

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 24.12.2012

Date of Reporting : 25.12.2012

### 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
33419	3828	37247	49.98	25300	485	25785	50.42	705.4	63.08

\* 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	47.59	11.66		59.25	30.12	29.44	-0.68	88.69	2.64
Haryana	60.17	0.51		60.69	42.66	43.11	0.46	103.80	2.42
Rajasthan	88.03	5.39	3.38	96.80	65.80	65.82	0.01	162.61	6.01
Delhi	25.91			25.91	35.28	33.60	-1.68	59.51	0.09
UP	109.36	4.44	16.80	130.59	66.24	67.36	1.12	197.95	47.63
Uttarakhand		9.06		9.06	18.94	20.42	1.47	29.47	2.58
HP		4.86		4.86	18.36	18.39	0.03	23.25	0.00
J & K		6.95	0.00	6.95	28.06	29.54	1.48	36.48	1.70
Chandigarh				0.00	3.50	3.62	0.12	3.62	0.00
<b>Total</b>	<b>331.06</b>	<b>42.87</b>	<b>20.18</b>	<b>394.11</b>	<b>308.96</b>	<b>311.29</b>	<b>2.33</b>	<b>705.40</b>	<b>63.08</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	4968	600	99	-477	2692	0	23	72	-7.71	
Haryana	4823	472	44	93	3870	0	73	-196	-3.71	
Rajasthan	7320	250	86	899	6512	0	-262	976	24.54	
Delhi	3151	0	-211	-960	1297	0	-82	-2374	-34.26	
UP	8504	2326	-345	-128	7771	485	126	-107	-6.44	
Uttarakhand	1538	80	72	434	994	0	-19	368	8.70	
HP	1200	0	11	236	653	0	2	335	7.23	
J&K	1720	100	-102	395	1422	0	-31	498	9.37	
Chandigarh	196	0	-6	0	90	0	-3	-31	-0.28	
<b>Total</b>	<b>33419</b>	<b>3828</b>	<b>-352</b>	<b>492</b>	<b>25300</b>	<b>485</b>	<b>-175</b>	<b>-461</b>	<b>-2.54</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	2086	1836	45.79	1908	46.62	-0.83
Rihand I STPS	1000	920	990	800	21.19	883	21.40	-0.21
Rihand II STPS	1000	949	1032	846	21.88	912	22.03	-0.14
Rihand III STPS	500	-10	0	0	0.00	0	-0.24	0.24
Dadri I STPS	840	810	852	605	17.40	725	18.41	-1.02
Dadri II STPS	980	946	772	690	19.71	821	22.27	-2.56
Unchahar I TPS	420	407	438	309	9.00	375	9.09	-0.09
Unchahar II TPS	420	405	441	311	8.91	371	8.95	-0.05
Unchahar III TPS	210	202	216	164	4.52	188	4.55	-0.03
ISTPP (Jhajhar)	1500	856	426	629	15.49	646	16.27	-0.78
Dadri GPS	830	844	413	327	9.04	377	9.99	-0.95
Anta GPS	419	434	279	180	5.81	242	6.00	-0.19
Auraiya GPS	663	671	329	259	6.82	284	7.17	-0.35
<b>Sub Total (A)</b>	<b>10782</b>	<b>9384</b>	<b>8274</b>	<b>6956</b>	<b>185.57</b>	<b>7732</b>	<b>192.51</b>	<b>-6.94</b>
<b>B. NPC</b>								
NAPS	440	285	319	317	6.79	283	6.84	-0.05
RAPS- B	440	208	233	233	5.01	209	4.99	0.02
RAPS- C	440	266	238	478	5.16	215	6.38	-1.22
<b>Sub Total (B)</b>	<b>1320</b>	<b>759</b>	<b>790</b>	<b>1028</b>	<b>16.96</b>	<b>707</b>	<b>18.21</b>	<b>-1.26</b>
<b>C. NHPC</b>								
Chamera I HPS	540	365	180	0	2.16	90	2.20	-0.04
Chamera II HPS	300	303	100	0	1.25	52	1.42	-0.18
Chamera III HPS	231	231	79	0	0.55	23	0.62	-0.07
Bairasuil HPS	180	182	120	0	0.57	24	0.53	0.03
Salai-HPS	690	111	227	62	3.09	129	3.02	0.07
Tanakpur-HPS	94	32	32	24	0.74	31	0.76	-0.02
Uri-HPS	480	94	224	53	3.00	125	3.08	-0.07
Dhauliganga-HPS	280	210	71	0	1.00	42	0.92	0.08
Dulhasti-HPS	390	388	381	0	2.58	108	2.63	-0.05
Sewa-II HPS	120	80	71	0	0.28	12	0.27	0.01
<b>Sub Total (C)</b>	<b>3305</b>	<b>1994</b>	<b>1485</b>	<b>139</b>	<b>15.22</b>	<b>634</b>	<b>15.46</b>	<b>-0.24</b>
<b>D.NJPC</b>								
Nathpa Jhakri	1500	1605	1198	0	6.83	285	6.73	0.10
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1198</b>	<b>0</b>	<b>6.83</b>	<b>285</b>	<b>6.73</b>	<b>0.10</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	914	0	10.73	447	10.50	0.23
Koteshwar HPS	400	300	299	86	2.81	117	3.80	-0.99
<b>Sub Total (E)</b>	<b>1400</b>	<b>1350</b>	<b>1213</b>	<b>86</b>	<b>13.54</b>	<b>564</b>	<b>14.30</b>	<b>-0.76</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	648	1103	416	15.84	660	15.56	0.28
Dehar HPS	990	127	495	0	3.10	129	3.05	0.06
Pong HPS	396	243	300	60	5.94	248	5.01	0.93
<b>Sub Total (F)</b>	<b>2866</b>	<b>1018</b>	<b>1898</b>	<b>476</b>	<b>24.88</b>	<b>1037</b>	<b>23.61</b>	<b>1.27</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.50	21	0.52	-0.02
KWHEP HPS(IPP)	1000	0	0	0	0.00	0	0.00	0.00
Malana Stg-II HPS	100	0	23	0	0.18	7	0.15	0.02
Shree Cement TPS	300	0	251	257	6.15	256	5.58	0.57
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>274</b>	<b>257</b>	<b>6.82</b>	<b>284</b>	<b>6.43</b>	<b>0.40</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>16111</b>	<b>15132</b>	<b>8942</b>	<b>269.82</b>	<b>11242</b>	<b>277.25</b>	<b>-7.43</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	890	22.27	928	
	Guru Nanak Dev TPS(Bhatinda)	440	338	295	7.02	293	
	Guru Hargobind Singh TPS(L.mbt)	920	971	697	18.30	763	
	Thermal (Total)	2620	2361	1882	47.59	1983	
	Total Hydro	1148	630	255	11.66	486	
	<b>Total Punjab</b>	<b>3768</b>	<b>2991</b>	<b>2137</b>	<b>59.25</b>	<b>2469</b>	
Haryana	Panipat TPS	1367	825	821	19.87	828	
	DCRTPP (Yamuna nagar)	600	278	281	6.37	265	
	Faridabad GPS (NTPC)	432	420	308	7.73	322	
	RGTPP (khedar) (IPP)	1200	558	446	11.97	499	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	622	595	14.23	593	
	Thermal (Total)	4944	196	2451	60.17	2507	
	Total Hydro	62	21	22	0.51	21	
	<b>Total Haryana</b>	<b>5006</b>	<b>217</b>	<b>2473</b>	<b>60.69</b>	<b>2529</b>	
Rajasthan	kota TPS	1240	976	1102	24.64	1027	
	suratgarh TPS	1500	1324	1169	29.44	1227	
	Chabra TPS	500	425	397	9.79	408	
	Dholpur GPS	330	208	139	3.27	136	
	Ramgarh GPS	111	45	42	1.33	56	
	RAPS A (NPC)	300	181	181	4.41	184	
	Barsingsar (NLC)	250	214	215	5.04	210	
	Giral LTPS	250	77	83	1.74	72	
	Rajwest LTPS (IPP)	540	360	360	8.38	349	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	3810	3688	88.03	3668	
	Total Hydro	550	263	129	5.39	225	
	Wind power	2191	143	37	2.66	111	
	Biomass	91	24	24	0.59	24	
	Solar	201	3	0	0.14	6	
	Renewable/Others (Total)	2483	167	61	3.38	141	
	<b>Total Rajasthan</b>	<b>8189</b>	<b>4240</b>	<b>3878</b>	<b>96.80</b>	<b>4033</b>	
	UP	Anpara TPS	1630	1400	1167	32.30	1346
		Obra TPS	1382	422	324	8.50	354
Paricha TPS		890	130	607	6.20	258	
Panki TPS		210	59	63	1.30	54	
Harduaganj TPS		665	218	221	5.10	213	
Tanda TPS (NTPC)		440	399	343	9.28	387	
Roza TPS (IPP)		1200	882	873	21.72	905	
Anpara-C (IPP)		1200	626	537	15.79	658	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	405	403	9.17	382	
Thermal (Total)		8067	4541	4538	109.36	4557	
Vishnuparyag HPS (IPP)		400	0	0	0.00	0	
Other Hydro		527	228	117	4.44	185	
Cogeneration		981	700	700	16.80	700	
<b>Total UP</b>		<b>9975</b>	<b>5469</b>	<b>5355</b>	<b>130.59</b>	<b>5441</b>	
Uttarakhand		Total Hydro	1303	474	293	9.06	377
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>474</b>	<b>293</b>	<b>9.06</b>	<b>377</b>	
Delhi	Raighat TPS	135	105	48	1.67	70	
	Delhi Gas Turbine	282	113	35	1.98	83	
	Pragati Gas Turbine	330	317	327	7.75	323	
	Rithala GPS	108	21	0	0.28	12	
	Bawana GPS	677	223	209	4.80	200	
	Badarpur TPS (NTPC)	705	490	395	9.44	393	
	Thermal (Total)	2237	1269	1014	25.91	1080	
	<b>Total Delhi</b>	<b>2237</b>	<b>1269</b>	<b>1014</b>	<b>25.91</b>	<b>1080</b>	
HP	Baspa HPS (IPP)	330	28	0	1.23	51	
	Malana HPS (IPP)	86	43	0	0.21	9	
	Other Hydro	589	189	87	3.43	143	
	<b>Total HP</b>	<b>1005</b>	<b>260</b>	<b>87</b>	<b>5</b>	<b>203</b>	
J & K	Baglihar HPS (IPP)	450	150	148	3.77	157	
	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>270</b>	<b>323</b>	<b>6.95</b>	<b>289</b>	
<b>Total State Control Area Generation</b>		<b>32439</b>	<b>15190</b>	<b>15560</b>	<b>394.11</b>	<b>16421</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2085</b>	<b>1746</b>	<b>57.96</b>	<b>2415</b>	
<b>Total Regional Availability(Gross)</b>		<b>55275</b>	<b>32407</b>	<b>26248</b>	<b>721.89</b>	<b>30079</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	5817	701	61.14	2548
State Control Area Hydro	5368	2146	1226	42.87	1786
<b>Total Regional Hydro</b>	<b>15731</b>	<b>7963</b>	<b>1927</b>	<b>104.01</b>	<b>4334</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	0	500	0.00	9.29	-9.29		
Gwalior-Agra (D/C)	127	310	799	0	10.25	0.00	10.25		
Zerda-Kankroli	-30	-65	171	139	0.33	0.00	0.33		
Zerda-Bhinmal	60	32	292	72	2.34	0.00	2.34		
Malanpur-Auraiya	-185	-238	0	320	0.00	5.32	-5.32		
Badod-Kota/Morak	-38	-71	88	115	0.00	0.89	-0.89		
Mundra-Mohindergarh(HVDC)	615	596	618	0	15.03	0.00	15.03		
<b>Sub Total WR</b>	<b>249</b>	<b>164</b>			<b>27.96</b>	<b>15.51</b>	<b>12.45</b>		
Pusauli Bypass	50	-53	50	146	0.38	1.37	-0.99		
MZP- GKP (D/C)	312	468	574	0	10.69	0.00	10.69		
Patna-Balia(D/C)	750	588	1008	0	18.71	0.00	18.71		
B'Sharif-Balia (D/C)	310	199	567	0	8.65	0.00	8.65		
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00		
Pusauli-Balia	63	-5	130	5	0.78	0.00	0.78		
Gaya-Fatehpur (765 Kv)	260	286	312	0	5.53	0.00	5.53		
Pusauli-Sahupuri	128	131	148	0	3.19	0.00	3.19		
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>1836</b>	<b>1582</b>			<b>47.93</b>	<b>2.41</b>	<b>45.52</b>		
<b>Total IR Exch</b>	<b>2085</b>	<b>1746</b>			<b>75.88</b>	<b>17.92</b>	<b>57.96</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
42.37	0.23	42.60	4.43	-19.53	-0.01	9.06	0.13	-0.12
<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
47.16	6.11	53.26	45.52	12.45	57.96	-1.64	6.34	4.70

**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	0.30	5.20	89.70	84.80	46.70	10.00
Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum		Hz			MAX (Hz)	MIN (Hz)
50.55	3.07	49.45	11.11	49.98	0.30	0.17	50.54	49.69

**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	407	03:05	0	00:00	0.7	0.0	0.0	0.0
Gorakhpur	400	427	00:25	409	19:53	0.0	0.0	29.8	0.0
Bareilly	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Kanpur	400	423	03:06	394	11:10	0.0	0.0	2.3	0.0
Dadri	400	420	04:01	397	11:09	0.0	0.0	0.0	0.0
Ballabhgarh	400	427	04:00	401	11:07	0.0	0.0	15.5	0.0
Bawana	400	425	03:58	402	11:11	0.0	0.0	11.1	0.0
Bassi	400	437	04:02	401	17:35	0.0	0.0	17.9	5.6
Hissar	400	415	03:48	0	12:29	29.0	29.0	0.0	0.0
Moga	400	416	03:46	391	14:45	0.0	0.0	0.0	0.0
Abdullapur	400	423	03:49	406	11:07	0.0	0.0	5.1	0.0
Nalagarh	400	421	00:02	402	11:09	0.0	0.0	2.2	0.0
Kishenpur	400	417	04:00	0	11:42	17.4	17.7	0.0	0.0
Wagoora	400	399	04:01	361	20:06	42.1	89.0	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	496.32	948.89	503.41	1245.57	156.42	430.27
Pong	426.72	384.05	411.77	555.85	414.47	656.23	73.60	373.10
Tehri	829.79	740.04	814.25	882.28	818.65	982.26	49.11	243.00
Koteshwar	612.50	598.50	610.50	4.69	NA	NA	243.00	253.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	49.65	59.33
Rihand	268.22	252.98	262.22	500.10	263.90	617.70	NA	NA
RPS	352.80	343.81	348.68	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.34	NA	NA	NA	NA	NA
RSD	527.91	487.91	518.44	NA	514.04	NA	87.87	179.08

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 24.12.2012 :**

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 : 24.12.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER