPS(2 * 109.3 + 4 * 111.19)	663	517.44	0	0	353	09:00	1.82	1.75	73	-0.07
DADRI GPS(2 * 154.51 + 4 * 130.19)	830	353.85	288	229	433	12:21	7.13	7.02	293	-0.11
DADRI SOLAR(1 * 5)	5	0.65	0	0	4	12:21	0.02	0.02	1	0
DADRI-I TPS(4 * 210)	840	576.45	563	336	563	19:00	10.95	10.78	449	-0.17
DADRI-II TPS(2 * 490)	980	928.55	892	572	892	19:00	18.47	18.64	777	0.17
ISTPP (JHAJJAR)(3 * 500)	1,500	947.5	956	560	1,024	17:03	19.37	19.09	795	-0.28
KOLDAM HPS(4 * 200)	800	872	393	0	604	07:00	2.62	2.52	105	-0.1
RIHAND-I STPS(2 * 500)	1,000	922.5	992	912	992	19:00	21.63	21.84	910	0.21
RIHAND-II STPS(2 * 500)	1,000	942.5	995	1,014	995	19:00	22.38	22.79	950	0.41
RIHAND-III STPS(2 * 500)	1,000	471.25	507	406	507	19:00	10.88	10.93	455	0.05
SINGRAULI STPS(2 * 500 + 5 * 200)	2,000	1,862.5	2,026	1,978	2,026	19:00	43.21	43.09	1,795	-0.12
SINGRAULI SOLAR(1 * 15)	15	2.33	0	0	0	-	0.06	0.06	3	0
UNCHAHAH II TPS(2 * 210)	420	322.7	363	351	363	19:00	6.16	5.82	243	-0.34
UNCHAHAH III TPS(1 * 210)	210	191.1	175	166	175	19:00	3.92	3.86	161	-0.06
UNCHAHAH IV TPS(1 * 500)	500	415.94	338	363	338	19:00	7.56	7.99	333	0.43
UNCHAHAH SOLAR(1 * 10)	10	1.71	0	0	0	-	0.04	0.04	2	0
UNCHAHAH TPS(2 * 210)	420	364.34	305	231	305	19:00	6.56	6.55	273	-0.01
Sub-Total	12,612	10,030.98	8,793	7,118	-	-	184.17	184.19	7,676	0.02
SJVNL										
NATHPA-JHAKRI HPS(6 * 250)	1,500	1,140.38	739	0	1,427	18:00	6.8	6.74	281	-0.06
RAMPUR HEP(6 * 68.67)	412	296.35	224	0	372	18:00	1.86	1.87	78	0.01
Sub-Total	1,912	1,436.73	963	0	-	-	8.66	8.61	359	-0.05
THDC										
KOTESHWAR HPS(4 * 100)	400	131.25	404	91	404	18:00	3.15	3.2	133	0.05
TEHRI HPS(4 * 250)	1,000	1,064	997	0	997	19:00	9.3	9.35	390	0.05
Sub-Total	1,400	1,195.25	1,401	91	-	-	12.45	12.55	523	0.1
Total	24,534	16,779	16,665	9,321			273.5	274.62	11,445	1.12

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	94	0	96	20:00	0.47	0.49	20	0.02
BUDHIL HPS (IPP)(2 * 35)	70	0	0	0	35	12:00	0.24	0.22	9	-0.02
KARCHAM WANGTOO HPS(4 * 250)	1,000	0	825	0	825	18:00	3.44	3.41	142	-0.03
MALANA2(2 * 50)	100	0	0	0	86	09:00	0.24	0.26	11	0.02
SAINJ HEP(2 * 50)	50	0	100	0	100	00:00	0.4	0.44	18	0.04
SHREE CEMENT (IPP) TPS(2 * 150)	300	0	144	142	147	09:00	3.39	3.34	139	-0.05
Sub-Total	1,712	0	1,163	142	-	-	8.18	8.16	339	-0.02
Total	1,712	0	1,163	142	-	-	8.18	8.16	339	-0.02

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	54,626	24,464	18,241	560.61	23,359
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		5,404	4,620	152.33	8,980
Total Regional Availability(Gross)	80,872	47,696	32,324	995.72	44,121

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	8,151	1,067	73.22	3,051
State Control Area Hydro	6,125	2,008	1,161	41.8	1,742
Total Regional Hydro	18,939	10,159	2,228	115.02	4,793

Total Renewable Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Renewable	30	0	0	0.12	5
State Control Area Renewable	9,214	522	611	35.13	1,464
Total Regional Renewable	9,244	522	611	35.25	1,469

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	0.7	-0.7
4	220KV-Pusauli(PG)-Sahupuri(UP)	117	74	129	0	2.46	0	2.46
5	400KV-Biharsharif(PG)-Baliala(PG)	80	120	199	0	2.59	0	2.59
6	400KV-Biharsharif(PG)-Varanasi(P..	77	-34	96	77	0.77	0	0.77
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-
8	400KV-Motihari(DMT)-Gorakhpur ..	204	264	342	0	6.86	0	6.86
9	400KV-Muzaffarpur(PG)-Gorakhp ..	32	216	444	0	6.24	0	6.24
10	400KV-Patna(PG)-Baliala(PG)	608	680	815	0	16.92	0	16.92
11	400KV-Sasaram-Allahabad(PG)	105	40	42	0	0.72	0	0.72
12	400KV-Sasaram-Varanasi(PG)	-119	-102	122	0	3.99	0	3.99
13	765KV-Fatehpur(PG)-Sasaram.	-50	55	237	50	2.48	0	2.48
14	765KV-Gaya(PG)-Baliala(PG)	203	139	235	0	4.11	0	4.11
15	765KV-Gaya(PG)-Varanasi(PG)	-177	-255	467	0	6.71	0	6.71
16	HVDC800KV-Alipurduar-Agra(PG)	-	-	-	-	-	-	-
Sub-Total EAST REGION		1,080	1,197	3,128	127	54.81	0.7	54.11
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli- ..	-300	-500	0	500	0	9.54	-9.54
Sub-Total NORTH_EAST REGION		-300	-500	0	500	0	9.54	-9.54
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya(NT)-Malanpur(PG)	-110	-56	-	221	0	2.36	-2.36
2	220KV-Badod(MP)-Kota(PG)	22	-4	117	14	0.97	0	0.97
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-
4	400KV-RAPS C(NP)-Sujalpur	-	-	-	-	0	1.61	-1.61
5	400KV-Vindhyachal(PG)-Rihand(N ..	-472	-375	-	477	0	10.93	-10.93
6	400KV-Zerda(PG)-Bhinmal(PG)	38	-49	358	81	2.16	0	2.16
7	400KV-Zerda(PG)-Kankroli(RJ)	-97	-204	153	204	0	1.3	-1.3
8	765KV-0rai-Gwalior(PG)	-518	-326	0	801	0	13.75	-13.75
9	765KV-0rai-Jabalpur	89	262	479	0	5.01	0	5.01
10	765KV-0rai-Satna	1,398	1,329	1,462	0	34.68	0	34.68
11	765KV-Gwalior(PG)-Agra(PG)	2,008	1,310	2,034	0	36.91	0	36.91
12	765KV-Phagi(RJ)-Gwalior(PG)	518	587	1,216	-	19.79	0	19.79
13	HVDC500KV-Mundra(JH)-Mohind..	1,998	999	2,008	0	37.56	0	37.56
14	HVDC500KV-Vindhyachal(PG)-Vindhaychal B/B	-250	-250	0	250	0	6.05	-6.05
15	HVDC800KV-Champa(PG)-Kuruku..	0	700	700	0	6.68	0	6.68
Sub-Total WEST REGION		4,624	3,923	8,527	2,048	143.76	36	107.76
TOTAL IR EXCHANGE		5,404	4,620	11,655	2,675	198.57	46.24	152.33

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	48.32	-15.03	1.66	34.95	54.11	19.16

NR-WR	158.35	-31.49	-4.31	122.55	107.76	-14.79
Total	206.67	-46.52	-2.65	157.5	152.33	-5.17

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)	-24.5	-23.76		27		0.5888	-0.5888

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	5	54.9	80.4	12.6	2	0	14.6

<-----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.	
50.19	06:02:10	49.83	12:25:10	49.99	0.032	0.056	50.09	49.89	19.6

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	429	03:25	404	11:30	0	0	30.21	0	30.21
Amritsar(PG) - 400KV	425	03:25	403	11:35	0	0	27.78	0	27.78
Ballabgarh(PG) - 400KV	424	03:25	396	11:35	0	0	17.01	0	17.01
Bareilly II(PG) - 400KV	420	03:25	390	11:35	0	.69	0	0	0
Bareilly(UP) - 400KV	420	03:25	391	11:40	0	0	1.04	0	1.04
Baspa(HP) - 400KV	432	03:30	406	11:40	0	0	38.89	7.29	38.89
Bassi(PG) - 400KV	418	04:00	389	09:30	0	1.04	0	0	0
Bawana(DTL) - 400KV	428	03:25	402	11:35	0	0	30.56	0	30.56
Dadri HVDC(PG) - 400KV	424	03:25	401	11:25	0	0	21.18	0	21.18
Gorakhpur(PG) - 400KV	417	03:25	399	11:15	0	0	0	0	0
Hisar(PG) - 400KV	423	04:00	397	11:35	0	0	12.15	0	12.15
Kanpur(PG) - 400KV	421	03:00	401	11:35	0	0	7.29	0	7.29
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	421	03:45	402	11:30	0	0	5.56	0	5.56
Moga(PG) - 400KV	419	03:25	395	06:15	0	0	0	0	0
Nallagarh(PG) - 400KV	432	03:30	406	11:40	0	0	38.89	7.29	38.89
Rihand HVDC(PG) - 400KV	406	03:00	406	03:00	.35	.35	0	0	.35
Rihand(NT) - 400KV	405	03:00	400	11:40	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	791	03:20	762	08:25	0	0	0	0	0
Balia(PG) - 765KV	784	03:00	752	11:20	0	0	0	0	0
Bareilly II(PG) - 765KV	799	03:25	744	11:40	0	0	0	0	0
Bhiwani(PG) - 765KV	803	03:20	759	11:25	0	0	3.13	0	3.13
Fatehpur(PG) - 765KV	785	23:50	743	09:35	0	0	0	0	0
Jhatikara(PG) - 765KV	803	03:25	753	11:35	0	0	5.21	0	5.21
Lucknow II(PG) - 765KV	794	02:55	749	11:20	0	0	0	0	0
Meerut(PG) - 765KV	802	19:40	745	11:40	0	0	1.39	0	1.39
Moga(PG) - 765KV	791	19:40	741	11:45	0	.35	0	0	0
Phagi(RJ) - 765KV	798	04:05	759	08:25	0	0	0	0	0
Unnao(UP) - 765KV	776	03:00	734	11:40	0	14.58	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	62.42	-40.78	2.05	23.7
HARYANA	-995.77	162.32	0	-936.82	-54.49	0	92	-25.51	1.7	68.18
RAJASTHAN	-98.96	77.91	0	-98.96	-471.06	0	63.28	2.18	-3.18	62.3
DELHI	-772.09	-604.52	0	-622.85	-264.73	0	73.95	-18.34	-4.18	51.44
UTTAR PRADESH	122.13	0	0	112.2	0	0	106.45	-4.4	-1.21	100.84
UTTARAKHAND	636.12	-113.64	0	529.05	42.31	0	11.86	13.75	0.18	25.79
HIMACHAL PRADESH	444.06	-7.07	0	265.82	445.51	0	13.06	12.41	-1.13	24.34
JAMMU & KASHMIR	608.59	98.59	0	608.59	542.24	0	27.42	14.6	4.41	46.43
CHANDIGARH	0	-30.43	0	0	0	0	3.87	0	-0.62	3.25
TOTAL	-1,748.13	-219.66	0	-1,835.18	239.78	0	454.31	-46.09	-1.98	406.27

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	3,438.48	2,282.12	-1,692.21	-1,773.35	394.36	-202.86	0	0
HARYANA	4,874.65	2,891.75	-926.51	-1,329.75	167.89	-348.22	0	0
RAJASTHAN	3,702.25	1,433.79	746.21	-98.96	1,126.26	-1,574	0	0
DELHI	3,911.88	2,148.67	-592.26	-905.1	486.05	-662.34	0	0
UTTAR PRADESH	5,992.09	3,602.23	122.13	-801.57	62.3	-830.53	0	0
UTTARAKHAND	869.22	278.1	636.12	529.05	323.85	-236.99	0	0
HIMACHAL PRADESH	1,418.76	229.75	833.36	265.82	501.17	-520.55	0	0
JAMMU & KASHMIR	1,751.37	815.42	608.59	608.59	542.24	-253.58	0	0
CHANDIGARH	279.11	113.97	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	505.33	1,326	499.75	1,088	160.84	444.26
Chamera-I	748.75	760	-	-	-	-	-	0
Gandhisagar	295.78	295.78	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	-	-	-	-	-	0
Koteshwar	598.5	612.5	610.92	5	610.41	5	214	210.91
Pong	384.05	426.72	415.86	706	410.75	525	66.4	378.88
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	516.97	3	506.22	3	69.03	136.63
Rihand	252.98	268.22	-	-	-	-	-	0
Tehri	740.04	829.79	814.54	893	811.35	829	49.42	214
TOTAL	-	-	-	2,933	-	2,450	559.69	1,384.68

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	33
DELHI	4	26
HARYANA	1	20
HIMACHAL PRADESH	1	15
JAMMU & KASHMIR	1	22
PUNJAB	0	9
RAJASTHAN	2	35
UTTAR PRADESH	0	11
UTTARAKHAND	3	19

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 :

1. 220 kV Ludhiana(PG)-Doraha line charged for the first time at 13.44 Hrs on 27.12.2018.

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