

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 08.12.2012

Date of Reporting : 09.12.2012

### 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
32557	3008	35565	49.98	26530	630	27160	50.16	703.9	51.54

\* 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	43.44	13.07		56.51	40.54	40.57	0.03	97.08	5.47
Haryana	65.93	0.58		66.51	33.32	30.86	-2.46	97.37	3.77
Rajasthan	92.50	4.83	0.65	97.99	66.45	66.54	0.09	164.53	0.00
Delhi	25.76			25.76	32.70	29.70	-3.00	55.45	0.21
UP	109.66	5.69	12.00	127.36	72.71	68.77	-3.94	196.13	38.36
Uttarakhand		9.49		9.49	20.15	19.35	-0.80	28.84	2.02
HP		5.08		5.08	18.17	18.94	0.78	24.03	0.00
J & K		7.30	0.00	7.30	28.77	29.83	1.07	37.13	1.70
Chandigarh				0.00	3.56	3.40	-0.16	3.40	0.00
<b>Total</b>	<b>337.29</b>	<b>46.05</b>	<b>12.65</b>	<b>395.98</b>	<b>316.36</b>	<b>307.96</b>	<b>-8.39</b>	<b>703.95</b>	<b>51.54</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	4624	800	-62	-182	3679	0	-42	-68	-2.31	
Haryana	4411	372	-140	-31	3533	0	-553	-79	-3.74	
Rajasthan	7254	0	-46	422	6720	0	155	684	26.04	
Delhi	2899	0	-135	-1098	1350	0	-92	-2087	-36.08	
UP	8703	1656	-148	118	7764	630	-344	144	-5.03	
Uttarakhand	1536	80	117	430	1083	0	-10	410	9.96	
HP	1184	0	49	201	752	0	58	335	6.06	
J&K	1761	100	-153	382	1557	0	75	501	10.14	
Chandigarh	185	0	-23	0	93	0	-5	-30	-0.33	
<b>Total</b>	<b>32557</b>	<b>3008</b>	<b>-540</b>	<b>241</b>	<b>26530</b>	<b>630</b>	<b>-757</b>	<b>-190</b>	<b>4.71</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	2089	2026	47.21	1967	46.33	0.89
Rihand I STPS	1000	731	504	977	17.44	726	17.39	0.04
Rihand II STPS	1000	975	1039	1038	23.34	973	23.26	0.08
Rihand III STPS	500	299	304	255	7.36	306	7.19	0.17
Dadri I STPS	840	810	875	634	17.55	731	17.50	0.05
Dadri II STPS	980	975	1036	745	21.53	897	21.70	-0.16
Unchahar I TPS	420	407	434	383	9.51	396	9.49	0.02
Unchahar II TPS	420	405	439	336	9.23	384	9.21	0.02
Unchahar III TPS	210	202	219	162	4.58	191	4.55	0.03
ISTPP (Jhajhar)	1500	470	492	312	9.03	376	9.35	-0.32
Dadri GPS	830	841	395	474	10.76	448	10.73	0.04
Anta GPS	419	379	229	190	5.62	234	5.44	0.18
Auraiya GPS	663	663	269	304	7.22	301	7.26	-0.04
<b>Sub Total (A)</b>	<b>10782</b>	<b>9104</b>	<b>8324</b>	<b>7836</b>	<b>190.37</b>	<b>7932</b>	<b>189.39</b>	<b>0.98</b>
<b>B. NPC</b>								
NAPS	440	284	315	324	6.72	280	6.82	-0.09
RAPS- B	440	211	231	233	5.00	208	5.06	-0.07
RAPS- C	440	435	471	473	10.17	424	10.44	-0.27
<b>Sub Total (B)</b>	<b>1320</b>	<b>930</b>	<b>1017</b>	<b>1030</b>	<b>21.89</b>	<b>912</b>	<b>22.32</b>	<b>-0.43</b>
<b>C. NHPC</b>								
Chamera I HPS	540	365	180	0	2.04	85	2.00	0.04
Chamera II HPS	300	303	277	0	1.45	60	1.33	0.12
Chamera III HPS	231	231	154	0	0.83	35	0.80	0.03
Bairasuil HPS	180	120	100	0	0.57	24	0.51	0.05
Salai-HPS	690	124	229	100	3.05	127	3.04	0.01
Tanakpur-HPS	94	34	45	32	0.83	35	0.80	0.03
Uri-HPS	480	105	218	40	2.67	111	2.60	0.07
Dhauliganga-HPS	280	254	142	0	1.37	57	1.35	0.02
Dulhasi-HPS	390	388	410	0	3.00	125	2.88	0.12
Sewa-II HPS	120	119	105	0	0.31	13	0.31	0.00
<b>Sub Total (C)</b>	<b>3305</b>	<b>2042</b>	<b>1860</b>	<b>172</b>	<b>16.11</b>	<b>671</b>	<b>15.61</b>	<b>0.50</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	1231	0	8.47	353	8.20	0.27
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1231</b>	<b>0</b>	<b>8.47</b>	<b>353</b>	<b>8.20</b>	<b>0.27</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	757	0	7.35	306	7.00	0.35
Koteshwar HPS	400	100	101	101	2.43	101	2.40	0.03
<b>Sub Total (E)</b>	<b>1400</b>	<b>1150</b>	<b>858</b>	<b>101</b>	<b>9.78</b>	<b>408</b>	<b>9.40</b>	<b>0.38</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	729	1148	412	17.68	737	17.50	0.18
Dehar HPS	990	139	495	0	3.50	146	3.33	0.18
Pong HPS	396	296	366	246	7.28	303	5.01	2.27
<b>Sub Total (F)</b>	<b>2866</b>	<b>1163</b>	<b>2009</b>	<b>658</b>	<b>28.46</b>	<b>1186</b>	<b>25.83</b>	<b>2.63</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.52	22	0.52	0.00
KWHEP HPS(IPP)	1000	0	150	0	4.37	182	4.32	0.05
Malana Stg-II HPS	100	0	26	0	0.23	10	0.18	0.05
Shree Cement TPS	300	0	283	207	6.32	263	6.35	-0.03
Budhil HPS(IPP)	70	0	0	0	0.00	0	0.17	-0.17
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>459</b>	<b>207</b>	<b>11.44</b>	<b>477</b>	<b>11.55</b>	<b>-0.11</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>15995</b>	<b>15758</b>	<b>10004</b>	<b>286.53</b>	<b>11939</b>	<b>282.30</b>	<b>4.23</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	1250	1080	26.53	1105	
	Guru Nanak Dev TPS(Bhatinda)	440	298	290	6.14	256	
	Guru Hargobind Singh TPS(L.mbt)	920	482	476	10.77	449	
	Thermal (Total)	2620	2030	1846	43.44	1810	
	Total Hydro	1148	458	485	13.07	545	
	<b>Total Punjab</b>	<b>3768</b>	<b>2488</b>	<b>2331</b>	<b>56.51</b>	<b>2355</b>	
Haryana	Panipat TPS	1367	942	980	22.53	939	
	DCRTPP (Yamuna nagar)	600	285	265	6.44	268	
	Faridabad GPS (NTPC)	432	162	199	3.87	161	
	RGTPP (kheadar) (IPP)	1200	809	795	18.43	768	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	522	619	14.65	610	
	Thermal (Total)	4944	2720	2858	65.93	2747	
	Total Hydro	62	24	22	0.58	24	
	<b>Total Haryana</b>	<b>5006</b>	<b>2744</b>	<b>2880</b>	<b>66.51</b>	<b>2771</b>	
Rajasthan	kota TPS	1240	1187	1183	27.89	1162	
	suratgarh TPS	1500	1322	1148	31.31	1305	
	Chabra TPS	500	450	391	9.57	399	
	Dholpur GPS	330	141	150	3.44	143	
	Ramgarh GPS	111	78	80	2.05	85	
	RAPS A (NPC)	300	179	179	4.39	183	
	Barsingar (NLC)	250	209	210	4.84	202	
	Giral LTPS	250	51	81	1.05	44	
	Rajwest LTPS (IPP)	540	351	338	7.96	332	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	3968	3760	92.50	3854	
	Total Hydro	550	144	147	4.83	201	
	Wind power	2191	0	39	0.06	2	
	Biomass	91	22	22	0.53	22	
	Solar	201	2	0	0.07	3	
	Renewable/Others (Total)	2483	22	61	0.65	27	
	<b>Total Rajasthan</b>	<b>8189</b>	<b>4134</b>	<b>3968</b>	<b>97.99</b>	<b>4083</b>	
	UP	Anpara TPS	1630	1608	1604	33.70	1404
		Obra TPS	1382	478	474	10.30	429
		Paricha TPS	890	253	256	5.50	229
Panki TPS		210	130	125	2.60	108	
Harduaganj TPS		665	0	0	0.00	0	
Tanda TPS (NTPC)		440	399	328	9.52	397	
Roza TPS (IPP)		1200	1095	846	24.19	1008	
Anpara-C (IPP)		1200	627	636	15.19	633	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	362	357	8.66	361	
Thermal (Total)		8067	4952	4626	109.66	4569	
Vishnuparyag HPS (IPP)		400	93	94	2.28	95	
Other Hydro		527	187	142	3.41	142	
Cogeneration		981	500	500	12.00	500	
<b>Total UP</b>		<b>9975</b>	<b>5732</b>	<b>5362</b>	<b>127.36</b>	<b>5211</b>	
Uttarakhand		Total Hydro	1303	422	306	9.49	395
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>422</b>	<b>306</b>	<b>9.49</b>	<b>395</b>	
Delhi	Raighat TPS	135	50	104	1.52	63	
	Delhi Gas Turbine	282	78	77	1.92	80	
	Pragati Gas Turbine	330	308	273	7.38	308	
	Rithala GPS	108	0	0	0.00	0	
	Bawana GPS	677	125	225	4.95	206	
	Badarpur TPS (NTPC)	705	465	420	9.99	416	
	Thermal (Total)	2237	1026	1099	25.76	1073	
	<b>Total Delhi</b>	<b>2237</b>	<b>1026</b>	<b>1099</b>	<b>25.76</b>	<b>1073</b>	
HP	Baspa HPS (IPP)	330	0	0	1.28	53	
	Malana HPS (IPP)	86	38	0	0.25	11	
	Other Hydro	589	172	106	3.55	148	
	<b>Total HP</b>	<b>1005</b>	<b>210</b>	<b>106</b>	<b>5</b>	<b>212</b>	
J & K	Baglihar HPS (IPP)	450	294	146	4.12	172	
	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>321</b>	<b>7.30</b>	<b>304</b>	
<b>Total State Control Area Generation</b>		<b>32439</b>	<b>17170</b>	<b>16373</b>	<b>395.98</b>	<b>16404</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>990</b>	<b>1585</b>	<b>38.12</b>	<b>1588</b>	
<b>Total Regional Availability(Gross)</b>		<b>55275</b>	<b>33918</b>	<b>27962</b>	<b>720.64</b>	<b>29932</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	6134	931	67.94	2831
State Control Area Hydro	5368	1859	1529	46.05	1824
<b>Total Regional Hydro</b>	<b>15731</b>	<b>7993</b>	<b>2460</b>	<b>113.99</b>	<b>4655</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	-100	-400	0	400	0.00	4.87	-4.87		
Gwalior-Agra (D/C)	-78	112	352	78	1.62	0.00	1.62		
Zerda-Kankroli	-102	-89	9	218	0.00	1.99	-1.99		
Zerda-Bhinmal	-4	30	154	127	0.70	0.00	0.70		
Malanpur-Auraiya	-198	-157	0	198	0.00	4.02	-4.02		
Badod-Kota/Morak	-153	-131	0	193	0.00	3.53	-3.53		
Mundra-Mohindergarh(HVDC)	436	852	920	0	15.48	0.00	15.48		
<b>Sub Total WR</b>	<b>-199</b>	<b>217</b>			<b>17.80</b>	<b>14.40</b>	<b>3.39</b>		
Pusauli Bypass	-181	-207	0	536	0.00	4.05	-4.05		
MZP- GKP (D/C)	368	428	536	0	10.57	0.00	10.57		
Patna-Balia(D/C)	464	612	716	0	14.27	0.00	14.27		
B'Sharif-Balia (D/C)	186	196	303	0	5.69	0.00	5.69		
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00		
Pusauli-Balia	9	27	77	0	0.44	0.00	0.44		
Gaya-Fatehpur (765 Kv)	246	207	309	0	5.41	0.00	5.41		
Pusauli-Sahupuri	134	137	164	0	3.26	0.00	3.26		
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00		
Son Ngr-Rihand	-37	-32	0	48	0.00	0.85	-0.85		
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
<b>Sub Total ER</b>	<b>1189</b>	<b>1368</b>			<b>39.63</b>	<b>4.90</b>	<b>34.73</b>		
<b>Total IR Exch</b>	<b>990</b>	<b>1585</b>			<b>57.43</b>	<b>19.30</b>	<b>38.12</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
36.90	0.50	37.40	10.39	-22.70	-0.01	7.87	-3.60	3.71
<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
44.19	5.33	49.52	34.73	3.39	38.12	-9.46	-1.94	-11.40

**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	4.90	96.20	91.30	31.00	3.80
<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.42	6.02	49.51	8.38	49.93	0.25	0.14	50.25	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	406	4:09	0	13:54	10.4	10.4	0.0	0.0
Gorakhpur	400	433	4:23	413	8:40	0.0	0.0	80.1	3.4
Bareilly	400	422	3:05	396	8:38	0.0	0.0	1.6	0.0
Kanpur	400	421	4:03	396	8:36	0.0	0.0	0.6	0.0
Dadri	400	420	3:01	401	8:36	0.0	0.0	0.0	0.0
Ballabhgarh	400	427	3:07	402	8:35	0.0	0.0	22.7	0.0
Bawana	400	425	4:04	403	8:38	0.0	0.0	18.2	0.0
Bassi	400	436	4:04	395	8:37	0.0	0.0	26.6	6.1
Hissar	400	413	4:03	390	8:36	0.0	0.0	0.0	0.0
Moga	400	417	4:02	390	10:11	0.0	0.0	0.0	0.0
Abdullapur	400	426	1:04	405	8:37	0.0	0.0	34.6	0.0
Nalagarh	400	420	3:01	401	10:56	0.0	0.0	0.0	0.0
Kishenpur	400	415	1:05	384	10:12	0.0	4.8	0.0	0.0
Wagoora	400	405	13:01	362	10:12	30.0	59.1	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	498.71	1041.47	505.83	1352.81	199.15	509.50
Pong	426.72	384.05	414.12	644.91	416.37	730.66	71.53	445.90
Tehri	829.79	740.04	819.00	982.26	818.65	982.26	53.40	163.00
Koteshwar	612.50	598.50	611.20	5.20	NA	NA	163.00	161.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	54.44	54.44
Rihand	268.22	252.98	262.65	500.10	264.29	617.70	NA	NA
RPS	352.80	343.81	349.51	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.94	NA	NA	NA	NA	NA
RSD	527.91	487.91	520.39	NA	516.88	NA	70.79	69.89

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 08.12.2012 :**  
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 : 08.12.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER