

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 12.02.2012  
Date of Reporting : 13.02.2012

### 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
32148	1655	33803	50.04	26819	670	27489	50.16	716.2	36.35

\* 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)	Consumption (Net MU)	Shortages * (MU)
	Thermal	Hydro	Renewable/others \$	Total					
Punjab	44.82	10.62		55.44	45.85	47.94	2.10	103.38	3.10
Haryana	62.75	0.57		63.32	29.11	38.11	9.00	101.43	2.75
Rajasthan	96.41	4.75	9.57	110.73	47.80	52.92	5.12	163.66	0.48
Delhi	28.71			28.71	40.01	28.08	-11.93	56.79	0.11
UP	90.22	5.62	14.40	110.24	87.51	90.34	2.83	200.59	26.97
Uttarakhand		10.07		10.07	18.69	18.89	0.20	28.96	0.64
HP		3.98		3.98	19.39	18.75	-0.64	22.73	0.00
J & K		5.62	0.00	5.62	25.29	29.70	4.41	35.32	2.30
Chandigarh				0.00	3.54	3.37	-0.17	3.37	0.00
<b>Total</b>	<b>322.91</b>	<b>41.24</b>	<b>23.97</b>	<b>388.12</b>	<b>317.18</b>	<b>328.10</b>	<b>10.92</b>	<b>716.22</b>	<b>36.35</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	
Punjab	4561	200	-12	-287	4046	0	262	-401	-6.62
Haryana	4768	200	437	-127	3868	0	207	-127	-3.05
Rajasthan	6150	0	-602	17	6463	0	509	67	4.39
Delhi	3026	60	-446	-103	1395	0	-440	-405	-4.91
UP	9343	1045	618	265	7761	670	-200	265	6.36
Uttarakhand	1457	0	56	375	1057	0	67	375	9.00
HP	1013	0	-415	151	770	0	145	323	6.68
J&K	1649	150	71	248	1367	0	205	255	5.68
Chandigarh	181	0	-30	0	92	0	4	-41	-0.33
<b>Total</b>	<b>32148</b>	<b>1655</b>	<b>-322</b>	<b>540</b>	<b>26819</b>	<b>670</b>	<b>760</b>	<b>311</b>	<b>17.20</b>

\* STOA figures are at sellers boundary & PX figures are at regional boundary.

### III. Regional Entities :

Entity	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
A. NTPC	Singrauli STPS	2000	1765	1896	1739	41.98	1749	41.80	0.19
	Rihand I STPS	1000	920	997	895	21.90	913	21.69	0.21
	Rihand II STPS	1000	977	1038	912	23.18	966	22.92	0.25
	Dadri I STPS	840	798	810	631	15.79	658	16.13	-0.33
	Dadri II STPS	980	976	917	775	20.24	843	20.85	-0.62
	Unchahar I TPS	440	406	432	401	9.52	397	9.58	-0.06
	Unchahar II TPS	440	404	434	359	9.37	390	9.36	0.01
	Unchahar III TPS	210	202	219	176	4.68	195	4.65	0.04
	ISTPP (Jhajjar)	1000	475	450	475	10.31	430	10.81	-0.50
	Dadri GPS	830	846	611	515	13.64	568	14.00	-0.36
	Anta GPS	419	429	410	321	9.07	378	8.86	0.21
	Auraiya GPS	663	660	474	413	10.75	448	10.75	-0.01
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8858</b>	<b>8688</b>	<b>7612</b>	<b>190.43</b>	<b>7935</b>	<b>191.40</b>	<b>-0.97</b>
	B. NPC	NAPS	440	139	158	161	3.34	139	3.34
RAPS- B		440	404	447	454	9.67	403	9.70	-0.03
RAPS- C		440	420	473	478	10.85	452	10.08	0.77
<b>Sub Total (B)</b>		<b>1320</b>	<b>963</b>	<b>1078</b>	<b>1093</b>	<b>23.87</b>	<b>994</b>	<b>23.11</b>	<b>0.75</b>
C. NHPC	Chamera I HPS	540	534	540	0	2.42	101	2.43	-0.02
	Chamera II HPS	300	297	218	0	1.09	46	1.24	-0.14
	Bairasuil HPS	180	120	100	0	0.86	36	0.83	0.04
	Salal-HPS	690	136	302	35	3.14	131	3.17	-0.03
	Tanakpur-HPS	94	25	31	18	0.56	23	0.58	-0.02
	Uri-HPS	480	190	150	0	4.45	185	5.08	-0.63
	Dhauliganga-HPS	280	210	185	0	0.72	30	0.82	-0.09
	Dulhasti-HPS	390	291	277	0	2.38	99	2.38	0.00
	Sewa-II HPS	120	119	81	0	1.18	49	1.48	-0.30
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1922</b>	<b>1884</b>	<b>53</b>	<b>16.80</b>	<b>700</b>	<b>18.00</b>	<b>-1.20</b>
D. NJPC	Nathpa Jhakri	1500	1133	1582	0	6.12	255	6.55	-0.43
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1133</b>	<b>1582</b>	<b>0</b>	<b>6.12</b>	<b>255</b>	<b>6.55</b>	<b>-0.43</b>
E. THDC	Tehri HPS	1000	910	920	0	8.48	354	8.75	-0.27
	Koteshwar HPS	200	138	198	102	3.52	147	2.80	0.72
	<b>Sub Total (E)</b>	<b>1200</b>	<b>1048</b>	<b>1118</b>	<b>102</b>	<b>12.00</b>	<b>500</b>	<b>11.55</b>	<b>0.45</b>
F. BBMB	Bhakra HPS	1480	785	992	552	18.59	775	18.84	-0.25
	Dehar HPS	990	113	495	0	2.52	105	2.72	-0.20
	Pong HPS	396	211	306	120	5.30	221	5.07	0.23
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1110</b>	<b>1793</b>	<b>672</b>	<b>26.41</b>	<b>1100</b>	<b>26.63</b>	<b>-0.22</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.24	10	0.23	0.01
	KWHEP HPS(IPP)	1000	0	525	0	3.09	129	3.48	-0.39
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	145	141	3.35	140	3.33	0.02
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>670</b>	<b>141</b>	<b>6.68</b>	<b>278</b>	<b>7.04</b>	<b>-0.36</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21225</b>	<b>15034</b>	<b>16813</b>	<b>9673</b>	<b>282.31</b>	<b>11763</b>	<b>284.28</b>	<b>-1.98</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	1040	1045	22.71	946	
	Guru Nanak Dev TPS(Bhatinda)	440	218	218	4.73	197	
	Guru Hargobind Singh TPS(L.mbt)	920	889	701	17.38	724	
	Thermal (Total)	2620	2147	1964	44.82	1867	
	Total Hydro	1148	384	278	10.62	443	
	<b>Total Punjab</b>	<b>3768</b>	<b>2531</b>	<b>2242</b>	<b>55.44</b>	<b>2310</b>	
Haryana	Panipat TPS	1360	809	884	20.35	848	
	DCRTPP (Yamuna nagar)	600	273	270	6.58	274	
	Faridabad GPS (NTPC)	432	422	330	10.16	423	
	RGTPP (khedar) (IPP)	1200	983	965	25.66	1069	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	660	0	0	0.00	0	
	Thermal (Total)	4277	2487	2449	62.75	2615	
	Total Hydro	62	18	22	0.57	24	
	<b>Total Haryana</b>	<b>4339</b>	<b>2505</b>	<b>2471</b>	<b>63.32</b>	<b>2638</b>	
	Rajasthan	kota TPS	1240	1077	1172	27.25	1136
suratgarh TPS		1500	1380	1320	31.75	1323	
Chabra TPS		500	390	421	9.78	407	
Dholpur GPS		330	244	230	5.45	227	
Ramgarh GPS		113	42	44	1.10	46	
RAPS A (NPC)		300	192	193	4.77	199	
Barsingsar (NLC)		250	160	160	5.70	238	
Giral LTPS (IPP)		250	45	45	1.63	68	
Rajwest LTPS (IPP)		540	355	345	8.98	374	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5158	3885	3930	96.41	4017	
Total Hydro		550	212	147	4.75	198	
Wind power		1294	222	171	3.72	155	
Biomass		71	46	46	1.10	46	
Solar		50	0	0	0.00	0	
Renewable/Others (Total)		1365	268	217	9.57	399	
<b>Total Rajasthan</b>		<b>7073</b>	<b>4365</b>	<b>4294</b>	<b>110.73</b>	<b>4614</b>	
UP		Anpara TPS	1630	1377	1382	32.90	1371
		Obra TPS	1442	604	582	14.20	592
		Paricha TPS	640	220	226	5.40	225
	Panki TPS	210	0	81	0.00	0	
	Harduaganj TPS	415	275	47	5.00	208	
	Tanda TPS (NTPC)	440	298	400	8.20	341	
	Roza TPS (IPP)	900	563	653	13.47	561	
	Anpara-C (IPP)	1200	396	387	9.54	398	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	68	45	1.52	63	
	Thermal (Total)	7057	3801	3803	90.22	3759	
	Vishnuparyag HPS (IPP)	400	69	69	1.67	69	
	Other Hydro	527	126	40	3.95	165	
	Cogeneration	951	600	600	14.40	600	
	<b>Total UP</b>	<b>8935</b>	<b>4596</b>	<b>4512</b>	<b>110.24</b>	<b>4524</b>	
	Uttarakhand	Total Hydro	1303	521	345	10.07	420
<b>Total Uttarakhand</b>		<b>1303</b>	<b>521</b>	<b>345</b>	<b>10.07</b>	<b>420</b>	
Delhi	Rajghat TPS	135	101	103	2.44	101	
	Delhi Gas Turbine	282	83	81	1.89	79	
	Pragati Gas Turbine	330	308	266	7.12	297	
	Rithala GPS	108	19	19	0.29	12	
	Bawana GPS	440	180	44	4.39	183	
	Badarpur TPS (NTPC)	705	575	555	12.58	524	
	Thermal (Total)	2000	1266	1181	28.71	1196	
	<b>Total Delhi</b>	<b>2000</b>	<b>1266</b>	<b>1181</b>	<b>28.71</b>	<b>1196</b>	
HP	Baspa HPS (IPP)	330	0	0	0.90	38	
	Malana HPS (IPP)	101	44	0	0.26	11	
	Other Hydro	571	150	52	2.82	117	
	<b>Total HP</b>	<b>1002</b>	<b>194</b>	<b>52</b>	<b>4</b>	<b>166</b>	
J & K	Baglihar HPS (IPP)	450	148	148	3.59	150	
	Other Hydro	323	83	126	2.02	84	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>231</b>	<b>274</b>	<b>5.62</b>	<b>234</b>	
<b>Total State Control Area Generation</b>		<b>29376</b>	<b>16209</b>	<b>15371</b>	<b>388.12</b>	<b>16102</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1264</b>	<b>2172</b>	<b>57.07</b>	<b>2378</b>	
<b>Total Regional Availability(Gross)</b>		<b>50601</b>	<b>34286</b>	<b>27216</b>	<b>727.50</b>	<b>30243</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	7047	968	68.01	2834
State Control Area Hydro	5365	1686	1158	39.57	1649
<b>Total Regional Hydro</b>	<b>15447</b>	<b>8733</b>	<b>2126</b>	<b>107.58</b>	<b>4483</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	
Vindhychal B/B	100	0	100	100	0.57	0.22	0.36
Gwalior-Agra (D/C)	576	840	1152	0	19.76	0.00	19.76
Zerda-Kankroli	-132	-92	130	183	0.00	1.22	-1.22
Zerda-Bhinmal	-65	30	296	135	1.51	0.00	1.51
Malanpur-Auraiya	-135	-71	0	135	0.00	1.49	-1.49
Badod-Kota/Morak	50	9	84	32	0.62	0.00	0.62
<b>Sub Total WR</b>	<b>394</b>	<b>716</b>			<b>22.45</b>	<b>2.93</b>	<b>19.53</b>
Pusauli Bypass	-125	78	319	125	2.87	0.18	2.69
MZP- GKP (D/C)	284	570	812	0	13.28	0.00	13.28
Patna-Balia(D/C)	210	258	421	0	6.90	0.00	6.90
B'Sharif-Balia (D/C)	180	192	394	0	5.69	0.00	5.69
Barh - balia(D/C)	235	278	440	0	7.42	0.00	7.42
Pusauli-Sahupuri	116	112	166	0	2.52	0.00	2.52
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	0.95	-0.95
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>870</b>	<b>1456</b>			<b>38.68</b>	<b>1.13</b>	<b>37.55</b>
<b>Total IR Exch</b>	<b>1264</b>	<b>2172</b>			<b>61.13</b>	<b>4.06</b>	<b>57.07</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
22.87	0.21	23.08	8.71	10.45	0.58	15.79	2.81	-2.81

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
35.17	17.00	52.18	37.55	19.53	57.07	2.37	2.52	4.89

**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	0.10	10.00	96.50	86.60	32.90	3.40

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time					
50.45	18.03	49.48	10.13	49.92	0.33	0.16	50.35	49.68

**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	403	22:27	388	09:10	0.0	22.7	0.0	0.0
Gorakhpur	400	432	02:28	415	18:35	0.0	0.0	74.9	6.0
Bareilly	400	423	04:04	397	10:08	0.0	0.0	3.4	0.0
Kanpur	400	421	04:03	398	10:08	0.0	0.0	0.3	0.0
Dadri	400	422	04:03	399	10:07	0.0	0.0	1.9	0.0
Ballabgarh	400	427	04:02	402	10:03	0.0	0.0	21.8	0.0
Bawana	400	428	04:02	401	10:07	0.0	0.0	32.5	0.0
Bassi	400	424	04:03	393	10:11	0.0	0.0	8.6	0.0
Hissar	400	417	05:05	391	10:08	0.0	0.0	0.0	0.0
Moga	400	431	05:05	400	10:09	0.0	0.0	19.3	0.2
Abdullapur	400	426	04:02	399	10:08	0.0	0.0	17.4	0.0
Nalagarh	400	431	05:05	402	10:11	0.0	0.0	36.9	0.1
Kishenpur	400	426	05:06	393	15:47	0.0	0.0	6.8	0.0
Wagoora	400	413	04:09	377	15:47	2.8	53.0	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	492.98	827.99	496.68	971.87	162.71	566.05
Pong	426.72	384.05	410.25	504.32	413.67	622.40	73.68	320.04
Tehri	829.79	740.04	793.10	493.30	818.65	982.26	49.67	224.00
Koteshwar	612.50	598.50	608.60	3.98	NZ	NA	224.00	269.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	61.11	68.15
Rihand	268.22	252.98	262.80	435.50	256.30	131.20	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	500.86	NA	504.02	NA	65.44	211.36

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 12.02.2012 :**

Cold & Normal weather.

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

**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 : 12.02.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER