

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 22.02.2012  
Date of Reporting : 23.02.2012

### 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
31376	2247	33623	49.82	25882	670	26552	50.10	713.8	42.27

\* 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	53.61	12.37		65.98	36.45	32.88	-3.57	98.86	1.80
Haryana	50.17	0.33		50.50	25.01	49.67	24.65	100.17	6.70
Rajasthan	88.02	5.09	10.59	103.70	49.59	61.67	12.07	165.36	0.16
Delhi	25.35			25.35	46.69	32.82	-13.87	58.17	0.03
UP	95.29	6.53	14.40	116.22	85.71	89.19	3.48	205.41	29.43
Uttarakhand		10.33		10.33	18.32	17.12	-1.20	27.45	1.59
HP		5.21		5.21	19.84	17.33	-2.51	22.54	0.27
J & K		5.42	0.00	5.42	26.42	26.91	0.49	32.33	2.30
Chandigarh				0.00	3.64	3.52	-0.12	3.52	0.00
<b>Total</b>	<b>312.43</b>	<b>45.29</b>	<b>24.99</b>	<b>382.70</b>	<b>311.67</b>	<b>331.10</b>	<b>19.43</b>	<b>713.80</b>	<b>42.27</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	4695	150	-76	-287	3310	0	-113	-407	-6.66
Haryana	4636	489	1304	-127	3586	0	793	-127	-3.05
Rajasthan	6210	0	-78	12	6855	0	1298	62	4.27
Delhi	3040	0	-328	-110	1339	0	-706	-382	-4.66
UP	8780	1300	-29	265	7665	670	194	265	6.36
Uttarakhand	1332	150	-67	350	973	0	10	350	8.40
HP	978	8	-397	223	748	0	41	323	7.25
J&K	1516	150	-37	248	1317	0	114	255	5.67
Chandigarh	189	0	-19	0	89	0	5	-41	-0.33
<b>Total</b>	<b>31376</b>	<b>2247</b>	<b>273</b>	<b>574</b>	<b>25882</b>	<b>670</b>	<b>1636</b>	<b>297</b>	<b>17.25</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	1776	1949	1884	43.35	1806	42.63	0.72
	Rihand I STPS	1000	920	997	953	21.91	913	21.64	0.27
	Rihand II STPS	1000	975	1036	1022	23.48	978	23.13	0.35
	Dadri I STPS	840	763	802	613	15.94	664	15.86	0.07
	Dadri II STPS	980	949	976	763	21.29	887	21.43	-0.14
	Unchahar I TPS	440	402	442	359	9.43	393	9.25	0.18
	Unchahar II TPS	440	403	442	363	9.50	396	9.23	0.27
	Unchahar III TPS	210	202	220	175	4.72	197	4.67	0.05
	ISTPP (Jhajjar)	1000	0	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	647	534	444	11.70	488	11.68	0.02
	Anta GPS	419	423	330	265	7.79	324	7.50	0.29
	Auraiya GPS	663	648	453	323	9.38	391	9.48	-0.10
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8109</b>	<b>8181</b>	<b>7164</b>	<b>178.49</b>	<b>7437</b>	<b>176.51</b>	<b>1.97</b>
	B. NPC	NAPS	440	139	153	162	3.24	135	3.34
RAPS- B		440	425	484	466	10.08	420	10.20	-0.12
RAPS- C		440	420	469	477	10.15	423	10.08	0.07
<b>Sub Total (B)</b>		<b>1320</b>	<b>984</b>	<b>1106</b>	<b>1105</b>	<b>23.47</b>	<b>978</b>	<b>23.62</b>	<b>-0.15</b>
C. NHPC	Chamera I HPS	540	401	450	0	3.17	132	3.28	-0.11
	Chamera II HPS	300	198	168	0	1.49	62	1.41	0.07
	Bairasuil HPS	180	179	120	0	1.62	68	1.30	0.32
	Salal-HPS	690	225	322	150	5.63	234	4.84	0.79
	Tanakpur-HPS	94	25	29	15	0.52	22	0.51	0.01
	Uri-HPS	480	280	360	267	7.43	310	6.51	0.92
	Dhauliganga-HPS	280	210	212	0	0.75	31	0.74	0.00
	Dulhasti-HPS	390	0	0	0	0.00	0	0.00	0.00
	Sewa-II HPS	120	119	120	23	2.24	93	2.28	-0.04
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1636</b>	<b>1781</b>	<b>455</b>	<b>22.83</b>	<b>951</b>	<b>20.86</b>	<b>1.97</b>
D. NJPC	Nathpa Jhakri	1500	1133	1597	0	6.08	253	6.00	0.08
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1133</b>	<b>1597</b>	<b>0</b>	<b>6.08</b>	<b>253</b>	<b>6.00</b>	<b>0.08</b>
E. THDC	Tehri HPS	1000	733	660	0	7.94	331	8.00	-0.06
	Koteshwar HPS	200	175	197	0	3.23	134	3.20	0.03
	<b>Sub Total (E)</b>	<b>1200</b>	<b>908</b>	<b>857</b>	<b>0</b>	<b>11.17</b>	<b>465</b>	<b>11.20</b>	<b>-0.03</b>
F. BBMB	Bhakra HPS	1480	747	971	392	18.49	770	17.92	0.57
	Dehar HPS	990	197	495	0	5.41	225	4.74	0.68
	Pong HPS	396	198	306	60	4.95	206	4.75	0.20
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1142</b>	<b>1772</b>	<b>452</b>	<b>28.85</b>	<b>1202</b>	<b>27.40</b>	<b>1.45</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.19	8	0.23	-0.05
	KWHEP HPS(IPP)	1000	0	400	0	3.49	145	3.48	0.01
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	146	145	3.47	145	3.46	0.01
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>546</b>	<b>145</b>	<b>7.15</b>	<b>298</b>	<b>7.17</b>	<b>-0.02</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21225</b>	<b>13912</b>	<b>15840</b>	<b>9321</b>	<b>278.03</b>	<b>11585</b>	<b>272.77</b>	<b>5.26</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	1255	1130	27.64	1152
	Guru Nanak Dev TPS(Bhatinda)	440	218	218	4.76	198
	Guru Hargobind Singh TPS(L.mbt)	920	971	977	21.21	884
	Thermal (Total)	2620	2444	2325	53.61	2234
	Total Hydro	1148	396	308	12.37	515
	<b>Total Punjab</b>	<b>3768</b>	<b>2840</b>	<b>2633</b>	<b>65.98</b>	<b>2749</b>
Haryana	Panipat TPS	1360	834	849	20.27	845
	DCRTPP (Yamuna nagar)	600	278	277	6.59	274
	Faridabad GPS (NTPC)	432	401	324	9.60	400
	RGTPP (kheldar) (IPP)	1200	499	495	13.71	571
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	660	0	0	0.00	0
	Thermal (Total)	4277	2012	1945	50.17	2090
	Total Hydro	62	0	24	0.33	14
	<b>Total Haryana</b>	<b>4339</b>	<b>2012</b>	<b>1969</b>	<b>50.50</b>	<b>2104</b>
Rajasthan	kota TPS	1240	1163	1172	27.74	1156
	suratgarh TPS	1500	1133	1093	26.04	1085
	Chabra TPS	500	418	434	10.19	425
	Dholpur GPS	330	225	225	5.49	229
	Ramgarh GPS	113	43	43	1.07	45
	RAPS A (NPC)	300	185	187	4.52	188
	Barsingsar (NLC)	250	118	118	2.49	104
	Giral LTPS (IPP)	250	0	0	0.00	0
	Rajwest LTPS (IPP)	540	430	305	10.47	436
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5158	3715	3577	88.02	3667
	Total Hydro	550	177	190	5.09	212
	Wind power	1294	262	88	4.27	178
	Biomass	71	51	51	1.23	51
	Solar	50	0	0	0.00	0
	Renewable/Others (Total)	1365	313	139	10.59	441
	<b>Total Rajasthan</b>	<b>7073</b>	<b>4205</b>	<b>3906</b>	<b>103.70</b>	<b>4321</b>
UP	Anpara TPS	1630	1543	1483	32.80	1367
	Obra TPS	1442	597	610	13.10	546
	Paricha TPS	640	233	235	5.00	208
	Panki TPS	210	190	195	5.00	208
	Harduaganj TPS	415	200	245	5.00	208
	Tanda TPS (NTPC)	440	398	313	9.55	398
	Roza TPS (IPP)	900	549	396	12.50	521
	Anpara-C (IPP)	1200	378	369	9.02	376
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	132	145	3.32	138
	Thermal (Total)	7057	4220	3991	95.29	3970
	Vishnuparyag HPS (IPP)	400	74	74	1.75	73
	Other Hydro	527	237	48	4.78	199
	Cogeneration	951	600	600	14.40	600
	<b>Total UP</b>	<b>8935</b>	<b>5131</b>	<b>4713</b>	<b>116.22</b>	<b>4769</b>
Uttarakhand	Total Hydro	1303	555	311	10.33	430
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>555</b>	<b>311</b>	<b>10.33</b>	<b>430</b>
Delhi	Rajghat TPS	135	101	102	2.70	113
	Delhi Gas Turbine	282	81	82	1.90	79
	Pragati Gas Turbine	330	296	269	7.00	292
	Rithala GPS	108	32	15	0.53	22
	Bawana GPS	440	0	6	0.58	24
	Badarpur TPS (NTPC)	705	600	495	12.65	527
	Thermal (Total)	2000	1110	984	25.35	1056
	<b>Total Delhi</b>	<b>2000</b>	<b>1110</b>	<b>984</b>	<b>25.35</b>	<b>1056</b>
HP	Baspa HPS (IPP)	330	0	0	0.99	41
	Malana HPS (IPP)	101	31	0	0.23	9
	Other Hydro	571	177	122	3.99	166
	<b>Total HP</b>	<b>1002</b>	<b>208</b>	<b>122</b>	<b>5</b>	<b>217</b>
J & K	Baglihar HPS (IPP)	450	148	148	3.65	152
	Other Hydro	323	70	92	1.76	73
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>218</b>	<b>240</b>	<b>5.42</b>	<b>226</b>
<b>Total State Control Area Generation</b>		<b>29376</b>	<b>16279</b>	<b>14878</b>	<b>382.70</b>	<b>15873</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1321</b>	<b>2943</b>	<b>69.06</b>	<b>2878</b>
<b>Total Regional Availability(Gross)</b>		<b>50601</b>	<b>33440</b>	<b>27142</b>	<b>729.79</b>	<b>30335</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	6553	1052	76.08	3170
State Control Area Hydro	5365	1791	1243	43.53	1814
<b>Total Regional Hydro</b>	<b>15447</b>	<b>8344</b>	<b>2295</b>	<b>119.61</b>	<b>4984</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	500	0	500	0	7.03	0.00	7.03
Gwalior-Agra (D/C)	-24	749	1003	24	15.75	0.00	15.75
Zerda-Kankroli	-190	-15	184	190	0.00	0.25	-0.25
Zerda-Bhinmal	0	84	246	44	1.30	0.00	1.30
Malanpur-Auraiya	-205	-90	0	205	0.00	2.11	-2.11
Badod-Kota/Morak	-16	22	51	85	0.00	0.02	-0.02
<b>Sub Total WR</b>	<b>65</b>	<b>750</b>			<b>24.08</b>	<b>2.39</b>	<b>21.70</b>
Pusauli Bypass	-47	415	430	93	5.96	0.18	5.78
MZP- GKP (D/C)	400	575	832	0	13.71	0.00	13.71
Patna-Balia(D/C)	256	327	446	0	8.29	0.00	8.29
B'Sharif-Balia (D/C)	230	391	485	0	8.63	0.00	8.63
Barh - balia(D/C)	281	437	419	0	9.74	0.00	9.74
Pusauli-Sahupuri	166	80	166	0	2.22	0.00	2.22
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	1.00	-1.00
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1256</b>	<b>2193</b>			<b>48.55</b>	<b>1.18</b>	<b>47.37</b>
<b>Total IR Exch</b>	<b>1321</b>	<b>2943</b>			<b>72.63</b>	<b>3.57</b>	<b>69.06</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
25.38	0.18	25.55	10.46	10.30	-0.18	3.83	2.84	-2.84

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
38.66	9.01	47.67	47.37	21.70	69.06	8.70	12.69	21.39

**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	1.50	18.20	96.60	79.90	20.40	1.90

<----- 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					
50.38	5.03	49.39	20.05	49.86	0.49	0.17	50.25	49.66

**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	404	03:27	392	13:51	0.0	0.0	0.0	0.0
Gorakhpur	400	434	19:42	403	11:12	0.0	0.0	24.2	3.3
Bareilly	400	418	19:40	391	11:14	0.0	0.0	0.0	0.0
Kanpur	400	411	20:57	392	11:17	0.0	0.0	0.0	0.0
Dadri	400	418	05:05	397	11:12	0.0	0.0	0.0	0.0
Ballabgarh	400	421	05:07	396	11:15	0.0	0.0	0.0	0.0
Bawana	400	424	05:05	397	11:17	0.0	0.0	5.1	0.0
Bassi	400	422	20:54	392	11:16	0.0	0.0	0.8	0.0
Hissar	400	418	20:54	392	11:18	0.0	0.0	0.0	0.0
Moga	400	429	05:04	403	11:17	0.0	0.0	15.9	0.0
Abdullapur	400	426	20:57	281	09:42	0.2	0.2	2.7	0.0
Nalagarh	400	429	05:04	399	11:38	0.0	0.0	17.4	0.0
Kishenpur	400	430	05:04	390	12:07	0.0	0.0	8.1	0.0
Wagoora	400	418	05:05	366	18:52	19.8	60.1	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	489.63	719.44	494.05	903.28	173.92	569.17
Pong	426.72	384.05	408.87	454.47	412.41	577.87	84.89	318.62
Tehri	829.79	740.04	787.50	411.99	818.65	982.26	69.85	208.00
Koteshwar	612.50	598.50	607.40	3.32	NA	NA	216.00	206.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	88.85	109.96
Rihand	268.22	252.98	261.95	415.40	256.15	122.50	NA	NA
RPS	352.80	343.81	348.65	NA	NA	NA	NA	264.22
Jawahar Sagar	298.70	295.78	298.03	NA	NA	NA	NA	243.16
RSD	527.91	487.91	499.24	NA	504.74	NA	140.45	190.35

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 22.02.2012 :**

1. Normal 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 : 22.02.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER