



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

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

Date of Reporting:30-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
45,767	646	46,412	50.01	32,081	339	32,420	50.12	972	14.66

**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	77.36	12.95	0	3.8	0	1.07	95.18	24.37	24.01	-0.36	119.19	0	119.19
HARYANA	58.17	0.5	2.36	0.14	0	0.91	62.08	65.49	66.49	1	128.57	0	128.57
RAJASTHAN	140.27	3.78	1.35	16	4.4	3.8	169.59	69.28	71.1	1.82	240.69	0	240.69
DELHI	0	0	17.82	0	0	0.53	18.34	50.78	50.93	0.15	69.28	0.01	69.27
UTTAR PRADESH	153.61	7.33	0	2.88	0	21.6	185.42	104.54	105.33	0.79	293.17	2.42	290.75
UTTARAKHAND	0	9.08	2.82	0.69	0	0.76	13.35	26.39	25.82	-0.57	39.17	0	39.17
HIMACHAL PRADESH	0	3.48	0	0	0	2.24	5.72	23.99	24.85	0.86	30.92	0.35	30.57
JAMMU & KASHMIR	0	4.92	0	0	0	0	4.92	44.81	45.57	0.76	62.37	11.88	50.49
CHANDIGARH	0	0	0	0	0	0	0	3.21	3.67	0.46	3.67	0	3.67
<b>Region</b>	<b>429.41</b>	<b>42.04</b>	<b>24.35</b>	<b>23.51</b>	<b>4.4</b>	<b>30.91</b>	<b>554.6</b>	<b>412.86</b>	<b>417.77</b>	<b>4.91</b>	<b>987.03</b>	<b>14.66</b>	<b>972.37</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	6,035	0	58	-1,692	3,371	0	33	-1,495
HARYANA	6,642	0	43	-977	4,283	0	58	-846
RAJASTHAN	10,518	0	140	-180	8,206	0	58	-69
DELHI	3,449	0	26	-954	1,664	0	-6	-1,277
UTTAR PRADESH	13,029	0	16	112	10,303	0	-57	112
UTTARAKHAND	1,946	0	-9	685	1,306	0	37	584
HIMACHAL PRADESH	1,508	35	61	768	938	0	-47	438
JAMMU & KASHMIR	2,442	611	183	1,151	1,919	339	-31	707
CHANDIGARH	198	0	24	0	92	0	-5	-15
<b>Region</b>	<b>45,767</b>	<b>646</b>	<b>542</b>	<b>-1,087</b>	<b>32,082</b>	<b>339</b>	<b>40</b>	<b>-1,861</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	6,035	19:00	0	6,035	6,035	19:00	0	6,035	3,369	2:00
HARYANA	6,642	19:00	0	6,642	6,642	19:00	0	6,642	4,189	2:00
RAJASTHAN	12,423	11:00	0	12,423	12,423	11:00	0	12,423	7,432	5:00
DELHI	4,170	11:00	0	4,170	4,170	11:00	0	4,170	1,597	4:00
UP	13,804	20:00	460	14,264	14,264	20:00	460	13,804	10,303	3:00
UTTARAKHAND	2,160	8:00	0	2,160	2,160	8:00	0	2,160	1,288	4:00
HP	1,665	9:00	0	1,665	1,665	9:00	0	1,665	892	4:00
J&K	2,817	20:00	704	3,521	3,521	20:00	704	2,817	1,873	14:00
CHANDIGARH	229	9:00	0	229	229	9:00	0	229	90	2:00
NR	45,878	12:00	1,171	47,050	47,050	12:00	1,171	45,878	32,081	3:00

**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	461	450	551		11.05	460
DELHI GAS TURBINES( 3 * 34 + 6 * 30 )	282	118	117	119.5		2.82	118
PRAGATI GAS TURBINES( 1 * 121.2 + 2 * 104.6 )	331	162	164	164.19		3.95	165
RITHALA GPS( 3 * 36 )	108	0	0	0			
<b>Total GAS/NAPHTHA/DIESEL</b>	<b>2,091</b>	<b>741</b>	<b>731</b>			<b>17.82</b>	<b>743</b>
WIND	0	0	0	0			
BIOMASS( 1 * 16 )	16	23	27	27.26		0.53	22
SOLAR( 1 * 2 )	2	0	0	0			
<b>Total DELHI</b>	<b>2,949</b>	<b>764</b>	<b>758</b>			<b>18.35</b>	<b>765</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	490	571	10:00	12.2	508
JHAJJAR(CLP)( 2 * 660 )	1,320	1,228	741	1,237	10:00	24.23	1,010
MAGNUM DIESEL (IPP)( 4 * 6.3 )	25	0	0	0			
PANIPAT TPS( 2 * 210 + 2 * 250 )	920	433	581	613	09:00	11.74	489
RGTPP( KHEDAR)( 2 * 600 )	1,200	417	387	572	11:00	10	417
<b>Total THERMAL</b>	<b>4,065</b>	<b>2,649</b>	<b>2,199</b>			<b>58.17</b>	<b>2,424</b>
FARIDABAD GPS( 1 * 156.07 + 2 * 137.75 )	432	199	0	219	20:00	2.36	98
<b>Total GAS/NAPHTHA/DIESEL</b>	<b>432</b>	<b>199</b>	<b>0</b>			<b>2.36</b>	<b>98</b>
TOTAL HYDRO HARYANA( 1 * 62 )	62	9	19	19	01:00	0.5	21
<b>Total HYDEL</b>	<b>62</b>	<b>9</b>	<b>19</b>			<b>0.5</b>	<b>21</b>
WIND	0	0	0	0			
BIOMASS( 1 * 106 )	106	0	0	0		0.91	38
SOLAR( 1 * 50 )	50	0	0	0		0.14	6
<b>Total HARYANA</b>	<b>4,715</b>	<b>2,857</b>	<b>2,218</b>			<b>62.08</b>	<b>2,587</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	116	32	126	08:00	1.15	48
MALANA (IPP) HPS( 2 * 43 )	86	33	0	40	08:00	0.26	11
OTHER HYDRO HP( 1 * 372 )	372	112	102	0		2.07	86
<b>Total HYDEL</b>	<b>758</b>	<b>261</b>	<b>134</b>			<b>3.48</b>	<b>145</b>
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	12.7413	13:00	0	0
SMALL HYDRO( 1 * 486 )	486	98	115	0		2.24	93
<b>Total SMALL HYDRO</b>	<b>486</b>	<b>98</b>	<b>115</b>			<b>2.24</b>	<b>93</b>
<b>Total HP</b>	<b>1,244</b>	<b>359</b>	<b>249</b>			<b>5.72</b>	<b>238</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	148	148	0		3.55	148
OTHER HYDRO/IPP J&K( 1 * 308 )	308	98	42	0		1.37	57
<b>Total HYDEL</b>	<b>1,208</b>	<b>246</b>	<b>190</b>			<b>4.92</b>	<b>205</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>246</b>	<b>190</b>			<b>4.92</b>	<b>205</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	356	290	491		9.18	383
GURU GOBIND SINGH TPS (ROPAR)( 6 * 210 )	1,260	146	146	192		3.59	150
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)( 2 * 210 + 2 * 250 )	920	185	162	230		4.1	171
GURU NANAK DEV TPS (BHATINDA)( 4 * 110 )	460	0	0	0		-0.08	-3
RAJPURA(NPL) TPS( 2 * 700 )	1,400	1,320	798	1,320		26.27	1,095
TALWANDI SABO TPS( 3 * 660 )	1,980	1,841	924	1,841		34.3	1,429
<b>Total THERMAL</b>	<b>6,560</b>	<b>3,848</b>	<b>2,320</b>			<b>77.36</b>	<b>3,225</b>
TOTAL HYDRO PUNJAB( 1 * 1000 )	1,000	483	426	512		12.95	540
<b>Total HYDEL</b>	<b>1,000</b>	<b>483</b>	<b>426</b>			<b>12.95</b>	<b>540</b>
WIND	0	0	0	0			
BIOMASS( 1 * 303 )	303	0	0	0		1.07	45
SOLAR( 1 * 859 )	859	0	0	586		3.8	158
<b>Total PUNJAB</b>	<b>8,722</b>	<b>4,331</b>	<b>2,746</b>			<b>95.18</b>	<b>3,968</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	220	220	0		5.2	217
CHHABRA TPS( 1 * 660 + 4 * 250 )	1,660	1,774	1,707	0		42.66	1,778
GIRAL (IPP) LTPS( 2 * 125 )	250	0	0	0			
KALISINDH TPS( 2 * 600 )	1,200	1,040	797	0		23.87	995
KAWAI TPS( 2 * 660 )	1,320	1,051	852	0		25.56	1,065
KOTA TPS( 2 * 110 + 2 * 195 + 3 * 210 )	1,240	820	852	0		20.78	866
RAJWEST (IPP) LTPS( 8 * 135 )	1,080	767	452	0		16.15	673
SURATGARH TPS( 6 * 250 )	1,500	199	181	0		4.66	194
VSLPP (IPP)( 1 * 135 )	135	56	75	0		1.38	58
<b>Total THERMAL</b>	<b>8,635</b>	<b>5,927</b>	<b>5,136</b>			<b>140.26</b>	<b>5,846</b>
DHOLPUR GPS( 3 * 110 )	330	0	0	0			
RAMGARH GPS( 1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5 )	271	54	55	0		1.35	56
<b>Total GAS/NAPHTHA/DIESEL</b>	<b>601</b>	<b>54</b>	<b>55</b>			<b>1.35</b>	<b>56</b>
RAPS-A( 1 * 100 + 1 * 200 )	300	144	142	0		3.32	138
<b>Total NUCLEAR</b>	<b>300</b>	<b>144</b>	<b>142</b>			<b>3.32</b>	<b>138</b>
TOTAL HYDRO RAJASTHAN( 1 * 550 )	550	246	212	0		3.78	158
<b>Total HYDEL</b>	<b>550</b>	<b>246</b>	<b>212</b>			<b>3.78</b>	<b>158</b>
WIND	4,292	146	252	0		4.4	183
BIOMASS( 1 * 102 )	102	20	20	0		0.48	20
SOLAR( 1 * 1995 )	1,995	250	0	0		16	667
<b>Total RAJASTHAN</b>	<b>16,475</b>	<b>6,787</b>	<b>5,817</b>			<b>169.59</b>	<b>7,068</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	1,453	1,454	0		34.49	1,437
ANPARA-C TPS( 2 * 600 )	1,200	1,099	601	0		24.35	1,015
ANPARA-D TPS( 2 * 500 )	1,000	943	949	0		21.74	906
BAJAJ ENERGY PVT LTD (IPP) TPS( 10 * 45 )	450	0	0	0			
BARA PPGCL TPS( 3 * 660 )	1,980	1,081	661	0		23.75	990
HARDUAGANJ TPS( 1 * 105 + 1 * 60 + 2 * 250 )	665	444	255	0		9.3	388
LALITPUR TPS( 3 * 660 )	1,980	611	346	0		11.88	495
MEJA TPS( 1 * 660 )	660	0	0	0			
OBRA TPS( 2 * 94 + 5 * 200 )	1,188	334	230	0		7.73	322
PANKI TPS( 2 * 105 )	210	0	0	0			
PARICHA TPS( 2 * 110 + 2 * 210 + 2 * 250 )	1,160	592	340	0		12.47	520
ROSA TPS( 4 * 300 )	1,200	0	0	0			
TANDA TPS( 4 * 110 )	440	406	240	0		7.9	329
<b>Total THERMAL</b>	<b>13,763</b>	<b>6,963</b>	<b>5,076</b>			<b>153.61</b>	<b>6,402</b>
ALAKHANDA HEP( 4 * 82.5 )	330	82	135	0		1.41	59
VISHNUPARYAG HPS( 4 * 110 )	440	78	78	0		1.89	79
OTHER HYDRO UP( 1 * 527 )	527	202	145	0		4.03	168
<b>Total HYDEL</b>	<b>1,297</b>	<b>362</b>	<b>358</b>			<b>7.33</b>	<b>306</b>
WIND	0	0	0	0			
BIOMASS( 1 * 26 )	26	0	0	0			
SOLAR( 1 * 472 )	472	0	0	0		2.88	120
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>8,225</b>	<b>6,334</b>			<b>185.42</b>	<b>7,728</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	126	104	190	23:00	2.82	118			
Total GAS/NAPHTHA/DIESEL	450	126	104			2.82	118			
OTHER HYDRO UK( 1 * 1250 )	1,250	603	234	603	19:00	9.08	378			
Total HYDEL	1,250	603	234			9.08	378			
WIND	0	0	0	0						
BIOMASS( 1 * 127 )	127	31	36	38	08:00	0.76	32			
SOLAR( 1 * 100 )	100	0	0	84	13:00	0.69	29			
SMALL HYDRO( 1 * 180 )	180	0	0	0						
Total SMALL HYDRO	180	0	0			0	0			
Total UTTARAKHAND	2,107	760	374			13.35	557			

### 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	723.27	1,190	418	1,190	19:00	17.36	17.51	730	0.15
DEHAR HPS( 6 * 165 )	990	128.23	495	0	495	19:00	3.08	3.22	134	0.14
PONG HPS( 6 * 66 )	396	260	264	264	264	19:00	6.24	6.25	260	0.01
Sub-Total	2,765	1,111.5	1,949	682	-	-	26.68	26.98	1,124	0.3
<b>NHPC</b>										
BAIRASIUL HPS( 3 * 60 )	180	0	0	0	0	-	0	-	-	0
CHAMERA HPS( 3 * 180 )	540	535.58	188	0	551	18:15	1.79	1.93	80	0.14
CHAMERA II HPS( 3 * 100 )	300	179.4	200	20	204	08:00	1.17	1.34	56	0.17
CHAMERA III HPS( 3 * 77 )	231	153	162	0	163	18:00	0.6	0.67	28	0.07
DHAULIGANGA HPS( 4 * 70 )	280	281.38	279	0	284	07:00	1.04	1.08	45	0.04
DULHASTI HPS( 3 * 130 )	390	386.9	389	0	390	07:00	2.9	3.01	125	0.11
KISHANGANGA( 2 * 110 )	220	29.54	220	0	222	18:00	0.71	0.71	30	0
PARBATI III HEP( 4 * 130 )	520	0	0	0	0	-	0	-	-	0
SALAL HPS( 6 * 115 )	690	121.46	352	30	352	19:00	2.92	2.92	122	0
SEWA-II HPS( 3 * 40 )	120	120.2	40	0	124	07:00	0.39	0.4	17	0.01
TANAKPUR HPS( 1 * 31.42 + 2 * 31.4 )	94	27.38	31	57	64	05:00	0.66	0.66	28	0
URI HPS( 4 * 120 )	480	111.98	127	50	360	20:00	2.69	3.14	131	0.45
URI-II HPS( 4 * 60 )	480	79.08	181	78	183	20:00	1.9	1.97	82	0.07
Sub-Total	4,525	2,025.9	2,169	235	-	-	16.77	17.83	744	1.06
<b>NPCL</b>										
NAPS( 2 * 220 )	440	204	226	225	229	01:00	4.9	4.79	200	-0.11
RAPS-B( 2 * 220 )	440	182	208	208	210	08:00	4.37	4.03	168	-0.34
RAPS-C( 2 * 220 )	440	430	473	476	473	19:00	10.32	10.2	425	-0.12
Sub-Total	1,320	816	907	909	-	-	19.59	19.02	793	-0.57
<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	0.04	2	0.04
DADRI GPS( 2 * 154.51 + 4 * 130.19 )	830	413.96	253	227	261	17:00	5.52	5.48	228	-0.04
DADRI SOLAR( 1 * 5 )	5	0.7	0	0	3	12:38	0.02	0.02	1	0
DADRI-I TPS( 4 * 210 )	840	582.75	568	317	568	19:00	11.55	11.37	474	-0.18
DADRI-II TPS( 2 * 490 )	980	928.55	928	691	928	19:00	18.26	18.85	785	0.59
ISTPP (JHAJJAR)( 3 * 500 )	1,500	947.5	981	667	981	19:00	19.55	19.66	819	0.11
KOLDAM HPS( 4 * 200 )	800	872	794	0	872	18:35	2.62	2.74	114	0.12
RIHAND-I STPS( 2 * 500 )	1,000	922.5	984	946	984	19:00	21.83	21.97	915	0.14
RIHAND-II STPS( 2 * 500 )	1,000	942.5	989	845	989	19:00	22.19	22.38	933	0.19
RIHAND-III STPS( 2 * 500 )	1,000	828.72	1,015	378	1,015	19:00	19.32	19.74	823	0.42
SINGRAULI STPS( 2 * 500 + 5 * 200 )	2,000	1,862.5	2,026	1,986	2,026	19:00	44.55	44.7	1,863	0.15
SINGRAULI SOLAR( 1 * 15 )	15	2.62	0	0	0	-	0.06	0.07	3	0.01
UNCHAHAH II TPS( 2 * 210 )	420	382.2	378	226	378	19:00	7.37	6.77	282	-0.6
UNCHAHAH III TPS( 1 * 210 )	210	191.1	198	117	198	19:00	3.57	3.85	160	0.28
UNCHAHAH IV TPS( 1 * 500 )	500	299.7	413	0	413	19:00	6.13	7.07	295	0.94
UNCHAHAH SOLAR( 1 * 10 )	10	1.71	0	0	0	-	0.04	0.04	2	0
UNCHAHAH TPS( 2 * 210 )	420	382.2	383	234	383	19:00	7.55	8.03	335	0.48
Sub-Total	12,612	10,625.97	9,910	6,634	-	-	190.13	192.81	8,035	2.68
<b>SJVNL</b>										
NATHPA-JHAKRI HPS( 6 * 250 )	1,500	1,259.67	922	0	1,362	07:00	6.8	6.94	289	0.14
RAMPUR HEP( 6 * 68.67 )	412	278.12	249	0	294	06:00	1.7	1.75	73	0.05
Sub-Total	1,912	1,537.79	1,171	0	-	-	8.5	8.69	362	0.19
<b>THDC</b>										
KOTESHWAR HPS( 4 * 100 )	400	132.5	403	91	405	06:00	3.18	3.23	135	0.05
TEHRI HPS( 4 * 250 )	1,000	1,064	996	0	996	19:00	9.2	9.37	390	0.17
Sub-Total	1,400	1,196.5	1,399	91	-	-	12.38	12.6	525	0.22
Total	24,534	17,313.66	17,505	8,551	-	-	274.05	277.93	11,583	3.88

## 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	93	0	93	19:00	0.46	0.49	20	0.03
BUDHIL HPS (IPP)( 2 * 35 )	70	0	0	0	34	13:00	0.24	0.22	9	-0.02
KARCHAM WANGTOO HPS( 4 * 250 )	1,000	0	825	0	825	06:00	3.44	3.47	145	0.03
MALANA2( 2 * 50 )	100	0	0	0	83	11:00	0.23	0.25	10	0.02
SAINJ HEP( 2 * 50 )	50	0	100	0	100	09:00	0.41	0.43	18	0.02
SHREE CEMENT (IPP) TPS( 2 * 150 )	300	0	146	123	147	10:00	3.36	3.32	138	-0.04
<b>Sub-Total</b>	<b>1,712</b>	<b>0</b>	<b>1,164</b>	<b>123</b>	<b>-</b>	<b>-</b>	<b>8.14</b>	<b>8.18</b>	<b>340</b>	<b>0.04</b>
<b>Total</b>	<b>1,712</b>	<b>0</b>	<b>1,164</b>	<b>123</b>	<b>-</b>	<b>-</b>	<b>8.14</b>	<b>8.18</b>	<b>340</b>	<b>0.04</b>

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	54,626	24,329	18,686	554.61	23,109
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		5,684	6,040	145.83	8,277
Total Regional Availability(Gross)	80,872	48,682	33,400	986.55	43,307

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	8,500	1,008	73.7	3,071
State Control Area Hydro	6,125	2,210	1,573	42.04	1,752
Total Regional Hydro	18,939	10,710	2,581	115.74	4,823

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	568	450	33.9	1,412
Total Regional Renewable	9,244	568	450	34.03	1,417

## 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	0.58	-0.58
4	220KV-Pusauli(PG)-Sahupuri(UP)	119	118	181	0	2.58	0	2.58
5	400KV-Biharsharif(PG)-Baliala(PG)	112	160	287	0	4.57	0	4.57
6	400KV-Biharsharif(PG)-Varanasi(P..	-3	-45	175	21	1.61	0	1.61
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-
8	400KV-Motihari(DMT)-Gorakhpur ..	280	238	360	0	5.93	0	5.93
9	400KV-Muzaffarpur(PG)-Gorakhp ..	166	222	442	0	5.26	0	5.26
10	400KV-Patna(PG)-Baliala(PG)	586	455	712	0	12.86	0	12.86
11	400KV-Sasaram-Allahabad(PG)	33	56	61	0	1.18	0	1.18
12	400KV-Sasaram-Varanasi(PG)	110	90	110	0	2.3	0	2.3
13	765KV-Fatehpur(PG)-Sasaram.	7	75	219	3	2.58	0	2.58
14	765KV-Gaya(PG)-Baliala(PG)	203	171	331	0	5.13	0	5.13
15	765KV-Gaya(PG)-Varanasi(PG)	219	215	539	0	7.59	0	7.59
16	HVDC800KV-Alipurduar-Agra(PG)	0	0	150	-	0.1	0	0.1
<b>Sub-Total EAST REGION</b>		<b>1,832</b>	<b>1,755</b>	<b>3,567</b>	<b>24</b>	<b>51.69</b>	<b>0.58</b>	<b>51.11</b>
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli- ..	-400	-500	0	500	0	9.45	-9.45
<b>Sub-Total NORTH_EAST REGION</b>		<b>-400</b>	<b>-500</b>	<b>0</b>	<b>500</b>	<b>0</b>	<b>9.45</b>	<b>-9.45</b>
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya(NT)-Malanpur(PG)	-44	-53	-	138	0	1.95	-1.95
2	220KV-Badod(MP)-Kota(PG)	40	6	155	52	1.71	0	1.71
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-
4	400KV-RAPS C(NP)-Sujalpur	-97	-74	21	291	0	3.43	-3.43
5	400KV-Vindhyachal(PG)-Rihand(N ..	-975	-334	-	986	0	19.74	-19.74
6	400KV-Zerda(PG)-Bhinmal(PG)	89	69	323	5	2.74	0	2.74
7	400KV-Zerda(PG)-Kankroli(RJ)	-70	-115	123	151	0	0.75	-0.75
8	765KV-0rai-Gwalior(PG)	-361	-332	0	571	0	10.39	-10.39
9	765KV-0rai-Jabalpur	-66	419	719	0	6.9	0	6.9
10	765KV-0rai-Satna	1,429	1,294	1,617	0	35.59	0	35.59
11	765KV-Gwalior(PG)-Agra(PG)	1,726	1,388	1,863	-	35.63	0	35.63
12	765KV-Phagi(RJ)-Gwalior(PG)	532	668	553	-	11.2	0	11.2
13	HVDC500KV-Mundra(JH)-Mohind..	1,699	1,499	1,704	0	39.22	0	39.22
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	13.47	0	13.47
<b>Sub-Total WEST REGION</b>		<b>4,252</b>	<b>4,785</b>	<b>7,678</b>	<b>2,444</b>	<b>146.46</b>	<b>42.29</b>	<b>104.17</b>
<b>TOTAL IR EXCHANGE</b>		<b>5,684</b>	<b>6,040</b>	<b>11,245</b>	<b>2,968</b>	<b>198.15</b>	<b>52.32</b>	<b>145.83</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	47.53	-16.34	3.4	34.59	51.11	16.52

NR-WR	151.3	-30.12	2.31	123.49	104.17	-19.32
Total	198.83	-46.46	5.71	158.08	145.83	-12.25

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)	-27.91	-29.93		31		0.6441	-0.6441

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	.2	11	59.7	77.9	9.8	1.4	0	11.1

<-----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.	
50.16	06:03:30	49.79	08:34:00	49.98	0.043	0.062	50.07	49.85	22.1

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	03:00	410	11:15	0	0	34.38	0	34.38
Amritsar(PG) - 400KV	427	03:00	410	11:15	0	0	30.21	0	30.21
Ballabgarh(PG) - 400KV	425	03:00	403	09:35	0	0	19.79	0	19.79
Bareilly II(PG) - 400KV	419	03:00	400	10:20	0	0	0	0	0
Bareilly(UP) - 400KV	421	03:00	401	10:20	0	0	.69	0	.69
Baspa(HP) - 400KV	431	03:00	414	18:30	0	0	53.82	.69	53.82
Bassi(PG) - 400KV	416	04:00	390	09:35	0	0	0	0	0
Bawana(DTL) - 400KV	427	03:00	409	10:20	0	0	34.03	0	34.03
Dadri HVDC(PG) - 400KV	425	03:00	408	11:15	0	0	22.57	0	22.57
Gorakhpur(PG) - 400KV	417	03:00	400	18:20	0	0	0	0	0
Hisar(PG) - 400KV	423	03:00	404	10:25	0	0	9.03	0	9.03
Kanpur(PG) - 400KV	422	03:00	408	09:40	0	0	4.86	0	4.86
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	419	03:00	403	09:55	0	0	0	0	0
Moga(PG) - 400KV	418	03:00	394	12:25	0	0	0	0	0
Nallagarh(PG) - 400KV	431	03:00	414	18:30	0	0	53.82	.69	53.82
Rihand HVDC(PG) - 400KV	406	03:25	406	03:25	1.39	1.39	0	0	1.39
Rihand(NT) - 400KV	404	03:30	400	09:35	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	790	03:00	762	09:20	0	0	0	0	0
Balia(PG) - 765KV	784	03:00	761	11:15	0	0	0	0	0
Bareilly II(PG) - 765KV	799	03:00	764	10:20	0	0	0	0	0
Bhiwani(PG) - 765KV	800	20:00	770	09:35	0	0	.69	0	.69
Fatehpur(PG) - 765KV	784	19:55	752	06:25	0	0	0	0	0
Jhatikara(PG) - 765KV	803	03:00	768	10:20	0	0	3.82	0	3.82
Lucknow II(PG) - 765KV	794	03:00	764	11:15	0	0	0	0	0
Meerut(PG) - 765KV	801	20:00	771	11:15	0	0	1.39	0	1.39
Moga(PG) - 765KV	792	20:00	764	22:25	0	0	0	0	0
Phagi(RJ) - 765KV	795	02:55	762	09:20	0	0	0	0	0
Unnao(UP) - 765KV	774	03:00	746	09:35	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	-1,692.21	197.18	0	-1,692.21	0	0	62.59	-40.61	2.39	24.37
HARYANA	-995.77	149.89	0	-1,018.54	41.97	0	88.5	-25.59	2.57	65.49
RAJASTHAN	-62.82	-6.63	0	-49.98	-129.55	0	66.07	3.26	-0.06	69.28
DELHI	-773.13	-504.11	0	-623.9	-329.65	0	71.92	-18.36	-2.78	50.78
UTTAR PRADESH	112.09	0	0	112.09	0	0	110.44	-4.38	-1.51	104.54
UTTARAKHAND	602.14	-17.88	0	483	202.27	0	11.16	12.73	2.5	26.39
HIMACHAL PRADESH	445.13	-6.97	0	266.91	501.28	0	12.89	11.72	-0.61	23.99
JAMMU & KASHMIR	608.59	98.59	0	608.59	542.24	0	25.76	14.6	4.43	44.81
CHANDIGARH	0	-15.21	0	0	0	0	3.77	0	-0.56	3.21
TOTAL	-1,755.98	-105.14	0	-1,914.04	828.56	0	453.1	-46.63	6.37	412.86

**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	3,485.98	2,225.08	-1,692.21	-1,692.21	492.95	-304.29	0	0
HARYANA	4,747.8	2,808.32	-783.49	-1,297.42	300.86	-36.15	0	0
RAJASTHAN	3,741.73	2,049.46	795.19	-96.65	1,150.39	-868.53	0	0
DELHI	3,836.38	2,033.26	-593.27	-906.11	619.15	-573.08	0	0
UTTAR PRADESH	6,133.6	3,649.87	121.51	-791.17	68.14	-868.28	0	0
UTTARAKHAND	867.7	289.58	633.94	483	429.46	-102.31	0	0
HIMACHAL PRADESH	1,355.1	246.46	742.4	266.91	501.28	-692.49	0	0
JAMMU & KASHMIR	1,674.62	735.62	608.59	608.59	542.24	-253.58	0	0
CHANDIGARH	279.02	96.58	0	0	0	-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	1,312	499.29	1,065	196.32	484.76
Chamera-I	748.75	760	755.27	-	-	-	49.14	51.78
Gandhisagar	295.78	295.78	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	-	-	-	-	-	0
Koteshwar	598.5	612.5	610.98	5	610.4	5	215	213.3
Pong	384.05	426.72	415.61	706	410.38	504	67.76	380.24
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	516.73	3	504.85	3	60.8	129.49
Rihand	252.98	268.22	-	-	-	-	-	0
Tehri	740.04	829.79	813.75	877	810.45	811	51.89	215
TOTAL	-	-	-	2,903	-	2,388	640.91	1,474.57

**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	5	37
DELHI	4	29
HARYANA	1	24
HIMACHAL PRADESH	2	16
JAMMU & KASHMIR	3	21
PUNJAB	0	10
RAJASTHAN	1	13
UTTAR PRADESH	0	8
UTTARAKHAND	2	20

**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 load through 412 Bay and 201 Bay at 2111 Hrs of 29.12.18 400kV Bay no 411 at Fatehabad(PG) first time charged at 2153Hrs of 29.12.18
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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**