

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 30.11.2012

Date of Reporting : 01.12.2012

### 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
32051	2199	34250	50.02	24851	480	25331	50.38	681.0	40.05

\* 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 *
Punjab	46.41	9.64		56.05	29.70	29.72	0.02	85.77	2.38
Haryana	62.34	0.62		62.96	36.74	35.28	-1.46	98.24	1.91
Rajasthan	82.33	4.82	8.95	96.10	68.02	65.84	-2.17	161.94	0.00
Delhi	22.87			22.87	32.81	33.11	0.30	55.98	1.41
UP	117.08	6.69	10.80	134.57	62.65	57.19	-5.46	191.76	31.52
Uttarakhand		8.38		8.38	19.22	20.07	0.85	28.45	1.12
HP		5.55		5.55	16.50	17.24	0.74	22.79	0.00
J & K		7.36	0.00	7.36	27.31	25.43	-1.88	32.80	1.70
Chandigarh				0.00	3.43	3.27	-0.16	3.27	0.00
<b>Total</b>	<b>331.03</b>	<b>43.07</b>	<b>19.75</b>	<b>393.85</b>	<b>296.37</b>	<b>287.15</b>	<b>-9.22</b>	<b>680.99</b>	<b>40.05</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	4505	840	-58	-449	2943	0	-108	-149	-7.07	
Haryana	5197	49	-1	68	3402	0	-209	139	2.85	
Rajasthan	7041	0	-41	924	6662	0	-173	1331	31.68	
Delhi	2976	0	50	-1057	1382	0	28	-2100	-33.73	
UP	7703	1130	-1024	-512	7589	480	-297	-101	-8.51	
Uttarakhand	1513	80	65	405	939	0	-82	411	9.56	
HP	1135	0	-1	124	716	0	12	305	4.55	
J&K	1795	100	-295	537	1129	0	-219	436	9.78	
Chandigarh	186	0	-10	-13	89	0	-1	-31	-0.34	
<b>Total</b>	<b>32051</b>	<b>2199</b>	<b>-1316</b>	<b>27</b>	<b>24851</b>	<b>480</b>	<b>-1049</b>	<b>242</b>	<b>8.79</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	1947	2090	2011	46.63	1943	46.72	-0.09
Rihand I STPS	1000	460	508	387	11.00	458	11.02	-0.02
Rihand II STPS	1000	975	1039	1010	23.33	972	23.33	0.00
Rihand III STPS	500	-5	0	0	0.00	0	-0.13	0.13
Dadri I STPS	840	810	867	778	18.82	784	19.29	-0.47
Dadri II STPS	980	975	802	860	21.64	902	22.56	-0.92
Unchahar I TPS	420	402	436	351	9.18	382	9.10	0.08
Unchahar II TPS	420	405	442	311	8.89	370	8.89	0.00
Unchahar III TPS	210	202	218	154	4.42	184	4.43	-0.01
ISTPP (Jhajihar)	1500	980	740	480	17.00	708	19.65	-2.65
Dadri GPS	830	841	427	377	9.30	388	9.86	-0.56
Anta GPS	419	282	263	173	5.45	227	4.96	0.50
Auraiya GPS	663	659	323	317	6.98	291	7.03	-0.05
<b>Sub Total (A)</b>	<b>10782</b>	<b>8932</b>	<b>8155</b>	<b>7209</b>	<b>182.64</b>	<b>7610</b>	<b>186.72</b>	<b>-4.07</b>
<b>B. NPC</b>								
NAPS	440	281	318	317	6.70	279	6.74	-0.04
RAPS- B	440	210	231	233	5.08	212	5.04	0.04
RAPS- C	440	430	469	473	10.14	422	10.32	-0.19
<b>Sub Total (B)</b>	<b>1320</b>	<b>921</b>	<b>1018</b>	<b>1023</b>	<b>21.92</b>	<b>913</b>	<b>22.10</b>	<b>-0.19</b>
<b>C. NHPC</b>								
Chamera I HPS	540	550	360	0	2.02	84	2.00	0.02
Chamera II HPS	300	303	201	0	1.50	62	1.37	0.12
Chamera III HPS	231	231	75	0	0.95	40	0.85	0.10
Bairasuil HPS	180	182	60	0	0.64	27	0.63	0.01
Salai-HPS	690	123	221	130	3.04	126	2.96	0.07
Tanakpur-HPS	94	32	40	28	0.93	39	0.88	0.04
Uri-HPS	480	114	234	31	2.84	118	2.71	0.13
Dhauliganga-HPS	280	288	131	0	1.42	59	1.52	-0.10
Dulhasti-HPS	390	388	78	0	2.95	123	3.01	-0.06
Sewa-II HPS	120	120	70	0	0.33	14	0.34	-0.02
<b>Sub Total (C)</b>	<b>3305</b>	<b>2330</b>	<b>1470</b>	<b>189</b>	<b>16.59</b>	<b>691</b>	<b>16.28</b>	<b>0.32</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	1251	0	8.11	338	7.85	0.25
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1251</b>	<b>0</b>	<b>8.11</b>	<b>338</b>	<b>7.85</b>	<b>0.25</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	726	0	7.21	300	7.00	0.21
Koteshwar HPS	400	250	201	0	2.45	102	2.40	0.05
<b>Sub Total (E)</b>	<b>1400</b>	<b>1300</b>	<b>927</b>	<b>0</b>	<b>9.65</b>	<b>402</b>	<b>9.40</b>	<b>0.25</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	701	1102	415	17.08	712	16.83	0.25
Dehar HPS	990	154	495	0	3.77	157	3.70	0.08
Pong HPS	396	330	366	306	8.20	342	5.01	3.19
<b>Sub Total (F)</b>	<b>2866</b>	<b>1186</b>	<b>1963</b>	<b>721</b>	<b>29.05</b>	<b>1210</b>	<b>25.54</b>	<b>3.51</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.71	30	0.00	0.71
KWHEP HPS(IPP)	1000	0	150	0	4.57	190	4.44	0.12
Malana Stg-II HPS	100	0	32	0	0.25	11	0.00	0.25
Shree Cement TPS	300	0	146	142	3.51	146	3.54	-0.04
Budhil HPS(IPP)	70	0	6	10	0.20	8	0.42	-0.22
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>334</b>	<b>152</b>	<b>9.24</b>	<b>385</b>	<b>8.41</b>	<b>0.83</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>16274</b>	<b>15118</b>	<b>9294</b>	<b>277.21</b>	<b>11550</b>	<b>276.29</b>	<b>0.91</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	1268	1080	26.72	1113	
	Guru Nanak Dev TPS(Bhatinda)	440	225	215	4.71	196	
	Guru Hargobind Singh TPS(L.mbt)	920	752	564	14.98	624	
	Thermal (Total)	2620	2245	1859	46.41	1934	
	Total Hydro	1148	476	285	9.64	402	
	<b>Total Punjab</b>	<b>3768</b>	<b>2721</b>	<b>2144</b>	<b>56.05</b>	<b>2336</b>	
Haryana	Panipat TPS	1367	1131	1083	26.86	1119	
	DCRTPP (Yamuna nagar)	600	255	0	4.68	195	
	Faridabad GPS (NTPC)	432	144	78	2.58	108	
	RGTPP (khedar) (IPP)	1200	700	853	16.55	689	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	617	428	11.67	486	
	Thermal (Total)	4944	2847	2442	62.34	2597	
	Total Hydro	62	26	23	0.62	26	
	<b>Total Haryana</b>	<b>5006</b>	<b>2873</b>	<b>2465</b>	<b>62.96</b>	<b>2623</b>	
Rajasthan	kota TPS	1240	1073	1015	25.08	1045	
	suratgarh TPS	1500	1132	946	23.83	993	
	Chabra TPS	500	455	424	9.54	397	
	Dholpur GPS	330	143	143	3.34	139	
	Ramgarh GPS	111	79	79	2.09	87	
	RAPS A (NPC)	300	179	179	4.39	183	
	Barsingar (NLC)	250	109	104	2.55	106	
	Giral LTPS	250	0	0	0.00	0	
	Rajwest LTPS (IPP)	540	486	486	11.51	479	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	3656	3376	82.33	3430	
	Total Hydro	550	235	168	4.82	201	
	Wind power	2191	140	485	7.77	324	
	Biomass	91	43	43	1.03	43	
	Solar	201	4	0	0.15	6	
	Renewable/Others (Total)	2483	183	528	8.95	373	
	<b>Total Rajasthan</b>	<b>8189</b>	<b>4074</b>	<b>4072</b>	<b>96.10</b>	<b>4004</b>	
	UP	Anpara TPS	1630	1346	1249	30.10	1254
		Obra TPS	1382	459	458	10.80	450
Paricha TPS		890	360	363	8.90	371	
Panki TPS		210	266	135	3.10	129	
Harduaganj TPS		665	113	117	5.00	208	
Tanda TPS (NTPC)		440	397	393	9.65	402	
Roza TPS (IPP)		1200	972	846	22.91	955	
Anpara-C (IPP)		1200	708	695	20.02	834	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	284	282	6.60	275	
Thermal (Total)		8067	4905	4538	117.08	4878	
Vishnuparyag HPS (IPP)		400	108	98	2.43	101	
Other Hydro		527	188	177	4.26	178	
Cogeneration		981	450	450	10.80	450	
<b>Total UP</b>		<b>9975</b>	<b>5651</b>	<b>5263</b>	<b>134.57</b>	<b>5506</b>	
Uttarakhand		Total Hydro	1303	472	282	8.38	349
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>472</b>	<b>282</b>	<b>8.38</b>	<b>349</b>	
Delhi	Raighat TPS	135	56	53	1.48	62	
	Delhi Gas Turbine	282	161	75	3.29	137	
	Pragati Gas Turbine	330	207	324	5.87	244	
	Rithala GPS	108	0	0	0.44	18	
	Bawana GPS	677	22	0	1.04	43	
	Badarpur TPS (NTPC)	705	500	485	10.77	449	
	Thermal (Total)	2237	946	937	22.87	953	
	<b>Total Delhi</b>	<b>2237</b>	<b>946</b>	<b>937</b>	<b>22.87</b>	<b>953</b>	
HP	Baspa HPS (IPP)	330	58	0	1.39	58	
	Malana HPS (IPP)	86	31	0	0.16	7	
	Other Hydro	589	194	131	4.01	167	
	<b>Total HP</b>	<b>1005</b>	<b>283</b>	<b>131</b>	<b>6</b>	<b>231</b>	
J & K	Baglihar HPS (IPP)	450	294	140	4.18	174	
	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>414</b>	<b>315</b>	<b>7.36</b>	<b>307</b>	
<b>Total State Control Area Generation</b>		<b>32439</b>	<b>17434</b>	<b>15609</b>	<b>393.85</b>	<b>16309</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1350</b>	<b>1090</b>	<b>28.49</b>	<b>1187</b>	
<b>Total Regional Availability(Gross)</b>		<b>55275</b>	<b>33902</b>	<b>25993</b>	<b>699.55</b>	<b>29046</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	5793	910	68.93	2872
State Control Area Hydro	5368	2094	1381	43.07	1693
<b>Total Regional Hydro</b>	<b>15731</b>	<b>7887</b>	<b>2291</b>	<b>112.00</b>	<b>4565</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	-400	-200	0	500	0.00	8.51	-8.51		
Gwalior-Agra (D/C)	472	72	472	0	5.04	0.00	5.04		
Zerda-Kankroli	-37	-59	18	207	0.00	1.95	-1.95		
Zerda-Bhinmal	50	39	134	128	0.14	0.00	0.14		
Malanpur-Auraiya	-154	-151	0	160	0.00	2.89	-2.89		
Badod-Kota/Morak	-81	-83	0	157	0.00	2.10	-2.10		
Mundra-Mohindergarh(HVDC)	368	369	372	0	8.77	0.00	8.77		
<b>Sub Total WR</b>	<b>218</b>	<b>-13</b>			<b>13.95</b>	<b>15.45</b>	<b>-1.50</b>		
Pusauli Bypass	50	250	250	0	3.54	0.00	3.54		
MZP- GKP (D/C)	252	239	484	0	6.74	0.00	6.74		
Patna-Balia(D/C)	480	432	661	0	11.33	0.00	11.33		
B'Sharif-Balia (D/C)	135	119	365	0	4.39	0.00	4.39		
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00		
Pusauli-Balia	-67	-96	0	104	0.00	1.43	-1.43		
Gaya-Fatehpur (765 Kv)	170	61	248	0	3.16	0.00	3.16		
Pusauli-Sahupuri	149	130	168	0	3.28	0.00	3.28		
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00		
Son Ngr-Rihand	-37	-32	0	48	0.00	1.00	-1.00		
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
<b>Sub Total ER</b>	<b>1132</b>	<b>1103</b>			<b>32.43</b>	<b>2.43</b>	<b>30.00</b>		
<b>Total IR Exch</b>	<b>1350</b>	<b>1090</b>			<b>46.37</b>	<b>17.88</b>	<b>28.49</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
28.16	0.53	28.69	4.58	-17.03	-1.40	15.65	2.64	-2.57
<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
34.51	-0.95	33.56	30.00	-1.50	28.49	-4.51	-0.56	-5.07

**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	0.50	3.50	87.90	84.90	45.50	11.60
<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.50	23.59	49.45	5.53	49.99	0.30	0.17	50.49	49.74

**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	412	3:02	0	13:26	4.0	4.0	0.0	0.0
Gorakhpur	400	432	17:48	416	6:33	0.0	0.0	85.9	3.0
Bareilly	400	429	3:05	406	11:49	0.0	0.0	21.9	0.0
Kanpur	400	425	3:05	401	10:17	0.0	0.0	6.1	0.0
Dadri	400	431	3:05	407	17:38	0.0	0.0	25.0	0.2
Ballabhgarh	400	437	3:05	409	17:39	0.0	0.0	45.8	17.9
Bawana	400	435	3:06	410	17:38	0.0	0.0	47.6	13.8
Bassi	400	437	3:18	408	7:19	0.0	0.0	41.7	7.7
Hissar	400	423	3:05	398	17:38	0.0	0.0	4.4	0.0
Moga	400	415	23:58	397	17:37	0.0	0.0	0.0	0.0
Abdullapur	400	429	2:28	296	12:01	0.0	0.0	33.1	0.0
Nalagarh	400	430	2:30	399	17:38	0.0	0.0	21.0	0.0
Kishenpur	400	423	3:05	389	17:38	0.0	0.1	5.9	0.0
Wagoora	400	414	13:01	353	19:25	18.9	57.4	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	501.32	1153.36	507.97	1455.60	197.91	445.85
Pong	426.72	384.05	416.46	730.66	418.09	807.91	81.10	445.65
Tehri	829.79	740.04	822.20	1044.51	818.65	982.26	64.34	155.00
Koteshwar	612.50	598.50	606.45	3.32	NA	NA	155.00	131.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	58.40	59.28
Rihand	268.22	252.98	262.83	500.10	264.57	617.70	NA	NA
RPS	352.80	343.81	348.91	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.39	NA	NA	NA	NA	NA
RSD	527.91	487.91	520.62	NA	518.41	NA	66.63	84.33

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 30.11.2012 :**

Normal

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

0.00

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

1. 500MVA ICT - II at Jaipur south ( PG ) test chaged at 23.09 hrs /30.11.2012.
2. After LILO of Barh - Balia - I & II at Patna at 20.29 & 22.55 hrs/ 30.11.2012 now these lines named as Patna - Balia - III & IV after chaging from Balia end both tripped on over voltage from Patna end.

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

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

Report for : 30.11.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER