

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.11.2012

Date of Reporting : 22.11.2012

### 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
32111	4016	36127	50.10	26230	1065	27295	50.31	687.5	60.90

\* 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)	UI [OD:(+ve), UD: (-ve)]	
	Thermal	Hydro	Renewable/others \$	Total				Consumption (Net MU)	Shortages * (MU)
Punjab	40.54	9.38		49.92	32.26	32.41	0.15	82.33	3.89
Haryana	46.15	0.63		46.78	48.21	49.18	0.97	95.96	6.07
Rajasthan	91.07	5.78	3.53	100.37	63.64	62.49	-1.15	162.87	0.00
Delhi	30.05			30.05	27.60	25.26	-2.34	55.32	0.10
UP	112.32	7.11	1.68	121.11	78.38	78.77	0.39	199.88	45.82
Uttarakhand		7.82		7.82	17.74	19.26	1.52	27.08	3.00
HP		6.63		6.63	15.67	17.23	1.56	23.86	0.33
J & K		7.51	0.00	7.51	27.77	29.28	1.52	36.79	1.70
Chandigarh				0.00	3.34	3.45	0.12	3.45	0.00
<b>Total</b>	<b>320.14</b>	<b>44.85</b>	<b>5.21</b>	<b>370.19</b>	<b>314.61</b>	<b>317.35</b>	<b>2.74</b>	<b>687.54</b>	<b>60.90</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	STOA/PX transaction	
Punjab	4196	984	20	-397	2719	0	-8	-79	-5.24	
Haryana	4608	856	44	160	3448	0	-48	235	3.91	
Rajasthan	6942	0	-125	324	6718	0	-413	935	20.37	
Delhi	2974	31	36	-1358	1381	0	-113	-2257	-40.17	
UP	8815	1965	20	-56	8611	1065	201	319	1.54	
Uttarakhand	1508	80	108	393	1038	0	48	352	8.30	
HP	1148	0	55	90	757	0	102	231	3.55	
J&K	1731	100	-351	521	1471	0	76	439	9.69	
Chandigarh	190	0	-11	0	87	0	1	-31	-0.34	
<b>Total</b>	<b>32111</b>	<b>4016</b>	<b>-203</b>	<b>-323</b>	<b>26230</b>	<b>1065</b>	<b>-154</b>	<b>145</b>	<b>1.62</b>	

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

### 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)	UI [OG:(+ve), UG: (-ve)]	
							Schedule Net MU	UI Net MU
<b>A. NTPC</b>								
Singrauli STPS	2000	1945	2087	2027	46.85	1952	46.68	0.17
Rihand I STPS	1000	460	505	470	11.05	460	11.04	0.01
Rihand II STPS	1000	975	1041	997	23.30	971	23.40	-0.10
Rihand III STPS	500	176	183	0	4.26	177	4.23	0.03
Dadri I STPS	840	810	880	725	18.52	772	18.92	-0.39
Dadri II STPS	980	975	1026	992	22.48	937	23.26	-0.78
Unchahar I TPS	420	402	438	359	9.10	379	9.46	-0.36
Unchahar II TPS	420	400	438	339	8.95	373	9.25	-0.30
Unchahar III TPS	210	202	218	174	4.60	192	4.73	-0.13
ISTPP (Jhajjar)	1500	470	491	0	9.61	400	10.43	-0.83
Dadri GPS	830	837	408	578	10.89	454	11.47	-0.58
Anta GPS	419	277	267	208	4.95	206	4.96	-0.01
Auraiya GPS	663	658	314	327	6.88	287	7.01	-0.13
<b>Sub Total (A)</b>	<b>10782</b>	<b>8587</b>	<b>8296</b>	<b>7196</b>	<b>181.43</b>	<b>7560</b>	<b>184.84</b>	<b>-3.41</b>
<b>B. NPC</b>								
NAPS	440	280	308	320	6.74	281	6.72	0.02
RAPS- B	440	420	459	461	10.05	419	10.08	-0.04
RAPS- C	440	430	472	473	10.12	422	10.32	-0.20
<b>Sub Total (B)</b>	<b>1320</b>	<b>1130</b>	<b>1239</b>	<b>1254</b>	<b>26.91</b>	<b>1121</b>	<b>27.12</b>	<b>-0.21</b>
<b>C. NHPC</b>								
Chamera I HPS	540	550	270	0	2.11	88	2.07	0.04
Chamera II HPS	300	303	200	0	1.55	64	1.48	0.06
Chamera III HPS	231	231	155	0	0.97	41	0.96	0.01
Bairasuil HPS	180	182	120	0	0.64	26	0.62	0.01
Salai-HPS	690	151	241	136	3.49	145	3.58	-0.09
Tanakpur-HPS	94	39	48	28	0.96	40	0.94	0.02
Uri-HPS	480	110	221	44	2.68	112	2.43	0.25
Dhauliganga-HPS	280	288	208	0	1.11	46	1.45	-0.34
Dulhasi-HPS	390	388	407	0	3.48	145	3.31	0.17
Sewa-II HPS	120	120	81	0	0.29	12	0.26	0.03
<b>Sub Total (C)</b>	<b>3305</b>	<b>2362</b>	<b>1951</b>	<b>208</b>	<b>17.27</b>	<b>720</b>	<b>17.10</b>	<b>0.17</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	1209	0	8.75	365	8.41	0.34
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1209</b>	<b>0</b>	<b>8.75</b>	<b>365</b>	<b>8.41</b>	<b>0.34</b>
<b>E. THDC</b>								
Tehri HPS	1000	984	787	0	7.09	295	7.00	0.08
Koteswar HPS	400	211	181	0	1.39	58	1.35	0.04
<b>Sub Total (E)</b>	<b>1400</b>	<b>1195</b>	<b>968</b>	<b>0</b>	<b>8.47</b>	<b>353</b>	<b>8.35</b>	<b>0.12</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	665	1102	408	16.40	683	15.95	0.45
Dehar HPS	990	166	495	0	4.13	172	3.99	0.14
Pong HPS	396	280	366	180	6.95	290	5.01	1.94
<b>Sub Total (F)</b>	<b>2866</b>	<b>1111</b>	<b>1963</b>	<b>588</b>	<b>27.48</b>	<b>1145</b>	<b>24.95</b>	<b>2.53</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.66	27	0.65	0.01
KWHEP HPS(IPP)	1000	0	300	0	4.94	206	4.97	-0.04
Malana Stg-II HPS	100	0	31	13	0.28	12	0.26	0.03
Shree Cement TPS	300	0	147	274	5.05	210	5.50	-0.45
Budhil HPS(IPP)	70	0	10	6	0.17	7	0.42	-0.25
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>488</b>	<b>293</b>	<b>11.09</b>	<b>462</b>	<b>11.80</b>	<b>-0.71</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>15990</b>	<b>16114</b>	<b>9539</b>	<b>281.41</b>	<b>11726</b>	<b>282.56</b>	<b>-1.15</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	1052	1100	23.96	998	
	Guru Nanak Dev TPS(Bhatinda)	440	0	65	0.74	31	
	Guru Hargobind Singh TPS(L.mbt)	920	707	590	15.84	660	
	Thermal (Total)	2620	1759	1755	40.54	1689	
	Total Hydro	1148	440	270	9.38	391	
	<b>Total Punjab</b>	<b>3768</b>	<b>2199</b>	<b>2025</b>	<b>49.92</b>	<b>2080</b>	
Haryana	Panipat TPS	1367	873	945	21.45	894	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	133	87	2.81	117	
	RGTPP (kheldar) (IPP)	1200	510	402	11.34	473	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	612	374	10.55	440	
	Thermal (Total)	4944	2128	1808	46.15	1923	
	Total Hydro	62	23	29	0.63	26	
	<b>Total Haryana</b>	<b>5006</b>	<b>2151</b>	<b>1837</b>	<b>46.78</b>	<b>1949</b>	
	Rajasthan	kota TPS	1240	1156	1154	27.86	1161
suratgarh TPS		1500	1348	1139	30.98	1291	
Chabra TPS		500	448	383	10.03	418	
Dholpur GPS		330	98	137	2.69	112	
Ramgarh GPS		111	74	75	1.02	42	
RAPS A (NPC)		300	183	172	4.30	179	
Barsingar (NLC)		250	107	105	2.49	104	
Giral LTPS		250	26	0	0.42	17	
Rajwest LTPS (IPP)		540	486	486	11.30	471	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5156	3926	3651	91.07	3795	
Total Hydro		550	345	251	5.78	241	
Wind power		2191	56	230	2.80	117	
Biomass		91	25	25	0.61	25	
Solar		201	2	0	0.13	5	
Renewable/Others (Total)		2483	81	255	3.53	147	
<b>Total Rajasthan</b>		<b>8189</b>	<b>4352</b>	<b>4157</b>	<b>100.37</b>	<b>4182</b>	
UP		Anpara TPS	1630	1414	1420	33.80	1408
		Obra TPS	1382	373	354	8.50	354
	Paricha TPS	890	401	341	9.20	383	
	Panki TPS	210	126	113	2.30	96	
	Harduaganj TPS	665	32	36	3.00	125	
	Tanda TPS (NTPC)	440	290	297	7.32	305	
	Roza TPS (IPP)	1200	959	1062	23.62	984	
	Anpara-C (IPP)	1200	850	855	19.76	824	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	203	202	4.82	201	
	Thermal (Total)	8067	4648	4680	112.32	4680	
	Vishnuparyag HPS (IPP)	400	124	109	2.68	112	
	Other Hydro	527	237	113	4.43	184	
	Cogeneration	981	70	70	1.68	70	
	<b>Total UP</b>	<b>9975</b>	<b>5079</b>	<b>4972</b>	<b>121.11</b>	<b>4935</b>	
	Uttarakhand	Total Hydro	1303	411	317	7.82	326
<b>Total Uttarakhand</b>		<b>1303</b>	<b>411</b>	<b>317</b>	<b>7.82</b>	<b>326</b>	
Delhi	Raighat TPS	135	101	104	2.43	101	
	Delhi Gas Turbine	282	74	51	2.08	87	
	Pragati Gas Turbine	330	309	262	7.35	306	
	Rithala GPS	108	0	0	0.00	0	
	Bawana GPS	677	305	227	6.35	264	
	Badarpur TPS (NTPC)	705	575	525	11.85	494	
	Thermal (Total)	2237	1364	1169	30.05	1252	
	<b>Total Delhi</b>	<b>2237</b>	<b>1364</b>	<b>1169</b>	<b>30.05</b>	<b>1252</b>	
HP	Baspa HPS (IPP)	330	28	28	1.67	69	
	Malana HPS (IPP)	86	37	0	0.29	12	
	Other Hydro	589	210	147	4.68	195	
	<b>Total HP</b>	<b>1005</b>	<b>275</b>	<b>175</b>	<b>7</b>	<b>276</b>	
J & K	Baglihar HPS (IPP)	450	298	148	4.33	180	
	Other Hydro	323	120	175	3.18	133	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>418</b>	<b>323</b>	<b>7.51</b>	<b>313</b>	
<b>Total State Control Area Generation</b>		<b>32439</b>	<b>16249</b>	<b>14975</b>	<b>370.19</b>	<b>15313</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>489</b>	<b>2137</b>	<b>43.94</b>	<b>1831</b>	
<b>Total Regional Availability(Gross)</b>		<b>55275</b>	<b>32852</b>	<b>26651</b>	<b>695.55</b>	<b>28870</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	6422	809	67.85	2827
State Control Area Hydro	5368	2149	1478	44.85	1757
<b>Total Regional Hydro</b>	<b>15731</b>	<b>8571</b>	<b>2287</b>	<b>112.70</b>	<b>4584</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	-300	0	500	0.00	10.21	-10.21
Gwalior-Agra (D/C)	0	295	670	0	8.16	0.00	8.16
Zerda-Kankroli	-197	-78	0	214	0.00	2.25	-2.25
Zerda-Bhinmal	-108	23	108	224	0.00	0.07	-0.07
Malanpur-Auraiya	-215	-141	0	219	0.00	3.20	-3.20
Badod-Kota/Morak	-169	-122	0	169	0.00	2.72	-2.72
Mundra-Mohindergarh(HVDC)	817	846	849	0	20.15	0.00	20.15
<b>Sub Total WR</b>	<b>-372</b>	<b>523</b>			<b>28.31</b>	<b>18.44</b>	<b>9.87</b>
Pusauli Bypass	50	150	150	0	3.61	0.00	3.61
MZP- GKP (D/C)	150	460	610	0	10.02	0.00	10.02
Patna-Balia(D/C)	223	402	490	0	9.60	0.00	9.60
B'Sharif-Balia (D/C)	241	289	480	0	6.65	0.00	6.65
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	84	49	156	0	0.18	0.98	-0.80
Gaya-Fatehpur (765 Kv)	23	160	176	0	2.95	0.00	2.95
Pusauli-Sahupuri	130	138	150	0	3.00	0.00	3.00
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-40	-34	0	46	0.00	0.95	-0.95
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>861</b>	<b>1614</b>			<b>36.00</b>	<b>1.93</b>	<b>34.07</b>
<b>Total IR Exch</b>	<b>489</b>	<b>2137</b>			<b>64.31</b>	<b>20.37</b>	<b>43.94</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
34.32	0.66	34.98	1.83	-15.69	-0.96	6.83	1.32	-1.24
<b>Total IR Schedule (MU)</b>			<b>Total IR Actual (MU)</b>			<b>Net IR UI (MU)</b>		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
37.17	11.96	49.13	34.07	9.87	43.94	-3.10	-2.09	-5.19

**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	0.00	0.00	5.59	97.56	91.97	56.44	2.43
Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum		Hz			MAX (Hz)	MIN (Hz)
50.44	17.03	49.50	10.20	50.02	0.21	0.11	50.38	49.83

**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	410	03:03	0	15:28	1.7	0.0	0.0	0.0
Gorakhpur	400	435	16:04	416	10:17	0.0	0.0	86.1	5.6
Bareilly	400	422	03:03	400	17:44	0.0	0.0	1.1	0.0
Kanpur	400	422	03:11	401	10:18	0.0	0.0	2.2	0.0
Dadri	400	425	03:10	408	17:55	0.0	0.0	17.5	0.0
Ballabhgarh	400	431	03:12	409	10:18	0.0	0.0	43.6	0.1
Bawana	400	427	03:00	408	10:17	0.0	0.0	27.3	0.0
Bassi	400	431	04:01	406	10:18	0.0	0.0	35.8	0.4
Hissar	400	420	03:04	398	10:18	0.0	0.0	0.0	0.0
Moga	400	422	03:00	399	10:18	0.0	0.0	5.1	0.0
Abdullapur	400	427	02:59	407	17:55	0.0	0.0	35.9	0.0
Nalagarh	400	430	03:04	407	17:43	0.0	0.0	35.9	0.0
Kishenpur	400	420	03:04	394	06:43	0.0	0.0	0.0	0.0
Wagoora	400	407	16:58	371	07:32	28.9	55.3	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	501.78	1166.44	508.32	1470.42	196.89	449.95
Pong	426.72	384.05	416.90	755.83	418.39	821.34	79.20	413.99
Tehri	829.79	740.04	822.80	1060.00	818.65	982.26	66.28	154.00
Koteswar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	56.22	57.10
Rihand	268.22	252.98	262.92	500.10	264.78	617.70	NA	NA
RPS	352.80	343.81	350.94	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.64	NA	NA	NA	NA	NA
RSD	527.91	487.91	520.91	NA	519.40	NA	47.88	79.06

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 21.11.2012 :**

Normal

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

0.00

**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 : 21.11.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER