



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

Power Supply Position in Northern Region For 24-Nov-2018

Date of Reporting:25-Nov-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
42,192	477	42,670	50.03	30,715	260	30,975	49.98	893	9.71

**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	71.09	11.1	0	3.04	0	7.99	93.22	24.64	24.8	0.16	118.02	0	118.02
HARYANA	48.66	0.61	0	0.14	0	0.76	50.17	65.33	65.4	0.07	115.59	0.02	115.57
RAJASTHAN	132.26	5.49	1.87	14.13	4.55	4.46	162.77	66.48	67.98	1.5	230.75	0	230.75
DELHI	0	0	15.53	0	0	0	15.53	42.54	42.83	0.29	58.37	0.01	58.36
UTTAR PRADESH	120	7.8	0	2.7	0	16.8	147.3	115.32	115.57	0.25	262.87	0	262.87
UTTARAKHAND	0	8.9	2.46	0.58	0	0.4	12.34	23.04	23.67	0.63	36.01	0	36.01
HIMACHAL PRADESH	0	4.8	0	0	0	3.56	8.36	18.83	19.45	0.62	27.81	0	27.81
JAMMU & KASHMIR	0	5.73	0	0	0	0	5.73	38.08	35.21	-2.87	50.62	9.68	40.94
CHANDIGARH	0	0	0	0	0	0	0	2.61	3.05	0.44	3.05	0	3.05
<b>Region</b>	<b>372.01</b>	<b>44.43</b>	<b>19.86</b>	<b>20.59</b>	<b>4.55</b>	<b>33.97</b>	<b>495.42</b>	<b>396.87</b>	<b>397.96</b>	<b>1.09</b>	<b>903.09</b>	<b>9.71</b>	<b>893.38</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	5,397	0	7	-1,579	3,492	0	-7	-1,089
HARYANA	6,052	0	2	-694	3,920	0	76	-710
RAJASTHAN	9,925	0	291	-791	8,282	0	156	122
DELHI	3,043	0	54	-1,264	1,613	0	8	-1,515
UTTAR PRADESH	12,582	0	-168	85	9,832	0	-96	99
UTTARAKHAND	1,762	0	3	480	1,189	0	-26	507
HIMACHAL PRADESH	1,356	0	30	-94	837	0	-9	320
JAMMU & KASHMIR	1,908	477	-84	505	1,471	260	-277	505
CHANDIGARH	166	0	33	-56	80	0	8	-30
<b>Region</b>	<b>42,191</b>	<b>477</b>	<b>168</b>	<b>-3,408</b>	<b>30,716</b>	<b>260</b>	<b>-167</b>	<b>-1,791</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	5,507	8:00	0	5,507	5,507	8:00	0	5,507	3,492	3:00
HARYANA	6,052	19:00	0	6,052	6,052	19:00	0	6,052	3,871	2:00
RAJASTHAN	11,526	9:00	0	11,526	11,526	9:00	0	11,526	7,679	5:00
DELHI	3,178	12:00	0	3,178	3,178	12:00	0	3,178	1,558	5:00
UP	12,702	20:00	0	12,702	12,702	20:00	0	12,702	9,832	3:00
UTTARAKHAND	1,859	8:00	0	1,859	1,859	8:00	0	1,859	1,189	3:00
HP	1,605	8:00	0	1,605	1,605	8:00	0	1,605	837	3:00
J&K	2,068	9:00	517	2,585	2,585	9:00	517	2,068	1,456	2:00
CHANDIGARH	173	9:00	0	173	173	9:00	0	173	80	2:00
NR	42,192	19:00	477	42,669	42,669	19:00	477	42,192	30,715	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)	
<b>NIL</b>							
<b>Total</b>	<b>0</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>	<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	-3	-3	-3	11:00	0	0
RAJGHAT TPS( 2 * 67.5 )	135	0	0	0			
<b>Total THERMAL</b>	<b>840</b>	<b>-3</b>	<b>-3</b>			<b>0</b>	<b>0</b>
BAWANA GPS( 2 * 253 + 4 * 216 )	1,370	428	428	552	10:00	10.74	448
DELHI GAS TURBINES( 3 * 34 + 6 * 30 )	282	39	40	40	14:00	0.92	38
PRAGATI GAS TURBINES( 1 * 121.2 + 2 * 104.6 )	331	158	160	160	05:00	3.87	161
RITHALA GPS( 3 * 36 )	108	0	0	0			
<b>Total GAS/NAPHTHA/DIESEL</b>	<b>2,091</b>	<b>625</b>	<b>628</b>			<b>15.53</b>	<b>647</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>622</b>	<b>625</b>			<b>15.53</b>	<b>647</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	288	245	292	13:00	6.09	254
JHAJJAR(CLP)( 2 * 660 )	1,320	539	374	618	10:00	12.32	513
MAGNUM DIESEL (IPP)( 4 * 6.3 )	25	0	0	0			
PANIPAT TPS( 2 * 210 + 2 * 250 )	920	461	203	463	17:00	8.79	366
RGTPP (KHEGAR)( 2 * 600 )	1,200	1,145	777	1,145	19:00	21.46	894
<b>Total THERMAL</b>	<b>4,065</b>	<b>2,433</b>	<b>1,599</b>			<b>48.66</b>	<b>2,027</b>
FARIDABAD GPS( 1 * 156.07 + 2 * 137.75 )	432	0	0	0	00:00	0	0
<b>Total GAS/NAPHTHA/DIESEL</b>	<b>432</b>	<b>0</b>	<b>0</b>			<b>0</b>	<b>0</b>
TOTAL HYDRO HARYANA( 1 * 62 )	62	11	13	26	11:00	0.61	25
<b>Total HYDEL</b>	<b>62</b>	<b>11</b>	<b>13</b>			<b>0.61</b>	<b>25</b>
WIND	0	0	0	0			
BIOMASS( 1 * 106 )	106	0	0	0		0.76	32
SOLAR( 1 * 50 )	50	0	0	0		0.14	6
<b>Total HARYANA</b>	<b>4,715</b>	<b>2,444</b>	<b>1,612</b>			<b>50.17</b>	<b>2,090</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	78	30	107	21:00	1.32	55
MALANA (IPP) HPS( 2 * 43 )	86	47	0	48	18:00	0.39	16
OTHER HYDRO HP( 1 * 372 )	372	146	105	150	19:00	3.09	129
<b>Total HYDEL</b>	<b>758</b>	<b>271</b>	<b>135</b>			<b>4.8</b>	<b>200</b>
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO( 1 * 486 )	486	175	128	180	19:00	3.56	148
<b>Total SMALL HYDRO</b>	<b>486</b>	<b>175</b>	<b>128</b>			<b>3.56</b>	<b>148</b>
<b>Total HP</b>	<b>1,244</b>	<b>446</b>	<b>263</b>			<b>8.36</b>	<b>348</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		3.63	151
OTHER HYDRO/IPP J&K( 1 * 308 )	308	123	62	0		2.1	88
<b>Total HYDEL</b>	<b>1,208</b>	<b>271</b>	<b>210</b>			<b>5.73</b>	<b>239</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>271</b>	<b>210</b>			<b>5.73</b>	<b>239</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	470	446	491		11.46	478
GURU GOBIND SINGH TPS (ROPAR)( 6 * 210 )	1,260	0	0	0		-0.1	-4
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)( 2 * 210 + 2 * 250 )	920	853	476	855		17.05	710
GURU NANAK DEV TPS (BHATINDA)( 4 * 110 )	460	0	0	0		-0.01	0
RAJPURA(NPL) TPS( 2 * 700 )	1,400	660	660	660		15.81	659
TALWANDI SABO TPS( 3 * 660 )	1,980	1,228	683	1,228		26.88	1,120
<b>Total THERMAL</b>	<b>6,560</b>	<b>3,211</b>	<b>2,265</b>			<b>71.09</b>	<b>2,963</b>
TOTAL HYDRO PUNJAB( 1 * 1000 )	1,000	416	271	596		11.1	463
<b>Total HYDEL</b>	<b>1,000</b>	<b>416</b>	<b>271</b>			<b>11.1</b>	<b>463</b>
WIND	0	0	0	0			
BIOMASS( 1 * 303 )	303	0	0	0		7.99	333
SOLAR( 1 * 859 )	859	0	0	410		3.04	127
<b>Total PUNJAB</b>	<b>8,722</b>	<b>3,627</b>	<b>2,536</b>			<b>93.22</b>	<b>3,886</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	223	224	0		5.15	215
CHHABRA TPS( 1 * 660 + 4 * 250 )	1,660	1,475	1,170	0		34.45	1,435
GIRAL (IPP) LTPS( 2 * 125 )	250	0	0	0			
KALISINDH TPS( 2 * 600 )	1,200	551	411	0		11.82	493
KAWAI TPS( 2 * 660 )	1,320	1,244	862	0		26.73	1,114
KOTA TPS( 2 * 110 + 2 * 195 + 3 * 210 )	1,240	832	833	0		21.12	880
RAJWEST (IPP) LTPS( 8 * 135 )	1,080	720	402	0		14.92	622
SURATGARH TPS( 6 * 250 )	1,500	729	725	0		18.08	753
VSLPP (IPP)( 1 * 135 )	135	0	0	0			
<b>Total THERMAL</b>	<b>8,635</b>	<b>5,774</b>	<b>4,627</b>			<b>132.27</b>	<b>5,512</b>
DHOLPUR GPS( 3 * 110 )	330	0	0	0			
RAMGARH GPS( 1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5 )	271	72	79	0		1.87	78
<b>Total GAS/NAPHTHA/DIESEL</b>	<b>601</b>	<b>72</b>	<b>79</b>			<b>1.87</b>	<b>78</b>
RAPS-A( 1 * 100 + 1 * 200 )	300	159	162	0		3.7	154
<b>Total NUCLEAR</b>	<b>300</b>	<b>159</b>	<b>162</b>			<b>3.7</b>	<b>154</b>
TOTAL HYDRO RAJASTHAN( 1 * 550 )	550	277	150	0		5.49	229
<b>Total HYDEL</b>	<b>550</b>	<b>277</b>	<b>150</b>			<b>5.49</b>	<b>229</b>
WIND	4,292	57	661	0		4.55	190
BIOMASS( 1 * 102 )	102	32	32	0		0.76	32
SOLAR( 1 * 1995 )	1,995	10	0	0		14.13	589
<b>Total RAJASTHAN</b>	<b>16,475</b>	<b>6,381</b>	<b>5,711</b>			<b>162.77</b>	<b>6,784</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	1,339	1,347	0		34.1	1,421
ANPARA-C TPS( 2 * 600 )	1,200	541	523	0		13.1	546
ANPARA-D TPS( 2 * 500 )	1,000	946	934	0		19.7	821
BAJAJ ENERGY PVT LTD (IPP) TPS( 10 * 45 )	450	0	0	0			
BARA PPGCL TPS( 3 * 660 )	1,980	963	697	0		21.7	904
HARDUAGANJ TPS( 1 * 105 + 1 * 60 + 2 * 250 )	665	441	252	0		9.6	400
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	226	173	0		4.3	179
PANKI TPS( 2 * 105 )	210	0	0	0			
PARICHA TPS( 2 * 110 + 2 * 210 + 2 * 250 )	1,160	441	247	0		9.3	388
ROSA TPS( 4 * 300 )	1,200	0	0	0			
TANDA TPS( 4 * 110 )	440	389	216	0		8.2	342
<b>Total THERMAL</b>	<b>13,763</b>	<b>5,286</b>	<b>4,389</b>			<b>120</b>	<b>5,001</b>
ALAKHANDA HEP( 4 * 82.5 )	330	83	82	0		2	83
VISHNUPARYAG HPS( 4 * 110 )	440	108	103	0		2.5	104
OTHER HYDRO UP( 1 * 527 )	527	89	154	0		3.3	138
<b>Total HYDEL</b>	<b>1,297</b>	<b>280</b>	<b>339</b>			<b>7.8</b>	<b>325</b>
WIND	0	0	0	0			
BIOMASS( 1 * 26 )	26	0	0	0			
SOLAR( 1 * 472 )	472	0	0	0		2.7	113
CO-GENERATION( 1 * 1360 )	1,360	700	700	0		16.8	700
<b>Total OTHERs</b>	<b>1,360</b>	<b>700</b>	<b>700</b>			<b>16.8</b>	<b>700</b>
<b>Total UP</b>	<b>16,918</b>	<b>6,266</b>	<b>5,428</b>			<b>147.3</b>	<b>6,139</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	95	95	95	01:00	2.46	103			
Total GAS/NAPHTHA/DIESEL	450	95	95			2.46	103			
OTHER HYDRO UK( 1 * 1250 )	1,250	462	266	648	10:00	8.9	371			
Total HYDEL	1,250	462	266			8.9	371			
WIND	0	0	0	0						
BIOMASS( 1 * 127 )	127	20	22	22	02:00	0.4	17			
SOLAR( 1 * 100 )	100	0	0	88	12:00	0.58	24			
SMALL HYDRO( 1 * 180 )	180	0	0	0						
Total SMALL HYDRO	180	0	0			0	0			
Total UTTARAKHAND	2,107	577	383			12.34	515			

### 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	382.02	491	335	492	05:00	9.17	9.26	386	0.09
DEHAR HPS( 6 * 165 )	990	197.29	495	0	645	07:00	4.74	4.89	204	0.15
PONG HPS( 6 * 66 )	396	286.41	330	198	330	05:00	6.87	6.89	287	0.02
Sub-Total	2,765	865.72	1,316	533	-	-	20.78	21.04	877	0.26
<b>NHPC</b>										
BAIRASIUL HPS( 3 * 60 )	180	0	0	0	0	-	0	-	-	0
CHAMERA HPS( 3 * 180 )	540	535.58	537	0	544	07:00	2.8	3.04	127	0.24
CHAMERA II HPS( 3 * 100 )	300	151.16	204	0	208	18:00	2.01	2.27	95	0.26
CHAMERA III HPS( 3 * 77 )	231	153	154	0	161	20:00	1.4	1.5	63	0.1
DHAULIGANGA HPS( 4 * 70 )	280	55.63	140	70	144	20:00	1.31	1.33	55	0.02
DULHASTI HPS( 3 * 130 )	390	386.9	394	0	396	18:00	4.27	4.37	182	0.1
KISHANGANGA( 2 * 110 )	220	0	0	0	0	-	0	0	0	0
PARBATI III HEP( 4 * 130 )	520	33.38	262	0	267	06:00	0.8	0.82	34	0.02
SALAL HPS( 6 * 115 )	690	113.12	380	100	380	06:00	2.72	3.29	137	0.57
SEWA-II HPS( 3 * 40 )	120	80.09	71	0	85	18:00	0.45	0.47	20	0.02
TANAKPUR HPS( 1 * 31.42 + 2 * 31.4 )	94	36.84	42	38	67	17:00	0.88	0.97	40	0.09
URI HPS( 4 * 120 )	480	204.58	357	174	361	09:00	4.91	5.71	238	0.8
URI-II HPS( 4 * 60 )	480	125.47	121	120	184	10:00	3.01	3.18	133	0.17
Sub-Total	4,525	1,875.75	2,662	502	-	-	24.56	26.95	1,124	2.39
<b>NPCL</b>										
NAPS( 2 * 220 )	440	403	444	444	453	06:00	9.67	9.78	408	0.11
RAPS-B( 2 * 220 )	440	194	219	220	219	19:00	4.66	4.65	194	-0.01
RAPS-C( 2 * 220 )	440	420	473	472	476	09:00	10.08	10.23	426	0.15
Sub-Total	1,320	1,017	1,136	1,136	-	-	24.41	24.66	1,028	0.25
<b>NTPC</b>										
ANTA GPS( 1 * 153.2 + 3 * 88.71 )	419	131.7	231	151	272	21:12	5.2	5.1	213	-0.1
AURAIYA GPS( 2 * 109.3 + 4 * 111.19 )	663	642.6	0	0	0	-	0	-	-	0
DADRI GPS( 2 * 154.51 + 4 * 130.19 )	830	410.57	408	237	408	19:00	7.22	7.07	295	-0.15
DADRI SOLAR( 1 * 5 )	5	0.86	4	0	4	19:00	0.02	0.02	1	0
DADRI-I TPS( 4 * 210 )	840	576.45	503	319	503	19:00	10.22	9.93	414	-0.29
DADRI-II TPS( 2 * 490 )	980	928.55	930	638	930	19:00	18.42	19.2	800	0.78
ISTPP (JHAJJAR)( 3 * 500 )	1,500	947.5	974	557	1,005	18:02	19.54	19.3	804	-0.24
KOLDAM HPS( 4 * 200 )	800	710.77	575	0	652	07:00	3.75	4.02	168	0.27
RIHAND-I STPS( 2 * 500 )	1,000	461.25	500	511	500	19:00	11.03	11.05	460	0.02
RIHAND-II STPS( 2 * 500 )	1,000	579.24	1,001	498	1,001	19:00	13.76	13.08	545	-0.68
RIHAND-III STPS( 2 * 500 )	1,000	942.5	898	1,035	898	19:00	22.36	23.25	969	0.89
SINGRAULI STPS( 2 * 500 + 5 * 200 )	2,000	1,862.5	2,040	2,045	2,061	12:00	44.7	45.36	1,890	0.66
SINGRAULI SOLAR( 1 * 15 )	15	2.48	0	0	0	-	0.06	0.07	3	0.01
UNCHAHAH II TPS( 2 * 210 )	420	382.2	402	224	402	19:00	7.9	7.82	326	-0.08
UNCHAHAH III TPS( 1 * 210 )	210	191.1	197	125	197	19:00	3.95	4.01	167	0.06
UNCHAHAH IV TPS( 1 * 500 )	500	0	0	0	0	-	0	-	-	0
UNCHAHAH SOLAR( 1 * 10 )	10	1.69	0	0	0	-	0.04	0.05	2	0.01
UNCHAHAH TPS( 2 * 210 )	420	260.4	385	124	385	19:00	5.6	5.34	223	-0.26
Sub-Total	12,612	9,032.36	9,048	6,464	-	-	173.77	174.67	7,280	0.9
<b>SJVNL</b>										
NATHPA-JHAKRI HPS( 6 * 250 )	1,500	1,249.38	1,247	0	1,263	07:00	9	9.25	385	0.25
RAMPUR HEP( 6 * 68.67 )	412	348.12	349	0	367	07:00	2.51	2.62	109	0.11
Sub-Total	1,912	1,597.5	1,596	0	-	-	11.51	11.87	494	0.36
<b>THDC</b>										
KOTESHWAR HPS( 4 * 100 )	400	99.58	200	93	200	19:00	2.39	2.46	103	0.07
TEHRI HPS( 4 * 250 )	1,000	1,064	973	0	1,046	07:00	6.9	7.05	294	0.15
Sub-Total	1,400	1,163.58	1,173	93	-	-	9.29	9.51	397	0.22
Total	24,534	15,551.91	16,931	8,728			264.32	268.7	11,200	4.38

## 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	68	0	68	19:00	0.31	0.32	13	0.01
KARCHAM WANGTOO HPS( 4 * 250 )	1,000	0	1,000	0	1,000	18:00	4.62	4.7	196	0.08
MALANA2( 2 * 50 )	100	0	0	0	0	-	0	-	-	0
SAINJ HEP( 2 * 50 )	50	0	55	15	55	05:15	0.61	0.62	26	0.01
SHREE CEMENT (IPP) TPS( 2 * 150 )	300	0	145	81	147	14:00	2.87	2.78	116	-0.09
<b>Sub-Total</b>	<b>1,712</b>	<b>0</b>	<b>1,268</b>	<b>96</b>	<b>-</b>	<b>-</b>	<b>8.41</b>	<b>8.42</b>	<b>351</b>	<b>0.01</b>
<b>Total</b>	<b>1,712</b>	<b>0</b>	<b>1,268</b>	<b>96</b>	<b>-</b>	<b>-</b>	<b>8.41</b>	<b>8.42</b>	<b>351</b>	<b>0.01</b>

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	54,626	20,634	16,768	495.42	20,643
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		5,454	6,348	136.04	7,634
Total Regional Availability(Gross)	80,872	44,287	31,940	908.58	39,823

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	8,445	1,143	79.03	3,293
State Control Area Hydro	6,125	1,988	1,384	44.43	1,851
Total Regional Hydro	18,939	10,433	2,527	123.46	5,144

Total Renewable Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Renewable	30	4	0	0.14	6
State Control Area Renewable	9,214	294	843	38.61	1,609
Total Regional Renewable	9,244	298	843	38.75	1,615

## 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 ..	-	-	-	-	-	-	-
3	132KV-Rihand-Sonnagar(PG)	-	-	-	-	-	-	-
4	220KV-Pusauli(PG)-Sahupuri(UP)	107	87	119	0	2.36	0	2.36
5	400KV-Biharsharif(PG)-Baliala(PG)	-13	-2	150	38	0.67	0	0.67
6	400KV-Biharsharif(PG)-Varanasi(P..	134	-4	-64	180	0	1.69	-1.69
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-
8	400KV-Motihari(DMT)-Gorakhpur ..	230	272	378	0	6.82	0	6.82
9	400KV-Muzaffarpur(PG)-Gorakhp ..	14	4	204	174	0.11	0	0.11
10	400KV-Patna(PG)-Baliala(PG)	385	496	639	0	12.38	0	12.38
11	400KV-Sasaram-Allahabad(PG)	112	128	151	0	2.87	0	2.87
12	400KV-Sasaram-Varanasi(PG)	230	216	242	0	5.23	0	5.23
13	765KV-Fatehpur(PG)-Sasaram.	-149	-102	61	179	0	1.51	-1.51
14	765KV-Gaya(PG)-Baliala(PG)	104	104	201	-	3.4	0	3.4
15	765KV-Gaya(PG)-Varanasi(PG)	46	254	390	9	3.8	0	3.8
16	HVDC800KV-Alipurduar-Agra(PG)	400	200	400	0	8.05	0	8.05
<b>Sub-Total EAST REGION</b>		<b>1,600</b>	<b>1,653</b>	<b>2,871</b>	<b>580</b>	<b>45.69</b>	<b>3.2</b>	<b>42.49</b>
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli- ..	600	500	600	0	12.07	0	12.07
<b>Sub-Total NORTH_EAST REGION</b>		<b>600</b>	<b>500</b>	<b>600</b>	<b>0</b>	<b>12.07</b>	<b>0</b>	<b>12.07</b>
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya(NT)-Malanpur(PG)	-55	-69	-	120	0	1.74	-1.74
2	220KV-Badod(MP)-Kota(PG)	-78	-91	-	153	0	2.25	-2.25
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-
4	400KV-RAPS C(NP)-Sujalpur	-231	-128	-	275	0	4.06	-4.06
5	400KV-Vindhyachal(PG)-Rihand(N ..	-987	-853	-	991	0	23.25	-23.25
6	400KV-Zerda(PG)-Bhinmal(PG)	-139	-79	191	219	0	2.08	-2.08
7	400KV-Zerda(PG)-Kankroli(RJ)	-279	-250	0	350	0	5.97	-5.97
8	765KV-0rai-Gwalior(PG)	-321	-379	236	522	0	3.83	-3.83
9	765KV-0rai-Jabalpur	-55	407	958	55	10.89	0	10.89
10	765KV-0rai-Satna	1,609	1,586	1,595	0	21.42	0	21.42
11	765KV-Gwalior(PG)-Agra(PG)	1,290	1,366	1,629	0	32.02	0	32.02
12	765KV-Phagi(RJ)-Gwalior(PG)	849	939	1,166	-	21.6	0	21.6
13	HVDC500KV-Mundra(JH)-Mohind..	1,001	996	1,003	0	24.25	0	24.25
14	HVDC500KV-Vindhyachal(PG)-Vindhaychal B/B	-250	-150	0	250	0	5.67	-5.67
15	HVDC800KV-Champa(PG)-Kuruku..	900	900	900	0	20.15	0	20.15
<b>Sub-Total WEST REGION</b>		<b>3,254</b>	<b>4,195</b>	<b>7,678</b>	<b>2,935</b>	<b>130.33</b>	<b>48.85</b>	<b>81.48</b>
<b>TOTAL IR EXCHANGE</b>		<b>5,454</b>	<b>6,348</b>	<b>11,149</b>	<b>3,515</b>	<b>188.09</b>	<b>52.05</b>	<b>136.04</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	51.2	-22.44	5.73	34.49	42.49	8

NR-WR	154.32	-35.77	-7.16	111.39	81.48	-29.91
Total	205.52	-58.21	-1.43	145.88	136.04	-9.84

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)	-22.45	0	0	24	0	0.1424	-0.1424

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	.4	16	79.4	80.4	3.4	.1	0	3.6

<-----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.	
50.11	13:01:20	49.77	16:25:10	49.95	0.054	0.056	50.05	49.83	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	427	03:10	411	17:50	0	0	42.01	0	42.01
Amritsar(PG) - 400KV	426	03:40	410	17:50	0	0	38.89	0	38.89
Ballabgarh(PG) - 400KV	426	03:40	407	11:15	0	0	30.21	0	30.21
Bareilly II(PG) - 400KV	420	04:00	408	18:20	0	0	0	0	0
Bareilly(UP) - 400KV	421	04:00	409	18:15	0	0	4.86	0	4.86
Baspa(HP) - 400KV	429	03:05	412	17:50	0	0	44.44	0	44.44
Bassi(PG) - 400KV	420	20:40	397	06:25	0	0	.69	0	.69
Bawana(DTL) - 400KV	426	04:00	411	18:10	0	0	41.67	0	41.67
Dadri HVDC(PG) - 400KV	427	03:40	414	18:25	0	0	46.18	0	46.18
Gorakhpur(PG) - 400KV	419	03:05	407	18:20	0	0	0	0	0
Hisar(PG) - 400KV	424	20:35	424	20:35	26.04	26.04	14.93	0	40.97
Kanpur(PG) - 400KV	423	03:40	412	15:50	0	0	25	0	25
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	420	03:45	403	18:20	0	0	0	0	0
Moga(PG) - 400KV	419	20:35	405	11:20	0	0	0	0	0
Nallagarh(PG) - 400KV	429	03:05	412	17:50	0	0	44.44	0	44.44
Rihand HVDC(PG) - 400KV	407	13:05	403	09:15	0	0	0	0	0
Rihand(NT) - 400KV	406	13:05	403	09:15	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	792	20:35	770	06:25	0	0	0	0	0
Balia(PG) - 765KV	784	03:05	765	18:25	0	0	0	0	0
Bareilly II(PG) - 765KV	799	04:00	778	15:30	0	0	0	0	0
Bhiwani(PG) - 765KV	808	20:40	779	06:25	0	0	4.86	0	4.86
Fatehpur(PG) - 765KV	774	03:05	752	09:15	0	0	0	0	0
Jhatikara(PG) - 765KV	805	20:40	775	17:50	0	0	5.9	0	5.9
Lucknow II(PG) - 765KV	793	03:05	773	18:25	0	0	0	0	0
Meerut(PG) - 765KV	810	20:40	0	10:00	32.64	32.64	3.82	0	36.46
Moga(PG) - 765KV	799	20:40	761	06:40	0	0	0	0	0
Phagi(RJ) - 765KV	801	20:40	771	06:25	0	0	1.39	0	1.39
Unnao(UP) - 765KV	774	03:05	759	18:20	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	-1,680.35	591.06	0	-1,579.09	0	0	60.2	-38.71	3.15	24.64
HARYANA	-852.79	143.12	0	-811.97	118.19	0	84.01	-20.89	2.21	65.33
RAJASTHAN	-8.2	130.28	0	-8.2	-782.47	0	62.02	0.29	4.18	66.48
DELHI	-997.82	-517.02	0	-1,009.82	-253.96	0	75.91	-25.45	-7.92	42.54
UTTAR PRADESH	98.76	0	0	85.03	0	0	119.68	-4.28	-0.08	115.32
UTTARAKHAND	427.36	79.39	0	460.39	19.14	0	11.53	10.22	1.29	23.04
HIMACHAL PRADESH	324.56	-4.5	0	144.34	-238.8	0	14.11	7.33	-2.6	18.83
JAMMU & KASHMIR	504.51	0	0	504.51	0	0	25.14	12.11	0.82	38.08
CHANDIGARH	0	-30.3	0	0	-55.55	0	3.53	0	-0.92	2.61
<b>TOTAL</b>	<b>-2,183.97</b>	<b>392.03</b>	<b>0</b>	<b>-2,214.81</b>	<b>-1,193.45</b>	<b>0</b>	<b>456.13</b>	<b>-59.38</b>	<b>0.13</b>	<b>396.87</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	3,318.68	2,037.49	-1,579.09	-1,680.35	591.06	0	0	0
HARYANA	4,380.19	2,820.55	-729.1	-1,011.98	148.2	3.32	0	0
RAJASTHAN	3,365.66	1,855.37	88.81	-8.2	1,512.83	-792.69	0	0
DELHI	3,851.92	2,429.85	-865.89	-1,176.69	76.86	-857.39	0	0
UTTAR PRADESH	6,391.92	4,096.98	98.76	-476.3	24.44	-328.33	0	0
UTTARAKHAND	776.7	322.4	460.39	401.98	120.85	-129.65	0	0
HIMACHAL PRADESH	1,375.2	236.8	413.37	144.26	184.98	-588.58	0	0
JAMMU & KASHMIR	1,702.98	667.41	504.51	504.51	275.83	-254.43	0	0
CHANDIGARH	240.76	100.9	0	0	0	-99.99	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	508.06	1,456	505.02	1,312	273.51	245.96
Chamera-I	748.75	760	-	-	-	-	-	0
Gandhisagar	295.78	295.78	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	-	-	-	-	-	0
Koteshwar	598.5	612.5	609.68	4	610.59	5	155	162.28
Pong	384.05	426.72	419.95	889	414.94	669	83.08	396.46
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	521.83	4	509.97	3	105.1	184.09
Rihand	252.98	268.22	262.04	421	262.31	436	-	0
Tehri	740.04	829.79	822.95	1,065	819.6	994	90.04	155
<b>TOTAL</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,839</b>	<b>-</b>	<b>3,419</b>	<b>706.73</b>	<b>1,143.79</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	3	24
DELHI	3	21
HARYANA	0	11
HIMACHAL PRADESH	1	14
JAMMU & KASHMIR	3	22
PUNJAB	0	10
RAJASTHAN	3	17
UTTAR PRADESH	0	10
UTTARAKHAND	4	29

**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 :**

- |  |
|--|
| <ol style="list-style-type: none"><li>1. 220 kV Nehrian(HP) Jalandhar(PG) ckt-II First time charged at 13.57 hrs on 24.11.18.</li><li>2. 500 MVA ICT-3 at Tughlakabad PG charged for the first time on No load (from 400 KV side) at 1807 Hrs on 24.11.18.</li></ol> |
|--|

**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**