

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 12.12.2011  
Date of Reporting : 13.12.2011

### 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
28775	3631	32405	49.78	23471	650	24121	50.09	641.9	50.40

\* 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:

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	48.88	11.16		60.04	25.01	22.28	-2.72	82.32	5.00
Haryana	54.86	0.85		55.71	27.31	31.11	3.80	86.82	13.55
Rajasthan	80.80	4.82	7.73	93.34	50.61	54.25	3.64	147.59	0.36
Delhi	24.60			24.60	37.66	31.32	-6.34	55.91	0.07
UP	87.56	5.11	14.40	107.07	76.40	75.63	-0.76	182.70	29.36
Uttarakhand		7.89		7.89	17.48	19.23	1.75	27.12	0.16
HP		5.57		5.57	17.13	17.31	0.18	22.88	0.00
J & K		5.66	0.00	5.66	23.83	27.57	3.74	33.23	1.90
Chandigarh				0.00	3.44	3.27	-0.17	3.27	0.00
<b>Total</b>	<b>296.69</b>	<b>41.05</b>	<b>22.13</b>	<b>359.87</b>	<b>278.87</b>	<b>281.98</b>	<b>3.12</b>	<b>641.85</b>	<b>50.40</b>

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

### 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	3979	600	-315	-403	2861	0	-19	-901	-11.18
Haryana	3671	1675	-11	-56	3352	0	-48	-68	-1.57
Rajasthan	6308	39	417	431	6005	0	612	546	14.72
Delhi	2963	2	-222	-122	1258	0	-77	-598	-6.27
UP	7706	1215	-626	167	7012	650	39	167	4.01
Uttarakhand	1438	0	144	332	840	0	-89	332	7.97
HP	1137	0	-281	78	677	0	59	237	4.19
J&K	1392	100	-294	216	1384	0	223	247	5.79
Chandigarh	181	0	-13	0	82	0	-12	-30	-0.24
<b>Total</b>	<b>28775</b>	<b>3631</b>	<b>-1200</b>	<b>643</b>	<b>23471</b>	<b>650</b>	<b>687</b>	<b>-68</b>	<b>17.41</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	Off Peak MW	Energy	Average	Schedule	UI
				(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU
	Singrauli STPS	2000	1730	1868	1857	41.87	1744	41.52	0.35
	Rihand I STPS	1000	817	995	866	19.82	826	19.60	0.22
	Rihand II STPS	1000	977	1040	1034	23.64	985	23.45	0.19
	Dadri I STPS	840	585	646	456	13.16	548	13.02	0.14
	Dadri II STPS	980	922	1017	707	20.42	851	21.08	-0.65
	Unchahar I TPS	440	375	442	307	8.80	367	8.69	0.11
	Unchahar II TPS	440	374	440	317	8.83	368	8.69	0.14
	Unchahar III TPS	210	187	231	173	4.47	186	4.38	0.09
	ISTPP (Jhajjar)	1000	475	518	422	10.76	448	11.28	-0.52
	Dadri GPS	830	829	802	525	16.55	690	16.38	0.17
	Anta GPS	419	275	250	215	5.74	239	5.46	0.28
	Auraiya GPS	663	643	475	314	10.28	429	10.05	0.24
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8188</b>	<b>8724</b>	<b>7193</b>	<b>184.32</b>	<b>7680</b>	<b>183.59</b>	<b>0.73</b>
B. NPC	NAPS	440	200	247	245	5.22	218	4.80	0.42
	RAPS- B	440	335	420	234	8.00	334	8.04	-0.03
	RAPS- C	440	420	477	472	10.23	426	10.08	0.15
	<b>Sub Total (B)</b>	<b>1320</b>	<b>955</b>	<b>1144</b>	<b>951</b>	<b>23.46</b>	<b>977</b>	<b>22.92</b>	<b>0.54</b>
C. NHPC	Chamera I HPS	540	0	0	0	0.00	0	0.00	0.00
	Chamera II HPS	300	297	224	0	1.34	56	1.32	0.02
	Bairasuil HPS	180	120	20	0	0.52	22	0.49	0.03
	Salal-HPS	690	128	230	106	2.94	123	3.08	-0.14
	Tanakpur-HPS	94	37	46	30	0.89	37	0.89	-0.01
	Uri-HPS	480	144	240	45	3.28	137	3.66	-0.38
	Dhauliganga-HPS	280	277	135	0	1.10	46	1.14	-0.04
	Dulhasti-HPS	390	388	266	0	3.40	142	3.52	-0.12
	Sewa-II HPS	120	0	0	0	0.00	0	0.00	0.00
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1391</b>	<b>1161</b>	<b>181</b>	<b>13.46</b>	<b>561</b>	<b>14.10</b>	<b>-0.64</b>
D. NJPC	Nathpa Jhakri	1500	1133	1195	0	8.49	354	8.10	0.39
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1133</b>	<b>1195</b>	<b>0</b>	<b>8.49</b>	<b>354</b>	<b>8.10</b>	<b>0.39</b>
E. THDC	Tehri HPS	1000	1040	750	0	6.05	252	6.00	0.05
	Koteswar HPS	200	110	203	0	2.16	90	2.10	0.06
	<b>Sub Total (E)</b>	<b>1200</b>	<b>1150</b>	<b>953</b>	<b>0</b>	<b>8.21</b>	<b>342</b>	<b>8.10</b>	<b>0.11</b>
F. BBMB	Bhakra HPS	1480	637	922	524	15.96	665	15.30	0.66
	Dehar HPS	990	158	495	0	3.83	159	3.79	0.04
	Pong HPS	396	256	366	186	6.25	280	6.14	0.11
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1051</b>	<b>1783</b>	<b>710</b>	<b>26.03</b>	<b>1085</b>	<b>25.23</b>	<b>0.81</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.31	13	0.30	0.01
	KWHEP HPS(IPP)	1000	0	450	0	4.65	194	4.56	0.09
	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	2.78	-2.78
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>450</b>	<b>0</b>	<b>4.96</b>	<b>207</b>	<b>7.64</b>	<b>-2.68</b>
<b>H. Total Regional Entities (A-G)</b>		<b>21225</b>	<b>13869</b>	<b>15410</b>	<b>9035</b>	<b>268.93</b>	<b>11206</b>	<b>269.67</b>	<b>-0.74</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	1050	900	22.97	957	
	Guru Nanak Dev TPS(Bhatinda)	440	215	215	4.65	194	
	Guru Hargobind Singh TPS(L.mbt)	920	958	959	21.25	886	
	Thermal (Total)	2620	2223	2074	48.88	2037	
	Total Hydro	1148	423	380	11.16	465	
	<b>Total Punjab</b>	<b>3768</b>	<b>2646</b>	<b>2454</b>	<b>60.04</b>	<b>2502</b>	
Haryana	Panipat TPS	1360	1019	1103	25.40	1059	
	DCRTPP (Yamuna nagar)	600	273	275	6.69	279	
	Faridabad GPS (NTPC)	432	430	480	10.12	422	
	RGTPP (khedar) (IPP)	1200	448	511	12.65	527	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Thermal (Total)	3617	2170	2369	54.86	2286	
	Total Hydro	62	21	22	0.85	35	
		<b>Total Haryana</b>	<b>3679</b>	<b>2191</b>	<b>2391</b>	<b>55.71</b>	<b>2321</b>
Rajasthan	kota TPS	1240	1190	1176	27.55	1148	
	suratgarh TPS	1500	1103	1163	27.43	1143	
	Chabra TPS	500	355	383	8.26	344	
	Dholpur GPS	330	255	217	6.21	259	
	Ramgarh GPS	113	65	65	1.69	70	
	RAPS A (NPC)	300	174	179	4.38	183	
	Barsingar (NLC)	250	0	0	0.00	0	
	Giral LTPS (IPP)	250	0	0	0.00	0	
	Rajwest LTPS (IPP)	540	220	232	5.29	220	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5158	3362	3415	80.80	3367	
	Total Hydro	550	217	137	4.82	201	
	Wind power	1294	19	0	2.56	107	
	Biomass	71	22	22	0.35	15	
	Solar	50	0	0	0.00	0	
	Renewable/Others (Total)	1365	41	22	7.73	322	
		<b>Total Rajasthan</b>	<b>7073</b>	<b>3620</b>	<b>3574</b>	<b>93.34</b>	<b>3889</b>
UP	Anpara TPS	1630	1535	1540	33.10	1379	
	Obra TPS	1442	517	675	12.60	525	
	Paricha TPS	640	230	238	5.20	217	
	Panki TPS	210	45	85	1.40	58	
	Harduaganj TPS	415	0	0	0.00	0	
	Tanda TPS (NTPC)	440	407	312	9.43	393	
	Roza TPS (IPP)	600	410	394	9.58	399	
	Anpara-C (IPP)	1200	531	540	13.77	574	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	119	75	2.48	103	
	Thermal (Total)	6757	3794	3859	87.56	3648	
	Vishnuparyag HPS (IPP)	400	114	109	2.61	109	
	Other Hydro	527	113	25	2.50	104	
	Cogeneration	951	600	600	14.40	600	
		<b>Total UP</b>	<b>8635</b>	<b>4621</b>	<b>4593</b>	<b>107.07</b>	<b>4352</b>
	Uttarakhand	Total Hydro	1303	417	263	7.89	329
<b>Total Uttarakhand</b>		<b>1303</b>	<b>417</b>	<b>263</b>	<b>7.89</b>	<b>329</b>	
Delhi	Rajghat TPS	135	88	96	2.33	97	
	Delhi Gas Turbine	282	186	144	4.43	184	
	Praagati Gas Turbine	330	313	270	7.45	311	
	Rithala GPS	108	0	0	0.00	0	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	510	415	10.39	433	
	Thermal (Total)	2000	1097	925	24.60	1025	
	<b>Total Delhi</b>	<b>2000</b>	<b>1097</b>	<b>925</b>	<b>24.60</b>	<b>1025</b>	
HP	Baspa HPS (IPP)	330	0	0	1.34	56	
	Malana HPS (IPP)	101	47	0	0.33	14	
	Other Hydro	571	178	92	3.90	163	
	<b>Total HP</b>	<b>1002</b>	<b>225</b>	<b>92</b>	<b>6</b>	<b>232</b>	
J & K	Baglihar HPS (IPP)	450	258	148	4.23	176	
	Other Hydro	323	54	100	1.43	60	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>312</b>	<b>248</b>	<b>5.66</b>	<b>236</b>	
<b>Total State Control Area Generation</b>		<b>28416</b>	<b>15129</b>	<b>14540</b>	<b>359.87</b>	<b>14886</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>944</b>	<b>1041</b>	<b>38.53</b>	<b>1605</b>	
<b>Total Regional Availability(Gross)</b>		<b>49641</b>	<b>31483</b>	<b>24616</b>	<b>667.33</b>	<b>27697</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	5542	891	61.15	2548
State Control Area Hydro	5365	1728	1167	38.44	1602
<b>Total Regional Hydro</b>	<b>15447</b>	<b>7270</b>	<b>2058</b>	<b>99.59</b>	<b>4150</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	-200	-300	0	300	0.00	6.36	-6.36
Gwalior-Agra (D/C)	324	449	910	0	13.78	0.00	13.78
Zerda-Kankroli	-76	-75	34	164	0.00	1.03	-1.03
Zerda-Bhinmal	43	40	232	59	2.25	0.00	2.25
Malanpur-Auraiya	-198	-127	0	198	0.00	2.69	-2.69
Badod-Kota/Morak	-124	-53	0	144	0.00	1.86	-1.86
<b>Sub Total WR</b>	<b>-231</b>	<b>-66</b>			<b>16.03</b>	<b>11.95</b>	<b>4.08</b>
Pusauli Bypass	300	300	300	0	7.27	0.00	7.27
MZP- GKP (D/C)	290	323	776	0	10.59	0.00	10.59
Patna-Balia(D/C)	195	255	425	0	7.31	0.00	7.31
B'Sharif-Balia (D/C)	48	211	442	0	5.89	0.00	5.89
Barh - balia(D/C)	234	0	407	0	1.59	0.00	1.59
Pusauli-Sahupuri	140	54	140	0	2.26	0.00	2.26
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-36	0	48	0.00	0.46	-0.46
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1175</b>	<b>1107</b>			<b>34.90</b>	<b>0.46</b>	<b>34.44</b>
<b>Total IR Exch</b>	<b>944</b>	<b>1041</b>			<b>50.93</b>	<b>12.41</b>	<b>38.53</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
17.37	0.65	18.03	14.81	4.58	-3.87	1.11	2.90	-2.90

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
31.87	-2.58	29.29	34.44	4.08	38.53	2.58	6.67	9.24

**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	0.20	6.70	44.80	93.10	55.00	13.80	0.20

←----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz			(Hz)	(Hz)
50.27	5.02	49.07	17.24	49.76	0.93	0.19	50.19	49.52

**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	408	03:14	401	09:47	0.0	0.0	0.0	0.0
Gorakhpur	400	431	20:48	12	19:41	0.3	0.3	40.9	0.1
Bareilly	400	425	03:16	401	06:31	0.0	0.0	15.0	0.0
Kanpur	400	418	03:19	399	06:31	0.0	0.0	0.0	0.0
Dadri	400	419	02:18	400	11:12	0.0	0.0	0.0	0.0
Ballabgarh	400	422	03:16	401	11:51	0.0	0.0	4.1	0.0
Bawana	400	422	02:29	402	11:52	0.0	0.0	7.5	0.0
Bassi	400	426	04:01	393	06:31	0.0	0.0	5.0	0.0
Hissar	400	413	20:55	394	06:32	0.0	0.0	0.0	0.0
Moga	400	419	20:52	401	10:01	0.0	0.0	0.0	0.0
Abdullapur	400	422	02:27	403	06:31	0.0	0.0	2.1	0.0
Nalagarh	400	426	02:23	407	06:33	0.0	0.0	22.2	0.0
Kishenpur	400	409	00:30	386	16:25	0.0	1.6	0.0	0.0
Wagoora	400	385	02:28	357	16:26	78.0	100.0	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	505.31	1325.82	507.11	1411.35	205.95	443.34
Pong	426.72	384.05	415.83	705.67	418.72	834.82	57.45	418.72
Tehri	829.79	740.04	813.86	882.15	818.65	982.26	71.65	187.00
Koteshwar	612.50	598.50	605.95	3.10	NA	NA	141.00	152.00
Chamera-I	760.00	748.75	747.99	NA	747.07	NA	48.55	NA
Rihand	268.22	252.98	264.20	558.40	257.62	184.40	NA	NA
RPS	352.80	343.81	NA	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	NA	NA	NA	NA	NA	NA
RSD	527.91	487.91	515.44	NA	518.08	NA	16.00	178.34

\* NA: Not Available

IX. System Constraints:

X. Grid Disturbance / Any Other Significant Event:

XI. Weather Conditions For 12.12.2011 :

1. COLD 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 : 12.12.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER