



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

Power Supply Position in Northern Region For 31-Dec-2018

Date of Reporting:01-Jan-2019

**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
45,701	727	46,429	50.03	30,081	319	30,400	50.03	951	14.69

**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	70.45	12.65	0	3.8	0	1.07	87.97	23.97	22.9	-1.07	110.87	0	110.87
HARYANA	61.12	0.45	3.79	0.13	0	1.31	66.8	58.04	58.22	0.18	125.28	0.26	125.02
RAJASTHAN	138.08	4.66	1.37	15.97	9.28	3.53	172.88	64.04	63.71	-0.33	236.59	0	236.59
DELHI	0	0	15.79	0	0	0	15.79	54.12	53.18	-0.94	68.97	0	68.97
UTTAR PRADESH	148.5	8.1	0	2.8	0	21.6	181	109.86	110.16	0.3	293.71	2.55	291.16
UTTARAKHAND	0	9.34	4.93	0.55	0	0.81	15.63	22.8	22.48	-0.32	38.11	0	38.11
HIMACHAL PRADESH	0	3.45	0	0	0	2.11	5.56	23.98	24.53	0.55	30.09	0	30.09
JAMMU & KASHMIR	0	5.1	0	0	0	0	5.1	45.75	45.08	-0.67	62.06	11.88	50.18
CHANDIGARH	0	0	0	0	0	0	0	3.44	0	-3.44	0	0	0
<b>Region</b>	<b>418.15</b>	<b>43.75</b>	<b>25.88</b>	<b>23.25</b>	<b>9.28</b>	<b>30.43</b>	<b>550.73</b>	<b>406</b>	<b>400.26</b>	<b>-5.74</b>	<b>965.68</b>	<b>14.69</b>	<b>950.99</b>

**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	5,657	0	19	-1,688	3,015	0	-149	-1,392
HARYANA	6,445	138	123	-966	3,938	0	49	-888
RAJASTHAN	10,101	0	-158	-830	7,604	0	1	64
DELHI	3,541	0	6	-622	1,578	0	-2	-1,264
UTTAR PRADESH	14,125	0	-46	98	10,134	0	-48	122
UTTARAKHAND	1,967	0	7	401	1,180	0	-12	325
HIMACHAL PRADESH	1,507	0	102	616	824	0	-45	495
JAMMU & KASHMIR	2,359	590	182	1,154	1,806	319	-108	709
CHANDIGARH	-	-	-	-	-	-	-	-
<b>Region</b>	<b>45,702</b>	<b>728</b>	<b>235</b>	<b>-1,837</b>	<b>30,079</b>	<b>319</b>	<b>-314</b>	<b>-1,829</b>

**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	5,657	19:00	0	5,657	5,657	19:00	0	5,657	3,015	3:00
HARYANA	6,445	19:00	138	6,582	6,582	19:00	138	6,445	3,918	2:00
RAJASTHAN	12,676	10:00	0	12,676	12,676	10:00	0	12,676	7,150	5:00
DELHI	4,292	11:00	0	4,292	4,292	11:00	0	4,292	1,505	4:00
UP	14,125	19:00	0	14,125	14,125	19:00	0	14,125	10,134	3:00
UTTARAKHAND	2,096	8:00	0	2,096	2,096	8:00	0	2,096	1,175	5:00
HP	1,657	9:00	0	1,657	1,657	9:00	0	1,657	824	3:00
J&K	2,400	22:00	600	3,000	3,000	22:00	600	2,400	1,806	3:00
NR	46,146	10:00	1,168	47,314	47,314	10:00	1,168	46,146	30,021	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)
<b>NIL</b>						
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>			<b>0</b>
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>			<b>0</b>

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			
<b>Total THERMAL</b>	<b>840</b>	<b>0</b>	<b>0</b>			<b>0</b>	<b>0</b>
BAWANA GPS( 2 * 253 + 4 * 216 )	1,370	452	449	495	12:00	10.95	456
DELHI GAS TURBINES( 3 * 34 + 6 * 30 )	282	42	40	42	15:00	0.92	38
PRAGATI GAS TURBINES( 1 * 121.2 + 2 * 104.6 )	331	160	163	164	23:00	3.93	164
RITHALA GPS( 3 * 36 )	108	0	0	0			
<b>Total GAS/NAPHTHA/DIESEL</b>	<b>2,091</b>	<b>654</b>	<b>652</b>			<b>15.8</b>	<b>658</b>
WIND	0	0	0	0			
BIOMASS( 1 * 16 )	16	0	0	0			
SOLAR( 1 * 2 )	2	0	0	0			
<b>Total DELHI</b>	<b>2,949</b>	<b>654</b>	<b>652</b>			<b>15.8</b>	<b>658</b>

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	571	494	571	19:00	12.19	508
JHAJJAR(CLP)( 2 * 660 )	1,320	1,180	740	1,225	12:00	24.32	1,013
MAGNUM DIESEL (IPP)( 4 * 6.3 )	25	0	0	0			
PANIPAT TPS( 2 * 210 + 2 * 250 )	920	645	402	652	10:00	13.63	568
RGTPP( KHEDAR)( 2 * 600 )	1,200	546	388	580	12:00	10.98	458
<b>Total THERMAL</b>	<b>4,065</b>	<b>2,942</b>	<b>2,024</b>			<b>61.12</b>	<b>2,547</b>
FARIDABAD GPS( 1 * 156.07 + 2 * 137.75 )	432	157	159	160	06:00	3.79	158
<b>Total GAS/NAPHTHA/DIESEL</b>	<b>432</b>	<b>157</b>	<b>159</b>			<b>3.79</b>	<b>158</b>
TOTAL HYDRO HARYANA( 1 * 62 )	62	11	26	28	13:00	0.45	19
<b>Total HYDEL</b>	<b>62</b>	<b>11</b>	<b>26</b>			<b>0.45</b>	<b>19</b>
WIND	0	0	0	0			
BIOMASS( 1 * 106 )	106	0	0	0		1.31	55
SOLAR( 1 * 50 )	50	0	0	0		0.13	5
<b>Total HARYANA</b>	<b>4,715</b>	<b>3,110</b>	<b>2,209</b>			<b>66.8</b>	<b>2,784</b>

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	30	30	0		1.12	47
MALANA (IPP) HPS( 2 * 43 )	86	41	0	0		0.26	11
OTHER HYDRO HP( 1 * 372 )	372	173	66	0		2.08	87
<b>Total HYDEL</b>	<b>758</b>	<b>244</b>	<b>96</b>			<b>3.46</b>	<b>145</b>
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO( 1 * 486 )	486	154	53	0		2.11	88
<b>Total SMALL HYDRO</b>	<b>486</b>	<b>154</b>	<b>53</b>			<b>2.11</b>	<b>88</b>
<b>Total HP</b>	<b>1,244</b>	<b>398</b>	<b>149</b>			<b>5.57</b>	<b>233</b>

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			
<b>Total GAS/NAPHTHA/DIESEL</b>	<b>190</b>	<b>0</b>	<b>0</b>			<b>0</b>	<b>0</b>
BAGLIHAR (IPP) HPS( 6 * 150 )	900	147	147	0		3.5	146
OTHER HYDRO/IPP J&K( 1 * 308 )	308	52	95	0		1.6	67
<b>Total HYDEL</b>	<b>1,208</b>	<b>199</b>	<b>242</b>			<b>5.1</b>	<b>213</b>
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO( 1 * 98 )	98	0	0	0			
<b>Total SMALL HYDRO</b>	<b>98</b>	<b>0</b>	<b>0</b>			<b>0</b>	<b>0</b>
<b>Total J&amp;K</b>	<b>1,496</b>	<b>199</b>	<b>242</b>			<b>5.1</b>	<b>213</b>

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		8.31	346
GURU GOBIND SINGH TPS (ROPAR)( 6 * 210 )	1,260	0	0	0		-0.12	-5
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)( 2 * 210 + 2 * 250 )	920	0	162	230		1.88	78
GURU NANAK DEV TPS (BHATINDA)( 4 * 110 )	460	0	0	0		-0.01	0
RAJPURA(NPL) TPS( 2 * 700 )	1,400	1,320	660	1,320		26.6	1,108
TALWANDI SABO TPS( 3 * 660 )	1,980	1,841	924	1,941		33.78	1,408
<b>Total THERMAL</b>	<b>6,560</b>	<b>3,652</b>	<b>2,036</b>			<b>70.44</b>	<b>2,935</b>
TOTAL HYDRO PUNJAB( 1 * 1000 )	1,000	457	442	505		12.65	527
<b>Total HYDEL</b>	<b>1,000</b>	<b>457</b>	<b>442</b>			<b>12.65</b>	<b>527</b>
WIND	0	0	0	0			
BIOMASS( 1 * 303 )	303	0	0	0		1.07	45
SOLAR( 1 * 859 )	859	0	0	480		3.8	158
<b>Total PUNJAB</b>	<b>8,722</b>	<b>4,109</b>	<b>2,478</b>			<b>87.96</b>	<b>3,665</b>

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	221	223	0		4.88	203
CHHABRA TPS( 1 * 660 + 4 * 250 )	1,660	1,914	1,595	0		42.83	1,785
GIRAL (IPP) LTPS( 2 * 125 )	250	0	0	0			
KALISINDH TPS( 2 * 600 )	1,200	1,119	798	0		23.55	981
KAWAI TPS( 2 * 660 )	1,320	1,166	849	0		25.07	1,045
KOTA TPS( 2 * 110 + 2 * 195 + 3 * 210 )	1,240	1,029	807	0		20.1	838
RAJWEST (IPP) LTPS( 8 * 135 )	1,080	554	454	0		16.03	668
SURATGARH TPS( 6 * 250 )	1,500	184	180	0		4.54	189
VSLPP (IPP)( 1 * 135 )	135	47	46	0		1.07	45
<b>Total THERMAL</b>	<b>8,635</b>	<b>6,234</b>	<b>4,952</b>			<b>138.07</b>	<b>5,754</b>
DHOLPUR GPS( 3 * 110 )	330	0	0	0			
RAMGARH GPS( 1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5 )	271	55	55	0		1.37	57
<b>Total GAS/NAPHTHA/DIESEL</b>	<b>601</b>	<b>55</b>	<b>55</b>			<b>1.37</b>	<b>57</b>
RAPS-A( 1 * 100 + 1 * 200 )	300	131	133	0		3.03	126
<b>Total NUCLEAR</b>	<b>300</b>	<b>131</b>	<b>133</b>			<b>3.03</b>	<b>126</b>
TOTAL HYDRO RAJASTHAN( 1 * 550 )	550	246	117	0		4.66	194
<b>Total HYDEL</b>	<b>550</b>	<b>246</b>	<b>117</b>			<b>4.66</b>	<b>194</b>
WIND	4,292	202	527	0		9.28	387
BIOMASS( 1 * 102 )	102	21	21	0		0.49	20
SOLAR( 1 * 1995 )	1,995	1	0	0		15.97	665
<b>Total RAJASTHAN</b>	<b>16,475</b>	<b>6,890</b>	<b>5,805</b>			<b>172.87</b>	<b>7,203</b>

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	1,458	1,216	0		33.9	1,413
ANPARA-C TPS( 2 * 600 )	1,200	1,079	592	0		23.9	996
ANPARA-D TPS( 2 * 500 )	1,000	937	943	0		21.6	900
BAJAJ ENERGY PVT LTD (IPP) TPS( 10 * 45 )	450	0	0	0			
BARA PPGCL TPS( 3 * 660 )	1,980	988	674	0		22.4	933
HARDUAGANJ TPS( 1 * 105 + 1 * 60 + 2 * 250 )	665	442	250	0		9.5	396
LALITPUR TPS( 3 * 660 )	1,980	608	358	0		12.6	525
MEJA TPS( 1 * 660 )	660	0	0	0			
OBRA TPS ( 2 * 94 + 5 * 200 )	1,188	464	225	0		8.4	350
PANKI TPS( 2 * 105 )	210	0	0	0			
PARICHA TPS( 2 * 110 + 2 * 210 + 2 * 250 )	1,160	369	214	0		7.9	329
ROSA TPS( 4 * 300 )	1,200	0	0	0			
TANDA TPS( 4 * 110 )	440	354	242	0		8.3	346
<b>Total THERMAL</b>	<b>13,763</b>	<b>6,699</b>	<b>4,714</b>			<b>148.5</b>	<b>6,188</b>
ALAKHANDA HEP( 4 * 82.5 )	330	84	82	0		1.4	58
VISHNUPARYAG HPS( 4 * 110 )	440	78	78	0		1.9	79
OTHER HYDRO UP( 1 * 527 )	527	174	197	0		4.8	200
<b>Total HYDEL</b>	<b>1,297</b>	<b>336</b>	<b>357</b>			<b>8.1</b>	<b>337</b>
WIND	0	0	0	0			
BIOMASS( 1 * 26 )	26	0	0	0			
SOLAR( 1 * 472 )	472	0	0	0		2.8	117
CO-GENERATION( 1 * 1360 )	1,360	900	900	0		21.6	900
<b>Total OTHERs</b>	<b>1,360</b>	<b>900</b>	<b>900</b>			<b>21.6</b>	<b>900</b>
<b>Total UP</b>	<b>16,918</b>	<b>7,935</b>	<b>5,971</b>			<b>181</b>	<b>7,542</b>

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	198	210	212	07:00	4.93	205				
Total GAS/NAPHTHA/DIESEL	450	198	210			4.93	205				
OTHER HYDRO UK( 1 * 1250 )	1,250	698	219	698	19:00	9.34	389				
Total HYDEL	1,250	698	219			9.34	389				
WIND	0	0	0	0							
BIOMASS( 1 * 127 )	127	37	36	37	09:00	0.81	34				
SOLAR( 1 * 100 )	100	0	0	83	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	933	465			15.63	651				

### 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)			
<b>BBMB</b>											
BHAKRA HPS( 2 * 108 + 3 * 126 + 5 * 157 )	1,379	735.02	1,176	543	1,176	19:00	17.64	17.74	739	0.1	
DEHAR HPS( 6 * 165 )	990	129.06	495	0	495	19:00	3.1	3.2	133	0.1	
PONG HPS( 6 * 66 )	396	260	264	264	264	19:00	6.24	6.27	261	0.03	
Sub-Total	2,765	1,124.08	1,935	807	-	-	26.98	27.21	1,133	0.23	
<b>NHPC</b>											
BAIRASIUL HPS( 3 * 60 )	180	0	0	0	0	-	0	-	-	0	
CHAMERA HPS( 3 * 180 )	540	535.58	188	0	533	06:45	1.8	1.88	78	0.08	
CHAMERA II HPS( 3 * 100 )	300	142.42	203	30	203	19:00	1.18	1.34	56	0.16	
CHAMERA III HPS( 3 * 77 )	231	153	161	0	161	07:00	0.6	0.66	28	0.06	
DHAULIGANGA HPS( 4 * 70 )	280	281.38	279	0	279	19:00	1.03	1.05	44	0.02	
DULHASTI HPS( 3 * 130 )	390	386.9	387	0	394	07:00	2.85	2.94	123	0.09	
KISHANGANGA( 2 * 110 )	220	29.44	0	0	0	-	0.71	0.71	30	0	
PARBATI III HEP( 4 * 130 )	520	0	0	0	0	-	0	-	-	0	
SALAL HPS( 6 * 115 )	690	126.56	230	115	355	08:00	3.04	3.04	127	0	
SEWA-II HPS( 3 * 40 )	120	120.2	40	0	118	07:00	0.39	0.39	16	0	
TANAKPUR HPS( 1 * 31.42 + 2 * 31.4 )	94	25.65	22	28	63	15:00	0.62	0.64	27	0.02	
URI HPS( 4 * 120 )	480	111.46	130	129	341	08:00	2.68	3.12	130	0.44	
URI-II HPS( 4 * 60 )	480	75.8	81	78	181	20:00	1.82	1.9	79	0.08	
Sub-Total	4,525	1,988.39	1,721	380	-	-	16.72	17.67	738	0.95	
<b>NPCL</b>											
NAPS( 2 * 220 )	440	200	225	229	231	05:00	4.8	4.9	204	0.1	
RAPS-B( 2 * 220 )	440	343.1	416	335	428	23:00	8.23	9.35	390	1.12	
RAPS-C( 2 * 220 )	440	430	475	476	476	03:00	10.32	10.22	426	-0.1	
Sub-Total	1,320	973.1	1,116	1,040	-	-	23.35	24.47	1,020	1.12	
<b>NTPC</b>											
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	646.59	0	0	0	-	0	-	-	0	
DADRI GPS( 2 * 154.51 + 4 * 130.19 )	830	413.96	247	234	405	10:00	5.93	5.9	246	-0.03	
DADRI SOLAR( 1 * 5 )	5	0.72	0	0	3	12:05	0.02	0.02	1	0	
DADRI-I TPS( 4 * 210 )	840	576.45	579	317	579	19:00	10.87	10.83	451	-0.04	
DADRI-II TPS( 2 * 490 )	980	928.55	928	510	928	19:00	18.14	18.7	779	0.56	
ISTPP (JHAJJAR)( 3 * 500 )	1,500	947.5	1,001	566	1,009	19:03	18.5	18.13	755	-0.37	
KOLDAM HPS( 4 * 200 )	800	872	130	0	799	18:00	2.62	2.65	110	0.03	
RIHAND-I STPS( 2 * 500 )	1,000	922.5	986	782	986	19:00	21.34	22.84	952	1.5	
RIHAND-II STPS( 2 * 500 )	1,000	942.5	1,006	897	1,006	19:00	22.09	23.3	971	1.21	
RIHAND-III STPS( 2 * 500 )	1,000	942.5	994	712	994	19:00	21.06	22.72	947	1.66	
SINGRAULI STPS( 2 * 500 + 5 * 200 )	2,000	1,479.1	1,524	1,588	1,524	19:00	33.42	33.36	1,390	-0.06	
SINGRAULI SOLAR( 1 * 15 )	15	2.66	0	0	0	-	0.06	0.06	3	0	
UNCHAHAH II TPS( 2 * 210 )	420	352.4	314	252	314	19:00	6.94	7.4	308	0.46	
UNCHAHAH III TPS( 1 * 210 )	210	191.1	209	117	209	19:00	3.68	3.8	158	0.12	
UNCHAHAH IV TPS( 1 * 500 )	500	471.25	472	296	472	19:00	8.95	9.4	392	0.45	
UNCHAHAH SOLAR( 1 * 10 )	10	1.65	0	0	0	-	0.04	0	0	-0.04	
UNCHAHAH TPS( 2 * 210 )	420	382.12	394	238	394	19:00	7.76	8.2	342	0.44	
Sub-Total	12,612	10,491.72	8,784	6,509	-	-	181.42	187.34	7,806	5.92	
<b>SJVNL</b>											
NATHPA-JHAKRI HPS( 6 * 250 )	1,500	1,249.38	1,020	0	1,236	07:00	6.4	6.39	266	-0.01	
RAMPUR HEP( 6 * 68.67 )	412	344.38	296	0	344	18:00	1.79	1.84	77	0.05	
Sub-Total	1,912	1,593.76	1,316	0	-	-	8.19	8.23	343	0.04	
<b>THDC</b>											
KOTESHWAR HPS( 4 * 100 )	400	132	408	92	408	19:00	3.17	3.2	133	0.03	
TEHRI HPS( 4 * 250 )	1,000	1,064	964	0	988	08:00	9.2	9.24	385	0.04	
Sub-Total	1,400	1,196	1,372	92	-	-	12.37	12.44	518	0.07	
Total	24,534	17,367.05	16,244	8,828			269.03	277.36	11,558	8.33	

## 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	77	0	95	10:00	0.44	0.46	19	0.02
BUDHIL HPS (IPP)( 2 * 35 )	70	0	0	0	35	11:00	0.24	0.25	10	0.01
KARCHAM WANGTOO HPS( 4 * 250 )	1,000	0	825	0	825	19:00	3.44	3.47	145	0.03
MALANA2( 2 * 50 )	100	0	0	0	99	09:00	0.25	0.27	11	0.02
SAINJ HEP( 2 * 50 )	50	0	100	0	100	19:00	0.39	0.4	17	0.01
SHREE CEMENT (IPP) TPS( 2 * 150 )	300	0	148	134	148	08:00	3.4	3.3	138	-0.1
<b>Sub-Total</b>	<b>1,712</b>	<b>0</b>	<b>1,150</b>	<b>134</b>	<b>-</b>	<b>-</b>	<b>8.16</b>	<b>8.15</b>	<b>340</b>	<b>-0.01</b>
<b>Total</b>	<b>1,712</b>	<b>0</b>	<b>1,150</b>	<b>134</b>	<b>-</b>	<b>-</b>	<b>8.16</b>	<b>8.15</b>	<b>340</b>	<b>-0.01</b>

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	54,626	24,228	17,971	550.73	22,947
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		8,163	6,574	143.88	8,669
Total Regional Availability(Gross)	80,872	49,785	33,507	980.12	43,512

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	7,476	1,279	73.05	3,044
State Control Area Hydro	6,125	2,191	1,499	43.76	1,823
Total Regional Hydro	18,939	9,667	2,778	116.81	4,867

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	415	637	38.32	1,597
Total Regional Renewable	9,244	415	637	38.4	1,600

## 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	0	0
3	132KV-Rihand-Sonnagar(PG)	-	-	-	-	0	0.63	-0.63
4	220KV-Pusauli(PG)-Sahupuri(UP)	-142	-78	-142	0	2.8	0	2.8
5	400KV-Biharsharif(PG)-Baliala(PG)	165	103	245	-	4.19	0	4.19
6	400KV-Biharsharif(PG)-Varanasi(P..	62	12	202	0	2.04	0	2.04
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-
8	400KV-Motihari(DMT)-Gorakhpur ..	238	264	322	0	7.18	0	7.18
9	400KV-Muzaffarpur(PG)-Gorakhp ..	352	156	470	0	7.68	0	7.68
10	400KV-Patna(PG)-Baliala(PG)	655	573	839	-	16.9	0	16.9
11	400KV-Sasaram-Allahabad(PG)	-51	-52	-78	0	1.37	0	1.37
12	400KV-Sasaram-Varanasi(PG)	96	93	107	0	2.95	0	2.95
13	765KV-Fatehpur(PG)-Sasaram.	47	16	280	0	2.7	0	2.7
14	765KV-Gaya(PG)-Baliala(PG)	213	149	277	-	4.89	0	4.89
15	765KV-Gaya(PG)-Varanasi(PG)	272	173	588	0	8.68	0	8.68
16	HVDC800KV-Alipurduar-Agra(PG)	-	-	-	-	-	-	-
<b>Sub-Total EAST REGION</b>		<b>1,907</b>	<b>1,409</b>	<b>3,110</b>	<b>0</b>	<b>61.38</b>	<b>0.63</b>	<b>60.75</b>
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli- ..	650	500	0	650	0	13.95	-13.95
<b>Sub-Total NORTH_EAST REGION</b>		<b>650</b>	<b>500</b>	<b>0</b>	<b>650</b>	<b>0</b>	<b>13.95</b>	<b>-13.95</b>
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya(NT)-Malanpur(PG)	-77	-58	-	144	0	2.31	-2.31
2	220KV-Badod(MP)-Kota(PG)	5	0	166	27	1	0	1
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-
4	400KV-RAPS C(NP)-Sujalpur	-298	-152	0	352	0	4.51	-4.51
5	400KV-Vindhyachal(PG)-Rihand(N ..	945	674	-	493	0	21.62	-21.62
6	400KV-Zerda(PG)-Bhinmal(PG)	-8	-18	355	53	1.78	0	1.78
7	400KV-Zerda(PG)-Kankroli(RJ)	-105	-140	139	140	0	1.55	-1.55
8	765KV-0rai-Gwalior(PG)	-414	-458	0	601	0	11.8	-11.8
9	765KV-0rai-Jabalpur	594	679	1,232	0	21.02	0	21.02
10	765KV-0rai-Satna	963	811	1,172	0	24.28	0	24.28
11	765KV-Gwalior(PG)-Agra(PG)	1,580	1,350	1,816	0	33.66	0	33.66
12	765KV-Phagi(RJ)-Gwalior(PG)	473	428	985	-	15.56	0	15.56
13	HVDC500KV-Mundra(JH)-Mohind..	1,598	1,199	1,804	0	34.19	0	34.19
14	HVDC500KV-Vindhyachal(PG)-Vindhaychal B/B	-250	-250	0	250	0	6.03	-6.03
15	HVDC800KV-Champa(PG)-Kuruku..	600	600	600	0	13.41	0	13.41
<b>Sub-Total WEST REGION</b>		<b>5,606</b>	<b>4,665</b>	<b>8,269</b>	<b>2,060</b>	<b>144.9</b>	<b>47.82</b>	<b>97.08</b>
<b>TOTAL IR EXCHANGE</b>		<b>8,163</b>	<b>6,574</b>	<b>11,379</b>	<b>2,710</b>	<b>206.28</b>	<b>62.4</b>	<b>143.88</b>

## 4(B) Inter Regional Schedule &amp; 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	46.41	-17.43	3.96	32.94	60.75	27.81

NR-WR	147.02	-30.73	2.28	118.57	97.08	-21.49
Total	193.43	-48.16	6.24	151.51	143.88	-7.63

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)	27.41	29.47		31		0.6679	-0.6679

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	8.7	54.7	76.3	13.8	1.2	0	15.1

<-----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.	
50.21	21:01:00	49.81	16:39:10	49.99	0.04	0.061	50.1	49.87	23.7

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	428	01:20	412	11:20	0	0	51.74	0	51.74
Amritsar(PG) - 400KV	428	04:00	410	11:20	0	0	29.51	0	29.51
Ballabgarh(PG) - 400KV	424	01:15	406	10:25	0	0	26.39	0	26.39
Bareilly II(PG) - 400KV	420	01:05	403	10:35	0	0	0	0	0
Bareilly(UP) - 400KV	421	01:10	404	10:35	0	0	3.82	0	3.82
Baspa(HP) - 400KV	431	01:20	416	11:25	0	0	69.44	9.72	69.44
Bassi(PG) - 400KV	419	04:00	391	09:15	0	0	0	0	0
Bawana(DTL) - 400KV	428	01:25	411	11:20	0	0	48.61	0	48.61
Dadri HVDC(PG) - 400KV	427	01:15	427	01:15	1.39	1.39	29.51	0	30.9
Gorakhpur(PG) - 400KV	417	03:00	403	06:55	0	0	0	0	0
Hisar(PG) - 400KV	423	04:00	406	11:20	0	0	23.26	0	23.26
Kanpur(PG) - 400KV	422	01:05	409	06:55	0	0	13.19	0	13.19
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	421	04:00	404	11:20	0	0	5.21	0	5.21
Moga(PG) - 400KV	415	16:00	393	11:05	0	0	0	0	0
Nallagarh(PG) - 400KV	431	01:20	416	11:25	0	0	69.44	9.72	69.44
Rihand HVDC(PG) - 400KV	409	03:00	409	03:00	6.94	6.94	0	0	6.94
Rihand(NT) - 400KV	407	03:00	401	22:50	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	788	00:00	765	07:00	0	0	0	0	0
Balia(PG) - 765KV	785	01:05	762	06:55	0	0	0	0	0
Bareilly II(PG) - 765KV	799	01:05	768	10:35	0	0	0	0	0
Bhiwani(PG) - 765KV	801	21:00	775	10:25	0	0	10.07	0	10.07
Fatehpur(PG) - 765KV	787	17:30	752	06:55	0	0	0	0	0
Jhatikara(PG) - 765KV	803	01:15	772	10:35	0	0	3.82	0	3.82
Lucknow II(PG) - 765KV	795	01:05	768	10:35	0	0	0	0	0
Meerut(PG) - 765KV	801	01:10	771	06:55	0	0	1.74	0	1.74
Moga(PG) - 765KV	791	13:25	762	22:20	0	0	0	0	0
Phagi(RJ) - 765KV	794	00:00	762	09:15	0	0	0	0	0
Unnao(UP) - 765KV	777	01:05	749	10:35	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	-1,688.11	296.49	0	-1,688.11	0	0	60.95	-40.67	3.69	23.97
HARYANA	-993.08	104.85	0	-1,015.91	50.41	0	81.5	-25.55	2.09	58.04
RAJASTHAN	-40.48	104.87	0	-40.48	-789.33	0	60.89	3.61	-0.45	64.04
DELHI	-771.2	-493.17	0	-622.32	0	0	73.53	-18.31	-1.1	54.12
UTTAR PRADESH	122.19	0	0	98.38	0	0	115	-4.45	-0.7	109.86
UTTARAKHAND	524.62	-199.54	0	418.01	-17.51	0	12.14	11.03	-0.37	22.8
HIMACHAL PRADESH	493.55	1.89	0	267.74	348.66	0	12.47	12.13	-0.63	23.98
JAMMU & KASHMIR	610.11	98.83	0	610.11	543.56	0	26.32	14.64	4.79	45.75
CHANDIGARH	0	-15.18	0	0	0	0	3.81	0	-0.36	3.44
<b>TOTAL</b>	<b>-1,742.4</b>	<b>-100.96</b>	<b>0</b>	<b>-1,972.58</b>	<b>135.79</b>	<b>0</b>	<b>446.61</b>	<b>-47.57</b>	<b>6.96</b>	<b>406</b>

**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	3,472.29	2,020.86	-1,688.11	-1,789.29	592.98	-202.37	0	0
HARYANA	4,430.69	2,526.31	-846.96	-1,293.95	196.36	8.34	0	0
RAJASTHAN	3,780.94	1,414.35	806.78	-40.48	1,169.51	-1,118.52	0	0
DELHI	3,798.91	2,012.72	-591.63	-903.89	818.31	-687.04	0	0
UTTAR PRADESH	6,140.9	3,895.93	122.19	-787.88	66.35	-902.59	0	0
UTTARAKHAND	866.49	331.8	525.41	417.28	322.99	-244.62	0	0
HIMACHAL PRADESH	1,336.58	118.96	744.49	267.74	404.11	-638.25	0	0
JAMMU & KASHMIR	1,578.5	815.47	610.11	610.11	543.56	-202.37	0	0
CHANDIGARH	283.52	88.71	0	0	19.57	-91.07	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	504.62	1,299	498.84	1,053	186.78	490.42
Chamera-I	748.75	760	-	-	-	-	-	0
Gandhisagar	295.78	295.78	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	-	-	-	-	-	0
Koteshwar	598.5	612.5	611.01	5	610.45	5	213	211.66
Pong	384.05	426.72	415.35	693	410.06	494	69.21	381.68
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	516.52	3	504.42	3	50.49	114.84
Rihand	252.98	268.22	260.82	350	261.09	366	-	0
Tehri	740.04	829.79	-	-	-	-	-	0
<b>TOTAL</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,350</b>	<b>-</b>	<b>1,921</b>	<b>519.48</b>	<b>1,198.6</b>

**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	10	34
DELHI	9	29
HARYANA	3	11
HIMACHAL PRADESH	6	11
JAMMU & KASHMIR	8	27
PUNJAB	8	19
RAJASTHAN	20	89
UTTAR PRADESH	2	9
UTTARAKHAND	6	30

**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.First time charged, HVDC Pole-3 at Kurukshetra at NO LOAD (OLT) at 17:37hrs, 2.First time charged ,Main bay 404 & 407 at Neemrana 19:34hrs and 19:36hrs respectively 3.First time charged, Main Bay of ICT-1 at Mundika 20:43hrs.
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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**