



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

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

Date of Reporting:28-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
42,322	657	42,979	50.05	31,061	288	31,349	50.04	898	12.12

**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	70.17	11.83	0	4.21	0	7.99	94.2	29.77	30.04	0.27	124.24	0	124.24
HARYANA	42.33	0.49	0	0.1	0	1.15	44.06	75.3	77.42	2.12	122.49	1.01	121.48
RAJASTHAN	133.22	4.31	1.75	9.12	4.64	4.36	157.4	70.25	73.5	3.25	230.9	0	230.9
DELHI	0	0	15.34	0	0	0.99	16.33	45.84	45.67	-0.17	62	0	62
UTTAR PRADESH	127.1	6.35	0	1.85	0	2.16	137.45	106.87	106.92	0.05	244.37	0	244.37
UTTARAKHAND	0	9.07	2.43	0.48	0	0.53	12.51	23.15	23.89	0.74	36.4	0	36.4
HIMACHAL PRADESH	0	4.93	0	0	0	3.59	8.52	19.22	19.71	0.49	28.33	0.1	28.23
JAMMU & KASHMIR	0	9.22	0	0	0	0	9.22	37.72	37.47	-0.25	57.7	11.01	46.69
CHANDIGARH	0	0	0	0	0	0	0	2.74	3.23	0.49	3.23	0	3.23
<b>Region</b>	<b>372.82</b>	<b>46.2</b>	<b>19.52</b>	<b>15.76</b>	<b>4.64</b>	<b>20.77</b>	<b>479.69</b>	<b>410.86</b>	<b>417.85</b>	<b>6.99</b>	<b>909.66</b>	<b>12.12</b>	<b>897.54</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	5,144	0	124	-1,581	3,609	0	-20	-1,090
HARYANA	6,149	93	70	-710	4,149	0	134	-685
RAJASTHAN	9,862	0	135	-395	8,250	0	14	-25
DELHI	3,260	0	84	-1,408	1,556	0	0	-1,649
UTTAR PRADESH	12,271	0	-97	85	9,732	0	-49	104
UTTARAKHAND	1,779	0	88	455	1,191	0	-13	423
HIMACHAL PRADESH	1,429	0	84	-100	865	0	-28	320
JAMMU & KASHMIR	2,257	564	106	445	1,631	288	-114	643
CHANDIGARH	171	0	23	-51	78	0	11	-35
<b>Region</b>	<b>42,322</b>	<b>657</b>	<b>617</b>	<b>-3,260</b>	<b>31,061</b>	<b>288</b>	<b>-65</b>	<b>-1,994</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	5,550	12:00	0	5,550	5,550	12:00	0	5,550	3,609	3:00
HARYANA	6,149	19:00	93	6,241	6,241	19:00	93	6,149	4,045	2:00
RAJASTHAN	11,624	10:00	0	11,624	11,624	10:00	0	11,624	7,527	5:00
DELHI	3,302	11:00	0	3,302	3,302	11:00	0	3,302	1,482	5:00
UP	12,333	20:00	140	12,473	12,473	20:00	140	12,333	9,732	3:00
UTTARAKHAND	1,892	7:00	0	1,892	1,892	7:00	0	1,892	1,188	2:00
HP	1,586	8:00	9	1,595	1,595	8:00	9	1,586	859	4:00
J&K	2,337	21:00	584	2,921	2,921	21:00	584	2,337	1,631	3:00
CHANDIGARH	187	9:00	0	187	187	9:00	0	187	78	3:00
NR	42,909	8:00	517	43,427	43,427	8:00	517	42,909	30,959	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	441	425	489		10.62	443
DELHI GAS TURBINES( 3 * 34 + 6 * 30 )	282	40	40	40.93		0.91	38
PRAGATI GAS TURBINES( 1 * 121.2 + 2 * 104.6 )	331	157	154	159.72		3.81	159
RITHALA GPS( 3 * 36 )	108	0	0	0			
<b>Total GAS/NAPHTHA/DIESEL</b>	<b>2,091</b>	<b>638</b>	<b>619</b>			<b>15.34</b>	<b>640</b>
WIND	0	0	0	0			
BIOMASS( 1 * 16 )	16	44	37	44.09		0.99	41
SOLAR( 1 * 2 )	2	0	0	0			
<b>Total DELHI</b>	<b>2,949</b>	<b>682</b>	<b>656</b>			<b>16.33</b>	<b>681</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	289	248	0		6.01	250
JHAJJAR(CLP)( 2 * 660 )	1,320	615	374	0		13.02	543
MAGNUM DIESEL (IPP)( 4 * 6.3 )	25	0	0	0			
PANIPAT TPS( 2 * 210 + 2 * 250 )	920	524	403	0		11.43	476
RGTPP( KHEDAR)( 2 * 600 )	1,200	560	395	0		11.87	495
<b>Total THERMAL</b>	<b>4,065</b>	<b>1,988</b>	<b>1,420</b>			<b>42.33</b>	<b>1,764</b>
FARIDABAD GPS( 1 * 156.07 + 2 * 137.75 )	432	0	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	9	14	0		0.49	20
<b>Total HYDEL</b>	<b>62</b>	<b>9</b>	<b>14</b>			<b>0.49</b>	<b>20</b>
WIND	0	0	0	0			
BIOMASS( 1 * 106 )	106	0	0	0		1.15	48
SOLAR( 1 * 50 )	50	0	0	0		0.1	4
<b>Total HARYANA</b>	<b>4,715</b>	<b>1,997</b>	<b>1,434</b>			<b>44.07</b>	<b>1,836</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	49	30	108		1.4	58
MALANA (IPP) HPS( 2 * 43 )	86	48	0	48		0.4	17
OTHER HYDRO HP( 1 * 372 )	372	146	114	0		3.13	130
<b>Total HYDEL</b>	<b>758</b>	<b>243</b>	<b>144</b>			<b>4.93</b>	<b>205</b>
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO( 1 * 486 )	486	184	128	0		3.59	150
<b>Total SMALL HYDRO</b>	<b>486</b>	<b>184</b>	<b>128</b>			<b>3.59</b>	<b>150</b>
<b>Total HP</b>	<b>1,244</b>	<b>427</b>	<b>272</b>			<b>8.52</b>	<b>355</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	237	237	0		6.33	264
OTHER HYDRO/IPP J&K( 1 * 308 )	308	141	119	0		2.89	120
<b>Total HYDEL</b>	<b>1,208</b>	<b>378</b>	<b>356</b>			<b>9.22</b>	<b>384</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>378</b>	<b>356</b>			<b>9.22</b>	<b>384</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	400	290	400		9.35	390
GURU GOBIND SINGH TPS (ROPAR)( 6 * 210 )	1,260	0	0	0		-0.09	-4
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)( 2 * 210 + 2 * 250 )	920	756	650	859		18.74	781
GURU NANAK DEV TPS (BHATINDA)( 4 * 110 )	460	0	0	0		-0.01	0
RAJPURA(NPL) TPS( 2 * 700 )	1,400	660	510	660		15.39	641
TALWANDI SABO TPS( 3 * 660 )	1,980	1,203	616	1,228		26.79	1,116
<b>Total THERMAL</b>	<b>6,560</b>	<b>3,019</b>	<b>2,066</b>			<b>70.17</b>	<b>2,924</b>
TOTAL HYDRO PUNJAB( 1 * 1000 )	1,000	372	365	613		11.83	493
<b>Total HYDEL</b>	<b>1,000</b>	<b>372</b>	<b>365</b>			<b>11.83</b>	<b>493</b>
WIND	0	0	0	0			
BIOMASS( 1 * 303 )	303	0	0	0		7.99	333
SOLAR( 1 * 859 )	859	0	0	382		4.21	175
<b>Total PUNJAB</b>	<b>8,722</b>	<b>3,391</b>	<b>2,431</b>			<b>94.2</b>	<b>3,925</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		5.42	226
CHHABRA TPS( 1 * 660 + 4 * 250 )	1,660	1,474	1,490	0		35.1	1,463
GIRAL (IPP) LTPS( 2 * 125 )	250	0	0	0			
KALISINDH TPS( 2 * 600 )	1,200	558	459	0		12.64	527
KAWAI TPS( 2 * 660 )	1,320	625	607	0		14.05	585
KOTA TPS( 2 * 110 + 2 * 195 + 3 * 210 )	1,240	1,034	817	0		23.28	970
RAJWEST (IPP) LTPS( 8 * 135 )	1,080	724	686	0		16.13	672
SURATGARH TPS( 6 * 250 )	1,500	1,113	920	0		24.85	1,035
VSLPP (IPP)( 1 * 135 )	135	55	21	0		1.76	73
<b>Total THERMAL</b>	<b>8,635</b>	<b>5,806</b>	<b>5,224</b>			<b>133.23</b>	<b>5,551</b>
DHOLPUR GPS( 3 * 110 )	330	0	0	0			
RAMGARH GPS( 1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5 )	271	70	72	0		1.75	73
<b>Total GAS/NAPHTHA/DIESEL</b>	<b>601</b>	<b>70</b>	<b>72</b>			<b>1.75</b>	<b>73</b>
RAPS-A( 1 * 100 + 1 * 200 )	300	159	163	0		3.72	155
<b>Total NUCLEAR</b>	<b>300</b>	<b>159</b>	<b>163</b>			<b>3.72</b>	<b>155</b>
TOTAL HYDRO RAJASTHAN( 1 * 550 )	550	170	122	0		4.31	180
<b>Total HYDEL</b>	<b>550</b>	<b>170</b>	<b>122</b>			<b>4.31</b>	<b>180</b>
WIND	4,292	116	87	0		4.64	193
BIOMASS( 1 * 102 )	102	27	27	0		0.64	27
SOLAR( 1 * 1995 )	1,995	7	0	0		9.12	380
<b>Total RAJASTHAN</b>	<b>16,475</b>	<b>6,355</b>	<b>5,695</b>			<b>157.41</b>	<b>6,559</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	1,351	1,155	0		33.14	1,381
ANPARA-C TPS( 2 * 600 )	1,200	1,078	611	0		24.57	1,024
ANPARA-D TPS( 2 * 500 )	1,000	952	946	0		21.74	906
BAJAJ ENERGY PVT LTD (IPP) TPS( 10 * 45 )	450	0	0	0			
BARA PPGCL TPS( 3 * 660 )	1,980	841	683	0		21.25	885
HARDUAGANJ TPS( 1 * 105 + 1 * 60 + 2 * 250 )	665	252	251	0		8.21	342
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	327	221	0		7.46	311
PANKI TPS( 2 * 105 )	210	0	0	0			
PARICHA TPS( 2 * 110 + 2 * 210 + 2 * 250 )	1,160	140	134	0		3.39	141
ROSA TPS( 4 * 300 )	1,200	0	0	0			
TANDA TPS( 4 * 110 )	440	324	219	0		7.35	306
<b>Total THERMAL</b>	<b>13,763</b>	<b>5,265</b>	<b>4,220</b>			<b>127.11</b>	<b>5,296</b>
ALAKHANDA HEP( 4 * 82.5 )	330	81	82	0		2	83
VISHNUPARYAG HPS( 4 * 110 )	440	108	103	0		2.48	103
OTHER HYDRO UP( 1 * 527 )	527	52	32	0		1.87	78
<b>Total HYDEL</b>	<b>1,297</b>	<b>241</b>	<b>217</b>			<b>6.35</b>	<b>264</b>
WIND	0	0	0	0			
BIOMASS( 1 * 26 )	26	0	0	0			
SOLAR( 1 * 472 )	472	0	0	0		1.85	77
CO-GENERATION( 1 * 1360 )	1,360	900	900	0		2.16	90
<b>Total OTHERs</b>	<b>1,360</b>	<b>900</b>	<b>900</b>			<b>2.16</b>	<b>90</b>
<b>Total UP</b>	<b>16,918</b>	<b>6,406</b>	<b>5,337</b>			<b>137.47</b>	<b>5,727</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	2.43	101			
Total GAS/NAPHTHA/DIESEL	450	95	95			2.43	101			
OTHER HYDRO UK( 1 * 1250 )	1,250	395	265	608	10:00	9.07	378			
Total HYDEL	1,250	395	265			9.07	378			
WIND	0	0	0	0						
BIOMASS( 1 * 127 )	127	23	21	23	15:00	0.53	22			
SOLAR( 1 * 100 )	100	0	0	80	13:00	0.48	20			
SMALL HYDRO( 1 * 180 )	180	0	0	0						
Total SMALL HYDRO	180	0	0			0	0			
Total UTTARAKHAND	2,107	513	381			12.51	521			

### 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	383.08	491	334	491	19:00	9.19	9.34	389	0.15
DEHAR HPS( 6 * 165 )	990	206.25	480	0	480	19:00	4.95	5.11	213	0.16
PONG HPS( 6 * 66 )	396	239.01	330	132	330	19:00	5.74	5.75	240	0.01
Sub-Total	2,765	828.34	1,301	466	-	-	19.88	20.2	842	0.32
<b>NHPC</b>										
BAIRASIUL HPS( 3 * 60 )	180	0	0	0	0	-	0	0	0	0
CHAMERA HPS( 3 * 180 )	540	535.58	499	0	537	06:45	2.8	3.05	127	0.25
CHAMERA II HPS( 3 * 100 )	300	170.54	161	0	200	07:00	1.71	1.77	74	0.06
CHAMERA III HPS( 3 * 77 )	231	129.38	79	0	131	07:00	1.15	1.21	50	0.06
DHAULIGANGA HPS( 4 * 70 )	280	70.23	283	73	283	19:00	1.64	1.68	70	0.04
DULHASTI HPS( 3 * 130 )	390	386.9	390	0	399	15:00	3.97	4.16	173	0.19
KISHANGANGA( 2 * 110 )	220	0	0	0	0	-	0	0	0	0
PARBATI III HEP( 4 * 130 )	520	33.38	265	0	265	19:00	0.8	0.81	34	0.01
SALAL HPS( 6 * 115 )	690	155.83	376	145	380	20:00	3.74	4.5	188	0.76
SEWA-II HPS( 3 * 40 )	120	80.09	81	0	83	18:00	0.45	0.5	21	0.05
TANAKPUR HPS( 1 * 31.42 + 2 * 31.4 )	94	36.25	36	34	66	18:00	0.87	0.93	39	0.06
URI HPS( 4 * 120 )	480	186.46	135	156	361	10:00	4.48	5.07	211	0.59
URI-II HPS( 4 * 60 )	480	114.06	81	122	183	01:00	2.74	2.83	118	0.09
Sub-Total	4,525	1,898.7	2,386	530	-	-	24.35	26.51	1,105	2.16
<b>NPCL</b>										
NAPS( 2 * 220 )	440	407	448	439	448	19:00	9.77	9.71	405	-0.06
RAPS-B( 2 * 220 )	440	194	194	194	194	19:00	4.66	4.66	194	0
RAPS-C( 2 * 220 )	440	420	475	473	475	19:00	10.08	10.23	426	0.15
Sub-Total	1,320	1,021	1,117	1,106	-	-	24.51	24.6	1,025	0.09
<b>NTPC</b>										
ANTA GPS( 1 * 153.2 + 3 * 88.71 )	419	399.4	0	0	0	-	0	0	0	0
AURAIYA GPS( 2 * 109.3 + 4 * 111.19 )	663	164.84	320	185	320	19:00	5.86	5.99	250	0.13
DADRI GPS( 2 * 154.51 + 4 * 130.19 )	830	402.08	406	225	406	19:00	7.42	7.48	312	0.06
DADRI SOLAR( 1 * 5 )	5	0.71	0	0	0	-	0.02	0	0	-0.02
DADRI-I TPS( 4 * 210 )	840	657.09	0	0	0	-	9.61	9.4	392	-0.21
DADRI-II TPS( 2 * 490 )	980	928.55	0	0	0	-	17.67	18.3	763	0.63
ISTPP (JHAJJAR)( 3 * 500 )	1,500	947.5	996	600	1,022	10:11	19.95	19.74	823	-0.21
KOLDAM HPS( 4 * 200 )	800	872	655	0	715	07:00	3	3.03	126	0.03
RIHAND-I STPS( 2 * 500 )	1,000	461.25	505	497	505	19:00	11.07	10.96	457	-0.11
RIHAND-II STPS( 2 * 500 )	1,000	942.5	1,099	1,024	1,099	19:00	22.49	22.76	948	0.27
RIHAND-III STPS( 2 * 500 )	1,000	770.69	500	998	500	19:00	18.4	18.27	761	-0.13
SINGRAULI STPS( 2 * 500 + 5 * 200 )	2,000	1,862.5	2,033	2,045	2,033	19:00	44.34	44.79	1,866	0.45
SINGRAULI SOLAR( 1 * 15 )	15	2.47	0	0	0	-	0.06	0.06	3	0
UNCHAHAH II TPS( 2 * 210 )	420	382.2	377	236	377	19:00	7.56	7.28	303	-0.28
UNCHAHAH III TPS( 1 * 210 )	210	191.1	190	118	190	19:00	3.7	3.55	148	-0.15
UNCHAHAH IV TPS( 1 * 500 )	500	0	0	0	0	-	0	-	-	0
UNCHAHAH SOLAR( 1 * 10 )	10	1.43	0	0	0	-	0.03	0.04	2	0.01
UNCHAHAH TPS( 2 * 210 )	420	382.2	376	250	376	19:00	7.56	7.35	306	-0.21
Sub-Total	12,612	9,368.51	7,457	6,178	-	-	178.74	179	7,460	0.26
<b>SJVNL</b>										
NATHPA-JHAKRI HPS( 6 * 250 )	1,500	1,497.38	1,480	0	1,536	07:00	8.8	9.05	377	0.25
RAMPUR HEP( 6 * 68.67 )	412	411.54	423	0	436	07:00	2.44	2.57	107	0.13
Sub-Total	1,912	1,908.92	1,903	0	-	-	11.24	11.62	484	0.38
<b>THDC</b>										
KOTESHWAR HPS( 4 * 100 )	400	91.25	101	91	101	19:00	2.19	2.22	93	0.03
TEHRI HPS( 4 * 250 )	1,000	1,064	985	0	1,005	07:00	6.8	6.94	289	0.14
Sub-Total	1,400	1,155.25	1,086	91	-	-	8.99	9.16	382	0.17
Total	24,534	16,180.72	15,250	8,371			267.71	271.09	11,298	3.38

## 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	69	0	71	18:00	0.31	0.31	13	0
KARCHAM WANGTOO HPS( 4 * 250 )	1,000	0	1,000	0	1,000	18:00	4.66	4.73	197	0.07
MALANA2( 2 * 50 )	100	0	0	0	0	-	0	-	-	0
SAINJ HEP( 2 * 50 )	50	0	100	0	100	05:15	0.64	0.65	27	0.01
SHREE CEMENT (IPP) TPS( 2 * 150 )	300	0	146	86	147	09:00	2.58	2.46	103	-0.12
<b>Sub-Total</b>	<b>1,712</b>	<b>0</b>	<b>1,315</b>	<b>86</b>	<b>-</b>	<b>-</b>	<b>8.19</b>	<b>8.15</b>	<b>340</b>	<b>-0.04</b>
<b>Total</b>	<b>1,712</b>	<b>0</b>	<b>1,315</b>	<b>86</b>	<b>-</b>	<b>-</b>	<b>8.19</b>	<b>8.15</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	20,149	16,562	479.73	19,989
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		6,867	8,438	160.2	8,192
Total Regional Availability(Gross)	80,872	43,581	33,457	919.17	39,816

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	8,500	1,087	76.21	3,175
State Control Area Hydro	6,125	1,808	1,483	46.2	1,925
Total Regional Hydro	18,939	10,308	2,570	122.41	5,100

Total Renewable Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Renewable	30	0	0	0.1	4
State Control Area Renewable	9,214	401	300	35.29	1,470
Total Regional Renewable	9,244	401	300	35.39	1,474

## 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)	111	80	113	0	2.32	0	2.32
5	400KV-Biharsharif(PG)-Baliala(PG)	20	23	200	0	1.91	0	1.91
6	400KV-Biharsharif(PG)-Varanasi(P..	73	-5	61	113	0	0.92	-0.92
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-
8	400KV-Motihari(DMT)-Gorakhpur ..	238	284	342	0	7.06	0	7.06
9	400KV-Muzaffarpur(PG)-Gorakhp ..	42	84	214	146	0.19	0	0.19
10	400KV-Patna(PG)-Baliala(PG)	458	565	666	0	14.06	0	14.06
11	400KV-Sasaram-Allahabad(PG)	-18	132	151	88	1.48	0	1.48
12	400KV-Sasaram-Varanasi(PG)	-26	210	219	47	2.72	0	2.72
13	765KV-Fatehpur(PG)-Sasaram.	61	-61	207	88	0.96	0	0.96
14	765KV-Gaya(PG)-Baliala(PG)	70	133	230	0	3.79	0	3.79
15	765KV-Gaya(PG)-Varanasi(PG)	-77	-343	394	23	4.79	0	4.79
16	HVDC800KV-Alipurduar-Agra(PG)	300	450	450	0	15.1	0	15.1
<b>Sub-Total EAST REGION</b>		<b>1,252</b>	<b>1,552</b>	<b>3,247</b>	<b>505</b>	<b>54.38</b>	<b>0.92</b>	<b>53.46</b>
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli- ..	600	650	740	0	10.06	0	10.06
<b>Sub-Total NORTH_EAST REGION</b>		<b>600</b>	<b>650</b>	<b>740</b>	<b>0</b>	<b>10.06</b>	<b>0</b>	<b>10.06</b>
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya(NT)-Malanpur(PG)	-137	-94	-	190	0	3.3	-3.3
2	220KV-Badod(MP)-Kota(PG)	-59	-65	14	150	0	1.32	-1.32
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-
4	400KV-RAPS C(NP)-Sujalpur	-38	-28	126	117	0	0.72	-0.72
5	400KV-Vindhyachal(PG)-Rihand(N ..	702	870	-	981	0	18.27	-18.27
6	400KV-Zerda(PG)-Bhinmal(PG)	-112	-48	163	146	0	0.71	-0.71
7	400KV-Zerda(PG)-Kankroli(RJ)	-236	-205	0	253	0	4.53	-4.53
8	765KV-0rai-Gwalior(PG)	-274	-388	0	538	0	9.33	-9.33
9	765KV-0rai-Jabalpur	30	422	731	104	11.3	0	11.3
10	765KV-0rai-Satna	1,457	1,515	1,663	0	36.57	0	36.57
11	765KV-Gwalior(PG)-Agra(PG)	950	1,290	1,620	0	28.9	0	28.9
12	765KV-Phagi(RJ)-Gwalior(PG)	781	1,019	1,419	-	23.88	0	23.88
13	HVDC500KV-Mundra(JH)-Mohind..	801	798	803	0	19.43	0	19.43
14	HVDC500KV-Vindhyachal(PG)-Vindhaychal B/B	250	250	0	250	0	6.04	-6.04
15	HVDC800KV-Champa(PG)-Kuruku..	900	900	900	0	20.82	0	20.82
<b>Sub-Total WEST REGION</b>		<b>5,015</b>	<b>6,236</b>	<b>7,439</b>	<b>2,729</b>	<b>140.9</b>	<b>44.22</b>	<b>96.68</b>
<b>TOTAL IR EXCHANGE</b>		<b>6,867</b>	<b>8,438</b>	<b>11,426</b>	<b>3,234</b>	<b>205.34</b>	<b>45.14</b>	<b>160.2</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	54.83	-21.68	10.62	43.77	53.46	9.69

NR-WR	157.07	-38.1	-3.6	115.37	96.68	-18.69
Total	211.9	-59.78	7.02	159.14	160.2	1.06

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)	23.38	0	0	23	0	0.3135	-0.3135

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	.5	13	63.7	76.1	8.8	2.2	0	11

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

Maximum		Minimum		Average	Freq Variation	Standard	Freq. in 15 mnt blk		Freq Dev Index
Frequency	Time	Frequency	Time	Frequency	Index	Deviation	Max.	Min.	(% of Time)
50.15	22:00:40	49.75	17:29:30	49.97	0.049	0.065	50.1	49.83	23.9

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	04:00	412	07:20	0	0	44.1	0	44.1
Amritsar(PG) - 400KV	430	04:00	414	11:10	0	0	40.97	.35	40.97
Ballabgarh(PG) - 400KV	428	04:00	408	09:15	0	0	42.36	0	42.36
Bareilly II(PG) - 400KV	421	04:00	404	09:40	0	0	1.04	0	1.04
Bareilly(UP) - 400KV	423	04:00	405	09:40	0	0	6.25	0	6.25
Baspa(HP) - 400KV	432	04:05	412	06:45	0	0	45.14	2.78	45.14
Bassi(PG) - 400KV	419	20:55	394	09:15	0	0	0	0	0
Bawana(DTL) - 400KV	428	04:00	412	06:55	0	0	44.1	0	44.1
Dadri HVDC(PG) - 400KV	429	04:00	415	07:20	0	0	60.07	0	60.07
Gorakhpur(PG) - 400KV	419	04:00	407	11:05	0	0	0	0	0
Hisar(PG) - 400KV	425	04:00	425	04:00	34.03	34.03	13.89	0	47.92
Kanpur(PG) - 400KV	425	04:00	411	09:15	0	0	22.22	0	22.22
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	420	04:00	406	11:15	0	0	0	0	0
Moga(PG) - 400KV	421	04:00	404	09:45	0	0	1.04	0	1.04
Nallagarh(PG) - 400KV	432	04:05	412	06:45	0	0	45.14	2.78	45.14
Rihand HVDC(PG) - 400KV	406	04:00	406	04:00	.35	.35	0	0	.35
Rihand(NT) - 400KV	405	04:00	401	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	797	04:05	774	09:25	0	0	0	0	0
Balia(PG) - 765KV	786	04:00	765	11:10	0	0	0	0	0
Bareilly II(PG) - 765KV	803	04:00	770	09:40	0	0	1.39	0	1.39
Bhiwani(PG) - 765KV	807	04:00	777	06:45	0	0	12.15	0	12.15
Fatehpur(PG) - 765KV	787	18:45	753	09:15	0	0	0	0	0
Jhatikara(PG) - 765KV	804	04:00	772	06:55	0	0	3.47	0	3.47
Lucknow II(PG) - 765KV	796	04:00	767	11:10	0	0	0	0	0
Meerut(PG) - 765KV	803	04:00	771	07:20	0	0	3.13	0	3.13
Moga(PG) - 765KV	791	18:55	759	06:55	0	0	0	0	0
Phagi(RJ) - 765KV	799	20:55	771	08:50	0	0	0	0	0
Unnao(UP) - 765KV	748	00:00	748	00:00	0	0	0	0	0

**7(A). Short-Term Open Access Details:**

State	Off- Peak Hours (03:00)			Peak Hours (19:00)			Day Energy (MU)			
	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MW)	IEX (MW)	PXIL (MW)	ISGS/(LT+MT) Schedule	BILT Schedule	PX Schedule	Total (MU)
PUNJAB	-1,681.87	592.02	0	-1,580.53	0	0	61.53	-38.74	6.98	29.77
HARYANA	-842.83	158.14	0	-772.77	63.11	0	92.08	-19.31	2.51	75.3
RAJASTHAN	-87.74	62.93	0	-96.51	-298.92	0	66.76	-1.72	5.19	70.25
DELHI	-1,026.76	-622.17	0	-1,038.47	-369.82	0	78.16	-26.15	-6.17	45.84
UTTAR PRADESH	104.26	0	0	85.46	0	0	111.89	-4.23	-0.78	106.87
UTTARAKHAND	418.09	4.98	0	418.55	36.12	0	11.99	9.87	1.29	23.15
HIMACHAL PRADESH	321.59	-1.13	0	112.09	-211.67	0	14.49	7.16	-2.43	19.22
JAMMU & KASHMIR	495.36	148	0	495.36	-50.67	0	23.37	11.89	2.46	37.72
CHANDIGARH	0	-35.47	0	0	-50.67	0	3.61	0	-0.87	2.74
<b>TOTAL</b>	<b>-2,299.9</b>	<b>307.3</b>	<b>0</b>	<b>-2,376.82</b>	<b>-882.52</b>	<b>0</b>	<b>463.88</b>	<b>-61.23</b>	<b>8.18</b>	<b>410.86</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	3,320.99	2,255.89	-1,580.53	-1,681.87	592.02	0	0	0
HARYANA	4,649.68	3,246.02	-473.89	-1,026.2	161.86	-404.14	0	0
RAJASTHAN	3,821.05	2,178.03	0.16	-96.51	1,700.48	-599.87	0	0
DELHI	3,914.62	2,466.91	-894.37	-1,206.03	249.66	-762.04	0	0
UTTAR PRADESH	5,878.66	3,981.99	104.26	-471.5	29.23	-554.53	0	0
UTTARAKHAND	819.28	289.8	455.49	357.58	200.91	-85.42	0	0
HIMACHAL PRADESH	1,403.36	261.52	409.65	101.86	192.92	-635.51	0	0
JAMMU & KASHMIR	1,571	713.65	495.36	495.36	315.74	-202.7	0	0
CHANDIGARH	256.59	100.56	0	0	0	-99.93	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	508.02	1,456	504.75	1,299	227.41	249.44
Chamera-I	748.75	760	756.22	-	-	-	66.55	82.38
Gandhisagar	295.78	295.78	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	-	-	-	-	-	0
Koteshwar	598.5	612.5	609.55	4	611.04	5	152	146.73
Pong	384.05	426.72	419.62	876	414.7	669	90.64	333.52
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	521.62	3	509.5	3	89.44	195.88
Rihand	252.98	268.22	261.98	418	262.28	435	-	1,167.53
Tehri	740.04	829.79	822.4	1,053	819	982	117.25	152
<b>TOTAL</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,810</b>	<b>-</b>	<b>3,393</b>	<b>743.29</b>	<b>2,327.48</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	4	28
DELHI	7	55
HARYANA	0	11
HIMACHAL PRADESH	2	17
JAMMU & KASHMIR	0	12
PUNJAB	0	11
RAJASTHAN	3	46
UTTAR PRADESH	0	9
UTTARAKHAND	5	38

**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 :**

Kurukshetra HVDC: sub bank-3 of ACF-5 first time charged at 1625 hrs discharged at 16.35 Hrs

**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**