

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 27.03.2012  
Date of Reporting : 28.03.2012

### I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 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
30505	1406	31910	49.72	27618	650	28268	50.01	703.8	31.81

\* 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	48.65	12.87		61.51	42.91	43.17	0.27	104.69	2.79
Haryana	52.85	0.69		53.54	28.87	33.75	4.89	87.29	1.65
Rajasthan	82.30	0.00	8.13	90.42	47.36	67.26	19.89	157.68	1.73
Delhi	22.83			22.83	47.97	39.58	-8.39	62.41	0.46
UP	88.20	7.23	14.40	109.83	94.58	94.34	-0.24	204.17	21.69
Uttarakhand		11.55		11.55	13.57	19.00	5.44	30.55	0.97
HP		9.21		9.21	18.30	14.20	-4.09	23.42	0.23
J & K		11.16	0.00	11.16	19.93	18.74	-1.19	29.90	2.30
Chandigarh				0.00	4.01	3.70	-0.31	3.70	0.00
<b>Total</b>	<b>294.83</b>	<b>52.70</b>	<b>22.53</b>	<b>370.05</b>	<b>317.48</b>	<b>333.74</b>	<b>16.27</b>	<b>703.79</b>	<b>31.81</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	4205	600	-289	-225	4140	0	-171	-149	-3.87
Haryana	3993	127	574	-153	3050	0	-206	-153	-3.68
Rajasthan	5941	0	593	-19	6735	0	849	6	0.02
Delhi	3189	9	-59	-45	1766	0	-281	-11	1.13
UP	9260	450	-1193	1190	8893	650	361	243	8.85
Uttarakhand	1371	70	250	150	1142	0	227	86	2.45
HP	960	0	-66	-97	792	0	-41	146	-1.22
J&K	1392	150	99	-277	1000	0	-142	-177	-4.75
Chandigarh	194	0	-22	0	99	0	-13	0	0.00
<b>Total</b>	<b>30505</b>	<b>1406</b>	<b>-113</b>	<b>-376</b>	<b>27618</b>	<b>650</b>	<b>583</b>	<b>-9</b>	<b>-1.07</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	1901	2101	2091	45.66	1902	45.63	0.03
	Rihand I STPS	1000	915	995	990	22.12	922	21.96	0.16
	Rihand II STPS	1000	975	1043	1045	23.60	983	23.40	0.20
	Dadri I STPS	840	803	772	647	17.27	719	16.78	0.48
	Dadri II STPS	980	973	885	1019	21.96	915	21.82	0.14
	Unchahar I TPS	440	406	438	435	9.70	404	9.47	0.22
	Unchahar II TPS	440	404	437	442	9.64	402	9.23	0.41
	Unchahar III TPS	210	202	225	217	4.84	202	4.67	0.17
	ISTPP (Jhajjar)	1000	0	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	808	557	652	16.15	673	14.26	1.89
	Anta GPS	419	393	363	282	7.83	326	7.12	0.71
	Auraiya GPS	663	471	304	318	7.23	301	6.85	0.38
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8252</b>	<b>8120</b>	<b>8138</b>	<b>185.99</b>	<b>7749</b>	<b>181.20</b>	<b>4.78</b>
B. NPC	NAPS	440	270	302	310	6.49	271	6.48	0.01
	RAPS- B	440	417	457	463	9.96	415	10.01	-0.05
	RAPS- C	440	420	467	475	10.13	422	10.08	0.05
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1107</b>	<b>1226</b>	<b>1248</b>	<b>26.58</b>	<b>1107</b>	<b>26.57</b>	<b>0.01</b>
C. NHPC	Chamera I HPS	540	534	540	0	6.36	265	6.60	-0.24
	Chamera II HPS	300	297	200	0	2.93	122	3.10	-0.17
	Bairasuil HPS	180	179	179	120	3.16	132	3.05	0.11
	Salal-HPS	690	329	420	258	7.49	312	7.89	-0.40
	Tanakpur-HPS	94	27	32	20	0.61	25	0.61	0.00
	Uri-HPS	480	475	480	480	11.31	471	11.50	-0.20
	Dhauliganga-HPS	280	210	198	0	1.58	66	1.53	0.05
	Dulhasti-HPS	390	388	405	0	4.12	172	4.11	0.02
	Sewa-II HPS	120	119	123	109	2.82	117	2.83	-0.01
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2557</b>	<b>2577</b>	<b>987</b>	<b>40.39</b>	<b>1683</b>	<b>41.22</b>	<b>-0.83</b>
D. NJPC	Nathpa Jhakri	1500	1200	1564	0	10.69	445	10.47	0.22
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1200</b>	<b>1564</b>	<b>0</b>	<b>10.69</b>	<b>445</b>	<b>10.47</b>	<b>0.22</b>
E. THDC	Tehri HPS	1000	636	558	0	8.04	335	8.00	0.04
	Koteshwar HPS	300	300	300	0	2.95	123	1.50	1.45
	<b>Sub Total (E)</b>	<b>1300</b>	<b>936</b>	<b>858</b>	<b>0</b>	<b>10.98</b>	<b>458</b>	<b>9.50</b>	<b>1.48</b>
F. BBMB	Bhakra HPS	1480	712	1084	413	17.42	726	17.09	0.33
	Dehar HPS	990	304	495	290	7.53	314	7.30	0.23
	Pong HPS	396	235	306	126	5.85	244	5.63	0.22
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1251</b>	<b>1885</b>	<b>829</b>	<b>30.80</b>	<b>1283</b>	<b>30.03</b>	<b>0.77</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	95	0	0.66	28	0.78	-0.12
	KWHEP HPS(IPP)	1000	0	591	0	6.11	255	6.02	0.08
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	127	151	4.16	173	2.66	1.50
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>813</b>	<b>151</b>	<b>10.93</b>	<b>455</b>	<b>9.47</b>	<b>1.46</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21475</b>	<b>15303</b>	<b>17043</b>	<b>11353</b>	<b>316.35</b>	<b>13181</b>	<b>308.45</b>	<b>7.90</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	980	23.02	959
	Guru Nanak Dev TPS(Bhatinda)	440	219	200	4.64	193
	Guru Hargobind Singh TPS(L.mbt)	920	965	974	20.99	875
	Thermal (Total)	2620	2224	2154	48.65	2027
	Total Hydro	1148	632	381	12.87	536
	<b>Total Punjab</b>	<b>3768</b>	<b>2856</b>	<b>2535</b>	<b>61.51</b>	<b>2563</b>
Haryana	Panipat TPS	1360	1001	1004	24.19	1008
	DCRTPP (Yamuna nagar)	600	270	276	6.45	269
	Faridabad GPS (NTPC)	432	394	405	9.60	400
	RGTPP (kheldar) (IPP)	1200	474	538	12.61	525
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	660	0	0	0.00	0
	Thermal (Total)	4277	2139	2223	52.85	2202
	Total Hydro	62	25	21	0.69	29
	<b>Total Haryana</b>	<b>4339</b>	<b>2164</b>	<b>2244</b>	<b>53.54</b>	<b>2231</b>
Rajasthan	kota TPS	1240	1169	1167	27.71	1155
	suratgarh TPS	1500	914	914	21.41	892
	Chabra TPS	500	248	194	4.80	200
	Dholpur GPS	330	152	152	3.55	148
	Ramgarh GPS	113	62	63	1.39	58
	RAPS A (NPC)	300	181	185	4.52	188
	Barsingsar (NLC)	250	215	212	5.39	224
	Giral LTPS (IPP)	250	55	155	1.67	70
	Rajwest LTPS (IPP)	540	410	318	11.86	494
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5158	3406	3360	82.30	3429
	Total Hydro	550	0	0	0.00	0
	Wind power	1294	164	575	6.93	289
	Biomass	71	59	59	1.19	50
	Solar	50	0	0	0.00	0
	Renewable/Others (Total)	1365	223	634	8.13	339
	<b>Total Rajasthan</b>	<b>7073</b>	<b>3629</b>	<b>3994</b>	<b>90.42</b>	<b>3768</b>
UP	Anpara TPS	1630	1506	1552	32.80	1367
	Obra TPS	1442	494	505	11.00	458
	Paricha TPS	640	153	182	3.80	158
	Panki TPS	210	70	65	1.40	58
	Harduaganj TPS	415	0	45	0.90	38
	Tanda TPS (NTPC)	440	395	399	9.74	406
	Roza TPS (IPP)	900	558	558	12.42	518
	Anpara-C (IPP)	1200	495	368	9.52	397
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	300	303	6.62	276
	Thermal (Total)	7057	3971	3977	88.20	3675
	Vishnuparyag HPS (IPP)	400	84	85	2.02	84
	Other Hydro	527	244	52	5.21	217
	Cogeneration	951	600	600	14.40	600
	<b>Total UP</b>	<b>8935</b>	<b>4899</b>	<b>4714</b>	<b>109.83</b>	<b>4492</b>
Uttarakhand	Total Hydro	1303	458	464	11.55	481
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>458</b>	<b>464</b>	<b>11.55</b>	<b>481</b>
Delhi	Rajghat TPS	135	106	42	1.85	77
	Delhi Gas Turbine	282	78	75	1.96	82
	Pragati Gas Turbine	330	294	299	7.33	305
	Rithala GPS	108	0	26	0.62	26
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	625	395	11.08	462
	Thermal (Total)	2000	1103	837	22.83	951
	<b>Total Delhi</b>	<b>2000</b>	<b>1103</b>	<b>837</b>	<b>22.83</b>	<b>951</b>
HP	Baspa HPS (IPP)	330	112	30	1.02	43
	Malana HPS (IPP)	101	7	12	0.45	19
	Other Hydro	571	308	289	7.74	323
	<b>Total HP</b>	<b>1002</b>	<b>427</b>	<b>331</b>	<b>9</b>	<b>384</b>
J & K	Baglihar HPS (IPP)	450	352	348	8.37	349
	Other Hydro	323	115	117	2.79	116
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>467</b>	<b>465</b>	<b>11.16</b>	<b>465</b>
<b>Total State Control Area Generation</b>		<b>29376</b>	<b>16003</b>	<b>15584</b>	<b>370.05</b>	<b>15335</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>1544</b>	<b>2068</b>	<b>41.01</b>	<b>1709</b>
<b>Total Regional Availability(Gross)</b>		<b>50851</b>	<b>34590</b>	<b>29005</b>	<b>727.42</b>	<b>30225</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10033	7570	1816	99.63	4151
State Control Area Hydro	5365	2253	1714	50.69	2112
<b>Total Regional Hydro</b>	<b>15397</b>	<b>9823</b>	<b>3530</b>	<b>150.32</b>	<b>6263</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	-400	-200	0	400	0.00	4.08	-4.08
Gwalior-Agra (D/C)	667	872	1086	0	17.18	0.00	17.18
Zerda-Kankroli	-3	1	63	135	0.00	0.74	-0.74
Zerda-Bhinmal	47	-1	150	104	0.37	0.56	-0.18
Malanpur-Auraiya	-87	-12	0	120	0.00	1.02	-1.02
Badod-Kota/Morak	27	32	53	0	0.89	0.00	0.89
<b>Sub Total WR</b>	<b>251</b>	<b>692</b>			<b>18.44</b>	<b>6.40</b>	<b>12.05</b>
Pusauli Bypass	-6	-53	152	122	0.72	0.49	0.23
MZP- GKP (D/C)	414	460	576	0	8.69	0.00	8.69
Patna-Balia(D/C)	265	252	388	0	6.51	0.00	6.51
B'Sharif-Balia (D/C)	168	339	418	0	5.64	0.00	5.64
Barh - balia(D/C)	317	276	385	0	6.99	0.00	6.99
Pusauli-Sahupuri	177	140	177	0	1.94	0.00	1.94
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-42	-38	0	48	0.00	1.03	-1.03
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1293</b>	<b>1376</b>			<b>30.49</b>	<b>1.52</b>	<b>28.97</b>
<b>Total IR Exch</b>	<b>1544</b>	<b>2068</b>			<b>48.93</b>	<b>7.92</b>	<b>41.01</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
26.57	0.46	27.04	-1.29	2.13	2.35	-5.54	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
29.67	-3.08	26.59	28.97	12.05	41.01	-0.70	15.12	14.42

**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	0.10	2.10	12.90	95.60	84.80	16.00	2.30

<----- 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	17.02	49.17	19.11	49.85	0.46	0.16	50.25	49.56

**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	04:07	396	19:05	0.0	0.0	0.0	0.0
Gorakhpur	400	434	05:02	394	18:58	0.0	0.0	68.0	9.6
Bareilly	400	427	05:05	394	18:23	0.0	0.0	12.8	0.0
Kanpur	400	416	04:08	386	19:05	0.0	1.1	0.0	0.0
Dadri	400	416	22:43	399	19:05	0.0	0.0	0.0	0.0
Ballabgarh	400	425	04:05	397	19:05	0.0	0.0	9.4	0.0
Bawana	400	427	04:05	398	19:05	0.0	0.0	15.4	0.0
Bassi	400	419	17:35	395	10:14	0.0	0.0	0.0	0.0
Hissar	400	416	04:04	391	19:08	0.0	0.0	0.0	0.0
Moga	400	431	04:04	0	09:29	32.2	32.2	18.1	0.7
Abdullapur	400	426	04:04	296	13:40	0.2	0.2	14.4	0.0
Nalagarh	400	427	04:04	402	18:55	0.0	0.0	10.2	0.0
Kishenpur	400	425	04:05	398	19:09	0.0	0.0	5.4	0.0
Wagoora	400	411	04:03	380	22:02	0.0	19.7	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	454.47	488.10	671.08	239.90	568.97
Pong	426.72	384.05	404.42	328.16	410.44	514.41	116.81	432.79
Tehri	829.79	740.04	772.30	229.70	818.65	982.26	72.01	187.00
Koteshwar	612.50	598.50	608.75	4.21	NA	NA	188.00	164.00
Chamera-I	760.00	748.75	754.56	NA	754.75	NA	178.50	201.37
Rihand	268.22	252.98	260.09	309.60	255.42	93.00	NA	NA
RPS	352.80	343.81	347.29	NA	NA	NA	NA	91.66
Jawahar Sagar	298.70	295.78	297.88	NA	NA	NA	NA	30.16
RSD	527.91	487.91	496.12	NA	504.12	NA	213.85	231.66

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 27.03.2012 :**

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 : 27.03.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER