

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 13.04.2012  
Date of Reporting : 14.04.2012

### I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 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
29817	1118	30935	50.00	26576	650	27226	50.33	633.1	14.33

\* 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	35.77	8.21		43.98	44.67	46.80	2.13	90.78	1.82
Haryana	51.60	0.71		52.31	32.55	28.92	-3.63	81.23	0.36
Rajasthan	83.02	0.00	10.94	93.96	32.43	30.90	-1.53	124.86	0.00
Delhi	30.73			30.73	49.17	37.15	-12.02	67.88	0.00
UP	95.66	6.80	9.60	112.06	74.27	72.46	-1.82	184.52	10.25
Uttarakhand		10.79		10.79	11.65	15.25	3.60	26.03	0.70
HP		9.92		9.92	16.54	13.45	-3.09	23.37	0.00
J & K		12.91	0.00	12.91	16.46	17.89	1.43	30.80	1.20
Chandigarh				0.00	4.24	3.68	-0.56	3.68	0.00
<b>Total</b>	<b>296.77</b>	<b>49.33</b>	<b>20.54</b>	<b>366.64</b>	<b>281.99</b>	<b>266.50</b>	<b>-15.49</b>	<b>633.14</b>	<b>14.33</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 (20:00 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	4271	450	194	-94	3643	0	-58	-94	-2.24
Haryana	4541	273	648	74	3503	0	60	74	1.78
Rajasthan	4880	0	-257	-315	5196	0	-387	-315	-7.56
Delhi	3192	0	-196	311	2415	0	-522	311	7.45
UP	9391	50	383	465	8661	650	741	265	7.36
Uttarakhand	1177	245	23	47	1142	0	320	47	1.14
HP	989	0	-618	-436	794	0	-113	-42	-3.68
J&K	1191	100	137	-333	1098	0	-16	-333	-8.00
Chandigarh	185	0	-18	0	124	0	-16	0	0.00
<b>Total</b>	<b>29817</b>	<b>1118</b>	<b>296</b>	<b>-281</b>	<b>26576</b>	<b>650</b>	<b>9</b>	<b>-86</b>	<b>-3.75</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	1460	1574	1570	34.61	1442	34.32	0.29
	Rihand I STPS	1000	905	980	975	20.68	862	20.75	-0.07
	Rihand II STPS	1000	975	1042	923	21.76	907	21.69	0.07
	Dadri I STPS	840	803	695	611	13.56	565	13.82	-0.25
	Dadri II STPS	980	470	395	374	8.67	361	9.25	-0.58
	Unchahar I TPS	440	403	417	372	7.87	328	8.04	-0.17
	Unchahar II TPS	440	200	216	160	3.84	160	3.85	-0.01
	Unchahar III TPS	210	199	217	166	3.94	164	3.97	-0.03
	ISTPP (Jhajjar)	1000	470	501	401	10.42	434	10.78	-0.36
	Dadri GPS	830	808	566	563	12.33	514	12.52	-0.19
	Anta GPS	419	390	259	249	5.64	235	5.77	-0.13
	Auraiya GPS	663	616	471	439	8.66	361	8.67	0.00
	<b>Sub Total (A)</b>	<b>9822</b>	<b>7698</b>	<b>7333</b>	<b>6803</b>	<b>151.98</b>	<b>6332</b>	<b>153.41</b>	<b>-1.44</b>
	B. NPC	NAPS	440	273	309	311	6.53	272	6.55
RAPS- B		440	404	432	455	9.61	400	9.70	-0.09
RAPS- C		440	416	468	472	10.12	422	9.98	0.14
<b>Sub Total (B)</b>		<b>1320</b>	<b>1093</b>	<b>1209</b>	<b>1238</b>	<b>26.25</b>	<b>1094</b>	<b>26.23</b>	<b>0.02</b>
C. NHPC	Chamera I HPS	540	534	540	360	11.78	491	11.71	0.07
	Chamera II HPS	300	297	294	38	3.51	146	4.07	-0.56
	Bairasuil HPS	180	182	182	30	3.56	148	3.78	-0.22
	Salal-HPS	690	482	480	208	9.35	390	9.33	0.02
	Tanakpur-HPS	94	32	54	31	0.79	33	0.79	0.00
	Uri-HPS	480	480	480	478	11.57	482	11.45	0.12
	Dhauliganga-HPS	280	277	278	0	2.06	86	1.56	0.49
	Dulhasti-HPS	390	388	412	25	5.27	219	6.89	-1.62
	Sewa-II HPS	120	119	121	115	2.58	108	2.72	-0.14
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2791</b>	<b>2841</b>	<b>1285</b>	<b>50.46</b>	<b>2103</b>	<b>52.31</b>	<b>-1.84</b>
D. NJPC	Nathpa Jhakri	1500	1600	1606	0	11.26	469	12.10	-0.84
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1606</b>	<b>0</b>	<b>11.26</b>	<b>469</b>	<b>12.10</b>	<b>-0.84</b>
E. THDC	Tehri HPS	1000	660	670	0	6.02	251	6.00	0.02
	Koteshwar HPS	300	300	305	0	2.63	110	2.70	-0.07
	<b>Sub Total (E)</b>	<b>1300</b>	<b>960</b>	<b>975</b>	<b>0</b>	<b>8.66</b>	<b>361</b>	<b>8.70</b>	<b>-0.04</b>
F. BBMB	Bhakra HPS	1480	477	769	402	11.64	485	11.45	0.19
	Dehar HPS	990	283	420	165	6.98	291	6.79	0.19
	Pong HPS	396	6	120	0	0.18	8	0.15	0.03
	<b>Sub Total (F)</b>	<b>2866</b>	<b>766</b>	<b>1309</b>	<b>567</b>	<b>18.80</b>	<b>783</b>	<b>18.38</b>	<b>0.42</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	94	0	0.77	32	0.83	-0.06
	KWHEP HPS(IPP)	1000	0	750	155	7.00	291	6.99	0.00
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	124	138	2.92	122	3.25	-0.33
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>968</b>	<b>293</b>	<b>10.68</b>	<b>445</b>	<b>11.07</b>	<b>-0.39</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21475</b>	<b>14908</b>	<b>16241</b>	<b>10186</b>	<b>278.10</b>	<b>11587</b>	<b>282.21</b>	<b>-4.11</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	790	765	17.05	710
	Guru Nanak Dev TPS(Bhatinda)	440	100	95	0.74	31
	Guru Hargobind Singh TPS(L.mbt)	920	945	909	17.99	750
	Thermal (Total)	2620	1835	1769	35.77	1490
	Total Hydro	1148	406	286	8.21	342
	<b>Total Punjab</b>	<b>3768</b>	<b>2241</b>	<b>2055</b>	<b>43.98</b>	<b>1832</b>
Haryana	Panipat TPS	1360	797	1062	21.53	897
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	348	293	7.54	314
	RGTPP (khedar) (IPP)	1200	1031	785	22.53	939
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	660	0	0	0.00	0
	Thermal (Total)	4277	2176	2140	51.60	2150
	Total Hydro	62	27	32	0.71	30
	<b>Total Haryana</b>	<b>4339</b>	<b>2203</b>	<b>2172</b>	<b>52.31</b>	<b>2180</b>
Rajasthan	kota TPS	1240	937	1064	23.31	971
	suratgarh TPS	1500	819	1304	25.46	1061
	Chabra TPS	500	197	378	6.64	277
	Dholpur GPS	330	275	125	6.03	251
	Ramgarh GPS	111	21	21	0.35	15
	RAPS A (NPC)	300	191	180	4.54	189
	Barsingsar (NLC) IPP	250	221	215	5.33	222
	Giral LTPS	250	56	56	1.10	46
	Rajwest LTPS (IPP)	540	446	446	10.26	428
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5156	3163	3789	83.02	3459
	Total Hydro	550	0	0	0.00	0
	Wind power	1843	280	541	10.32	430
	Biomass	91	26	26	0.62	26
	Solar	128	0	0	0.00	0
	Renewable/Others (Total)	1934	306	567	10.94	456
	<b>Total Rajasthan</b>	<b>7640</b>	<b>3469</b>	<b>4356</b>	<b>93.96</b>	<b>3915</b>
	UP	Anpara TPS	1630	1177	1164	27.70
Obra TPS		1382	493	491	11.70	488
Paricha TPS		640	226	353	7.30	304
Panki TPS		210	86	59	1.80	75
Harduaganj TPS		415	14	0	0.20	8
Tanda TPS (NTPC)		440	189	293	4.64	193
Roza TPS (IPP)		1200	1058	1093	24.24	1010
Anpara-C (IPP)		1200	486	499	10.81	450
Bajaj Energy Pvt.Ltd(IPP) TPS		450	302	336	7.27	303
Thermal (Total)		7567	4031	4288	95.66	3986
Vishnuparyag HPS (IPP)		400	114	109	2.67	111
Other Hydro		527	248	0	4.13	172
Cogeneration		981	400	400	9.60	400
<b>Total UP</b>		<b>9475</b>	<b>4793</b>	<b>4797</b>	<b>112.06</b>	<b>4558</b>
Uttarakhand		Total Hydro	1303	500	400	10.79
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>500</b>	<b>400</b>	<b>10.79</b>	<b>449</b>
Delhi	Rajghat TPS	135	106	105	2.50	104
	Delhi Gas Turbine	282	157	154	3.81	159
	Pragati Gas Turbine	330	300	266	6.89	287
	Rithala GPS	108	37	31	0.76	32
	Bawana GPS	440	158	61	6.10	254
	Badarpur TPS (NTPC)	705	480	472	10.67	445
	Thermal (Total)	2000	1238	1306	30.73	1280
	<b>Total Delhi</b>	<b>2000</b>	<b>1238</b>	<b>1306</b>	<b>30.73</b>	<b>1280</b>
HP	Baspa HPS (IPP)	330	61	61	1.38	57
	Malana HPS (IPP)	101	38	0	0.45	19
	Other Hydro	571	425	345	8.09	337
	<b>Total HP</b>	<b>1002</b>	<b>524</b>	<b>406</b>	<b>10</b>	<b>413</b>
J & K	Baglihar HPS (IPP)	450	440	440	9.90	412
	Other Hydro	323	120	128	3.01	125
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>560</b>	<b>568</b>	<b>12.91</b>	<b>538</b>
<b>Total State Control Area Generation</b>		<b>30483</b>	<b>15528</b>	<b>16060</b>	<b>366.64</b>	<b>15166</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1285</b>	<b>1995</b>	<b>17.71</b>	<b>738</b>
<b>Total Regional Availability(Gross)</b>		<b>51958</b>	<b>33054</b>	<b>28241</b>	<b>662.45</b>	<b>27491</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10033	7575	2007	96.95	4039
State Control Area Hydro	5365	2265	1692	46.67	1944
<b>Total Regional Hydro</b>	<b>15397</b>	<b>9840</b>	<b>3699</b>	<b>143.61</b>	<b>5984</b>

**V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(20:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal B/B	50	100	100	250	1.06	1.32	-0.26
Gwalior-Agra (D/C)	575	740	1079	0	11.22	0.00	11.22
Zerda-Kankroli	-129	-368	0	442	0.00	5.93	-5.93
Zerda-Bhinmal	-143	-316	0	416	0.00	5.82	-5.82
Malanpur-Auraiya	-18	-108	0	150	0.00	1.71	-1.71
Badod-Kota/Morak	-50	-17	0	175	0.00	1.06	-1.06
<b>Sub Total WR</b>	<b>285</b>	<b>31</b>			<b>12.28</b>	<b>15.84</b>	<b>-3.57</b>
Pusauli Bypass	-172	65	65	300	0.20	2.70	-2.50
MZP- GKP (D/C)	356	734	734	0	8.43	0.00	8.43
Patna-Balia(D/C)	436	337	540	0	6.74	0.00	6.74
B'Sharif-Balia (D/C)	190	298	298	0	3.46	0.00	3.46
Barh - Balia(D/C)	0	366	366	0	1.94	0.00	1.94
Pusauli-Balia	0	0	0	0	0.00	0.00	0.00
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	184	138	210	0	4.15	0.00	4.15
K'nasa-Sahupuri	48	60	60	0	0.10	0.00	0.10
Son Ngr-Rihand	-42	-34	0	49	0.00	1.05	-1.05
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1000</b>	<b>1964</b>			<b>25.02</b>	<b>3.74</b>	<b>21.28</b>
<b>Total IR Exch</b>	<b>1285</b>	<b>1995</b>			<b>37.30</b>	<b>19.59</b>	<b>17.71</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
22.68	0.25	22.92	-7.05	4.19	0.21	-1.48	1.68	-1.68

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
17.76	-5.23	12.53	21.28	-3.57	17.71	3.52	1.66	5.18

**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	3.30	86.20	82.90	57.90	13.80

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz	(Hz)	(Hz)		
50.44	6.06	49.50	19.14	50.03	0.25	0.16	50.40	49.76

**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	410	06:11	398	19:20	0.0	0.0	0.0	0.0
Gorakhpur	400	438	06:07	406	16:57	0.4	0.4	52.5	2.3
Bareilly	400	429	13:03	400	19:23	0.0	0.0	28.0	0.0
Kanpur	400	422	08:02	402	19:14	0.0	0.0	4.2	0.0
Dadri	400	428	11:05	404	19:23	0.0	0.0	40.3	0.0
Ballabgarh	400	429	13:04	406	19:14	0.0	0.0	52.7	0.0
Bawana	400	429	11:03	404	19:23	0.0	0.0	53.4	0.0
Bassi	400	428	03:55	411	19:13	0.0	0.0	57.5	0.0
Hissar	400	421	08:05	400	19:13	0.0	0.0	0.1	0.0
Moga	400	427	02:18	408	19:15	0.0	0.0	35.3	0.0
Abdullapur	400	430	08:03	404	19:23	0.0	0.0	72.9	0.0
Nalagarh	400	431	02:01	409	19:15	0.0	0.0	64.1	0.6
Kishenpur	400	420	03:25	402	19:13	0.0	0.0	0.0	0.0
Wagoora	400	410	03:59	384	19:14	0.0	11.2	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	474.77	350.94	484.31	569.03	322.42	355.63
Pong	426.72	384.05	402.99	288.96	410.19	504.32	53.72	11.58
Tehri	829.79	740.04	763.65	151.00	818.65	982.26	83.43	183.00
Koteshwar	612.50	598.50	610.76	4.95	NA	NA	183.00	175.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	209.75	317.94
Rihand	268.22	252.98	259.11	257.10	255.06	78.60	NA	NA
RPS	352.80	343.81	347.65	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.16	NA	NA	NA	NA	NA
RSD	527.91	487.91	497.30	NA	50.26	NA	309.53	241.71

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 13.04.2012 :**

1. Rains in J&K, HP and some parts of Rajasthan.

**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 : 13.04.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER