

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 24.04.2012  
Date of Reporting : 25.04.2012

### 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
29631	1912	31542	50.16	28388	1343	29731	49.84	691.0	39.93

\* 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	43.89	6.20		50.09	46.26	47.74	1.48	97.83	7.30
Haryana	58.18	0.69		58.87	36.82	31.76	-5.05	90.63	0.68
Rajasthan	84.56	0.05	3.82	88.42	35.14	45.47	10.33	133.89	0.00
Delhi	34.35			34.35	51.80	41.48	-10.32	75.83	0.02
UP	100.88	8.17	7.20	116.26	80.48	90.83	10.35	207.08	27.64
Uttarakhand		11.06		11.06	10.39	17.14	6.75	28.20	2.34
HP		10.54		10.54	10.70	12.40	1.69	22.94	0.05
J & K		13.82	0.00	13.82	15.11	16.54	1.43	30.36	1.90
Chandigarh				0.00	0.32	4.21	3.89	4.21	0.00
<b>Total</b>	<b>321.87</b>	<b>50.54</b>	<b>11.02</b>	<b>383.42</b>	<b>287.01</b>	<b>307.55</b>	<b>20.54</b>	<b>690.97</b>	<b>39.93</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	4563	450	210	-41	3882	293	-188	-41	-0.99
Haryana	4317	54	-62	54	4015	0	-38	54	1.31
Rajasthan	5449	0	30	-366	5381	0	429	-366	-8.78
Delhi	3332	0	-60	313	2610	0	-812	113	5.71
UP	8268	1000	183	465	9336	1050	1172	265	7.36
Uttarakhand	1125	300	-18	98	1189	0	478	98	2.36
HP	962	8	-50	-743	774	0	22	-94	-8.44
J&K	1405	100	-30	-356	1073	0	-3	-356	-8.55
Chandigarh	210	0	210	27	128	0	128	0	0.61
<b>Total</b>	<b>29631</b>	<b>1912</b>	<b>413</b>	<b>-548</b>	<b>28388</b>	<b>1343</b>	<b>1186</b>	<b>-326</b>	<b>-9.41</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	1385	1362	1585	32.66	1361	33.25	-0.58
	Rihand I STPS	1000	159	434	0	4.28	178	3.81	0.47
	Rihand II STPS	1000	975	1042	1041	23.46	977	22.84	0.62
	Dadri I STPS	840	803	702	874	18.27	761	18.12	0.15
	Dadri II STPS	980	470	486	502	11.32	472	11.28	0.04
	Unchahar I TPS	440	390	416	429	9.28	387	9.25	0.03
	Unchahar II TPS	440	201	211	220	4.86	202	4.71	0.15
	Unchahar III TPS	210	199	213	219	4.85	202	4.66	0.19
	ISTPP (Jhajjar)	1000	960	727	793	17.82	743	16.99	0.83
	Dadri GPS	830	802	611	698	15.19	633	15.23	-0.04
	Anta GPS	419	321	176	259	4.96	207	4.88	0.08
	Auraiya GPS	663	619	260	316	6.60	275	6.47	0.12
	<b>Sub Total (A)</b>	<b>9822</b>	<b>7283</b>	<b>6640</b>	<b>6936</b>	<b>153.54</b>	<b>6398</b>	<b>151.49</b>	<b>2.05</b>
	B. NPC	NAPS	440	269	300	310	6.45	269	6.46
RAPS- B		440	384	424	428	9.13	380	9.22	-0.09
RAPS- C		440	420	469	467	10.04	418	10.08	-0.04
<b>Sub Total (B)</b>		<b>1320</b>	<b>1073</b>	<b>1193</b>	<b>1205</b>	<b>25.62</b>	<b>1067</b>	<b>25.75</b>	<b>-0.14</b>
C. NHPC	Chamera I HPS	540	534	534	534	11.40	475	11.39	0.01
	Chamera II HPS	300	297	200	100	4.47	186	4.43	0.05
	Bairasuil HPS	180	182	182	182	3.81	159	4.03	-0.22
	Salal-HPS	690	458	489	550	10.31	430	10.74	-0.43
	Tanakpur-HPS	94	24	37	26	0.70	29	0.69	0.01
	Uri-HPS	480	476	480	480	11.57	482	11.58	-0.01
	Dhauliganga-HPS	280	277	278	0	1.58	66	1.57	0.01
	Dulhasti-HPS	390	388	376	279	7.05	294	6.54	0.51
	Sewa-II HPS	120	80	80	71	1.92	80	1.90	0.02
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2714</b>	<b>2656</b>	<b>2222</b>	<b>52.82</b>	<b>2201</b>	<b>52.86</b>	<b>-0.04</b>
D. NJPC	Nathpa Jhakri	1500	1600	1406	0	13.55	565	13.88	-0.32
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1406</b>	<b>0</b>	<b>13.55</b>	<b>565</b>	<b>13.88</b>	<b>-0.32</b>
E. THDC	Tehri HPS	1000	475	480	0	6.55	273	6.50	0.05
	Koteshwar HPS	300	300	302	0	3.09	129	3.00	0.09
	<b>Sub Total (E)</b>	<b>1300</b>	<b>775</b>	<b>782</b>	<b>0</b>	<b>9.65</b>	<b>402</b>	<b>9.50</b>	<b>0.15</b>
F. BBMB	Bhakra HPS	1480	351	470	320	8.72	363	8.43	0.29
	Dehar HPS	990	354	495	280	9.31	388	8.49	0.82
	Pong HPS	396	10	120	0	0.32	13	0.24	0.08
	<b>Sub Total (F)</b>	<b>2866</b>	<b>715</b>	<b>1085</b>	<b>600</b>	<b>18.35</b>	<b>765</b>	<b>17.15</b>	<b>1.20</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	136	0	1.00	42	1.23	-0.23
	KWHEP HPS(IPP)	1000	0	650	250	8.16	340	8.16	-0.01
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	141	140	3.37	140	3.49	-0.12
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>927</b>	<b>390</b>	<b>12.52</b>	<b>522</b>	<b>12.88</b>	<b>-0.36</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21475</b>	<b>14160</b>	<b>14689</b>	<b>11353</b>	<b>286.05</b>	<b>11919</b>	<b>283.51</b>	<b>2.54</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	1040	23.39	975
	Guru Nanak Dev TPS(Bhatinda)	440	218	218	4.73	197
	Guru Hargobind Singh TPS(L.mbt)	920	721	687	15.77	657
	Thermal (Total)	2620	1979	1945	43.89	1829
	Total Hydro	1148	336	149	6.20	258
	<b>Total Punjab</b>	<b>3768</b>	<b>2315</b>	<b>2094</b>	<b>50.09</b>	<b>2087</b>
Haryana	Panipat TPS	1360	1066	1050	24.85	1035
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	284	302	7.51	313
	RGTPP (kheldar) (IPP)	1200	1099	1062	25.82	1076
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	660	0	0	0.00	0
	Thermal (Total)	4277	2449	2414	58.18	2424
	Total Hydro	62	24	25	0.69	29
	<b>Total Haryana</b>	<b>4339</b>	<b>2473</b>	<b>2439</b>	<b>58.87</b>	<b>2453</b>
Rajasthan	kota TPS	1240	1087	1159	27.22	1134
	suratgarh TPS	1500	1197	1353	31.47	1311
	Chabra TPS	500	369	397	9.24	385
	Dholpur GPS	330	98	98	2.31	96
	Ramgarh GPS	111	3	3	0.06	2
	RAPS A (NPC)	300	0	0	0.00	0
	Barsingsar (NLC) IPP	250	108	108	1.89	79
	Giral LTPS	250	42	42	0.80	33
	Rajwest LTPS (IPP)	540	460	454	11.56	482
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5156	3364	3614	84.56	3523
	Total Hydro	550	0	0	0.05	2
	Wind power	1843	76	213	2.60	108
	Biomass	91	49	49	1.17	49
	Solar	128	0	0	0.00	0
	Renewable/Others (Total)	1934	125	262	3.82	159
	<b>Total Rajasthan</b>	<b>7640</b>	<b>3489</b>	<b>3876</b>	<b>88.42</b>	<b>3684</b>
	UP	Anpara TPS	1630	1234	1227	29.00
Obra TPS		1382	347	365	8.70	363
Paricha TPS		640	100	393	6.90	288
Panki TPS		210	81	140	2.00	83
Harduaganj TPS		415	261	270	6.30	263
Tanda TPS (NTPC)		440	189	194	4.79	199
Roza TPS (IPP)		1200	810	1125	25.92	1080
Anpara-C (IPP)		1200	486	497	11.84	493
Bajaj Energy Pvt.Ltd(IPP) TPS		450	284	174	5.44	227
Thermal (Total)		7567	3792	4385	100.88	4203
Vishnuparyag HPS (IPP)		400	119	119	2.74	114
Other Hydro		527	214	54	5.44	227
Cogeneration		981	300	300	7.20	300
<b>Total UP</b>		<b>9475</b>	<b>4425</b>	<b>4858</b>	<b>116.26</b>	<b>4730</b>
Uttarakhand	Total Hydro	1303	560	376	11.06	461
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>560</b>	<b>376</b>	<b>11.06</b>	<b>461</b>
Delhi	Rajghat TPS	135	107	103	2.52	105
	Delhi Gas Turbine	282	194	194	4.69	195
	Pragati Gas Turbine	330	282	295	7.12	297
	Rithala GPS	108	33	30	0.79	33
	Bawana GPS	440	148	54	5.33	222
	Badarpur TPS (NTPC)	705	495	680	13.90	579
	Thermal (Total)	2000	1259	1535	34.35	1431
	<b>Total Delhi</b>	<b>2000</b>	<b>1259</b>	<b>1535</b>	<b>34.35</b>	<b>1431</b>
HP	Baspa HPS (IPP)	330	0	32	1.43	59
	Malana HPS (IPP)	101	53	0	0.49	20
	Other Hydro	571	349	342	8.63	359
	<b>Total HP</b>	<b>1002</b>	<b>402</b>	<b>374</b>	<b>11</b>	<b>439</b>
J & K	Baglihar HPS (IPP)	450	438	436	10.51	438
	Other Hydro	323	140	132	3.31	138
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>578</b>	<b>568</b>	<b>13.82</b>	<b>576</b>
<b>Total State Control Area Generation</b>		<b>30483</b>	<b>15501</b>	<b>16120</b>	<b>383.42</b>	<b>15862</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1356</b>	<b>2750</b>	<b>42.24</b>	<b>1760</b>
<b>Total Regional Availability(Gross)</b>		<b>51958</b>	<b>31546</b>	<b>30223</b>	<b>711.71</b>	<b>29540</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10033	6715	3072	103.53	4314
State Control Area Hydro	5365	2114	1546	47.80	1992
<b>Total Regional Hydro</b>	<b>15397</b>	<b>8829</b>	<b>4618</b>	<b>151.33</b>	<b>6305</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	0	300	0	5.10	0.00	5.10
Gwalior-Agra (D/C)	510	924	970	0	15.42	0.00	15.42
Zerda-Kankroli	-70	-14	30	219	0.00	1.86	-1.86
Zerda-Bhinmal	-51	13	129	193	0.00	0.82	-0.82
Malanpur-Auraiya	-27	-60	0	110	0.00	0.85	-0.85
Badod-Kota/Morak	17	41	65	41	0.50	0.00	0.50
<b>Sub Total WR</b>	<b>679</b>	<b>904</b>			<b>21.02</b>	<b>3.53</b>	<b>17.49</b>
Pusauli Bypass	-314	-91	0	411	0.00	4.65	-4.65
MZP- GKP (D/C)	318	650	664	0	9.39	0.00	9.39
Patna-Balia(D/C)	217	336	336	0	6.12	0.00	6.12
B'Sharif-Balia (D/C)	99	430	430	0	5.37	0.00	5.37
Barh - Balia(D/C)	215	338	338	0	6.13	0.00	6.13
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	136	157	162	0	3.24	0.00	3.24
K'nasa-Sahupuri	48	60	60	0	0.10	0.00	0.10
Son Ngr-Rihand	-42	-34	0	49	0.00	0.95	-0.95
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>677</b>	<b>1846</b>			<b>30.34</b>	<b>5.60</b>	<b>24.75</b>
<b>Total IR Exch</b>	<b>1356</b>	<b>2750</b>			<b>51.37</b>	<b>9.13</b>	<b>42.24</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
26.75	1.03	27.79	-12.51	3.75	1.39	1.71	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
18.35	2.39	20.74	24.75	17.49	42.24	6.40	15.10	21.50

**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	0.07	32.99	97.16	64.24	23.00	2.77

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.48	18.02	49.50	4.55	49.90	0.41	0.16	50.40	49.64

**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	412	17:47	407	00:00	0.0	0.0	0.0	0.0
Gorakhpur	400	431	16:57	400	01:32	0.0	0.0	66.6	0.2
Bareilly	400	424	08:05	403	00:04	0.0	0.0	7.6	0.0
Kanpur	400	420	08:02	404	00:01	0.0	0.0	0.0	0.0
Dadri	400	421	17:02	404	10:46	0.0	0.0	0.8	0.0
Ballabgarh	400	426	17:05	407	10:44	0.0	0.0	8.3	0.0
Bawana	400	424	08:06	408	10:47	0.0	0.0	5.2	0.0
Bassi	400	430	17:03	412	00:01	0.0	0.0	23.6	0.0
Hissar	400	420	17:04	401	18:27	0.0	0.0	0.0	0.0
Moga	400	426	17:06	409	19:23	0.0	0.0	15.0	0.0
Abdullapur	400	429	17:08	294	11:08	0.0	0.0	30.8	0.0
Nalagarh	400	424	17:04	407	06:32	0.0	0.0	6.9	0.0
Kishenpur	400	416	02:30	401	19:44	0.0	0.0	0.0	0.0
Wagoora	400	407	02:57	384	22:03	0.0	14.1	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	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 24.04.2012 :**

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 : 24.04.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER