

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 27.12.2012

Date of Reporting : 28.12.2012

### 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
33642	4548	38190	50.02	26743	680	27423	50.29	735.4	70.36

\* 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	54.82	9.40		64.23	30.60	31.71	1.11	95.94	1.80
Haryana	50.31	0.54		50.85	45.19	46.47	1.28	97.32	8.36
Rajasthan	91.83	4.75	6.26	102.84	72.24	72.99	0.75	175.82	1.18
Delhi	32.12			32.12	34.84	32.23	-2.61	64.34	0.34
UP	127.09	3.94	16.80	147.83	65.10	65.06	-0.04	212.88	53.03
Uttarakhand		7.60		7.60	19.09	20.82	1.73	28.41	3.94
HP		4.53		4.53	18.95	19.49	0.55	24.02	0.00
J & K		0.00	0.00	0.00	28.06	32.67	4.62	32.67	1.70
Chandigarh				0.00	3.65	3.94	0.30	3.94	0.00
<b>Total</b>	<b>356.17</b>	<b>30.76</b>	<b>23.06</b>	<b>409.99</b>	<b>317.70</b>	<b>325.37</b>	<b>7.67</b>	<b>735.36</b>	<b>70.36</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	4629	1177	-28	-477	2958	0	-17	-109	-9.15	
Haryana	4239	711	-32	254	3574	0	107	-199	-1.42	
Rajasthan	7789	0	-90	952	6903	0	-183	1195	33.17	
Delhi	3359	0	-110	-619	1369	0	-150	-2035	-27.86	
UP	9058	2391	-267	-138	8499	630	-199	-117	-7.28	
Uttarakhand	1362	155	-81	373	1026	30	67	381	8.82	
HP	1197	15	18	234	725	20	11	335	7.18	
J&K	1796	100	-59	391	1598	0	144	493	9.25	
Chandigarh	213	0	4	0	92	0	2	-31	-0.20	
<b>Total</b>	<b>33642</b>	<b>4548</b>	<b>-644</b>	<b>969</b>	<b>26743</b>	<b>680</b>	<b>-219</b>	<b>-87</b>	<b>12.52</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	1950	2092	1976	46.69	1945	46.80	-0.11
Rihand I STPS	1000	914	994	924	21.76	907	21.93	-0.17
Rihand II STPS	1000	975	1038	1008	23.13	964	23.40	-0.27
Rihand III STPS	500	326	406	403	7.52	313	7.84	-0.32
Dadri I STPS	840	615	627	627	14.35	598	14.28	0.07
Dadri II STPS	980	750	978	672	17.74	739	17.82	-0.08
Unchahar I TPS	420	404	436	376	9.42	392	9.70	-0.28
Unchahar II TPS	420	404	491	358	9.34	389	9.71	-0.37
Unchahar III TPS	210	202	220	177	4.69	195	4.85	-0.16
ISTPP (Jhajjar)	1500	889	340	371	17.71	738	18.31	-0.60
Dadri GPS	830	847	210	349	8.10	338	9.94	-1.84
Anta GPS	419	438	281	208	5.66	236	5.69	-0.03
Auraiya GPS	663	676	331	295	7.22	301	7.19	0.03
<b>Sub Total (A)</b>	<b>10782</b>	<b>9390</b>	<b>8444</b>	<b>7744</b>	<b>193.32</b>	<b>8055</b>	<b>197.44</b>	<b>-4.12</b>
<b>B. NPC</b>								
NAPS	440	292	328	336	7.15	298	7.01	0.14
RAPS- B	440	208	234	235	4.76	198	4.99	-0.23
RAPS- C	440	220	238	239	5.12	213	5.28	-0.16
<b>Sub Total (B)</b>	<b>1320</b>	<b>720</b>	<b>800</b>	<b>810</b>	<b>17.03</b>	<b>710</b>	<b>17.28</b>	<b>-0.25</b>
<b>C. NHPC</b>								
Chamera I HPS	540	365	180	0	2.26	94	2.24	0.02
Chamera II HPS	300	303	175	0	1.19	50	1.15	0.04
Chamera III HPS	231	231	174	0	1.18	49	0.70	0.47
Bairasuil HPS	180	182	100	0	0.51	21	0.49	0.02
Salai-HPS	690	123	224	113	2.96	123	2.94	0.02
Tanakpur-HPS	94	30	35	26	0.69	29	0.72	-0.04
Uri-HPS	480	89	207	35	2.60	108	2.65	-0.05
Dhauliganga-HPS	280	90	204	0	1.57	65	1.60	-0.03
Dulhasi-HPS	390	388	262	0	2.65	110	2.63	0.02
Sewa-II HPS	120	80	73	0	0.29	12	0.28	0.01
<b>Sub Total (C)</b>	<b>3305</b>	<b>1880</b>	<b>1634</b>	<b>174</b>	<b>15.88</b>	<b>662</b>	<b>15.40</b>	<b>0.48</b>
<b>D.NJPC</b>								
Nathpa Jhakri	1500	1605	1214	0	6.94	289	7.07	-0.13
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1214</b>	<b>0</b>	<b>6.94</b>	<b>289</b>	<b>7.07</b>	<b>-0.13</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	914	0	10.13	422	10.00	0.13
Koteshwar HPS	400	300	298	86	3.43	143	3.40	0.03
<b>Sub Total (E)</b>	<b>1400</b>	<b>1350</b>	<b>1212</b>	<b>86</b>	<b>13.56</b>	<b>565</b>	<b>13.40</b>	<b>0.16</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	665	1104	417	16.32	680	15.95	0.37
Dehar HPS	990	127	495	0	3.19	133	3.06	0.14
Pong HPS	396	255	300	120	6.33	264	5.01	1.32
<b>Sub Total (F)</b>	<b>2866</b>	<b>1047</b>	<b>1899</b>	<b>537</b>	<b>25.84</b>	<b>1077</b>	<b>24.02</b>	<b>1.82</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.48	20	0.52	-0.05
KWHEP HPS(IPP)	1000	0	0	0	0.00	0	0.00	0.00
Malana Stg-II HPS	100	0	22	0	0.18	8	0.16	0.02
Shree Cement TPS	300	0	280	160	6.28	262	6.25	0.02
Budhil HPS(IPP)	70	0	0	0	0.04	1	0.16	-0.13
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>302</b>	<b>160</b>	<b>6.97</b>	<b>290</b>	<b>7.10</b>	<b>-0.13</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>15992</b>	<b>15505</b>	<b>9511</b>	<b>279.54</b>	<b>11648</b>	<b>281.70</b>	<b>-2.16</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	843	760	25.86	1077
	Guru Nanak Dev TPS(Bhatinda)	440	218	218	9.54	398
	Guru Hargobind Singh TPS(L.mbt)	920	974	686	19.42	809
	Thermal (Total)	2620	2035	1664	54.82	2284
	Total Hydro	1148	625	432	9.40	392
	<b>Total Punjab</b>	<b>3768</b>	<b>2660</b>	<b>2096</b>	<b>64.23</b>	<b>2676</b>
Haryana	Panipat TPS	1367	601	635	15.35	639
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	439	277	9.72	405
	RGTPP (kheadar) (IPP)	1200	548	594	13.40	558
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	357	390	11.85	494
	Thermal (Total)	4944	196	1896	50.31	2096
	Total Hydro	62	24	22	0.54	23
	<b>Total Haryana</b>	<b>5006</b>	<b>220</b>	<b>1918</b>	<b>50.85</b>	<b>2119</b>
Rajasthan	kota TPS	1240	1176	1161	27.72	1155
	suratgarh TPS	1500	1201	1126	29.81	1242
	Chabra TPS	500	394	423	9.70	404
	Dholpur GPS	330	127	140	3.19	133
	Ramgarh GPS	111	79	84	1.99	83
	RAPS A (NPC)	300	181	181	4.39	183
	Barsingsar (NLC)	250	111	110	2.51	105
	Giral LTPS	250	99	88	1.50	63
	Rajwest LTPS (IPP)	540	482	477	11.01	459
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5156	3850	3790	91.83	3826
	Total Hydro	550	176	126	4.75	198
	Wind power	2191	178	112	5.54	231
	Biomass	91	23	23	0.55	23
	Solar	201	3	0	0.16	7
	Renewable/Others (Total)	2483	201	135	6.26	261
	<b>Total Rajasthan</b>	<b>8189</b>	<b>4227</b>	<b>4051</b>	<b>102.84</b>	<b>4285</b>
	UP	Anpara TPS	1630	1450	1412	33.70
Obra TPS		1382	451	452	10.80	450
Paricha TPS		890	598	607	14.40	600
Panki TPS		210	45	54	1.40	58
Harduaganj TPS		665	240	221	5.40	225
Tanda TPS (NTPC)		440	402	402	9.79	408
Roza TPS (IPP)		1200	1004	888	24.25	1010
Anpara-C (IPP)		1200	714	638	17.78	741
Bajaj Energy Pvt.Ltd(IPP) TPS		450	405	404	9.57	399
Thermal (Total)		8067	5309	5078	127.09	5295
Vishnuparyag HPS (IPP)		400	0	0	0.00	0
Other Hydro		527	198	131	3.94	164
Cogeneration		981	700	700	16.80	700
<b>Total UP</b>		<b>9975</b>	<b>6207</b>	<b>5909</b>	<b>147.83</b>	<b>6159</b>
Uttarakhand		Total Hydro	1303	465	225	7.60
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>465</b>	<b>225</b>	<b>7.60</b>	<b>317</b>
Delhi	Raighat TPS	135	105	105	2.74	114
	Delhi Gas Turbine	282	118	155	3.64	152
	Pragati Gas Turbine	330	317	324	7.83	326
	Rithala GPS	108	0	0	0.00	0
	Bawana GPS	677	222	29	3.89	162
	Badarpur TPS (NTPC)	705	615	585	14.03	584
	Thermal (Total)	2237	1377	1198	32.12	1338
	<b>Total Delhi</b>	<b>2237</b>	<b>1377</b>	<b>1198</b>	<b>32.12</b>	<b>1338</b>
HP	Baspa HPS (IPP)	330	29	0	1.11	46
	Malana HPS (IPP)	86	40	0	0.22	9
	Other Hydro	589	129	91	3.20	133
	<b>Total HP</b>	<b>1005</b>	<b>198</b>	<b>91</b>	<b>5</b>	<b>189</b>
J & K	Baglihar HPS (IPP)	450	152	146	0.00	0
	Other Hydro	323	0	0	0.00	0
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>152</b>	<b>146</b>	<b>0.00</b>	<b>0</b>
<b>Total State Control Area Generation</b>		<b>32439</b>	<b>15506</b>	<b>15634</b>	<b>409.99</b>	<b>17083</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2248</b>	<b>3176</b>	<b>70.38</b>	<b>2932</b>
<b>Total Regional Availability(Gross)</b>		<b>55275</b>	<b>33259</b>	<b>28321</b>	<b>759.90</b>	<b>31663</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	5981	797	62.88	2620
State Control Area Hydro	5368	1838	1173	30.76	1282
<b>Total Regional Hydro</b>	<b>15731</b>	<b>7819</b>	<b>1970</b>	<b>93.64</b>	<b>3902</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	-250	50	200	300	0.74	3.29		-2.56	
Gwalior-Agra (D/C)	343	592	888	0	13.25	0.00		13.25	
Zerda-Kankroli	8	101	101	88	0.89	0.00		0.89	
Zerda-Bhinmal	83	176	229	60	2.53	0.00		2.53	
Malanpur-Auraiya	-168	-88	0	168	0.00	2.24		-2.24	
Badod-Kota/Morak	-2	10	54	74	0.00	0.45		-0.45	
Mundra-Mohindergarh(HVDC)	591	591	599	0	14.91	0.00		14.91	
<b>Sub Total WR</b>	<b>605</b>	<b>1432</b>			<b>32.32</b>	<b>5.98</b>		<b>26.33</b>	
Pusauli Bypass	100	100	100	0	2.41	0.00		2.41	
MZP- GKP (D/C)	360	382	566	0	9.92	0.00		9.92	
Patna-Balia(D/C)	728	791	950	0	19.69	0.00		19.69	
B'Sharif-Balia (D/C)	158	226	345	0	5.50	0.00		5.50	
Barh - Balia(D/C)	0	0	0	0	0.00	0.00		0.00	
Pusauli-Balia	-52	-40	13	77	0.00	0.96		-0.96	
Gaya-Fatehpur (765 Kv)	252	188	348	0	5.64	0.00		5.64	
Pusauli-Sahupuri	134	129	155	0	2.88	0.00		2.88	
K'nasa-Sahupuri	0	0	0	0	0.00	0.00		0.00	
Son Ngr-Rihand	-37	-32	0	48	0.00	1.04		-1.04	
Garhwa-Rihand	0	0	0	0	0.00	0.00		0.00	
<b>Sub Total ER</b>	<b>1643</b>	<b>1744</b>			<b>46.04</b>	<b>2.00</b>		<b>44.04</b>	
<b>Total IR Exch</b>	<b>2248</b>	<b>3176</b>			<b>78.36</b>	<b>7.98</b>		<b>70.38</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
40.36	0.23	40.59	3.99	-21.12	-0.86	23.63	-3.56	3.57
<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
40.16	17.31	57.47	44.04	26.33	70.38	3.88	9.02	12.90

**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	5.38	90.27	84.89	59.82	9.72
Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum		Hz			MAX (Hz)	MIN (Hz)
50.49	17.03	49.57	10.08	50.06	0.32	0.16	50.35	49.73

**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	3:14	398	8:19	0.0	0.0	0.0	0.0
Gorakhpur	400	426	3:28	412	9:56	0.0	0.0	31.3	0.0
Bareilly	400	421	3:04	399	9:10	0.0	0.0	0.2	0.0
Kanpur	400	416	1:55	396	9:37	0.0	0.0	0.0	0.0
Dadri	400	417	3:13	398	9:39	0.0	0.0	0.0	0.0
Ballabhgarh	400	424	3:07	402	9:37	0.0	0.0	16.8	0.0
Bawana	400	422	3:29	403	9:39	0.0	0.0	3.9	0.0
Bassi	400	431	4:01	396	9:38	0.0	0.0	17.4	0.2
Hissar	400	414	21:20	392	9:39	0.0	0.0	0.0	0.0
Moga	400	417	21:18	396	9:10	0.0	0.0	0.0	0.0
Abdullapur	400	424	20:51	272	6:13	1.1	1.1	3.1	0.0
Nalagarh	400	420	13:24	403	9:40	0.0	0.0	0.0	0.0
Kishenpur	400	413	12:44	390	18:22	0.0	0.0	0.0	0.0
Wagoora	400	405	13:01	367	12:05	32.5	77.2	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	495.72	926.03	502.90	1219.07	143.42	440.10
Pong	426.72	384.05	411.33	534.70	414.21	644.91	72.26	401.22
Tehri	829.79	740.04	812.95	862.00	818.65	982.26	49.55	231.00
Koteshwar	612.50	598.50	609.60	4.44	NA	NA	331.00	228.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	48.03	61.22
Rihand	268.22	252.98	261.85	500.10	263.62	617.70	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	518.58	NA	514.15	NA	56.61	132.47

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 27.12.2012 :**

1. Dense Fog in northern region.

**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 : 27.12.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER