

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 24.03.2012  
Date of Reporting : 25.03.2012

### 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
30253	1955	32208	49.76	26899	650	27549	49.99	693.0	38.63

\* 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	48.99	13.52		62.51	45.12	42.47	-2.66	104.98	2.58
Haryana	49.05	0.66		49.71	28.39	45.79	17.40	95.50	6.38
Rajasthan	86.49	1.49	1.69	89.67	48.86	64.70	15.85	154.37	2.56
Delhi	25.59			25.59	46.78	28.96	-17.82	54.55	0.02
UP	87.36	5.59	14.40	107.35	92.44	91.80	-0.63	199.15	23.46
Uttarakhand		10.35		10.35	14.46	18.15	3.69	28.50	1.31
HP		8.91		8.91	16.05	13.84	-2.20	22.75	0.03
J & K		10.81	0.00	10.81	19.57	19.13	-0.43	29.94	2.30
Chandigarh				0.00	3.84	3.29	-0.55	3.29	0.00
<b>Total</b>	<b>297.48</b>	<b>51.33</b>	<b>16.09</b>	<b>364.89</b>	<b>315.49</b>	<b>328.13</b>	<b>12.64</b>	<b>693.02</b>	<b>38.63</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	4260	600	-129	-225	4242	0	-92	-149	-3.87
Haryana	4334	350	1105	-153	3386	0	465	-153	-4.13
Rajasthan	5880	0	588	6	6945	0	1248	6	0.12
Delhi	2845	0	-561	57	1414	0	-864	-154	-0.03
UP	9086	775	-1341	965	7897	650	-2	243	7.74
Uttarakhand	1358	80	237	150	1053	0	264	150	3.60
HP	896	0	-10	-997	766	0	-45	146	-1.22
J&K	1415	150	119	-277	1107	0	-4	-177	-4.76
Chandigarh	179	0	-22	0	89	0	-21	0	0.00
<b>Total</b>	<b>30253</b>	<b>1955</b>	<b>-14</b>	<b>-474</b>	<b>26899</b>	<b>650</b>	<b>949</b>	<b>-88</b>	<b>-2.56</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	1960	2112	2107	47.55	1981	47.04	0.51
	Rihand I STPS	1000	915	995	1000	22.14	922	21.96	0.17
	Rihand II STPS	1000	975	1043	1047	23.59	983	23.40	0.19
	Dadri I STPS	840	803	870	690	17.36	723	15.72	1.63
	Dadri II STPS	980	973	1025	823	22.25	927	21.95	0.30
	Unchahar I TPS	440	406	435	440	9.72	405	9.11	0.60
	Unchahar II TPS	440	404	441	411	9.70	404	8.58	1.12
	Unchahar III TPS	210	202	217	220	4.86	202	4.44	0.41
	ISTPP (Jhajjar)	1000	0	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	824	783	587	16.37	682	15.23	1.14
	Anta GPS	419	393	382	297	7.94	331	7.59	0.34
	Auraiya GPS	663	479	306	322	7.25	302	7.07	0.18
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8335</b>	<b>8609</b>	<b>7944</b>	<b>188.71</b>	<b>7863</b>	<b>182.11</b>	<b>6.60</b>
	B. NPC	NAPS	440	270	304	315	6.59	275	6.48
RAPS- B		440	424	452	468	10.01	417	10.18	-0.17
RAPS- C		440	420	468	472	10.12	422	10.08	0.04
<b>Sub Total (B)</b>		<b>1320</b>	<b>1114</b>	<b>1224</b>	<b>1255</b>	<b>26.72</b>	<b>1113</b>	<b>26.74</b>	<b>-0.02</b>
C. NHPC	Chamera I HPS	540	534	540	0	8.31	346	8.26	0.05
	Chamera II HPS	300	297	204	0	3.06	127	2.78	0.28
	Bairasuil HPS	180	179	179	60	3.50	146	3.30	0.20
	Salal-HPS	690	315	418	230	7.84	327	7.44	0.40
	Tanakpur-HPS	94	25	30	24	0.58	24	0.59	-0.01
	Uri-HPS	480	476	480	477	11.55	481	11.22	0.33
	Dhauliganga-HPS	280	210	213	0	1.17	49	1.14	0.03
	Dulhasti-HPS	390	388	410	0	3.80	158	3.21	0.59
	Sewa-II HPS	120	119	126	101	2.83	118	2.76	0.07
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2542</b>	<b>2600</b>	<b>892</b>	<b>42.64</b>	<b>1777</b>	<b>40.69</b>	<b>1.94</b>
D. NJPC	Nathpa Jhakri	1500	1200	1571	0	8.38	349	8.50	-0.12
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1200</b>	<b>1571</b>	<b>0</b>	<b>8.38</b>	<b>349</b>	<b>8.50</b>	<b>-0.12</b>
E. THDC	Tehri HPS	1000	560	390	0	6.58	274	6.50	0.08
	Koteshwar HPS	300	282	202	0	2.47	2.40	0.07	
	<b>Sub Total (E)</b>	<b>1300</b>	<b>842</b>	<b>592</b>	<b>0</b>	<b>9.05</b>	<b>377</b>	<b>8.90</b>	<b>0.15</b>
F. BBMB	Bhakra HPS	1480	719	984	413	17.52	730	17.26	0.26
	Dehar HPS	990	285	495	145	7.13	297	6.85	0.29
	Pong HPS	396	242	306	186	6.00	250	5.80	0.20
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1246</b>	<b>1785</b>	<b>744</b>	<b>30.65</b>	<b>1277</b>	<b>29.90</b>	<b>0.75</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	49	0	0.96	40	0.81	0.15
	KWHEP HPS(IPP)	1000	0	554	0	4.85	202	4.80	0.05
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	128	129	3.09	129	2.55	0.54
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>731</b>	<b>129</b>	<b>8.90</b>	<b>371</b>	<b>8.16</b>	<b>0.73</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21475</b>	<b>15280</b>	<b>17112</b>	<b>10964</b>	<b>315.04</b>	<b>13127</b>	<b>305.00</b>	<b>10.04</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	22.92	955
	Guru Nanak Dev TPS(Bhatinda)	440	219	219	4.72	196
	Guru Hargobind Singh TPS(L.mbt)	920	965	965	21.36	890
	Thermal (Total)	2620	2224	2224	48.99	2041
	Total Hydro	1148	617	486	13.52	563
	<b>Total Punjab</b>	<b>3768</b>	<b>2841</b>	<b>2710</b>	<b>62.51</b>	<b>2605</b>
Haryana	Panipat TPS	1360	753	775	19.11	796
	DCRTPP (Yamuna nagar)	600	280	281	6.59	275
	Faridabad GPS (NTPC)	432	397	320	9.47	395
	RGTPP (khedar) (IPP)	1200	560	555	13.88	578
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	660	0	0	0.00	0
	Thermal (Total)	4277	1990	1931	49.05	2044
	Total Hydro	62	20	30	0.66	28
	<b>Total Haryana</b>	<b>4339</b>	<b>2010</b>	<b>1961</b>	<b>49.71</b>	<b>2071</b>
Rajasthan	kota TPS	1240	1169	1167	27.67	1153
	suratgarh TPS	1500	1139	1145	26.94	1123
	Chabra TPS	500	212	212	5.13	214
	Dholpur GPS	330	152	146	3.62	151
	Ramgarh GPS	113	62	63	1.43	59
	RAPS A (NPC)	300	182	185	4.53	189
	Barsingsar (NLC)	250	197	201	5.35	223
	Giral LTPS (IPP)	250	144	132	3.20	133
	Rajwest LTPS (IPP)	540	345	347	8.62	359
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5158	3602	3598	86.49	3604
	Total Hydro	550	33	96	1.49	62
	Wind power	1294	1	100	0.73	30
	Biomass	71	55	55	0.96	40
	Solar	50	0	0	0.00	0
	Renewable/Others (Total)	1365	56	155	1.69	70
	<b>Total Rajasthan</b>	<b>7073</b>	<b>3691</b>	<b>3849</b>	<b>89.67</b>	<b>3736</b>
UP	Anpara TPS	1630	1335	1302	31.60	1317
	Obra TPS	1442	497	445	11.50	479
	Paricha TPS	640	398	396	9.60	400
	Panki TPS	210	131	129	3.10	129
	Harduaganj TPS	415	41	45	1.00	42
	Tanda TPS (NTPC)	440	397	401	9.78	408
	Roza TPS (IPP)	900	321	284	7.47	311
	Anpara-C (IPP)	1200	493	332	8.96	373
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	172	186	4.36	182
	Thermal (Total)	7057	3785	3520	87.36	3640
	Vishnuparyag HPS (IPP)	400	89	84	2.10	87
	Other Hydro	527	250	35	3.49	145
	Cogeneration	951	600	600	14.40	600
	<b>Total UP</b>	<b>8935</b>	<b>4724</b>	<b>4239</b>	<b>107.35</b>	<b>4385</b>
Uttarakhand	Total Hydro	1303	504	332	10.35	431
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>504</b>	<b>332</b>	<b>10.35</b>	<b>431</b>
Delhi	Rajghat TPS	135	48	101	1.60	67
	Delhi Gas Turbine	282	78	78	1.91	80
	Pragati Gas Turbine	330	293	308	7.18	299
	Rithala GPS	108	25	30	0.62	26
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	670	670	14.28	595
	Thermal (Total)	2000	1114	1187	25.59	1066
	<b>Total Delhi</b>	<b>2000</b>	<b>1114</b>	<b>1187</b>	<b>25.59</b>	<b>1066</b>
HP	Baspa HPS (IPP)	330	91	31	1.07	44
	Malana HPS (IPP)	101	43	21	0.58	24
	Other Hydro	571	334	273	7.26	303
	<b>Total HP</b>	<b>1002</b>	<b>468</b>	<b>325</b>	<b>9</b>	<b>371</b>
J & K	Baglihar HPS (IPP)	450	352	346	8.39	350
	Other Hydro	323	95	105	2.41	101
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>447</b>	<b>451</b>	<b>10.81</b>	<b>450</b>
<b>Total State Control Area Generation</b>		<b>29376</b>	<b>15799</b>	<b>15054</b>	<b>364.89</b>	<b>15117</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>909</b>	<b>2310</b>	<b>36.13</b>	<b>1506</b>
<b>Total Regional Availability(Gross)</b>		<b>50851</b>	<b>33820</b>	<b>28328</b>	<b>716.07</b>	<b>29749</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10033	7151	1636	96.52	4022
State Control Area Hydro	5365	2339	1755	49.23	2051
<b>Total Regional Hydro</b>	<b>15397</b>	<b>9490</b>	<b>3391</b>	<b>145.75</b>	<b>6073</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	-200	-400	0	400	0.00	5.73	-5.73
Gwalior-Agra (D/C)	195	941	941	0	11.68	0.00	11.68
Zerda-Kankroli	-184	24	48	283	0.00	3.29	-3.29
Zerda-Bhinmal	14	88	164	268	0.00	1.40	-1.40
Malanpur-Auraiya	0	-15	0	205	0.00	0.94	-0.94
Badod-Kota/Morak	-4	35	43	27	0.00	0.10	-0.10
<b>Sub Total WR</b>	<b>-179</b>	<b>673</b>			<b>11.68</b>	<b>11.46</b>	<b>0.22</b>
Pusauli Bypass	-104	-7	82	219	0.33	1.05	-0.71
MZP- GKP (D/C)	440	568	644	0	11.42	0.00	11.42
Patna-Balia(D/C)	232	281	443	0	8.28	0.00	8.28
B'Sharif-Balia (D/C)	293	397	464	0	9.07	0.00	9.07
Barh - balia(D/C)	257	307	341	0	7.05	0.00	7.05
Pusauli-Sahupuri	0	123	156	0	1.75	0.00	1.75
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	0.95	-0.95
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1088</b>	<b>1637</b>			<b>37.90</b>	<b>2.00</b>	<b>35.91</b>
<b>Total IR Exch</b>	<b>909</b>	<b>2310</b>			<b>49.58</b>	<b>13.45</b>	<b>36.13</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
25.00	0.31	25.31	-2.21	1.93	2.33	0.58	1.58	-1.58

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
27.00	-1.16	25.84	35.91	0.22	36.13	8.91	1.39	10.29

**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	0.20	4.10	25.20	94.70	73.60	9.60	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					
50.33	7.03	49.12	19.12	49.79	0.70	0.16	50.14	49.59

**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	407	07:02	398	18:37	0.0	0.0	0.0	0.0
Gorakhpur	400	437	04:12	397	18:39	0.0	0.0	65.1	15.8
Bareilly	400	427	04:06	403	12:15	0.0	0.0	22.1	0.0
Kanpur	400	417	04:06	392	18:39	0.0	0.0	0.0	0.0
Dadri	400	424	04:07	402	19:11	0.0	0.0	7.9	0.0
Ballabgarh	400	426	04:10	400	19:12	0.0	0.0	11.3	0.0
Bawana	400	428	03:03	400	19:11	0.0	0.0	21.5	0.0
Bassi	400	420	18:02	397	09:27	0.0	0.0	0.0	0.0
Hissar	400	416	04:06	397	18:37	0.0	0.0	0.0	0.0
Moga	400	427	04:05	404	19:11	0.0	0.0	12.7	0.0
Abdullapur	400	428	03:02	400	19:09	0.0	0.0	29.8	0.0
Nalagarh	400	428	03:02	404	19:04	0.0	0.0	26.1	0.0
Kishenpur	400	423	03:04	400	19:40	0.0	0.0	6.6	0.0
Wagoora	400	406	04:07	381	19:41	0.0	25.0	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	479.61	441.00	487.85	671.08	254.88	556.97
Pong	426.72	384.05	404.25	320.26	410.39	504.32	118.00	407.65
Tehri	829.79	740.04	772.70	237.44	818.65	982.26	55.75	188.00
Koteshwar	612.50	598.50	608.75	4.21	NA	NA	188.00	164.00
Chamera-I	760.00	748.75	755.00	NA	754.75	NA	181.98	225.08
Rihand	268.22	252.98	260.12	311.30	255.42	93.00	NA	NA
RPS	352.80	343.81	347.31	NA	NA	NA	NA	30.58
Jawahar Sagar	298.70	295.78	297.45	NA	NA	NA	NA	107.12
RSD	527.91	487.91	492.20	NA	504.17	NA	213.85	231.66

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 24.03.2012 :**

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 : 24.03.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER