

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 23.11.2012

Date of Reporting : 24.11.2012

### 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
32007	3373	35379	50.20	26621	630	27251	50.21	692.6	56.08

\* 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	45.41	9.18		54.59	30.37	30.24	-0.12	84.84	3.91
Haryana	56.12	0.62		56.74	35.86	36.07	0.21	92.81	8.22
Rajasthan	87.96	5.03	2.33	95.32	71.95	67.57	-4.38	162.90	0.00
Delhi	33.25			33.25	26.83	25.18	-1.64	58.43	0.04
UP	112.49	7.07	1.68	121.24	79.46	79.75	0.29	201.00	40.28
Uttarakhand		8.02		8.02	19.14	20.87	1.74	28.89	1.76
HP		6.08		6.08	16.27	17.46	1.20	23.54	0.17
J & K		7.51	0.00	7.51	26.97	29.25	2.29	36.76	1.70
Chandigarh				0.00	3.31	3.43	0.11	3.43	0.00
<b>Total</b>	<b>335.24</b>	<b>43.50</b>	<b>4.01</b>	<b>382.75</b>	<b>310.15</b>	<b>309.84</b>	<b>-0.31</b>	<b>692.58</b>	<b>56.08</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	4499	600	7	-384	2866	0	80	-127	-6.20	
Haryana	4401	1113	-101	424	3520	0	125	246	4.62	
Rajasthan	6934	0	-115	539	6850	0	-98	1331	32.15	
Delhi	3111	0	-94	-1160	1319	0	-112	-2314	-37.17	
UP	8515	1460	-189	-56	8672	630	-140	678	2.91	
Uttarakhand	1532	80	96	402	1045	0	66	436	10.10	
HP	1086	20	26	80	759	0	63	306	4.25	
J&K	1740	100	-295	532	1493	0	132	439	9.76	
Chandigarh	188	0	-16	-12	98	0	13	-31	-0.35	
<b>Total</b>	<b>32007</b>	<b>3373</b>	<b>-681</b>	<b>365</b>	<b>26621</b>	<b>630</b>	<b>129</b>	<b>963</b>	<b>20.07</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	1884	2001	2081	45.06	1878	45.23	-0.16
Rihand I STPS	1000	460	510	502	11.10	463	11.04	0.06
Rihand II STPS	1000	975	1039	1036	23.45	977	23.40	0.05
Rihand III STPS	500	116	222	216	2.59	108	2.78	-0.19
Dadri I STPS	840	810	855	850	18.84	785	19.15	-0.31
Dadri II STPS	980	975	915	985	22.17	924	23.07	-0.90
Unchahar I TPS	420	402	422	413	9.37	390	9.59	-0.22
Unchahar II TPS	420	405	420	420	9.40	392	9.58	-0.18
Unchahar III TPS	210	202	219	213	4.73	197	4.78	-0.06
ISTPP (Jhajihar)	1500	470	352	299	9.13	381	9.07	0.06
Dadri GPS	830	837	417	435	9.62	401	11.01	-1.38
Anta GPS	419	282	265	232	6.15	256	6.24	-0.09
Auraiya GPS	663	659	307	290	7.09	295	7.54	-0.45
<b>Sub Total (A)</b>	<b>10782</b>	<b>8476</b>	<b>7944</b>	<b>7972</b>	<b>178.69</b>	<b>7445</b>	<b>182.46</b>	<b>-3.77</b>
<b>B. NPC</b>								
NAPS	440	281	315	317	6.67	278	6.74	-0.07
RAPS- B	440	418	463	462	10.08	420	10.03	0.05
RAPS- C	440	430	472	445	9.87	411	10.32	-0.45
<b>Sub Total (B)</b>	<b>1320</b>	<b>1129</b>	<b>1250</b>	<b>1224</b>	<b>26.62</b>	<b>1109</b>	<b>27.10</b>	<b>-0.48</b>
<b>C. NHPC</b>								
Chamera I HPS	540	550	360	0	2.40	100	2.45	-0.05
Chamera II HPS	300	303	177	0	1.50	63	1.51	0.00
Chamera III HPS	231	231	144	0	0.92	38	0.87	0.05
Bairasuil HPS	180	182	40	0	0.62	26	0.61	0.01
Salai-HPS	690	148	232	130	3.23	135	3.31	-0.08
Tanakpur-HPS	94	39	41	38	0.99	41	0.93	0.06
Uri-HPS	480	113	227	43	2.51	105	2.37	0.14
Dhauliganga-HPS	280	288	178	0	1.33	55	1.31	0.02
Dulhasi-HPS	390	388	392	0	3.22	134	3.29	-0.06
Sewa-II HPS	120	120	78	0	0.28	12	0.26	0.02
<b>Sub Total (C)</b>	<b>3305</b>	<b>2361</b>	<b>1709</b>	<b>211</b>	<b>17.02</b>	<b>709</b>	<b>16.90</b>	<b>0.11</b>
<b>D.NJPC</b>								
Nathpa Jhakri	1500	1605	1411	0	9.05	377	8.81	0.25
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1411</b>	<b>0</b>	<b>9.05</b>	<b>377</b>	<b>8.81</b>	<b>0.25</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	748	0	7.16	298	7.00	0.16
Koteswar HPS	400	269	183	0	1.39	58	1.35	0.04
<b>Sub Total (E)</b>	<b>1400</b>	<b>1319</b>	<b>931</b>	<b>0</b>	<b>8.55</b>	<b>356</b>	<b>8.35</b>	<b>0.20</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	671	1102	415	16.24	677	16.10	0.14
Dehar HPS	990	159	495	0	4.05	169	3.82	0.24
Pong HPS	396	290	366	180	7.26	303	5.01	2.25
<b>Sub Total (F)</b>	<b>2866</b>	<b>1120</b>	<b>1963</b>	<b>595</b>	<b>27.55</b>	<b>1148</b>	<b>24.92</b>	<b>2.63</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.63	26	0.65	-0.02
KWHEP HPS(IPP)	1000	0	150	0	4.63	193	4.60	0.03
Malana Stg-II HPS	100	0	35	13	0.25	10	0.22	0.02
Shree Cement TPS	300	0	143	145	3.49	145	3.54	-0.05
Budhil HPS(IPP)	70	0	10	5	0.17	7	0.42	-0.25
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>338</b>	<b>163</b>	<b>9.16</b>	<b>382</b>	<b>9.44</b>	<b>-0.27</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>16010</b>	<b>15546</b>	<b>10165</b>	<b>276.64</b>	<b>11527</b>	<b>277.97</b>	<b>-1.33</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	1272	989	27.18	1133	
	Guru Nanak Dev TPS(Bhatinda)	440	115	94	2.30	96	
	Guru Hargobind Singh TPS(L.mbt)	920	748	591	15.93	664	
	Thermal (Total)	2620	2135	1674	45.41	1892	
	Total Hydro	1148	430	271	9.18	383	
	<b>Total Punjab</b>	<b>3768</b>	<b>2565</b>	<b>1945</b>	<b>54.59</b>	<b>2275</b>	
Haryana	Panipat TPS	1367	1009	1114	25.56	1065	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	140	107	3.20	133	
	RGTPP (khedar) (IPP)	1200	864	654	16.78	699	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	618	379	10.59	441	
	Thermal (Total)	4944	2631	2254	56.12	2338	
	Total Hydro	62	25	28	0.62	26	
	<b>Total Haryana</b>	<b>5006</b>	<b>2656</b>	<b>2282</b>	<b>56.74</b>	<b>2364</b>	
Rajasthan	kota TPS	1240	1155	1175	26.98	1124	
	suratgarh TPS	1500	1293	1133	28.27	1178	
	Chabra TPS	500	447	374	8.67	361	
	Dholpur GPS	330	144	149	3.43	143	
	Ramgarh GPS	111	82	83	2.12	88	
	RAPS A (NPC)	300	179	183	4.36	182	
	Barsingsar (NLC)	250	110	108	2.50	104	
	Giral LTPS	250	31	46	0.64	27	
	Rajwest LTPS (IPP)	540	486	486	11.00	458	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	3927	3737	87.96	3665	
	Total Hydro	550	241	213	5.03	210	
	Wind power	2191	6	156	1.39	58	
	Biomass	91	26	26	0.79	33	
	Solar	201	4	0	0.15	6	
	Renewable/Others (Total)	2483	32	182	2.33	97	
	<b>Total Rajasthan</b>	<b>8189</b>	<b>4200</b>	<b>4132</b>	<b>95.32</b>	<b>3972</b>	
	UP	Anpara TPS	1630	1598	1533	33.90	1413
		Obra TPS	1382	362	408	8.30	346
Paricha TPS		890	384	232	5.90	246	
Panki TPS		210	75	165	3.10	129	
Harduaganj TPS		665	46	40	0.91	38	
Tanda TPS (NTPC)		440	399	397	9.73	405	
Roza TPS (IPP)		1200	1071	950	25.79	1075	
Anpara-C (IPP)		1200	835	847	20.04	835	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	202	202	4.83	201	
Thermal (Total)		8067	4972	4774	112.49	4687	
Vishnuparyag HPS (IPP)		400	119	109	2.68	112	
Other Hydro		527	122	186	4.39	183	
Cogeneration		981	70	70	1.68	70	
<b>Total UP</b>		<b>9975</b>	<b>5283</b>	<b>5139</b>	<b>121.24</b>	<b>4940</b>	
Uttarakhand		Total Hydro	1303	484	237	8.02	334
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>484</b>	<b>237</b>	<b>8.02</b>	<b>334</b>	
Delhi	Raighat TPS	135	103	104	2.79	116	
	Delhi Gas Turbine	282	59	156	3.99	166	
	Pragati Gas Turbine	330	314	319	7.90	329	
	Rithala GPS	108	20	20	0.52	22	
	Bawana GPS	677	270	220	6.35	265	
	Badarpur TPS (NTPC)	705	555	475	11.69	487	
	Thermal (Total)	2237	1321	1294	33.25	1385	
	<b>Total Delhi</b>	<b>2237</b>	<b>1321</b>	<b>1294</b>	<b>33.25</b>	<b>1385</b>	
HP	Baspa HPS (IPP)	330	31	0	1.39	58	
	Malana HPS (IPP)	86	38	0	0.27	11	
	Other Hydro	589	199	128	4.42	184	
	<b>Total HP</b>	<b>1005</b>	<b>268</b>	<b>128</b>	<b>6</b>	<b>253</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>17195</b>	<b>15480</b>	<b>382.75</b>	<b>15836</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>684</b>	<b>1926</b>	<b>49.81</b>	<b>2075</b>	
<b>Total Regional Availability(Gross)</b>		<b>55275</b>	<b>33425</b>	<b>27571</b>	<b>709.20</b>	<b>29438</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	6199	819	67.68	2820
State Control Area Hydro	5368	1988	1386	43.50	1701
<b>Total Regional Hydro</b>	<b>15731</b>	<b>8187</b>	<b>2205</b>	<b>111.18</b>	<b>4521</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	Import	Export	
Vindhychal B/B	-300	-400	200	500	5.80	0.72	5.07		
Gwalior-Agra (D/C)	350	456	474	0	7.71	0.00	7.71		
Zerda-Kankroli	-257	19	53	257	0.00	1.55	-1.55		
Zerda-Bhinmal	-182	126	173	198	0.75	0.00	0.75		
Malanpur-Auraiya	-183	-92	0	183	0.00	2.90	-2.90		
Badod-Kota/Morak	-154	-41	0	135	0.00	1.99	-1.99		
Mundra-Mohindergarh(HVDC)	369	370	371	0	8.96	0.00	8.96		
<b>Sub Total WR</b>	<b>-357</b>	<b>438</b>			<b>23.21</b>	<b>7.16</b>	<b>16.05</b>		
Pusauli Bypass	-50	-50	0	50	0.00	1.26	-1.26		
MZP- GKP (D/C)	246	480	556	0	9.46	0.00	9.46		
Patna-Balia(D/C)	443	504	633	0	12.66	0.00	12.66		
B'Sharif-Balia (D/C)	166	234	372	0	6.06	0.00	6.06		
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00		
Pusauli-Balia	68	41	152	0	0.18	0.00	0.18		
Gaya-Fatehpur (765 Kv)	77	173	273	0	4.43	0.00	4.43		
Pusauli-Sahupuri	131	140	160	0	3.18	0.00	3.18		
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>1041</b>	<b>1488</b>			<b>35.96</b>	<b>2.21</b>	<b>33.76</b>		
<b>Total IR Exch</b>	<b>684</b>	<b>1926</b>			<b>59.18</b>	<b>9.37</b>	<b>49.81</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
27.16	0.50	27.65	6.37	-15.21	-0.73	22.59	3.17	-3.10
<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
36.47	12.13	48.59	33.76	16.05	49.81	-2.71	3.93	1.22

**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	1.04	92.33	91.29	79.58	7.67
Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum		Hz			MAX (Hz)	MIN (Hz)
50.56	16.04	49.65	10.17	50.11	0.31	0.11	50.42	49.80

**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	409	3:09	415	11:29	3.1	0.0	0.0	0.0
Gorakhpur	400	430	4:30	416	11:04	0.0	0.0	91.1	0.0
Bareilly	400	420	20:57	399	10:15	0.0	0.0	0.0	0.0
Kanpur	400	420	4:03	398	10:15	0.0	0.0	0.0	0.0
Dadri	400	425	4:01	407	10:14	0.0	0.0	24.1	0.0
Ballabhgarh	400	432	4:04	409	10:09	0.0	0.0	49.3	0.9
Bawana	400	430	4:03	411	10:10	0.0	0.0	51.0	0.0
Bassi	400	437	4:02	407	9:43	0.0	0.0	54.3	9.0
Hissar	400	420	4:01	399	10:11	0.0	0.0	0.0	0.0
Moga	400	423	3:14	399	10:12	0.0	0.0	2.6	0.0
Abdullapur	400	429	4:04	395	10:14	0.1	0.1	41.3	0.0
Nalagarh	400	427	3:14	409	10:12	0.0	0.0	50.9	0.0
Kishenpur	400	418	3:12	394	18:37	0.0	0.0	0.0	0.0
Wagoora	400	405	16:47	367	18:35	38.3	60.8	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	501.62	1166.44	508.21	1455.60	192.50	450.58
Pong	426.72	384.05	416.76	743.22	418.28	807.91	85.01	434.66
Tehri	829.79	740.04	822.60	1057.00	818.65	982.26	66.16	157.00
Koteswar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	59.47	61.23
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 23.11.2012 :**

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 : 23.11.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER