

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 23.10.2011  
Date of Reporting : 24.10.2011

### I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 Hrs) MW			Demand Met	Off Peak (03:00 Hrs) MW			Day Energy (Net MU)	
	Shortage	Requirement	Freq* (Hz)		Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
28713	2384	31097	50.00	25885	1820	27705	49.95	655.0	55.65

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

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

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	46.79	7.72		54.51	44.78	44.72	-0.06	99.23	6.56
Haryana	58.88	1.22		60.10	36.66	42.85	6.19	102.95	5.36
Rajasthan	84.87	0.84	7.82	93.53	34.87	34.03	-0.85	127.55	11.56
Delhi	19.93			19.93	51.68	41.92	-9.76	61.85	0.05
UP	71.24	9.35	1.20	81.79	106.91	99.33	-7.58	181.12	29.25
Uttarakhand		12.99		12.99	10.84	13.67	2.83	26.66	1.07
HP		11.48		11.48	13.07	11.63	-1.44	23.11	0.00
J & K		9.78	0.00	9.78	16.63	19.33	2.70	29.11	1.80
Chandigarh				0.00	4.08	3.40	-0.68	3.40	0.00
<b>Total</b>	<b>281.71</b>	<b>53.39</b>	<b>9.02</b>	<b>344.11</b>	<b>319.50</b>	<b>310.87</b>	<b>-8.63</b>	<b>654.99</b>	<b>55.65</b>

\* Shortage furnished by the respective constituent.

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

State	Evening Peak (19:00 Hrs) MW				Off Peak (03:00 Hrs) MW				Day Energy MU
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	
Punjab	4519	300	-274	-185	4093	0	288	-105	-3.20
Haryana	3950	913	-36	105	4227	0	426	87	1.95
Rajasthan	5830	19	185	-124	4852	775	-217	-50	-1.63
Delhi	3207	2	-377	75	2022	0	-330	166	1.62
UP	7202	1000	-588	343	7729	1045	-107	343	8.22
Uttarakhand	1276	150	102	99	1002	0	106	50	1.51
HP	1097	0	17	-493	727	0	-53	114	0.06
J&K	1448	0	129	-129	1126	0	229	-129	-3.09
Chandigarh	184	0	-46	18	107	0	-23	18	0.43
<b>Total</b>	<b>28713</b>	<b>2384</b>	<b>-888</b>	<b>-291</b>	<b>25885</b>	<b>1820</b>	<b>319</b>	<b>495</b>	<b>5.87</b>

\* STOA figures are at sellers boundary & PX figures are at regional boundary.

### III. Regional Entities :

A. NTPC	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
	Singrauli STPS	2000	1866	2024	2028	45.44	1893	44.79	0.65
	Rihand I STPS	1000	955	1044	1041	23.10	962	22.92	0.18
	Rihand II STPS	1000	970	1027	1032	23.44	977	23.28	0.16
	Dadri I STPS	840	678	814	609	15.43	643	15.37	0.06
	Dadri II STPS	980	808	956	702	19.32	805	19.31	0.01
	Unchahar I TPS	440	366	419	383	8.85	369	8.78	0.06
	Unchahar II TPS	440	183	213	195	4.44	185	4.40	0.04
	Unchahar III TPS	210	183	214	198	4.43	185	4.39	0.03
	ISTPP (Jhajihar)	500	470	506	508	11.20	467	11.18	0.02
	Dadri GPS	830	778	703	767	16.95	706	17.22	-0.27
	Anta GPS	419	389	333	339	8.00	333	7.99	0.01
	Auraiya GPS	663	621	546	589	13.32	555	13.27	0.05
	<b>Sub Total (A)</b>	<b>9322</b>	<b>8269</b>	<b>8799</b>	<b>8391</b>	<b>193.89</b>	<b>8079</b>	<b>192.91</b>	<b>0.98</b>
B. NPC	NAPS	440	195	229	232	4.65	194	4.68	-0.03
	RAPS- B	440	409	451	456	9.83	410	9.82	0.01
	RAPS- C	440	420	478	474	10.20	425	10.08	0.12
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1024</b>	<b>1158</b>	<b>1162</b>	<b>24.67</b>	<b>1028</b>	<b>24.58</b>	<b>0.09</b>
C. NHPC	Chamera I HPS	540	534	450	180	4.18	174	4.80	-0.62
	Chamera II HPS	300	297	190	16	2.71	113	3.05	-0.35
	Bairasuil HPS	180	179	80	0	0.98	41	1.05	-0.07
	Salal-HPS	690	201	230	208	4.64	193	4.86	-0.22
	Tanakpur-HPS	94	65	70	61	1.60	67	1.63	-0.03
	Uri-HPS	480	160	153	105	3.62	151	3.70	-0.08
	Dhauliganga-HPS	280	277	280	0	2.11	88	2.35	-0.24
	Dulhasti-HPS	390	388	337	125	6.60	275	7.07	-0.47
	Sewa-II HPS	120	119	50	0	0.58	24	0.63	-0.05
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2220</b>	<b>1840</b>	<b>695</b>	<b>27.01</b>	<b>1125</b>	<b>29.14</b>	<b>-2.13</b>
D. NJPC	Nathpa Jhakri	1500	1600	1313	0	13.54	564	14.60	-1.06
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1313</b>	<b>0</b>	<b>13.54</b>	<b>564</b>	<b>14.60</b>	<b>-1.06</b>
E. THDC	Tehri HPS	1000	1050	1050	0	9.98	416	10.00	-0.03
	Koteshwar HPS	100	81	174	86	2.40	100	0.60	1.80
	<b>Sub Total (E)</b>	<b>1100</b>	<b>1131</b>	<b>1224</b>	<b>86</b>	<b>12.37</b>	<b>515</b>	<b>10.60</b>	<b>1.77</b>
F. BBMB	Bhakra HPS	1480	535	769	392	13.36	557	12.83	0.53
	Dehar HPS	990	288	420	280	7.23	301	6.91	0.32
	Pong HPS	396	177	306	126	4.37	182	4.25	0.12
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1000</b>	<b>1495</b>	<b>798</b>	<b>24.96</b>	<b>1040</b>	<b>23.99</b>	<b>0.97</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	123	0	0.71	30	0.69	0.02
	KWHEP HPS(IPP)	1000	0	550	225	7.48	311	7.80	-0.33
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	0	0	0.00	0	1.84	-1.84
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>673</b>	<b>225</b>	<b>8.19</b>	<b>341</b>	<b>10.33</b>	<b>-2.14</b>
<b>H. Total Regional Entities (A-G)</b>		<b>20625</b>	<b>15243</b>	<b>16502</b>	<b>11357</b>	<b>304.63</b>	<b>12693</b>	<b>306.14</b>	<b>-1.51</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)	1260	1045.00	1045.00	23.64	985
	Guru Nanak Dev TPS(Bhatinda)	440	297.00	297.00	6.20	258
	Guru Hargobind Singh TPS(L.mbt)	920	779.00	739.00	16.94	706
	Thermal (Total)	2620	2121.00	2081.00	46.79	1949
	Total Hydro	1148	278.00	217.00	7.72	322
	<b>Total Punjab</b>	<b>3768</b>	<b>2399</b>	<b>2298</b>	<b>54.51</b>	<b>2271</b>
Haryana	Panipat TPS	1360	1176.00	1159.00	27.78	1158
	DCRTPP (Yamuna nagar)	600	274.00	275.00	6.58	274
	Faridabad GPS (NTPC)	432	396.00	404.00	9.86	411
	RGTPP (khedar) (IPP)	1200	428.00	538.00	14.66	611
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2274.00	2376.00	58.88	2454
	Total Hydro	62	47.00	47.00	1.22	51
	<b>Total Haryana</b>	<b>3679</b>	<b>2321</b>	<b>2423</b>	<b>60.10</b>	<b>2504</b>
Rajasthan	kota TPS	1240	1172.00	1173.00	27.83	1160
	suratgarh TPS	1500	1063.00	1156.00	26.17	1090
	Chabra TPS	500	433.00	220.00	7.70	321
	Dholpur GPS	330	285.00	288.00	6.98	291
	Ramgarh GPS	113	65.00	65.00	1.63	68
	RAPS A (NPC)	300	174.00	142.00	4.32	180
	Barsingsar (NLC)	250	122.00	120.00	2.97	124
	Giral LTPS (IPP)	250	103.00	40.00	1.95	81
	Rajwest LTPS (IPP)	135	248.00	140.00	5.31	221
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0
	Thermal (Total)	4753	3665.00	3344.00	84.87	3536
	Total Hydro	550	38.00	0.00	0.84	35
	Wind power	1294	272.00	475.00	7.21	300
	Biomass	71	27.00	27.00	0.61	26
	Renewable/Others (Total)	1365	299	502	7.82	326
	<b>Total Rajasthan</b>	<b>6668</b>	<b>4002</b>	<b>3846</b>	<b>93.53</b>	<b>3897</b>
	UP	Anpara TPS	1630	1409	1376	33.00
Obra TPS		1442	607	615	14.60	608
Paricha TPS		640	298	248	6.80	283
Panki TPS		210	0	0	0.00	0
Harduaganj TPS		375	34	68	1.30	54
Tanda TPS (NTPC)		440	354	343	8.74	364
Roza TPS (IPP)		600	276	284	6.80	283
Anpara-C (IPP)		600	0	0	0.00	0
Thermal (Total)		5937	2978	2934	71.24	2968
Vishnuparyag HPS (IPP)		400	204	199	4.68	195
Other Hydro		527	145	0	4.68	195
Cogeneration		951	50	50	1.20	50
<b>Total UP</b>		<b>7815</b>	<b>3377</b>	<b>3183</b>	<b>81.79</b>	<b>3213</b>
Uttarakhand		Total Hydro	1303	598	525	12.99
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>598</b>	<b>525</b>	<b>12.99</b>	<b>541</b>
Delhi	Rajghat TPS	135	104	89	2.51	105
	Delhi Gas Turbine	282	188	180	4.42	184
	Pragati Gas Turbine	330	299	309	7.28	303
	Rithala GPS	108	26	29	0.62	26
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	235	240	5.10	213
	Thermal (Total)	2000	852	847	19.93	830
	<b>Total Delhi</b>	<b>2000</b>	<b>852</b>	<b>847</b>	<b>19.93</b>	<b>830</b>
HP	Baspa HPS (IPP)	330	94	31	2.31	96
	Malana HPS (IPP)	101	81	0	0.48	20
	Other Hydro	571	262	247	8.69	362
	<b>Total HP</b>	<b>1002</b>	<b>437</b>	<b>278</b>	<b>11</b>	<b>478</b>
J & K	Baglihar HPS (IPP)	450	254	252	6.08	253
	Other Hydro	323	130	161	3.70	154
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>384</b>	<b>413</b>	<b>9.78</b>	<b>408</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>14370</b>	<b>13813</b>	<b>344.11</b>	<b>14143</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>-50</b>	<b>1598</b>	<b>22.88</b>	<b>953</b>
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>30822</b>	<b>26768</b>	<b>671.62</b>	<b>27789</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	6545	1804	86.07	3586
State Control Area Hydro	5365	1927	1480	48.71	2030
<b>Total Regional Hydro</b>	<b>15347</b>	<b>8472</b>	<b>3284</b>	<b>134.78</b>	<b>5616</b>

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

Element	Peak(19:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal B/B	-500	-100	0	500	0.00	8.55	-8.55
Gwalior-Agra (D/C)	229	394	888	0	10.11	0.00	10.11
Zerda-Kankroli	-173	-226	0	378	0.00	5.43	-5.43
Zerda-Bhinmal	-133	-329	0	382	0.00	4.22	-4.22
Malanpur-Auraiya	-134	-112	0	210	0.00	3.20	-3.20
Badod-Kota/Morak	-71	-29	0	246	0.00	2.98	-2.98
<b>Sub Total WR</b>	<b>-782</b>	<b>-402</b>			<b>10.11</b>	<b>24.38</b>	<b>-14.27</b>
Pusauli Bypass	-297	126	126	320	0.64	3.19	-2.55
MZP- GKP (D/C)	550	724	1104	0	17.95	0.00	17.95
Patna-Balia(D/C)	210	294	558	0	7.66	0.00	7.66
B'Sharif-Balia (D/C)	175	351	574	0	8.10	0.00	8.10
Barh - balia(D/C)	0	409	416	0	4.18	0.00	4.18
Pusauli-Sahupuri	126	135	152	0	2.69	0.00	2.69
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-39	0	40	0.00	0.88	-0.88
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>732</b>	<b>2000</b>			<b>41.22</b>	<b>4.07</b>	<b>37.15</b>
<b>Total IR Exch</b>	<b>-50</b>	<b>1598</b>			<b>51.33</b>	<b>28.45</b>	<b>22.88</b>

**V(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
19.28	1.65	20.93	2.01	5.75	-0.55	2.36	0.00	0.00

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
22.39	2.37	24.76	37.15	-14.27	22.88	14.75	-16.63	-1.88

**VI. Frequency Profile**

% of Time Frequency								
<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.10	2.10	26.50	96.90	72.50	14.50	1.00

Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz				
50.34	6.07	49.19	18.27	49.81	0.62	0.17	50.18	49.63

**VII. Voltage profile**

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)			
		Voltage(KV)	Time	Voltage (KV)	Time	<380 kV	<390 kV	>420 kV	>430 kV
Rihand	400	413	17:28	407	00:04	0.0	0.0	0.0	0.0
Gorakhpur	400	436	17:29	202	07:00	0.0	0.0	52.2	9.6
Bareilly	400	425	17:29	402	11:40	0.0	0.0	4.2	0.0
Kanpur	400	420	17:29	403	00:03	0.0	0.0	0.0	0.0
Dadri	400	416	04:33	403	10:08	0.0	0.0	0.0	0.0
Ballabgarh	400	420	17:29	403	12:09	0.0	0.0	0.0	0.0
Bawana	400	420	03:33	404	10:48	0.0	0.0	0.0	0.0
Bassi	400	426	03:02	404	18:26	0.0	0.0	21.2	0.0
Hissar	400	413	03:30	397	12:13	0.0	0.0	0.0	0.0
Moga	400	423	03:31	405	18:26	0.0	0.0	8.3	0.0
Abdullapur	400	421	03:30	402	09:48	0.0	0.0	1.1	0.0
Nalagarh	400	432	03:33	410	18:27	0.0	0.0	47.9	3.2
Kishenpur	400	425	03:29	401	18:26	0.0	0.0	13.3	0.0
Wagoora	400	416	15:49	383	18:24	0.0	17.0	0.0	0.0

**VIII. 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 (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	510.28	1560.04	512.05	1650.57	306.10	314.70
Pong	426.72	384.05	421.95	975.89	423.39	1051.02	70.79	217.72
Tehri	829.79	740.04	818.75	972.25	NA	NA	106.21	222.00
Koteshwar	612.50	598.50	607.60	3.54	NA	NA	222.00	159.00
Chamera-I	760.00	748.75	752.71	NA	751.84	NA	101.04	113.35
Rihand	268.22	252.98	NA	NA	258.04	208.70	NA	NA
RPS	352.80	343.81	350.56	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.55	NA	NA	NA	NA	NA
RSD	527.91	487.91	521.82	NA	521.99	NA	126.58	230.24

**IX. System Constraints:**

**X. Grid Disturbance / Any Other Significant Event:**

**XI. Weather Conditions For 23.10.2011 :**  
Normal weather

**XII. Synchronisation of new generating units :**

**XIII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**

**XIV. Tripping of lines in pooling stations :**

**XV. Complete generation loss in a generating station :**

Report for : 23.10.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER