



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

Power Supply Position in Northern Region For 22-Oct-2018

Date of Reporting:23-Oct-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
43,545	1,582	45,127	50.04	34,291	234	34,525	50.04	942	11.63

**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	64.87	13.38	0	4.29	0	8.3	90.83	42.28	41.47	-0.81	132.3	0	132.3
HARYANA	38.86	1.01	0	0.15	0	0.33	40.34	92.44	91.75	-0.69	133.43	1.34	132.09
RAJASTHAN	146.22	2.02	2.23	13.97	6.01	4.26	174.72	36.89	36.15	-0.74	210.87	0	210.87
DELHI	-0.04	0	15.62	0	0	0.93	16.51	57.56	56.26	-1.3	72.77	0	72.77
UTTAR PRADESH	159.16	12.96	0	2.61	0	2.4	177.13	113.86	113.81	-0.05	292.06	1.12	290.94
UTTARAKHAND	0	13.02	7.12	0.76	0	0	20.9	12.7	14.14	1.44	35.04	0	35.04
HIMACHAL PRADESH	0	7.12	0	0	0	4.81	11.93	13.44	14.16	0.72	26.26	0.17	26.09
JAMMU & KASHMIR	0	8.24	0	0	0	0	8.24	35.78	30.49	-5.29	47.73	9	38.73
CHANDIGARH	0	0	0	0	0	0	0	3.43	3.3	-0.13	3.3	0	3.3
<b>Region</b>	<b>409.07</b>	<b>57.75</b>	<b>24.97</b>	<b>21.78</b>	<b>6.01</b>	<b>21.03</b>	<b>540.6</b>	<b>408.38</b>	<b>401.53</b>	<b>-6.85</b>	<b>953.76</b>	<b>11.63</b>	<b>942.13</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	5,730	0	22	-1,549	4,032	0	-34	-1,448
HARYANA	6,438	0	9	-498	4,877	0	-137	152
RAJASTHAN	8,872	0	-195	-1,583	7,827	0	18	-2,036
DELHI	3,652	0	-80	-772	2,302	0	-28	-1,241
UTTAR PRADESH	13,752	1,140	-90	185	11,875	0	-18	655
UTTARAKHAND	1,821	0	147	-317	1,187	0	18	-76
HIMACHAL PRADESH	1,329	0	-8	-743	781	0	44	-44
JAMMU & KASHMIR	1,767	442	-288	339	1,325	234	-389	300
CHANDIGARH	184	0	-16	-60	85	0	-13	-15
<b>Region</b>	<b>43,545</b>	<b>1,582</b>	<b>-499</b>	<b>-4,998</b>	<b>34,291</b>	<b>234</b>	<b>-539</b>	<b>-3,753</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 requirement
PUNJAB	5,820	11:00	0	5,820	5,820	11:00	0	5,820
HARYANA	6,438	19:00	0	6,438	6,438	19:00	0	6,438
RAJASTHAN	10,296	8:00	0	10,296	10,296	8:00	0	10,296
DELHI	3,652	19:00	0	3,652	3,652	19:00	0	3,652
UP	13,934	20:00	150	14,084	14,084	20:00	150	13,934
UTTARAKHAND	1,821	19:00	0	1,821	1,821	19:00	0	1,821
HP	1,429	8:00	0	1,429	1,429	8:00	0	1,429
J&K	1,926	7:00	481	2,407	2,407	7:00	481	1,926
CHANDIGARH	184	19:00	0	184	184	19:00	0	184
NR	43,545	19:00	1,582	45,127	45,127	19:00	1,582	43,545

**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	0		-0.04	-2
RAJGHAT TPS( 2 * 67.5 )	135	0	0	0			
<b>Total THERMAL</b>	<b>840</b>	<b>-3</b>	<b>-3</b>			<b>-0.04</b>	<b>-2</b>
BAWANA GPS( 2 * 253 + 4 * 216 )	1,370	477	471	0		10.94	456
DELHI GAS TURBINES( 3 * 34 + 6 * 30 )	282	40	40	0		0.83	35
PRAGATI GAS TURBINES( 1 * 121.2 + 2 * 104.6 )	331	156	156	0		3.86	161
RITHALA GPS( 3 * 36 )	108	0	0	0			
<b>Total GAS/NAPHTHA/DIESEL</b>	<b>2,091</b>	<b>673</b>	<b>667</b>			<b>15.63</b>	<b>652</b>
WIND	0	0	0	0			
BIOMASS( 1 * 16 )	16	38	41	0		0.93	39
SOLAR( 1 * 2 )	2	0	0	0			
<b>Total DELHI</b>	<b>2,949</b>	<b>708</b>	<b>705</b>			<b>16.52</b>	<b>689</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	0	0	0		0.07	3
JHAJJAR(CLP)( 2 * 660 )	1,320	590	495	0		13.55	565
MAGNUM DIESEL (IPP)( 4 * 6.3 )	25	0	0	0			
PANIPAT TPS( 2 * 210 + 2 * 250 )	920	229	0	0		3.78	158
RGTPP( KHEDAR)( 2 * 600 )	1,200	1,030	776	0		21.46	894
<b>Total THERMAL</b>	<b>4,065</b>	<b>1,849</b>	<b>1,271</b>			<b>38.86</b>	<b>1,620</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	41	42	0		1.01	42
<b>Total HYDEL</b>	<b>62</b>	<b>41</b>	<b>42</b>			<b>1.01</b>	<b>42</b>
WIND	0	0	0	0			
BIOMASS( 1 * 106 )	106	0	0	0		0.33	14
SOLAR( 1 * 50 )	50	0	0	0		0.15	6
<b>Total HARYANA</b>	<b>4,715</b>	<b>1,890</b>	<b>1,313</b>			<b>40.35</b>	<b>1,682</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	59	59	0		1.96	82
MALANA (IPP) HPS( 2 * 43 )	86	70	0	0		0.55	23
OTHER HYDRO HP( 1 * 372 )	372	269	167	0		4.61	192
<b>Total HYDEL</b>	<b>758</b>	<b>398</b>	<b>226</b>			<b>7.12</b>	<b>297</b>
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO( 1 * 486 )	486	262	217	0		4.81	200
<b>Total SMALL HYDRO</b>	<b>486</b>	<b>262</b>	<b>217</b>			<b>4.81</b>	<b>200</b>
<b>Total HP</b>	<b>1,244</b>	<b>660</b>	<b>443</b>			<b>11.93</b>	<b>497</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	258	256	258		6.14	256
OTHER HYDRO/IPP J&K( 1 * 308 )	308	109	67	120		2.09	87
<b>Total HYDEL</b>	<b>1,208</b>	<b>367</b>	<b>323</b>			<b>8.23</b>	<b>343</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>367</b>	<b>323</b>			<b>8.23</b>	<b>343</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	160	160	160		3.9	163
GURU GOBIND SINGH TPS (ROPAR)( 6 * 210 )	1,260	0	0	0		-0.11	-5
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)( 2 * 210 + 2 * 250 )	920	0	0	0		-0.1	-4
GURU NANAK DEV TPS (BHATINDA)( 4 * 110 )	460	0	0	0		-0.09	-4
RAJPURA(NPL) TPS( 2 * 700 )	1,400	1,320	1,320	1,320		31.64	1,318
TALWANDI SABO TPS( 3 * 660 )	1,980	1,138	1,175	1,400		29.63	1,235
<b>Total THERMAL</b>	<b>6,560</b>	<b>2,618</b>	<b>2,655</b>			<b>64.87</b>	<b>2,703</b>
TOTAL HYDRO PUNJAB( 1 * 1000 )	1,000	557	429	616		13.38	558
<b>Total HYDEL</b>	<b>1,000</b>	<b>557</b>	<b>429</b>			<b>13.38</b>	<b>558</b>
WIND	0	0	0	0			
BIOMASS( 1 * 303 )	303	0	0	0		8.3	346
SOLAR( 1 * 859 )	859	0	0	585		4.29	179
<b>Total PUNJAB</b>	<b>8,722</b>	<b>3,175</b>	<b>3,084</b>			<b>90.84</b>	<b>3,786</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	189	187	0		4.41	184
CHHABRA TPS( 1 * 660 + 4 * 250 )	1,660	1,578	1,507	0		35.87	1,495
GIRAL (IPP) LTPS( 2 * 125 )	250	0	0	0			
KALISINDH TPS( 2 * 600 )	1,200	561	558	0		13.58	566
KAWAI TPS( 2 * 660 )	1,320	1,245	1,214	0		29.38	1,224
KOTA TPS( 2 * 110 + 2 * 195 + 3 * 210 )	1,240	737	674	0		14.82	618
RAJWEST (IPP) LTPS( 8 * 135 )	1,080	856	838	0		20.67	861
SURATGARH TPS( 6 * 250 )	1,500	1,117	1,080	0		27.5	1,146
VSLPP (IPP)( 1 * 135 )	135	0	0	0			
<b>Total THERMAL</b>	<b>8,635</b>	<b>6,283</b>	<b>6,058</b>			<b>146.23</b>	<b>6,094</b>
DHOLPUR GPS( 3 * 110 )	330	0	0	0			
RAMGARH GPS( 1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5 )	271	90	91	0		2.23	93
<b>Total GAS/NAPHTHA/DIESEL</b>	<b>601</b>	<b>90</b>	<b>91</b>			<b>2.23</b>	<b>93</b>
RAPS-A( 1 * 100 + 1 * 200 )	300	164	159	0		3.77	157
<b>Total NUCLEAR</b>	<b>300</b>	<b>164</b>	<b>159</b>			<b>3.77</b>	<b>157</b>
TOTAL HYDRO RAJASTHAN( 1 * 550 )	550	119	76	0		2.02	84
<b>Total HYDEL</b>	<b>550</b>	<b>119</b>	<b>76</b>			<b>2.02</b>	<b>84</b>
WIND	4,292	111	442	0		6.01	250
BIOMASS( 1 * 102 )	102	21	21	0		0.5	21
SOLAR( 1 * 1995 )	1,995	259	0	0		13.97	582
<b>Total RAJASTHAN</b>	<b>16,475</b>	<b>7,047</b>	<b>6,847</b>			<b>174.73</b>	<b>7,281</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	1,295	1,158	0		30.11	1,255
ANPARA-C TPS( 2 * 600 )	1,200	1,092	1,082	0		26.55	1,106
ANPARA-D TPS( 2 * 500 )	1,000	787	938	0		20.48	853
BAJAJ ENERGY PVT LTD (IPP) TPS( 10 * 45 )	450	0	0	0			
BARA PPGCL TPS( 3 * 660 )	1,980	1,025	992	0		23.11	963
HARDUAGANJ TPS( 1 * 105 + 1 * 60 + 2 * 250 )	665	317	313	0		6.7	279
LALITPUR TPS( 3 * 660 )	1,980	602	337	0		10.07	420
MEJA TPS( 1 * 660 )	660	0	0	0			
OBRA TPS ( 2 * 94 + 5 * 200 )	1,188	0	0	0			
PANKI TPS( 2 * 105 )	210	0	0	0			
PARICHA TPS( 2 * 110 + 2 * 210 + 2 * 250 )	1,160	888	676	0		17.61	734
ROSA TPS( 4 * 300 )	1,200	865	692	0		18.35	765
TANDA TPS( 4 * 110 )	440	162	398	0		6.19	258
<b>Total THERMAL</b>	<b>13,763</b>	<b>7,033</b>	<b>6,586</b>			<b>159.17</b>	<b>6,633</b>
ALAKHANDA HEP( 4 * 82.5 )	330	157	157	0		3.36	140
VISHNUPARYAG HPS( 4 * 110 )	440	177	167	0		3.99	166
OTHER HYDRO UP( 1 * 527 )	527	233	254	0		5.62	234
<b>Total HYDEL</b>	<b>1,297</b>	<b>567</b>	<b>578</b>			<b>12.97</b>	<b>540</b>
WIND	0	0	0	0			
BIOMASS( 1 * 26 )	26	0	0	0			
SOLAR( 1 * 472 )	472	0	0	0		2.61	109
CO-GENERATION( 1 * 1360 )	1,360	100	100	0		2.4	100
<b>Total OTHERs</b>	<b>1,360</b>	<b>100</b>	<b>100</b>			<b>2.4</b>	<b>100</b>
<b>Total UP</b>	<b>16,918</b>	<b>7,700</b>	<b>7,264</b>			<b>177.15</b>	<b>7,382</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	292	303	307	07:00	7.12	297			
Total GAS/NAPHTHA/DIESEL	450	292	303			7.12	297			
OTHER HYDRO UK( 1 * 1250 )	1,250	688	531	700	21:00	13.02	543			
Total HYDEL	1,250	688	531			13.02	543			
WIND	0	0	0	0						
BIOMASS( 1 * 127 )	127	0	0	0						
SOLAR( 1 * 100 )	100	0	0	100	12:00	0.76	32			
SMALL HYDRO( 1 * 180 )	180	0	0	0						
Total SMALL HYDRO	180	0	0			0	0			
Total UTTARAKHAND	2,107	980	834			20.9	872			

### 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	562.59	1,082	410	1,083	20:00	13.5	13.67	570	0.17
DEHAR HPS( 6 * 165 )	990	289.38	645	165	645	19:00	6.94	7.22	301	0.28
PONG HPS( 6 * 66 )	396	324	330	330	330	01:00	7.78	7.86	328	0.08
Sub-Total	2,765	1,175.97	2,057	905	-	-	28.22	28.75	1,199	0.53
<b>NHPC</b>										
BAIRASIUL HPS( 3 * 60 )	180	0	0	0	0	-	0	0	0	0
CHAMERA HPS( 3 * 180 )	540	466.95	364	0	373	05:45	3.5	3.67	153	0.17
CHAMERA II HPS( 3 * 100 )	300	169.72	298	115	302	22:00	2.85	3.03	126	0.18
CHAMERA III HPS( 3 * 77 )	231	80.94	238	80	238	19:00	1.92	1.99	83	0.07
DHAULIGANGA HPS( 4 * 70 )	280	97.37	141	142	143	23:00	2.32	2.3	96	-0.02
DULHASTI HPS( 3 * 130 )	390	386.9	391	133	406	07:00	5.8	6.08	253	0.28
KISHANGANGA( 2 * 110 )	220	79.79	201	62	201	19:00	1.92	2.08	87	0.16
PARBATI III HEP( 4 * 130 )	520	48.52	389	0	392	18:30	1.16	1.17	49	0.01
SALAL HPS( 6 * 115 )	690	182.5	315	228	520	08:00	4.38	5.12	213	0.74
SEWA-II HPS( 3 * 40 )	120	119.54	114	0	122	20:00	0.6	0.61	25	0.01
TANAKPUR HPS( 1 * 31.42 + 2 * 31.4 )	94	57.97	70	93	96	14:00	1.39	1.55	65	0.16
URI HPS( 4 * 120 )	480	157.81	151	160	362	18:00	3.79	4.53	189	0.74
URI-II HPS( 4 * 60 )	480	103.59	83	118	183	11:00	2.49	2.56	107	0.07
Sub-Total	4,525	1,951.6	2,755	1,131	-	-	32.12	34.69	1,446	2.57
<b>NPCL</b>										
NAPS( 2 * 220 )	440	391	434	439	434	19:00	9.38	9.49	395	0.11
RAPS-B( 2 * 220 )	440	200	219	219	219	19:00	4.8	4.62	193	-0.18
RAPS-C( 2 * 220 )	440	420	463	464	465	11:00	10.08	10.08	420	0
Sub-Total	1,320	1,011	1,116	1,122	-	-	24.26	24.19	1,008	-0.07
<b>NTPC</b>										
ANTA GPS( 1 * 153.2 + 3 * 88.71 )	419	243.18	325	0	378	19:44	2.22	2.31	96	0.09
AURAIYA GPS( 2 * 109.3 + 4 * 111.19 )	663	182.4	544	193	623	20:00	6.92	7.66	319	0.74
DADRI GPS( 2 * 154.51 + 4 * 130.19 )	830	524.9	619	0	619	19:00	3.54	3.9	163	0.36
DADRI SOLAR( 1 * 5 )	5	0.87	0	0	0	-	0.02	0.02	1	0
DADRI-I TPS( 4 * 210 )	840	576.45	591	401	591	19:00	11.84	11.67	486	-0.17
DADRI-II TPS( 2 * 490 )	980	928.55	929	966	929	19:00	20.69	20.63	860	-0.06
ISTPP (JHAJJAR)( 3 * 500 )	1,500	947.5	888	989	1,017	16:50	22.44	22.25	927	-0.19
KOLDAM HPS( 4 * 200 )	800	872	662	0	780	20:00	4.75	4.95	206	0.2
RIHAND-I STPS( 2 * 500 )	1,000	922.5	1,002	999	1,002	19:00	22.13	23.67	986	1.54
RIHAND-II STPS( 2 * 500 )	1,000	942.5	1,005	998	1,005	19:00	22.53	22.78	949	0.25
RIHAND-III STPS( 2 * 500 )	1,000	471.25	514	511	514	19:00	11.28	10.95	456	-0.33
SINGRAULI STPS( 2 * 500 + 5 * 200 )	2,000	1,809.27	1,965	1,957	1,977	12:00	43.42	43.58	1,816	0.16
SINGRAULI SOLAR( 1 * 15 )	15	2.53	0	0	0	-	0.06	0.06	3	0
UNCHAHAH II TPS( 2 * 210 )	420	382.2	366	274	366	19:00	8.49	8.95	373	0.46
UNCHAHAH III TPS( 1 * 210 )	210	191.1	169	180	169	19:00	4.2	4.57	190	0.37
UNCHAHAH IV TPS( 1 * 500 )	500	0	0	0	0	-	0	-	-	0
UNCHAHAH SOLAR( 1 * 10 )	10	2.1	0	0	0	-	0.05	0.04	2	-0.01
UNCHAHAH TPS( 2 * 210 )	420	382.2	369	366	369	19:00	8.7	9.38	391	0.68
Sub-Total	12,612	9,381.5	9,948	7,834	-	-	193.28	197.37	8,224	4.09
<b>SJVNL</b>										
NATHPA-JHAKRI HPS( 6 * 250 )	1,500	1,497.38	1,510	0	1,565	18:00	12.3	12.88	537	0.58
RAMPUR HEP( 6 * 68.67 )	412	442	428	0	443	18:00	3.42	3.61	150	0.19
Sub-Total	1,912	1,939.38	1,938	0	-	-	15.72	16.49	687	0.77
<b>THDC</b>										
KOTESHWAR HPS( 4 * 100 )	400	70	62	70	71	11:00	1.68	1.72	72	0.04
TEHRI HPS( 4 * 250 )	1,000	1,064	1,019	0	1,019	19:00	5.1	5.26	219	0.16
Sub-Total	1,400	1,134	1,081	70	-	-	6.78	6.98	291	0.2
Total	24,534	16,593.45	18,895	11,062			300.38	308.47	12,855	8.09

## 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	144	0	149	18:00	1.19	1.22	51	0.03
BUDHIL HPS (IPP)( 2 * 35 )	70	0	69	0	70	18:00	0.51	0.53	22	0.02
KARCHAM WANGTOO HPS( 4 * 250 )	1,000	0	1,000	0	1,000	18:30	6.71	6.89	287	0.18
MALANA2( 2 * 50 )	100	0	30	15	105	20:00	0.53	0.57	24	0.04
SAINJ HEP( 2 * 50 )	50	0	100	25	100	04:15	0.98	0.93	39	-0.05
SHREE CEMENT (IPP) TPS( 2 * 150 )	300	0	296	296	299	10:00	7.13	7.1	296	-0.03
<b>Sub-Total</b>	<b>1,712</b>	<b>0</b>	<b>1,639</b>	<b>336</b>	<b>-</b>	<b>-</b>	<b>17.05</b>	<b>17.24</b>	<b>719</b>	<b>0.19</b>
<b>Total</b>	<b>1,712</b>	<b>0</b>	<b>1,639</b>	<b>336</b>	<b>-</b>	<b>-</b>	<b>17.05</b>	<b>17.24</b>	<b>719</b>	<b>0.19</b>

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	54,626	22,527	20,813	540.65	22,527
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		4,944	5,218	103.79	4,886
Total Regional Availability(Gross)	80,872	48,005	37,429	970.15	40,984

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,814	9,836	2,146	102	4,250
State Control Area Hydro	6,125	2,737	2,205	57.75	2,406
Total Regional Hydro	18,939	12,573	4,351	159.75	6,656

Total Renewable Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Renewable	30	0	0	0.12	5
State Control Area Renewable	9,214	691	721	42.66	1,778
Total Regional Renewable	9,244	691	721	42.78	1,783

## 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 ..	-	-	-	-	0.46	0	0.46
3	132KV-Rihand-Sonnagar(PG)	20	31	-	36	0	0.72	-0.72
4	220KV-Pusauli(PG)-Sahupuri(UP)	171	133	173	0	3.44	0	3.44
5	400KV-Biharsharif(PG)-Baliala(PG)	43	34	105	85	1.11	0	1.11
6	400KV-Biharsharif(PG)-Varanasi(P..	280	117	29	292	0	2.42	-2.42
7	400KV-Fatehpur(UP)-Sasaram	-	-	-	-	-	-	-
8	400KV-Motihari(DMT)-Gorakhpur ..	152	290	324	0	6.35	0	6.35
9	400KV-Muzaffarpur(PG)-Gorakhp ..	84	212	423	178	3.35	0	3.35
10	400KV-Patna(PG)-Baliala(PG)	244	286	575	0	10.82	0	10.82
11	400KV-Sasaram-Allahabad(PG)	104	126	158	0	3.02	0	3.02
12	400KV-Sasaram-Varanasi(PG)	304	269	308	0	6.44	0	6.44
13	765KV-Fatehpur(PG)-Sasaram.	284	227	0	408	0	4.54	-4.54
14	765KV-Gaya(PG)-Baliala(PG)	47	45	146	0	2.23	0	2.23
15	765KV-Gaya(PG)-Varanasi(PG)	267	64	233	345	0.27	0	0.27
16	HVDC800KV-Alipurduar-Agra(PG)	375	375	375	0	8.72	0	8.72
<b>Sub-Total EAST REGION</b>		<b>2,375</b>	<b>2,209</b>	<b>2,849</b>	<b>1,344</b>	<b>46.21</b>	<b>7.68</b>	<b>38.53</b>
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli- ..	500	350	500	0	11.25	0	11.25
<b>Sub-Total NORTH_EAST REGION</b>		<b>500</b>	<b>350</b>	<b>500</b>	<b>0</b>	<b>11.25</b>	<b>0</b>	<b>11.25</b>
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya(NT)-Malanpur(PG)	-210	-150	-	210	0	3.73	-3.73
2	220KV-Badod(MP)-Kota(PG)	-177	-147	76	-	0	2.6	-2.6
3	220KV-Badod(MP)-Modak(RJ)	-	-	-	-	-	-	-
4	400KV-RAPS C(NP)-Sujalpur	-420	-260	0	440	0	4.59	-4.59
5	400KV-Vindhyachal(PG)-Rihand(N ..	-490	-484	-	477	0	11.62	-11.62
6	400KV-Zerda(PG)-Bhinmal(PG)	-246	-206	66	351	0	4.49	-4.49
7	400KV-Zerda(PG)-Kankroli(RJ)	-322	-250	0	419	0	6.54	-6.54
8	765KV-0rai-Gwalior(PG)	-263	-292	0	446	0	9.81	-9.81
9	765KV-0rai-Jabalpur	184	88	492	394	2.76	0	2.76
10	765KV-0rai-Satna	1,394	1,451	1,515	0	34.4	0	34.4
11	765KV-Gwalior(PG)-Agra(PG)	913	1,038	1,559	0	26.39	0	26.39
12	765KV-Phagi(RJ)-Gwalior(PG)	405	573	1,108	-	15.04	0	15.04
13	HVDC500KV-Mundra(JH)-Mohind..	601	598	602	0	14.59	0	14.59
14	HVDC500KV-Vindhyachal(PG)-Vindhaychal B/B	250	250	0	250	0	6.04	-6.04
15	HVDC800KV-Champa(PG)-Kuruku..	450	450	450	0	10.25	0	10.25
<b>Sub-Total WEST REGION</b>		<b>2,069</b>	<b>2,659</b>	<b>5,868</b>	<b>2,987</b>	<b>103.43</b>	<b>49.42</b>	<b>54.01</b>
<b>TOTAL IR EXCHANGE</b>		<b>4,944</b>	<b>5,218</b>	<b>9,217</b>	<b>4,331</b>	<b>160.89</b>	<b>57.1</b>	<b>103.79</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	45.51	-4.42	-34.42	6.67	38.53	31.86

NR-WR	146.98	-2.91	-25.71	118.36	54.01	-64.35
Total	192.49	-7.33	-60.13	125.03	103.79	-21.24

5. Inter National Exchange with Nepal [Import (+ve)/Export(-ve)] [Linkwise]

Element	Peak	Off-Peak	Maximum Interchange(MW)		Energy (MU)		Net Energy
	MW	MW	Import	Export	Import	Export	(MU)
132KV-Tanakpur(NH)-Mahendranagar(PG)	24.62	0.05		25		0.2693	-0.2693

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	7.7	37.6	84.4	60.3	2	.2	0	2.1

<-----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.	
50.11	13:02:30	49.69	16:42:10	49.92	0.118	0.074	50.05	49.76	39.7

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	425	04:00	411	09:30	0	0	35.76	0	35.76
Abdullapur(PG) - 400KV	425	04:00	411	09:30	0	0	35.76	0	35.76
Amritsar(PG) - 400KV	421	04:00	410	09:45	0	0	10.76	0	10.76
Ballabgarh(PG) - 400KV	421	21:25	407	09:45	0	0	1.39	0	1.39
Bareilly II(PG) - 400KV	417	13:00	403	16:55	0	0	0	0	0
Bareilly(UP) - 400KV	418	13:00	405	19:45	0	0	0	0	0
Baspa(HP) - 400KV	424	04:05	410	18:40	0	0	33.33	0	33.33
Bassi(PG) - 400KV	417	04:00	398	07:20	0	0	0	0	0
Bawana(DTL) - 400KV	422	04:00	410	16:50	0	0	13.89	0	13.89
Dadri HVDC(PG) - 400KV	420	04:00	409	16:40	0	0	.35	0	.35
Gorakhpur(PG) - 400KV	412	13:00	399	18:40	0	0	0	0	0
Hisar(PG) - 400KV	419	21:25	406	07:55	0	0	0	0	0
Kanpur(PG) - 400KV	421	13:00	409	05:45	0	0	1.04	0	1.04
Kashipur(UT) - 400KV	402	00:00	402	00:00	0	0	0	0	0
Kishenpur(PG) - 400KV	418	03:00	406	15:20	0	0	0	0	0
Moga(PG) - 400KV	416	21:25	404	08:00	0	0	0	0	0
Nallagarh(PG) - 400KV	424	04:05	410	18:40	0	0	33.33	0	33.33
Rihand HVDC(PG) - 400KV	408	11:00	402	05:50	0	0	0	0	0
Rihand(NT) - 400KV	406	11:00	401	05:50	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	787	13:05	769	09:25	0	0	0	0	0
Balia(PG) - 765KV	783	13:00	760	19:45	0	0	0	0	0
Bareilly II(PG) - 765KV	795	13:00	770	19:45	0	0	0	0	0
Bhiwani(PG) - 765KV	802	21:25	778	07:55	0	0	.35	0	.35
Fatehpur(PG) - 765KV	784	13:00	742	05:50	0	0	0	0	0
Jhatikara(PG) - 765KV	797	21:25	773	09:30	0	0	0	0	0
Lucknow II(PG) - 765KV	791	13:00	767	19:45	0	0	0	0	0
Meerut(PG) - 765KV	807	21:25	775	08:00	0	0	5.56	0	5.56
Moga(PG) - 765KV	797	21:25	762	08:00	0	0	0	0	0
Phagi(RJ) - 765KV	794	21:05	771	06:20	0	0	0	0	0
Unnao(UP) - 765KV	771	00:00	771	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	-741.32	-706.5	0	-539.46	-1,009.29	0	66.06	-14.21	-9.58	42.28
HARYANA	152.11	0	0	128.97	-626.75	0	90.17	5.85	-3.58	92.44
RAJASTHAN	-16.36	-2,019.63	0	-49.07	-1,533.78	0	68.43	-0.41	-31.14	36.89
DELHI	-203.49	-1,037.46	0	-223.19	-548.68	0	76.72	-6.48	-12.68	57.56
UTTAR PRADESH	655.23	0	0	169.73	15.69	0	108.41	5.47	-0.01	113.86
UTTARAKHAND	61.55	-137.14	0	-284.49	-32.31	0	12.25	0.2	0.26	12.7
HIMACHAL PRADESH	-25.9	-18.05	0	-26.57	-716.25	0	17.52	0.78	-4.86	13.44
JAMMU & KASHMIR	141.41	158.13	0	141.41	197.66	0	24.29	3.4	8.09	35.78
CHANDIGARH	0	-15.1	0	0	-60.4	0	3.85	0	-0.42	3.43
<b>TOTAL</b>	<b>23.23</b>	<b>-3,775.75</b>	<b>0</b>	<b>-682.67</b>	<b>-4,314.11</b>	<b>0</b>	<b>467.7</b>	<b>-5.4</b>	<b>-53.92</b>	<b>408.38</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	3,758.13	2,399.02	-539.46	-791.78	0	-1,211.14	0	0
HARYANA	4,466.06	3,331.69	336.07	128.97	0.59	-781.46	0	0
RAJASTHAN	3,478.1	2,373.08	-8.18	-49.07	-85.56	-2,407.03	0	0
DELHI	3,629.31	2,755.17	-200	-345.69	-70.47	-1,047.02	0	0
UTTAR PRADESH	6,222.76	3,642.58	655.23	68.94	20.14	-24	0	0
UTTARAKHAND	803.73	301.5	90.85	-284.49	204.33	-137.14	0	0
HIMACHAL PRADESH	1,437.25	312.82	131.38	-28.21	-17.23	-787.62	0	0
JAMMU & KASHMIR	1,615.71	670.94	141.41	141.41	721.46	0	0	0
CHANDIGARH	259.75	111.24	0	0	0	-75.51	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	508.72	1,485	507.39	1,426	284.84	345.47
Chamera-I	748.75	760	-	-	-	-	-	0
Gandhisagar	295.78	295.78	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	-	-	-	-	-	0
Koteshwar	598.5	612.5	610.09	5	610.71	5	113	113.57
Pong	384.05	426.72	422.85	1,021	418.16	808	134.08	437.35
RPS	343.81	352.8	-	-	-	-	-	0
RSD	487.91	527.91	526.16	4	515.19	3	123.66	126.16
Rihand	252.98	268.22	263.16	490	262.77	465	0	12,444.82
Tehri	740.04	829.79	827.4	1,159	824.2	1,091	86.13	113
<b>TOTAL</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,164</b>	<b>-</b>	<b>3,798</b>	<b>741.71</b>	<b>13,580.37</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	27
DELHI	4	44
HARYANA	0	9
HIMACHAL PRADESH	2	16
JAMMU & KASHMIR	3	16
PUNJAB	1	13
RAJASTHAN	2	21
UTTAR PRADESH	0	11
UTTARAKHAND	2	25

**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 :**

**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**