

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 15.10.2016

Date of Reporting : 16.10.2016



### I. Regional Availability/Demand:

Evening Peak (19:00 Hrs) MW				Off Peak (03:00 Hrs) MW				Day Energy (Net MU)	
Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
43198	602	43799	50.10	36404	530	36934	50.08	924.5	9.74

\* Half hourly (two 15 minutes block-one block each before and after the designated time) average frequency

### II. A. State's Load Details (At States periphery) in MUs:

UI [OD:(+ve), UD: (-ve)]

State	State's Control Area Generation (Net MU)				Drawal Schedule (Net MU)	Actual Drawal (Net MU)	UI (Net MU)	Consumption (Net MU)	Shortages * (MU)
	Thermal	Hydro	Renewable/others \$	Total					
Punjab	58.94	11.12		70.35	66.49	66.24	-0.25	136.59	0.00
Haryana	34.87	0.74		35.61	102.46	102.27	-0.19	137.88	0.00
Rajasthan	107.80	2.79	9.92	120.51	63.71	66.29	2.58	186.80	1.28
Delhi	19.44			19.44	60.54	60.09	-0.44	79.53	0.01
UP	148.25	17.33		165.57	116.30	116.97	0.67	282.54	0.00
Uttarakhand	11.04			17.16	19.04	19.06	0.02	36.21	0.00
HP		12.76		12.76	14.00	14.58	0.57	27.34	0.00
J & K		10.77	0.00	10.77	28.35	23.02	-5.34	33.78	8.45
Chandigarh				0.00	4.10	3.87	-0.23	3.87	0.00
<b>Total</b>	<b>369.29</b>	<b>66.53</b>	<b>9.92</b>	<b>452.16</b>	<b>474.99</b>	<b>472.38</b>	<b>-2.61</b>	<b>924.53</b>	<b>9.74</b>

\* Shortage furnished by the respective constituent's Others include UP Co-generation and JK Diesel

### II. B. State's Demand Met in MWs:

UI/OA/PX [OD/Import: (+ve), UD/Export: (-ve)]

State	Evening Peak (19:00 Hrs) MW				Off Peak (03:00 Hrs) MW				Maximum Demand Met (MW) and Time(Hrs)	Shortage (MW)	
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction			
Punjab	6238	0	29	136	4863	0	44	286	6238	19:00	0
Haryana	7239	0	-72	775	4566	0	51	509	7341	20:00	0
Rajasthan	8274	0	-14	594	7984	0	104	591	8591	20:00	0
Delhi	3746	0	-96	129	3043	0	41	35	3830	20:00	0
UP	12747	160	-156	519	12583	245	191	1263	12996	20:00	120
Uttarakhand	1811	0	134	227	1334	0	-82	348	1811	19:00	0
HP	1172	0	-29	-307	766	0	23	192	1230	8:00	0
J&K	1767	442	-120	245	1138	285	-166	260	1767	19:00	442
Chandigarh	204	0	-32	-20	127	0	-4	0	204	19:00	0
<b>Total</b>	<b>43198</b>	<b>602</b>	<b>-356</b>	<b>2298</b>	<b>36404</b>	<b>530</b>	<b>202</b>	<b>3483</b>	<b>43611</b>	<b>20:00</b>	<b>546</b>

\* STOA figures are at sellers boundary & PX figures are at regional boundary. # figures may not be at simultaneous hour.

Diversity is 1.01

UI [OD:(+ve), UD: (-ve)]

### III. Regional Entities :

Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule Net MU	UI	
								Net MU	Net MU
<b>A. NTPC</b>									
Singrauli STPS (5*200+2*500)	2000	1810	2002	1938	43.48	1812	43.01	0.47	
Rihand I STPS (2*500)	1000	943	927	1022	21.62	901	21.59	0.03	
Rihand II STPS (2*500)	1000	943	991	999	21.42	893	21.29	0.13	
Rihand III STPS (2*500)	1000	472	484	499	10.83	451	10.76	0.07	
Dadri I STPS (4*210)	840	815	462	467	10.19	424	10.49	-0.31	
Dadri II STPS (2*490)	980	970	694	702	16.49	687	17.44	-0.96	
Unchahar I TPS (2*210)	420	153	141	156	3.25	135	3.41	-0.16	
Unchahar II TPS (2*210)	420	400	364	368	7.98	332	8.68	-0.70	
Unchahar III TPS (1*210)	210	200	171	201	3.84	160	4.34	-0.50	
ISTPP (Jhajjar) (3*500)	1500	1425	357	373	8.15	339	8.44	-0.30	
Dadri GPS (4*130.19+2*154.51)	830	757	326	267	7.07	295	7.71	-0.64	
Anta GPS (3*88.71+1*153.2)	419	383	243	266	7.07	295	7.09	-0.02	
Auraiya GPS (4*111.19+2*109.30)	663	623	0	156	0.78	33	0.91	-0.13	
Dadri Solar(5)	5	1	0	0	0.02	1	0.02	0.00	
Unchahar Solar(10)	10	2	0	0	0.05	2	0.05	0.00	
Singrauli Solar(15)	15	3	0	0	0.01	0	0.07	-0.06	
KHEP(4*200)	800	858	855	0	4.37	182	4.00	0.37	
<b>Sub Total (A)</b>	<b>12112</b>	<b>10757</b>	<b>8017</b>	<b>7414</b>	<b>167</b>	<b>6942</b>	<b>169</b>	<b>-2.70</b>	
<b>B. NPC</b>									
NAPS (2*220)	440	190	204	215	4.54	189	4.56	-0.02	
RAPS- B (2*220)	440	373	422	410	9.08	378	8.94	0.14	
RAPS- C (2*220)	440	0	0	0	0.00	0	0.00	0.00	
<b>Sub Total (B)</b>	<b>1320</b>	<b>563</b>	<b>626</b>	<b>625</b>	<b>13.62</b>	<b>567</b>	<b>13.50</b>	<b>0.12</b>	
<b>C. NHPC</b>									
Chamera I HPS (3*180)	540	540	551	0	2.68	112	2.50	0.18	
Chamera II HPS (3*100)	300	301	309	0	2.33	97	2.20	0.13	
Chamera III HPS (3*77)	231	231	229	0	1.33	55	1.25	0.08	
Bairasuli HPS(3*60)	180	179	182	0	0.94	39	0.89	0.06	
Salal-HPS (6*115)	690	229	345	345	6.35	264	5.50	0.85	
Tanakpur-HPS (3*31.4)	94	51	61	60	1.44	60	1.23	0.20	
Uri-I HPS (4*120)	480	107	240	83	2.70	112	2.57	0.13	
Uri-II HPS (4*60)	240	63	120	78	1.55	64	1.51	0.04	
Dhauliganga-HPS (4*70)	280	280	278	7	2.03	84	1.96	0.07	
Dulhasti-HPS (3*130)	390	383	396	144	7.67	320	7.50	0.17	
Sewa-II HPS (3*40)	120	119	117	0	0.34	14	0.36	-0.02	
Parbati 3 (4*130)	520	347	351	0	1.04	43	0.98	0.06	
<b>Sub Total (C)</b>	<b>4065</b>	<b>2830</b>	<b>3178</b>	<b>718</b>	<b>30</b>	<b>1266</b>	<b>28</b>	<b>1.95</b>	
<b>D.SJVNL</b>									
NJPC (6*250)	1500	1605	1614	0	13.14	547	13.01	0.12	
Rampur HEP (6*88.67)	412	442	439	0	3.77	157	3.63	0.14	
<b>Sub Total (D)</b>	<b>1912</b>	<b>2047</b>	<b>2053</b>	<b>0</b>	<b>16.90</b>	<b>704</b>	<b>16.64</b>	<b>0.26</b>	
<b>E. THDC</b>									
Tehri HPS (4*250)	1000	1071	1073	0	6.69	279	6.50	0.19	
Koteshwar HPS (4*100)	400	88	202	72	2.14	89	2.10	0.04	
<b>Sub Total (E)</b>	<b>1400</b>	<b>1159</b>	<b>1275</b>	<b>72</b>	<b>8.83</b>	<b>368</b>	<b>8.60</b>	<b>0.23</b>	
<b>F. BBMB</b>									
Bhakra HPS (2*108+3*126+5*157)	1379	735	1197	523	18.30	762	17.64	0.66	
Dehar HPS (6*165)	990	263	660	165	6.45	269	6.32	0.13	
Pong HPS (6*66)	396	173	330	132	4.33	180	4.14	0.18	
<b>Sub Total (F)</b>	<b>2765</b>	<b>1171</b>	<b>2181</b>	<b>820</b>	<b>29.07</b>	<b>1211</b>	<b>28.10</b>	<b>0.97</b>	
<b>G. IPP(s)/JV(s)</b>									
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	109	0	1.08	45	1.01	0.07	
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	815	0	7.15	298	7.11	0.04	
Malana Stg-II HPS (2*50)	100	0	96	0	0.67	28	0.64	0.03	
Shree Cement TPS (2*150)	300	0	109	77	2.15	89	2.09	0.06	
Budhil HPS(IPP) (2*35)	70	0	24	10	0.37	15	0.41	-0.04	
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1154</b>	<b>86</b>	<b>11.41</b>	<b>475</b>	<b>11.26</b>	<b>0.15</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>25237</b>	<b>18526</b>	<b>18490</b>	<b>9735</b>	<b>276.83</b>	<b>11535</b>	<b>275.85</b>	<b>0.98</b>	

I. State Entities	Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sent out MW)
Punjab	Guru Gobind Singh TPS (Ropar) (6*210)	1260	160	160	3.59	150
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	0	0	-0.02	-1
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	204	204	4.61	192
	Goindwal(GVK) (2*270)	540	0	0	0.00	0
	Rajpura (2*700)	1400	1320	1320	30.95	1290
	Talwandi Saboo (3*660)	1980	627	616	19.81	825
	<b>Thermal (Total)</b>	<b>6560</b>	<b>2311</b>	<b>2300</b>	<b>58.94</b>	<b>2456</b>
	Total Hydro	1000	443	438	11.12	463
	Wind Power	0	0	0	0.00	0
	Biomass	288	0	0	0.00	0
	Solar	560	0	0	0.29	12
	<b>Renewable(Total)</b>	<b>848</b>	<b>0</b>	<b>0</b>	<b>0.29</b>	<b>12</b>
	<b>Total Punjab</b>	<b>8408</b>	<b>2754</b>	<b>2738</b>	<b>70.35</b>	<b>2931</b>
	Haryana	Panipat TPS (2*210+2*250)	920	214	206	4.88
DCRTPP (Yamuna nagar) (2*300)		600	541	461	11.57	482
Faridabad GPS (NTPC)(2*137.75+1*1156)		432	0	0	0.00	0
RGTPP (khedar) (IPP) (2*600)		1200	1093	743	18.42	767
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP) (2*660)		1320	0	0	0.00	0
<b>Thermal (Total)</b>		<b>4497</b>	<b>1848</b>	<b>1410</b>	<b>34.87</b>	<b>1453</b>
Total Hydro		62	25	23	0.74	31
Wind Power		0	0	0	0.00	0
Biomass		40	0	0	0.00	0
Solar		0	0	0	0.00	0
<b>Renewable(Total)</b>		<b>40</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>
<b>Total Haryana</b>		<b>4599</b>	<b>1873</b>	<b>1433</b>	<b>35.61</b>	<b>1484</b>
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	1134	1091	26.28
	suratgarh TPS (6*250)	1500	185	0	2.83	118
	Chabra TPS (4*250)	1000	852	861	19.86	828
	Dholpur GPS (3*110)	330	0	0	0.00	0
	Ramgarh GPS(1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50)	271	116	120	2.68	112
	RAPS A (NPC) (1*100+1*200)	300	0	167	1.66	69
	Barsingar (NLC) (2*125)	250	192	209	4.83	201
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	778	696	18.16	757
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(2*600)	1200	475	565	12.42	518
	Kawai(Adani) (2*660)	1320	1205	617	19.07	795
	<b>Thermal (Total)</b>	<b>8876</b>	<b>4937</b>	<b>4326</b>	<b>107.80</b>	<b>4492</b>
	Total Hydro	550	120	95	2.79	116
	Wind power	4017	113	765	8.84	368
	Biomass	99	22	22	0.53	22
	Solar	1295	10	0	0.55	23
	Renewable/Others (Total)	5411	145	787	9.92	413
	<b>Total Rajasthan</b>	<b>14837</b>	<b>5202</b>	<b>5208</b>	<b>120.51</b>	<b>5021</b>
UP	Anpara TPS (3*210+2*500)	1630	573	569	13.89	579
	Obra TPS (2*50+2*94+5*200)	1194	292	293	6.32	263
	Paricha TPS (2*110+2*220+2*250)	1160	875	879	20.95	873
	Panki TPS (2*105)	210	135	72	2.32	97
	Harduaganj TPS (1*60+1*105+2*250)	665	535	529	12.63	526
	Tanda TPS (NTPC) (4*110)	440	359	373	8.82	368
	Roza TPS (IPP) (4*300)	1200	954	972	23.14	964
	Anpara-C (IPP) (2*600)	1200	1071	986	24.18	1008
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	404	404	9.58	399
	Anpara-D(2*500)	1000	472	445	11.03	459
	Lalitpur TPS(3*660)	1980	590	597	14.18	591
	Bara(2*660)	1320	0	0	0.00	0
	<b>Thermal (Total)</b>	<b>12449</b>	<b>6260</b>	<b>6119</b>	<b>147.05</b>	<b>6127</b>
	Vishnuparyag HPS (IPP)(4*110)	440	226	216	9.58	399
	Alaknada(4*82.5)	330	165	83	2.32	97
	Other Hydro	527	241	247	5.42	226
	Cogeneration	981	50	50	1.20	50
	Wind Power	0	0	0	0.00	0
	Biomass	26	0	0	0.00	0
	Solar	102	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>128</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>
	<b>Total UP</b>	<b>14855</b>	<b>6942</b>	<b>6715</b>	<b>165.57</b>	<b>6899</b>
	Uttarakhand	Other Hydro	1250	611	422	11.04
Total Gas		225	253	261	6.06	253
Wind Power		0	0	0	0.00	0
Biomass		127	0	0	0.00	0
Solar		20	0	0	0.06	3
Small Hydro (< 25 MW)		180	0	0	0.00	0
<b>Renewable(Total)</b>		<b>327</b>	<b>0</b>	<b>0</b>	<b>0.06</b>	<b>3</b>
<b>Total Uttarakhand</b>		<b>1802</b>	<b>864</b>	<b>683</b>	<b>17.16</b>	<b>715</b>
Delhi	Rajghat TPS (2*67.5)	135	0	0	-0.01	-1
	Delhi Gas Turbine (6x30 + 3x34)	282	94	95	1.88	78
	Pragati Gas Turbine (2x104+ 1x122)	330	149	153	3.72	155
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	250	250	6.03	251
	Badarpur TPS (NTPC) (3*95+2*210)	705	333	326	7.83	326
	<b>Thermal (Total)</b>	<b>2917</b>	<b>826</b>	<b>824</b>	<b>19.44</b>	<b>810</b>
	Wind Power	0	0	0	0.00	0
	Biomass	16	0	0	0.00	0
	Solar	2	0	0	0.00	0
<b>Renewable(Total)</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	
<b>Total Delhi</b>	<b>2935</b>	<b>826</b>	<b>824</b>	<b>19.44</b>	<b>810</b>	

HP	Baspa HPS (IPP) (3*100)	300	0	80	2.29	96
	Malana HPS (IPP) (2*43)	86	47	0	0.62	26
	Other Hydro	372	202	259	6.63	276
	Wind Power	0	0	0	0.00	0
	Biomass	0	0	0	0.00	0
	Solar	0	0	0	0.00	0
	Small Hydro (< 25 MW)	486	135	132	3.23	134
	<b>Renewable(Total)</b>	<b>486</b>	<b>135</b>	<b>132</b>	<b>3.23</b>	<b>134</b>
	<b>Total HP</b>	<b>1244</b>	<b>384</b>	<b>471</b>	<b>12.76</b>	<b>532</b>
	J & K	Baglihar HPS (IPP) (3*150+3*150)	900	438	290	8.00
Other Hydro/IPP(including 98 MW Small Hydro)		308	138	93	2.77	115
Gas/Diesel/Others		190	0	0	0.00	0
Wind Power		0	0	0	0.00	0
Biomass		0	0	0	0.00	0
Solar		0	0	0	0.00	0
Small Hydro (< 25 MW)Included in Other Hydro Above		98	0	0	0.00	0
<b>Renewable(Total)</b>		<b>98</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>
<b>Total J &amp; K</b>		<b>1398</b>	<b>576</b>	<b>383</b>	<b>11</b>	<b>449</b>
<b>Total State Control Area Generation</b>		<b>50078</b>	<b>19421</b>	<b>18455</b>	<b>452.16</b>	<b>18840</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>		<b>8491</b>	<b>9683</b>	<b>220.01</b>	<b>9167</b>	
<b>Total Regional Availability(Gross)</b>	<b>75315</b>	<b>46402</b>	<b>37873</b>	<b>948.99</b>	<b>39541</b>	

IV. Total Hydro Generation:

Regional Entities Hydro	12234	10569	1610	98.46	4103
State Control Area Hydro	7163	3044	2639	66.53	3027
<b>Total Regional Hydro</b>	<b>19397</b>	<b>13613</b>	<b>4249</b>	<b>164.99</b>	<b>7130</b>

V. Total Renewable Generation:

Regional Entities Renewable	30	0	0	0.08	3
State Control Area Renewable	7356	280	919	13.50	562
<b>Total Regional Renewable</b>	<b>7386</b>	<b>280</b>	<b>919</b>	<b>13.57</b>	<b>566</b>

VI(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]

Element	Peak(19:00 Hrs) MW	Off Peak(03:00 Hrs) MW	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
			Import	Export	Import	Export	
Vindhyhall(HVDC B/B)	-250	-250	0	250	0.00	5.87	-5.87
765 KV Gwalior-Agra (D/C)	2301	2537	2714	0	55.65	0.00	55.65
400 KV Zerda-Kankroli	126	85	152	0	1.95	0.00	1.95
400 KV Zerda-Bhinmal	97	85	179	44	1.97	0.00	1.97
220 KV Auraiya-Malanpur	-9	-50	0	80	0.00	0.75	-0.75
220 KV Badod-Kota/Morak	34	39	85	31	0.74	0.00	0.74
Mundra-Mohinderghar(HVDC Bipole)	2002	1601	2005	0.00	42.75	0.00	42.75
400 KV Vindhyachal - Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	1050	1502	1573	0	32.36	0.00	32.36
<b>Sub Total WR</b>	<b>5351</b>	<b>5549</b>			<b>135.42</b>	<b>6.62</b>	<b>128.79</b>
Pusauli Bypass/HVDC	200	200	200	0	0.30	0.00	0.30
400 KV MZP- GKP (D/C)	167	614	614	0	10.88	0.00	10.88
400 KV Patna-Balia(D/C) X 2	541	645	686	0	15.58	0.00	15.58
400 KV B Sharif-Balia (D/C)	79	245	280	0	4.62	0.00	4.62
765 KV Gaya-Balia	258	371	377	0	6.25	0.00	6.25
765 KV Gaya-Varanasi (D/C)	450	706	743	0	14.08	0.00	14.08
220 KV Pusauli-Sahupuri	141	0	166	0	1.72	0.00	1.72
132 KV K'nasa-Sahupuri	-34	-32	0	40	0.00	0.64	-0.64
132 KV Son Ngr-Rihand	-34	-33	0	36	0.00	0.79	-0.79
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	25	98	160	81	2.07	0.00	2.07
400 KV Barh -GKP (D/C)	434	504	504	0	9.68	0.00	9.68
400 kV B Sharif - Varanasi (D/C)	-87	-184	250	0	4.36	0.00	4.36
<b>Sub Total ER</b>	<b>2140</b>	<b>3134</b>			<b>69.54</b>	<b>1.43</b>	<b>68.11</b>
+/- 800 KV BiswanathChariali-Agra	1000	1000	1000	0.00	23.11	0.00	23.11
<b>Sub Total NER</b>	<b>1000</b>	<b>1000</b>			<b>23.11</b>	<b>0.00</b>	<b>23.11</b>
<b>Total IR Exch</b>	<b>8491</b>	<b>9683</b>			<b>228.06</b>	<b>8.05</b>	<b>220.01</b>

VI(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]

ISGS/LT Schedule (MU)			Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
ER	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
41.21	3.27	44.48	14.58	12.55	14.60	18.58	0.00	0.00

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Inclds Mndra	Total	Through ER(including NER)	Through WR	Total	Through ER (including NER)	Through WR	Total
73.66	140.17	213.84	91.22	128.79	220.01	17.55	-11.38	6.17

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

Element	Peak(19:00 Hrs) MW	Off Peak(03:00 Hrs) MW	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
			Import	Export	Import	Export	
132 KV Tanakpur - Mahendarnagar	-19	0	0	19	0	0	-0.10

VII. Frequency Profile <----- % of Time Frequency ----->

<49.2	<49.7	<49.8	<49.9	<50.0	49.9-50.05	50.05-50.10	50.10-50.20	>50.20	>50.50
0.00	0.00	0.00	1.34	45.99	75.98	18.58	4.18	0.00	0.00

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block		Freq Dev Index (% of Time)
Maximum		Minimum					MAX (Hz)	MIN (Hz)	
50.19	Time 14.00	49.81	Time 18.10	50.01	0.028	0.053	50.17	50.01	24.02

## VIII(A). Voltage profile 400 kV

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Voltage Deviat
		Voltage(KV)	Time	Voltage (KV)	Time	<380 kV	<390 kV	>420 kV	>430 kV	
Rihand	400	410	0:00	403	11:12	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	421	7:02	406	18:22	0.0	0.0	1.9	0.0	1.9
Bareilly(PG)400kV	400	404	0:00	404	0:00	0.0	0.0	0.0	0.0	0.0
Kanpur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Dadri	400	418	3:58	399	18:45	0.0	0.0	0.0	0.0	0.0
Ballabgarh	400	426	4:01	403	18:39	0.0	0.0	27.0	0.0	27.0
Bawana	400	421	4:00	400	18:39	0.0	0.0	0.2	0.0	0.2
Bassi	400	420	3:58	395	18:45	0.0	0.0	0.0	0.0	0.0
Hissar	400	417	3:59	395	18:45	0.0	0.0	0.0	0.0	0.0
Moga	400	421	3:59	400	18:38	0.0	0.0	0.6	0.0	0.6
Abdullapur	400	428	2:37	404	18:35	0.0	0.0	32.9	0.0	32.9
Nalagarh	400	433	2:58	408	18:49	0.0	0.0	43.0	9.2	43.0
Kishenpur	400	426	4:01	395	18:37	0.0	0.0	15.2	0.0	15.2
Wagoora	400	413	3:20	368	18:41	10.0	38.3	0.0	0.0	10.0
Amritsar	400	431	4:00	406	11:41	0.0	0.0	33.5	0.2	33.5
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	425	4:10	411	8:16	0.0	0.0	18.7	0.0	18.7
Rishikesh	400	411	23:58	390	14:28	0.0	0.0	0.0	0.0	0.0

## VIII(B). Voltage profile 765 kV

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Voltage Deviat
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV	
Fatehpur	765	776	7:03	738	18:40	0.0	0.6	0.0	0.0	0.0
Balia	765	789	7:02	760	18:24	0.0	0.0	0.0	0.0	0.0
Moga	765	800	3:59	762	18:41	0.0	0.0	0.0	0.0	0.0
Agra	765	784	4:02	751	18:40	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	798	4:00	763	18:51	0.0	0.0	0.0	0.0	0.0
Unnao	765	771	7:18	743	18:45	0.0	0.0	0.0	0.0	0.0
Lucknow	765	791	7:02	760	18:45	0.0	0.0	0.0	0.0	0.0
Meerut	765	799	4:00	761	11:43	0.0	0.0	0.0	0.0	0.0
Jhatikara	765	796	3:58	762	18:45	0.0	0.0	0.0	0.0	0.0
Bareilly 765 kV	765	782	21:55	755	11:43	0.0	0.0	0.0	0.0	0.0
Anta	765	790	4:02	759	18:45	0.0	0.0	0.0	0.0	0.0
Phagi	765	789	4:03	757	18:45	0.0	0.0	0.0	0.0	0.0

Note : '0' in Max / Min Col -&gt; Telemetry Outage

## IX. Reservoir Parameters:

Name of Reservoir	Parameters		Present Parameters		Last Year		Last day	
	FRL (m)	MDDL (m)	Level (m)	Energy (MU)	Level (m)	Energy (MU)	Inflow (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	500.97	1140.31	510.30	1560.04	240.24	528.70
Pong	426.72	384.05	415.75	705.67	419.86	875.55	89.34	260.43
Tehri	829.79	740.04	824.30	1093.14	819.95	1001.27	78.41	145.00
Koteswar	612.50	598.50	609.34	4.21	610.61	4.95	145.00	140.69
Chamera-I	760.00	748.75	758.04	0.00	0.00	0.00	77.00	72.60
Rihand	268.22	252.98	0.00	0.00	0.00	0.00	0.00	0.00
RPS	352.80	343.81	1157.00	0.00	0.00	0.00	0.00	0.00
Jawahar Sagar	298.70	295.78	0.00	0.00	0.00	0.00	0.00	0.00
RSD	527.91	487.91	515.89	3.27	513.10	3.57	73.31	139.15

\* NA: Not Available

## X(A). Short-Term Open Access Details:

State	Off- Peak Hours (03:00 Hrs)			Peak Hours (19:00 Hrs)			Day Energy (MU)		
	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MU)	IEX / PXIL (MU)	Total (MU)
Punjab	286	0	0	135	2	0	6.86	0.01	6.86
Delhi	106	-71	0	113	16	0	3.71	0.37	4.08
Haryana	386	122	0	416	359	0	9.69	7.19	16.88
HP	-29	221	0	15	-322	0	-0.44	-0.98	-1.42
J&K	160	99	0	160	85	0	4.25	1.55	5.79
CHD	0	0	0	0	0	-20	0.00	0.33	0.33
Rajasthan	-5	596	0	-7	601	0	-0.13	15.24	15.11
UP	192	1071	0	227	292	0	3.65	5.98	9.63
Uttarakhand	26	323	0	26	201	0	0.46	8.49	8.95
Total	1123	2361	0	1084	1234	-20	28.04	38.16	66.21

## X(B). Short-Term Open Access Details:

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	386	135	2	0	0	0
Delhi	213	54	169	-126	0	0
Haryana	542	255	392	-140	0	0
HP	64	-54	221	-518	0	0
J&K	260	160	298	-15	0	0
CHD	0	0	0	0	54	-30
Rajasthan	-5	-7	897	586	0	0
UP	228	48	1347	-100	0	0
Uttarakhand	26	13	580	120	0	0

**XI. System Reliability Indices(Violation of TTC and ATC):**

(i)%age of times N-1 Criteria was violated in the inter - regional corridors

<b>WR</b>	<b>0.00%</b>
<b>ER</b>	<b>0.00%</b>
<b>Simultaneous</b>	<b>0.00%</b>

(ii)%age of times ATC violated on the inter-regional corridors

<b>WR</b>	<b>0.00%</b>
<b>ER</b>	<b>0.00%</b>
<b>Simultaneous</b>	<b>2.08%</b>

(iii)%age of times Angular Difference on Important Buses was beyond permissible limits(40 deg.)

<b>Rihand - Dadri</b>	<b>0.00%</b>
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**XII. Zero Crossing Violations**

State	No. of violations(Maximum 8 in a day)	Maximum number of continuous blocks without sign change
Punjab	1	13
Haryana	2	14
Rajasthan	0	12
Delhi	1	12
UP	2	22
Uttarakhand	3	21
HP	5	40
J & K	3	17
Chandigarh	2	17

**XIII. System Constraints:****XIV. Grid Disturbance / Any Other Significant Event:****XV. Weather Conditions For 15.10.2016 :**  
Normal**XVI. Synchronisation of new generating units :****XVII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :****XVIII. Tripping of lines in pooling stations :****XIX. 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.