

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 15.12.2012

Date of Reporting : 16.12.2012

### 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
33723	2859	36582	50.15	26364	600	26964	50.25	689.5	53.99

\* 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	47.49	10.78		58.26	28.95	30.18	1.23	88.45	2.40
Haryana	55.56	0.55		56.12	27.53	30.54	3.01	86.65	11.17
Rajasthan	85.68	4.60	9.61	99.90	68.28	67.23	-1.05	167.13	0.00
Delhi	24.25			24.25	33.80	31.78	-2.02	56.03	0.07
UP	108.46	3.92	14.40	126.77	73.18	70.25	-2.93	197.02	38.09
Uttarakhand		9.07		9.07	18.11	20.93	2.82	30.00	0.38
HP		5.15		5.15	18.18	19.43	1.26	24.58	0.00
J & K		6.63	0.00	6.63	29.70	29.47	-0.23	36.09	1.70
Chandigarh				0.00	3.52	3.51	-0.01	3.51	0.18
<b>Total</b>	<b>321.44</b>	<b>40.70</b>	<b>24.01</b>	<b>386.15</b>	<b>301.25</b>	<b>303.33</b>	<b>2.07</b>	<b>689.47</b>	<b>53.99</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	6252	600	-42	-249	3689	0	100	35	-6.76	
Haryana	4126	549	-21	-79	3331	0	-16	-122	-3.92	
Rajasthan	7184	0	-77	496	6895	0	3	679	26.97	
Delhi	2905	0	-152	-1107	1329	0	43	-1966	-36.78	
UP	8621	1610	-208	-122	7829	600	-162	-106	-6.17	
Uttarakhand	1504	0	80	328	1036	0	127	275	7.56	
HP	1221	0	72	251	730	0	45	337	6.51	
J&K	1727	100	-220	376	1435	0	-58	496	10.00	
Chandigarh	184	0	-16	-8	91	0	-8	-31	-0.37	
<b>Total</b>	<b>33723</b>	<b>2859</b>	<b>-584</b>	<b>-114</b>	<b>26364</b>	<b>600</b>	<b>73</b>	<b>-403</b>	<b>-2.95</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	2091	2071	46.79	1949	46.72	0.07
Rihand I STPS	1000	940	1017	930	22.32	930	22.22	0.11
Rihand II STPS	1000	975	1037	954	23.07	961	22.96	0.11
Rihand III STPS	500	308	290	326	7.36	307	7.25	0.11
Dadri I STPS	840	810	847	620	17.46	727	17.88	-0.42
Dadri II STPS	980	936	962	740	20.14	839	21.14	-1.00
Unchahar I TPS	420	407	422	301	8.92	372	9.02	-0.09
Unchahar II TPS	420	405	431	312	8.69	362	8.67	0.01
Unchahar III TPS	210	202	217	162	4.44	185	4.44	0.01
ISTPP (Jhajjhar)	1500	940	468	495	10.56	440	11.02	-0.46
Dadri GPS	830	844	350	325	8.15	340	8.22	-0.07
Anta GPS	419	285	162	172	4.45	185	4.59	-0.14
Auraiya GPS	663	664	247	264	6.18	258	5.99	0.19
<b>Sub Total (A)</b>	<b>10782</b>	<b>9664</b>	<b>8541</b>	<b>7672</b>	<b>188.52</b>	<b>7855</b>	<b>190.10</b>	<b>-1.58</b>
<b>B. NPC</b>								
NAPS	440	285	319	327	6.83	284	6.84	-0.01
RAPS- B	440	208	232	231	4.98	208	4.99	-0.01
RAPS- C	440	435	472	471	10.13	422	10.44	-0.31
<b>Sub Total (B)</b>	<b>1320</b>	<b>928</b>	<b>1023</b>	<b>1029</b>	<b>21.94</b>	<b>914</b>	<b>22.27</b>	<b>-0.34</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	540	0	1.75	73	1.76	-0.01
Chamera II HPS	300	303	100	0	1.40	58	1.42	-0.02
Chamera III HPS	231	154	136	0	0.78	32	0.80	-0.02
Bairasuil HPS	180	182	70	0	0.58	24	0.54	0.03
Salai-HPS	690	161	220	100	3.99	166	3.77	0.22
Tanakpur-HPS	94	34	40	26	0.77	32	0.82	-0.05
Uri-HPS	480	105	211	37	2.48	103	2.57	-0.09
Dhauliganga-HPS	280	144	131	0	1.27	53	1.31	-0.04
Dulhasi-HPS	390	388	332	0	2.87	120	2.91	-0.04
Sewa-II HPS	120	119	98	0	0.55	23	0.55	0.00
<b>Sub Total (C)</b>	<b>3305</b>	<b>2124</b>	<b>1878</b>	<b>163</b>	<b>16.43</b>	<b>684</b>	<b>16.43</b>	<b>0.00</b>
<b>D.NJPC</b>								
Nathpa Jhakri	1500	1605	1012	0	7.58	316	7.51	0.07
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1012</b>	<b>0</b>	<b>7.58</b>	<b>316</b>	<b>7.51</b>	<b>0.07</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	1002	0	7.86	328	8.00	-0.14
Koteswar HPS	400	100	101	101	2.40	100	2.40	0.00
<b>Sub Total (E)</b>	<b>1400</b>	<b>1150</b>	<b>1103</b>	<b>101</b>	<b>10.26</b>	<b>428</b>	<b>10.40</b>	<b>-0.14</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	563	1046	419	13.62	568	13.50	0.12
Dehar HPS	990	155	495	0	4.03	168	3.73	0.30
Pong HPS	396	273	366	186	6.74	281	5.01	1.73
<b>Sub Total (F)</b>	<b>2866</b>	<b>991</b>	<b>1907</b>	<b>605</b>	<b>24.39</b>	<b>1016</b>	<b>22.23</b>	<b>2.16</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	5.19	216	0.52	4.67
KWHEP HPS(IPP)	1000	0	142	0	4.06	169	4.10	-0.03
Malana Stg-II HPS	100	0	23	0	0.18	8	0.15	0.03
Shree Cement TPS	300	0	134	111	3.08	128	2.75	0.33
Budhil HPS(IPP)	70	0	0	0	0.00	0	0.15	-0.15
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>299</b>	<b>111</b>	<b>12.51</b>	<b>521</b>	<b>7.67</b>	<b>4.84</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>16462</b>	<b>15763</b>	<b>9681</b>	<b>281.62</b>	<b>11734</b>	<b>276.62</b>	<b>5.00</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	1023	1000	25.79	1075	
	Guru Nanak Dev TPS(Bhatinda)	440	95	95	2.07	86	
	Guru Hargobind Singh TPS(L.mbt)	920	962	718	19.62	818	
	Thermal (Total)	2620	2080	1813	47.49	1979	
	Total Hydro	1148	416	416	10.78	449	
	<b>Total Punjab</b>	<b>3768</b>	<b>2496</b>	<b>2229</b>	<b>58.26</b>	<b>2428</b>	
Haryana	Panipat TPS	1367	1014	857	22.54	939	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	167	155	4.20	175	
	RGTPP (khedar) (IPP)	1200	586	585	13.86	577	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	613	611	14.97	624	
	Thermal (Total)	4944	2380	2208	55.56	2315	
	Total Hydro	62	19	22	0.55	23	
	<b>Total Haryana</b>	<b>5006</b>	<b>2399</b>	<b>2230</b>	<b>56.12</b>	<b>2338</b>	
Rajasthan	kota TPS	1240	1183	1060	26.61	1109	
	suratgarh TPS	1500	1152	1093	27.33	1139	
	Chabra TPS	500	391	451	9.54	398	
	Dholpur GPS	330	144	152	3.44	143	
	Ramgarh GPS	111	39	29	0.93	39	
	RAPS A (NPC)	300	197	197	4.34	181	
	Barsingar (NLC)	250	105	105	2.40	100	
	Giral LTPS	250	0	0	0.00	0	
	Rajwest LTPS (IPP)	540	473	471	11.09	462	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	3684	3558	85.68	3570	
	Total Hydro	550	191	111	4.60	192	
	Wind power	2191	247	465	8.98	374	
	Biomass	91	23	23	0.54	22	
	Solar	201	2	0	0.09	4	
	Renewable/Others (Total)	2483	270	488	9.61	401	
	<b>Total Rajasthan</b>	<b>8189</b>	<b>4145</b>	<b>4157</b>	<b>99.90</b>	<b>4162</b>	
	UP	Anpara TPS	1630	1343	1412	33.20	1383
		Obra TPS	1382	331	331	7.90	329
		Paricha TPS	890	586	584	14.40	600
Panki TPS		210	0	0	0.20	8	
Harduaganj TPS		665	256	240	5.30	221	
Tanda TPS (NTPC)		440	295	400	7.82	326	
Roza TPS (IPP)		1200	1058	856	23.87	995	
Anpara-C (IPP)		1200	304	282	7.14	297	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	364	363	8.63	360	
Thermal (Total)		8067	4537	4468	108.46	4519	
Vishnuparyag HPS (IPP)		400	0	0	0.00	0	
Other Hydro		527	170	173	3.92	163	
Cogeneration		981	600	600	14.40	600	
<b>Total UP</b>		<b>9975</b>	<b>5307</b>	<b>5241</b>	<b>126.77</b>	<b>5282</b>	
Uttarakhand		Total Hydro	1303	493	273	9.07	378
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>493</b>	<b>273</b>	<b>9.07</b>	<b>378</b>	
Delhi	Raighat TPS	135	105	107	2.32	97	
	Delhi Gas Turbine	282	161	155	3.91	163	
	Pragati Gas Turbine	330	317	266	6.76	282	
	Rithala GPS	108	0	0	0.00	0	
	Bawana GPS	677	131	212	4.64	194	
	Badarpur TPS (NTPC)	705	280	260	6.62	276	
	Thermal (Total)	2237	994	1000	24.25	1010	
	<b>Total Delhi</b>	<b>2237</b>	<b>994</b>	<b>1000</b>	<b>24.25</b>	<b>1010</b>	
HP	Baspa HPS (IPP)	330	29	0	1.29	54	
	Malana HPS (IPP)	86	38	0	0.22	9	
	Other Hydro	589	176	116	3.64	151	
	<b>Total HP</b>	<b>1005</b>	<b>243</b>	<b>116</b>	<b>5</b>	<b>215</b>	
J & K	Baglihar HPS (IPP)	450	146	136	3.45	144	
	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>266</b>	<b>311</b>	<b>6.63</b>	<b>276</b>	
<b>Total State Control Area Generation</b>		<b>32439</b>	<b>16343</b>	<b>15557</b>	<b>386.15</b>	<b>16089</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1466</b>	<b>1062</b>	<b>43.53</b>	<b>1814</b>	
<b>Total Regional Availability(Gross)</b>		<b>55275</b>	<b>33572</b>	<b>26300</b>	<b>711.30</b>	<b>29637</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	6065	869	68.09	2837
State Control Area Hydro	5368	1798	1422	40.70	1696
<b>Total Regional Hydro</b>	<b>15731</b>	<b>7863</b>	<b>2291</b>	<b>108.79</b>	<b>4533</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	-400	0	400	0.00	9.32	-9.32		
Gwalior-Agra (D/C)	0	73	553	0	2.45	0.00	2.45		
Zerda-Kankroli	-61	-143	80	216	0.00	1.78	-1.78		
Zerda-Bhinmal	-73	56	174	161	0.00	0.36	-0.36		
Malanpur-Auraiya	-112	-161	0	200	0.00	3.70	-3.70		
Badod-Kota/Morak	-64	-140	0	191	0.00	1.04	-1.04		
Mundra-Mohindergarh(HVDC)	649	631	808	0	16.85	0.00	16.85		
<b>Sub Total WR</b>	<b>-61</b>	<b>-84</b>			<b>19.30</b>	<b>16.20</b>	<b>3.10</b>		
Pusauli Bypass	50	50	50	0	1.28	0.00	1.28		
MZP- GKP (D/C)	319	392	560	0	10.24	0.00	10.24		
Patna-Balia(D/C)	720	558	870	0	17.40	0.00	17.40		
B'Sharif-Balia (D/C)	200	13	328	0	5.19	0.00	5.19		
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00		
Pusauli-Balia	-34	-108	0	110	0.00	0.72	-0.72		
Gaya-Fatehpur (765 Kv)	165	145	273	0	4.44	0.00	4.44		
Pusauli-Sahupuri	144	128	176	0	3.45	0.00	3.45		
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>1527</b>	<b>1146</b>			<b>42.01</b>	<b>1.57</b>	<b>40.43</b>		
<b>Total IR Exch</b>	<b>1466</b>	<b>1062</b>			<b>61.30</b>	<b>17.77</b>	<b>43.53</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
41.13	0.40	41.53	9.91	-23.41	-0.14	5.43	-3.01	3.24
<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
48.29	-6.49	41.80	40.43	3.10	43.53	-7.86	9.59	1.74

**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	1.10	92.90	91.80	47.30	7.10
Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum		Hz			MAX (Hz)	MIN (Hz)
50.44	21.56	49.63	17.23	49.99	0.20	0.14	50.41	49.82

**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	2:30	0	19:46	0.1	0.1	0.0	0.0
Gorakhpur	400	429	4:14	410	9:36	0.0	0.0	36.0	0.0
Bareilly	400	425	3:05	406	10:34	0.0	0.0	10.7	0.0
Kanpur	400	421	3:00	396	10:26	0.0	0.0	1.4	0.0
Dadri	400	424	4:01	404	9:07	0.0	0.0	7.8	0.0
Ballabhgarh	400	430	3:01	405	9:07	0.0	0.0	34.3	0.0
Bawana	400	428	3:00	409	8:52	0.0	0.0	39.9	0.0
Bassi	400	436	4:01	393	9:23	0.0	0.0	24.9	5.2
Hissar	400	419	20:34	0	9:25	43.2	43.2	0.0	0.0
Moga	400	421	3:00	398	9:05	0.0	0.0	1.0	0.0
Abdullapur	400	428	3:00	296	15:10	0.1	0.1	48.3	0.0
Nalagarh	400	425	3:08	409	8:51	0.0	0.0	12.3	0.0
Kishenpur	400	420	3:59	392	15:00	0.0	0.0	0.0	0.0
Wagoora	400	403	3:59	371	17:50	15.3	66.6	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	497.55	997.96	804.87	1298.95	178.74	347.59
Pong	426.72	384.05	412.98	600.05	415.42	693.24	77.47	417.81
Tehri	829.79	740.04	817.40	950.50	818.65	982.26	50.12	182.00
Koteswar	612.50	598.50	610.60	4.95	NA	NA	182.00	159.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	49.23	48.35
Rihand	268.22	252.98	262.46	500.10	264.14	617.70	NA	NA
RPS	352.80	343.81	349.22	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.27	NA	NA	NA	NA	NA
RSD	527.91	487.91	519.27	NA	515.67	NA	54.14	166.08

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 15.12.2012 :**

1. Dense fog in Eastern UP.

**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 : 15.12.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER