

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 08.02.2013  
Date of Reporting : 09.02.2013

### 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
31657	2897	34553	50.04	25609	665	26274	50.24	705.0	66.38

\* 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	33.45	10.11		43.56	39.88	40.47	0.59	84.03	3.18
Haryana	36.72	0.41		37.13	51.82	52.97	1.14	90.09	0.67
Rajasthan	90.39	4.01	3.54	97.94	67.49	67.77	0.28	165.72	0.35
Delhi	27.43			27.43	35.31	33.61	-1.70	61.05	0.00
UP	108.62	5.63	19.20	133.45	69.48	73.79	4.30	207.24	60.48
Uttarakhand		11.70		11.70	21.39	20.50	-0.89	32.20	0.00
HP		5.96		5.96	18.37	17.45	-0.92	23.41	0.00
J & K		7.20	0.00	7.20	31.59	30.35	-1.25	37.55	1.70
Chandigarh				0.00	3.55	3.72	0.17	3.72	0.00
<b>Total</b>	<b>296.62</b>	<b>45.02</b>	<b>22.74</b>	<b>364.37</b>	<b>338.89</b>	<b>340.62</b>	<b>1.73</b>	<b>705.00</b>	<b>66.38</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	4384	600	47	-328	2784	0	54	197	-0.35
Haryana	4446	94	117	62	3119	0	72	-524	-6.04
Rajasthan	6463	0	-266	806	6011	0	-75	728	26.02
Delhi	3151	0	58	-820	1404	0	22	-1537	-26.66
UP	8587	2103	-102	-5	8816	665	-5	-70	-1.84
Uttarakhand	1619	0	82	567	1164	0	-129	442	11.74
HP	1075	0	-182	240	750	0	-55	381	7.99
J&K	1739	100	-136	327	1470	0	-99	353	7.61
Chandigarh	192	0	-13	-7	91	0	-14	-30	-0.31
<b>Total</b>	<b>31657</b>	<b>2897</b>	<b>-395</b>	<b>843</b>	<b>25609</b>	<b>665</b>	<b>-228</b>	<b>-59</b>	<b>18.15</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)	Schedule Net MU	UI Net MU
A. NTPC	Singrauli STPS	2000	1407	1367	1575	33.23	1384	33.57	-0.34
	Rihand I STPS	1000	473	514	350	10.53	439	10.93	-0.40
	Rihand II STPS	1000	975	1035	753	21.60	900	22.32	-0.72
	Rihand III STPS	500	474	337	248	10.65	444	10.75	-0.10
	Dadri I STPS	840	810	835	620	16.19	675	17.11	-0.91
	Dadri II STPS	980	975	950	730	20.60	858	21.77	-1.17
	Unchahar I TPS	420	407	396	387	8.30	346	9.09	-0.79
	Unchahar II TPS	420	405	436	306	8.80	367	8.89	-0.09
	Unchahar III TPS	210	202	206	150	4.41	184	4.39	0.02
	ISTPP (Jhajjar)	1500	980	402	402	9.32	388	9.89	-0.57
	Dadri GPS	830	839	389	431	9.23	385	9.34	-0.11
	Anta GPS	419	416	212	257	5.22	217	5.23	-0.01
	Auraiva GPS	663	669	326	310	7.38	308	7.31	0.07
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9032</b>	<b>7405</b>	<b>6519</b>	<b>165.46</b>	<b>6894</b>	<b>170.58</b>	<b>-5.12</b>
B. NPC	NAPS	440	276	342	348	7.36	307	6.62	0.74
	RAPS- B	440	426	466	472	10.28	428	10.22	0.06
	RAPS- C	440	430	474	473	10.21	426	10.32	-0.11
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1132</b>	<b>1282</b>	<b>1293</b>	<b>27.85</b>	<b>1161</b>	<b>27.17</b>	<b>0.68</b>
C. NHPC	Chamera I HPS	540	409	540	0	2.69	112	2.70	-0.01
	Chamera II HPS	300	204	199	0	1.35	56	1.42	-0.08
	Chamera III HPS	231	154	145	0	0.73	30	0.82	-0.09
	Bairasuil HPS	180	182	120	0	0.80	33	0.79	0.01
	Salal-HPS	690	186	324	64	4.09	171	4.42	-0.32
	Tanakpur-HPS	94	56	55	41	1.07	44	1.18	-0.12
	Uri-HPS	480	345	354	345	7.92	330	7.63	0.29
	Dhauliganga-HPS	280	210	202	0	1.23	51	1.25	-0.03
	Dulhasti-HPS	390	0	0	0	0.00	0	0.00	0.00
	Sewa-II HPS	120	80	83	42	1.65	69	1.60	0.05
	<b>Sub Total (C)</b>	<b>3305</b>	<b>1825</b>	<b>2022</b>	<b>492</b>	<b>21.52</b>	<b>897</b>	<b>21.82</b>	<b>-0.30</b>
D. NJPC	Natpka Jhakri	1500	1085	407	0	4.50	187	4.48	0.01
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1085</b>	<b>407</b>	<b>0</b>	<b>4.50</b>	<b>187</b>	<b>4.48</b>	<b>0.01</b>
E. THDC	Tehri HPS	1000	920	690	0	8.87	370	9.00	-0.13
	Koteshwar HPS	400	400	389	70	3.29	137	3.40	-0.11
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1320</b>	<b>1079</b>	<b>70</b>	<b>12.16</b>	<b>507</b>	<b>12.40</b>	<b>-0.24</b>
F. BBMB	Bhakra HPS	1480	526	946	417	13.26	553	12.62	0.64
	Dehar HPS	990	206	495	140	5.10	213	4.94	0.16
	Pong HPS	396	213	312	132	5.41	225	5.01	0.40
	<b>Sub Total (F)</b>	<b>2866</b>	<b>944</b>	<b>1753</b>	<b>689</b>	<b>23.77</b>	<b>990</b>	<b>22.56</b>	<b>1.21</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.26	11	0.26	0.00
	KWHEP HPS(IPP)	1000	0	230	0	1.05	44	0.88	0.17
	Malana Stg-II HPS	100	0	30	0	0.13	5	0.11	0.02
	Shree Cement TPS	300	0	220	190	5.13	214	4.48	0.65
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>480</b>	<b>190</b>	<b>6.57</b>	<b>274</b>	<b>5.73</b>	<b>0.84</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>15338</b>	<b>14428</b>	<b>9253</b>	<b>261.82</b>	<b>10909</b>	<b>264.74</b>	<b>-2.91</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	840	690	17.53	731
	Guru Nanak Dev TPS(Bhatinda)	440	120	105	1.90	79
	Guru Hargobind Singh TPS(L.mbt)	920	699	518	14.01	584
	Thermal (Total)	2620	1659	1313	33.45	1394
	Total Hydro	1148	496	372	10.11	421
	<b>Total Punjab</b>	<b>3768</b>	<b>2155</b>	<b>1685</b>	<b>43.56</b>	<b>1815</b>
Haryana	Panipat TPS	1367	444	439	10.58	441
	DCRTPP (Yamuna nagar)	600	565	558	13.29	554
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	549	354	12.86	536
	Thermal (Total)	4944	1558	1351	36.72	1530
	Total Hydro	62	13	22	0.41	17
	<b>Total Haryana</b>	<b>5006</b>	<b>1571</b>	<b>1373</b>	<b>37.13</b>	<b>1547</b>
	Rajasthan	kota TPS	1240	1111	1063	27.31
suratgarh TPS		1500	1000	947	24.93	1039
Chabra TPS		500	417	455	10.07	420
Dholpur GPS		330	129	120	3.00	125
Ramgarh GPS		111	42	44	1.01	42
RAPS A (NPC)		300	197	197	4.73	197
Barsingsar (NLC)		250	204	202	4.89	204
Giral LTPS		250	0	0	0.00	0
Rajwest LTPS (IPP)		675	603	597	14.46	603
VSLP LTPS (IPP)		135	0	0	0.00	0
Thermal (Total)		5291	3506	3625	90.39	3766
Total Hydro		550	70	69	4.01	167
Wind power		2191	110	172	2.97	124
Biomass		91	18	18	0.43	18
Solar		201	4	0	0.15	6
Renewable/Others (Total)		2483	128	190	3.54	148
<b>Total Rajasthan</b>		<b>8324</b>	<b>3704</b>	<b>3884</b>	<b>97.94</b>	<b>4081</b>
UP		Anpara TPS	1630	1352	1321	28.00
	Obra TPS	1382	544	545	12.00	500
	Paricha TPS	890	700	652	14.70	613
	Panki TPS	210	60	50	1.30	54
	Harduaganj TPS	665	224	237	5.10	213
	Tanda TPS (NTPC)	440	402	401	9.84	410
	Roza TPS (IPP)	1200	810	801	19.35	806
	Anpara-C (IPP)	1200	373	392	9.17	382
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	400	399	9.17	382
	Thermal (Total)	8067	4865	4798	108.62	4526
	Vishnuparyag HPS (IPP)	400	79	84	1.84	77
	Other Hydro	527	62	198	3.79	158
	Cogeneration	981	800	800	19.20	800
	<b>Total UP</b>	<b>9975</b>	<b>5806</b>	<b>5880</b>	<b>133.45</b>	<b>5484</b>
	Uttarakhand	Total Hydro	1303	557	461	11.70
<b>Total Uttarakhand</b>		<b>1303</b>	<b>557</b>	<b>461</b>	<b>11.70</b>	<b>488</b>
Delhi	Rajghat TPS	135	96	98	2.27	94
	Delhi Gas Turbine	282	130	126	3.00	125
	Pragati Gas Turbine	330	310	261	7.32	305
	Rithala GPS	108	0	21	0.16	7
	Bawana GPS	677	209	217	5.39	224
	Badarpur TPS (NTPC)	705	405	410	9.31	388
	Thermal (Total)	2237	1150	1133	27.43	1143
	<b>Total Delhi</b>	<b>2237</b>	<b>1150</b>	<b>1133</b>	<b>27.43</b>	<b>1143</b>
	HP	Baspa HPS (IPP)	330	56	0	0.97
Malana HPS (IPP)		86	34	0	0.17	7
Other Hydro		589	217	199	4.82	201
<b>Total HP</b>		<b>1005</b>	<b>307</b>	<b>199</b>	<b>6</b>	<b>248</b>
J & K	Baglihar HPS (IPP)	450	150	150	3.80	158
	Other Hydro	323	95	130	3.40	142
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>245</b>	<b>280</b>	<b>7.20</b>	<b>300</b>
<b>Total State Control Area Generation</b>		<b>32574</b>	<b>15495</b>	<b>14895</b>	<b>364.37</b>	<b>15106</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>3099</b>	<b>1741</b>	<b>71.30</b>	<b>2971</b>
<b>Total Regional Availability(Gross)</b>		<b>55410</b>	<b>33022</b>	<b>25889</b>	<b>697.50</b>	<b>28986</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	5521	1251	63.38	2641
State Control Area Hydro	5368	1750	1601	45.02	1799
<b>Total Regional Hydro</b>	<b>15731</b>	<b>7271</b>	<b>2852</b>	<b>108.40</b>	<b>4440</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	300	-100	300	200	2.14	1.25	0.89
Gwalior-Agra (D/C)	337	173	734	0	10.23	0.00	10.23
Zerda-Kankroli	-76	-202	57	272	0.00	1.32	-1.32
Zerda-Bhinmal	-4	-79	167	152	0.74	0.00	0.74
Malanpur-Auraiya	-81	-112	0	148	0.00	2.32	-2.32
Badod-Kota/Morak	-43	-172	0	179	0.00	1.72	-1.72
Mundra-Mohindergarh(HVDC)	1266	1269	1271	0	30.65	0.00	30.65
<b>Sub Total WR</b>	<b>1699</b>	<b>777</b>			<b>43.76</b>	<b>6.61</b>	<b>37.15</b>
Pusauli Bypass	50	50	50	0	1.28	0.00	1.28
MZP- GKP (D/C)	296	176	462	0	7.09	0.00	7.09
Patna-Balia(D/C)	448	380	582	0	11.70	0.00	11.70
B'Sharif-Balia (D/C)	252	181	403	0	7.46	0.00	7.46
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	34	-20	71	20	0.01	0.00	0.01
Gaya-Fatehpur (765 Kv)	199	80	260	0	4.29	0.00	4.29
Pusauli-Sahupuri	121	117	208	0	3.25	0.00	3.25
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	0	0	0	0	0.00	0.93	-0.93
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1400</b>	<b>964</b>			<b>35.08</b>	<b>0.93</b>	<b>34.15</b>
<b>Total IR Exch</b>	<b>3099</b>	<b>1741</b>			<b>78.84</b>	<b>7.54</b>	<b>71.30</b>

**V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]**

ER	ISGS/LT Schedule (MU)		Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
33.83	0.05	33.88	1.59	7.61	-0.10	2.22	4.22	-4.22
<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
39.59	51.27	90.86	34.15	37.15	71.30	-5.44	-14.12	-19.56

**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	0.50	77.20	76.50	72.50	22.80

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					
50.44	0.00	49.59	18.42	50.08	0.27	0.14	50.40	49.88

**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	413	4:01	0	12:08	23.8	23.8	0.0	0.0
Gorakhpur	400	432	4:05	414	11:20	0.0	0.0	75.8	1.0
Bareilly	400	426	4:05	404	11:19	0.0	0.0	11.9	0.0
Kanpur	400	421	4:04	398	11:19	0.0	0.0	0.3	0.0
Dadri	400	424	4:06	403	9:12	0.0	0.0	8.9	0.0
Ballabhgarh	400	430	4:07	403	11:20	0.0	0.0	29.4	0.0
Bawana	400	428	4:05	405	11:17	0.0	0.0	29.5	0.0
Bassi	400	430	4:05	397	11:18	0.0	0.0	15.7	0.0
Hissar	400	419	4:04	393	11:18	0.0	0.0	0.0	0.0
Moga	400	419	4:04	395	11:18	0.0	0.0	0.0	0.0
Abdullapur	400	427	4:05	406	18:41	0.0	0.0	28.0	0.0
Nalagarh	400	423	23:49	405	18:41	0.0	0.0	5.2	0.0
Kishenpur	400	415	4:05	393	7:29	0.0	0.0	0.0	0.0
Wagoora	400	401	11:37	375	7:26	5.7	52.3	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	487.65	661.49	494.09	869.36	311.91	326.07
Pong	426.72	384.05	406.03	379.28	410.67	514.41	128.90	255.69
Tehri	829.79	740.04	794.55	520.00	818.65	982.26	43.16	232.00
Koteswar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	40.44	49.23
Rihand	268.22	252.98	NA	500.10	262.74	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	511.18	NA	503.03	NA	39.93	115.31

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 08.02.2013 :**

1.Clear Weather in NR.

**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 : 08.02.2013

पारी प्रभाती अशियंता / SHIFT CHARGE ENGINEER