

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 23.04.2012  
Date of Reporting : 24.04.2012

### 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
31014	2559	33573	50.05	26823	1050	27873	50.05	678.9	36.99

\* 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)	Consumption (Net MU)	Shortages* (MU)
	Thermal	Hydro	Renewable/others \$	Total					
Punjab	38.54	5.11		43.64	45.87	49.39	3.52	93.03	7.40
Haryana	58.78	0.70		59.48	35.78	32.39	-3.39	91.87	0.96
Rajasthan	85.54	0.00	5.69	91.23	31.94	43.25	11.31	134.48	0.06
Delhi	33.85			33.85	50.40	39.19	-11.21	73.04	0.49
UP	105.31	7.24	7.20	119.74	80.50	82.68	2.18	202.43	23.92
Uttarakhand		11.00		11.00	10.84	16.83	5.99	27.83	2.26
HP		10.87		10.87	11.45	11.56	0.11	22.43	0.00
J & K		13.52	0.00	13.52	13.98	16.17	2.19	29.68	1.90
Chandigarh				0.00	0.04	4.09	4.05	4.09	0.00
<b>Total</b>	<b>322.00</b>	<b>48.43</b>	<b>12.89</b>	<b>383.33</b>	<b>280.80</b>	<b>295.54</b>	<b>14.74</b>	<b>678.86</b>	<b>36.99</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 (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	4306	992	19	9	3898	0	171	9	0.21
Haryana	5057	232	550	54	3333	0	-508	54	1.31
Rajasthan	5716	0	-192	-366	5318	0	550	-366	-8.78
Delhi	3440	0	-528	314	2485	0	-322	114	5.66
UP	8628	1085	-36	465	8825	1050	206	265	7.36
Uttarakhand	1257	150	131	98	1065	0	301	98	2.36
HP	971	0	-33	-793	764	0	-65	-94	-8.74
J&K	1445	100	109	-406	1011	0	-41	-406	-9.75
Chandigarh	194	0	194	27	124	0	124	0	0.61
<b>Total</b>	<b>31014</b>	<b>2559</b>	<b>214</b>	<b>-597</b>	<b>26823</b>	<b>1050</b>	<b>416</b>	<b>-325</b>	<b>-9.76</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	1458	1539	1587	35.86	1494	35.00	0.86
	Rihand I STPS	1000	141	0	521	3.13	130	3.38	-0.25
	Rihand II STPS	1000	975	1042	1046	23.58	982	22.77	0.80
	Dadri I STPS	840	803	825	641	17.19	716	17.28	-0.09
	Dadri II STPS	980	470	475	386	10.49	437	10.58	-0.09
	Unchahar I TPS	440	390	425	407	9.17	382	9.13	0.04
	Unchahar II TPS	440	201	220	193	4.69	195	4.58	0.11
	Unchahar III TPS	210	199	218	186	4.65	194	4.50	0.15
	ISTPP (Jhajjar)	1000	960	765	771	18.16	757	16.96	1.20
	Dadri GPS	830	807	602	660	15.62	651	15.61	0.00
	Anta GPS	419	390	196	247	5.15	215	5.15	0.00
	Auraiya GPS	663	616	254	322	6.72	280	6.40	0.32
	<b>Sub Total (A)</b>	<b>9822</b>	<b>7410</b>	<b>6561</b>	<b>6967</b>	<b>154.40</b>	<b>6433</b>	<b>151.35</b>	<b>3.05</b>
	B. NPC	NAPS	440	267	306	310	6.49	270	6.41
RAPS- B		440	379	424	429	9.18	383	9.10	0.09
RAPS- C		440	420	472	472	10.12	422	10.08	0.04
<b>Sub Total (B)</b>		<b>1320</b>	<b>1066</b>	<b>1202</b>	<b>1211</b>	<b>25.79</b>	<b>1075</b>	<b>25.58</b>	<b>0.21</b>
C. NHPC	Chamera I HPS	540	534	540	0	10.66	444	10.74	-0.08
	Chamera II HPS	300	297	201	92	4.27	178	4.28	-0.01
	Bairasuil HPS	180	182	182	182	4.05	169	4.03	0.03
	Salal-HPS	690	430	554	468	10.98	458	10.30	0.68
	Tanakpur-HPS	94	27	36	25	0.76	32	0.73	0.03
	Uri-HPS	480	476	480	480	11.59	483	11.60	-0.01
	Dhauliganga-HPS	280	277	238	0	1.72	72	1.72	0.00
	Dulhasti-HPS	390	388	411	125	7.65	319	7.13	0.53
	Sewa-II HPS	120	80	79	81	1.94	81	1.91	0.03
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2690</b>	<b>2721</b>	<b>1453</b>	<b>53.62</b>	<b>2234</b>	<b>52.43</b>	<b>1.19</b>
D. NJPC	Nathpa Jhakri	1500	1600	1606	0	14.45	602	14.27	0.17
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1606</b>	<b>0</b>	<b>14.45</b>	<b>602</b>	<b>14.27</b>	<b>0.17</b>
E. THDC	Tehri HPS	1000	485	486	0	7.02	293	7.00	0.02
	Koteshwar HPS	300	300	103	0	3.07	128	3.00	0.07
	<b>Sub Total (E)</b>	<b>1300</b>	<b>785</b>	<b>589</b>	<b>0</b>	<b>10.10</b>	<b>421</b>	<b>10.00</b>	<b>0.10</b>
F. BBMB	Bhakra HPS	1480	351	470	320	8.71	363	8.43	0.28
	Dehar HPS	990	294	495	165	8.13	339	7.06	1.07
	Pong HPS	396	32	180	0	0.81	34	0.77	0.04
	<b>Sub Total (F)</b>	<b>2866</b>	<b>677</b>	<b>1145</b>	<b>485</b>	<b>17.65</b>	<b>735</b>	<b>16.26</b>	<b>1.39</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	123	0	1.27	53	1.23	0.03
	KWHEP HPS(IPP)	1000	0	700	250	8.14	339	8.17	-0.03
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	138	130	3.14	131	3.35	-0.21
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>961</b>	<b>380</b>	<b>12.54</b>	<b>523</b>	<b>12.75</b>	<b>-0.21</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21475</b>	<b>14228</b>	<b>14785</b>	<b>10496</b>	<b>288.54</b>	<b>12023</b>	<b>282.65</b>	<b>5.90</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	1015	22.78	949	
	Guru Nanak Dev TPS(Bhatinda)	440	218	218	4.70	196	
	Guru Hargobind Singh TPS(L.mbt)	920	583	477	11.05	461	
	Thermal (Total)	2620	1841	1710	38.54	1606	
	Total Hydro	1148	385	245	5.11	213	
	<b>Total Punjab</b>	<b>3768</b>	<b>2226</b>	<b>1955</b>	<b>43.64</b>	<b>1818</b>	
Haryana	Panipat TPS	1360	1066	1075	25.12	1046	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	382	284	7.84	327	
	RGTPP (kheldar) (IPP)	1200	1122	1101	25.83	1076	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	660	0	0	0.00	0	
	Thermal (Total)	4277	2570	2460	58.78	2449	
	Total Hydro	62	16	18	0.70	29	
	<b>Total Haryana</b>	<b>4339</b>	<b>2586</b>	<b>2478</b>	<b>59.48</b>	<b>2478</b>	
Rajasthan	kota TPS	1240	1162	1163	26.84	1118	
	suratgarh TPS	1500	1337	1268	31.79	1325	
	Chabra TPS	500	418	413	10.65	444	
	Dholpur GPS	330	98	98	2.34	98	
	Ramgarh GPS	111	3	3	0.00	0	
	RAPS A (NPC)	300	0	0	0.00	0	
	Barsingsar (NLC) IPP	250	108	72	2.34	98	
	Giral LTPS	250	42	46	0.92	38	
	Rajwest LTPS (IPP)	540	452	349	10.66	444	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	3620	3412	85.54	3564	
	Total Hydro	550	0	0	0.00	0	
	Wind power	1843	577	179	4.88	204	
	Biomass	91	34	34	0.81	34	
	Solar	128	0	0	0.00	0	
	Renewable/Others (Total)	1934	611	213	5.69	237	
	<b>Total Rajasthan</b>	<b>7640</b>	<b>4231</b>	<b>3625</b>	<b>91.23</b>	<b>3801</b>	
	UP	Anpara TPS	1630	1300	1343	28.40	1183
		Obra TPS	1382	523	515	11.30	471
		Paricha TPS	640	430	437	9.30	388
Panki TPS		210	160	180	3.60	150	
Harduaganj TPS		415	291	289	6.30	263	
Tanda TPS (NTPC)		440	188	187	4.78	199	
Roza TPS (IPP)		1200	1119	1123	25.50	1063	
Anpara-C (IPP)		1200	487	495	11.87	495	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	167	207	4.25	177	
Thermal (Total)		7567	4665	4776	105.31	4388	
Vishnuparyag HPS (IPP)		400	109	109	2.68	112	
Other Hydro		527	243	0	4.56	190	
Cogeneration		981	300	300	7.20	300	
<b>Total UP</b>		<b>9475</b>	<b>5317</b>	<b>5185</b>	<b>119.74</b>	<b>4878</b>	
Uttarakhand		Total Hydro	1303	545	390	11.00	458
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>545</b>	<b>390</b>	<b>11.00</b>	<b>458</b>	
Delhi	Rajghat TPS	135	102	103	2.50	104	
	Delhi Gas Turbine	282	192	191	4.62	192	
	Pragati Gas Turbine	330	289	303	7.09	295	
	Rithala GPS	108	31	36	0.79	33	
	Bawana GPS	440	273	60	5.66	236	
	Badarpur TPS (NTPC)	705	660	560	13.19	550	
	Thermal (Total)	2000	1547	1426	33.85	1410	
	<b>Total Delhi</b>	<b>2000</b>	<b>1547</b>	<b>1426</b>	<b>33.85</b>	<b>1410</b>	
HP	Baspa HPS (IPP)	330	30	63	1.65	69	
	Malana HPS (IPP)	101	66	15	0.67	28	
	Other Hydro	571	343	343	8.55	356	
	<b>Total HP</b>	<b>1002</b>	<b>439</b>	<b>421</b>	<b>11</b>	<b>453</b>	
J & K	Baglihar HPS (IPP)	450	440	436	10.51	438	
	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>564</b>	<b>13.52</b>	<b>563</b>	
<b>Total State Control Area Generation</b>		<b>30483</b>	<b>17451</b>	<b>16044</b>	<b>383.33</b>	<b>15860</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1351</b>	<b>2148</b>	<b>42.49</b>	<b>1771</b>	
<b>Total Regional Availability(Gross)</b>		<b>51958</b>	<b>33587</b>	<b>28688</b>	<b>714.36</b>	<b>29654</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10033	6884	2188	105.22	4384
State Control Area Hydro	5365	2188	1638	45.76	1907
<b>Total Regional Hydro</b>	<b>15397</b>	<b>9072</b>	<b>3826</b>	<b>150.98</b>	<b>6291</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	300	400	400	0	6.99	0.00	6.99
Gwalior-Agra (D/C)	574	668	1200	0	14.89	0.00	14.89
Zerda-Kankroli	-59	-107	56	217	0.00	1.98	-1.98
Zerda-Bhinmal	-104	-43	145	234	0.00	0.96	-0.96
Malanpur-Auraiya	-22	-54	0	101	0.00	0.98	-0.98
Badod-Kota/Morak	15	15	44	0	0.39	0.00	0.39
<b>Sub Total WR</b>	<b>704</b>	<b>879</b>			<b>22.27</b>	<b>3.92</b>	<b>18.35</b>
Pusauli Bypass	-376	-198	0	419	0.00	4.11	-4.11
MZP- GKP (D/C)	250	437	552	0	8.64	0.00	8.64
Patna-Balia(D/C)	348	403	492	0	8.01	0.00	8.01
B'Sharif-Balia (D/C)	298	448	584	0	8.85	0.00	8.85
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
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	121	153	219	0	3.70	0.00	3.70
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>647</b>	<b>1269</b>			<b>29.30</b>	<b>5.16</b>	<b>24.14</b>
<b>Total IR Exch</b>	<b>1351</b>	<b>2148</b>			<b>51.57</b>	<b>9.08</b>	<b>42.49</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
24.43	0.89	25.32	-14.13	5.15	-1.39	1.90	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
11.48	3.86	15.33	24.14	18.35	42.49	12.67	14.50	27.16

**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	2.30	15.70	96.50	83.10	16.80	1.20

<----- 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	49.85	0.47	0.15	50.22	49.63
50.30	6.02	49.39	22.37					

**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	411	08:01	404	00:01	0.0	0.0	0.0	0.0
Gorakhpur	400	423	13:21	395	00:00	0.0	0.0	7.0	0.0
Bareilly	400	422	08:07	401	22:18	0.0	0.0	2.3	0.0
Kanpur	400	417	08:01	401	22:36	0.0	0.0	0.0	0.0
Dadri	400	422	03:50	405	19:21	0.0	0.0	4.1	0.0
Ballabgarh	400	425	03:34	408	19:21	0.0	0.0	15.0	0.0
Bawana	400	424	03:13	406	19:23	0.0	0.0	14.8	0.0
Bassi	400	427	02:57	408	19:23	0.0	0.0	18.9	0.0
Hissar	400	416	03:51	400	19:20	0.0	0.0	0.0	0.0
Moga	400	428	02:58	409	19:21	0.0	0.0	17.6	0.0
Abdullapur	400	425	02:54	296	14:32	0.1	0.1	13.2	0.0
Nalagarh	400	426	03:13	407	19:22	0.0	0.0	16.2	0.0
Kishenpur	400	420	02:59	401	19:21	0.0	0.0	0.0	0.0
Wagoora	400	411	03:52	384	21:08	0.0	15.4	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	474.53	345.61	483.87	552.50	337.08	278.03
Pong	426.72	384.05	403.28	296.79	410.80	524.54	68.81	53.01
Tehri	829.79	740.04	758.40	113.04	818.65	982.26	68.81	220.00
Koteshwar	612.50	598.50	610.20	4.89	NA	NA	215.00	191.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	NA	NA
Rihand	268.22	252.98	258.56	228.60	254.90	72.60	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	496.21	NA	508.20	NA	160.67	41.85

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 23.04.2012 :**

1.Normal

**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 : 23.04.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER