

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 15.03.2012  
Date of Reporting : 16.03.2012

### 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
29934	2112	32045	49.80	25897	650	26547	50.05	680.3	40.71

\* 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	48.64	13.14		61.77	40.23	35.86	-4.37	97.63	1.80
Haryana	44.60	0.54		45.14	24.08	47.95	23.88	93.09	8.87
Rajasthan	88.75	4.02	1.61	94.38	47.96	62.60	14.64	156.98	1.88
Delhi	29.53			29.53	35.35	24.98	-10.37	54.51	0.33
UP	92.40	5.16	14.40	111.96	82.40	81.31	-1.09	193.27	24.15
Uttarakhand		9.43		9.43	14.18	17.26	3.08	26.68	1.38
HP		5.24		5.24	16.23	17.40	1.17	22.64	0.00
J & K		5.98	0.00	5.98	21.25	26.11	4.86	32.09	2.30
Chandigarh				0.00	3.65	3.36	-0.29	3.36	0.00
<b>Total</b>	<b>303.91</b>	<b>43.50</b>	<b>16.01</b>	<b>363.42</b>	<b>285.33</b>	<b>316.84</b>	<b>31.51</b>	<b>680.26</b>	<b>40.71</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	4435	600	-74	-240	3790	0	-197	-148	-4.10
Haryana	4776	98	1630	-202	3187	0	563	-202	-4.85
Rajasthan	6161	0	145	6	6949	0	1127	6	0.15
Delhi	2878	104	-501	-144	1351	0	-111	-357	-4.87
UP	7882	1000	-448	265	7561	650	244	243	6.14
Uttarakhand	1219	160	86	150	934	0	105	150	3.60
HP	955	0	-201	-324	740	0	177	146	-0.09
J&K	1445	150	98	21	1295	0	329	21	0.51
Chandigarh	183	0	-16	0	89	0	-20	0	0.00
<b>Total</b>	<b>29934</b>	<b>2112</b>	<b>720</b>	<b>-468</b>	<b>25897</b>	<b>650</b>	<b>2218</b>	<b>-141</b>	<b>-3.52</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	1730	2105	1507	41.90	1746	41.53	0.37
	Rihand I STPS	1000	890	970	975	21.55	898	21.36	0.19
	Rihand II STPS	1000	975	1039	1049	23.60	984	23.40	0.20
	Dadri I STPS	840	800	855	624	17.61	734	16.79	0.81
	Dadri II STPS	980	480	505	357	11.01	459	10.94	0.07
	Unchahar I TPS	440	406	442	427	9.61	400	9.28	0.33
	Unchahar II TPS	440	396	440	440	9.54	397	8.93	0.61
	Unchahar III TPS	210	202	221	215	4.84	202	4.58	0.26
	ISTPP (Jhajjar)	1000	0	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	730	805	412	14.23	593	13.34	0.89
	Anta GPS	419	413	330	262	7.91	330	7.75	0.15
	Auraiya GPS	663	482	327	301	7.58	316	7.51	0.07
	<b>Sub Total (A)</b>	<b>9822</b>	<b>7505</b>	<b>8039</b>	<b>6569</b>	<b>169.37</b>	<b>7057</b>	<b>165.40</b>	<b>3.97</b>
B. NPC	NAPS	440	281	309	321	6.70	279	6.74	-0.04
	RAPS- B	440	422	461	468	10.13	422	10.13	0.00
	RAPS- C	440	420	468	472	10.17	424	10.08	0.09
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1123</b>	<b>1238</b>	<b>1261</b>	<b>27.00</b>	<b>1125</b>	<b>26.95</b>	<b>0.04</b>
C. NHPC	Chamera I HPS	540	534	540	0	4.31	179	4.12	0.18
	Chamera II HPS	300	297	153	0	1.71	71	1.71	0.00
	Bairasuil HPS	180	179	179	0	1.98	83	2.00	-0.02
	Salal-HPS	690	147	316	70	3.62	151	3.55	0.07
	Tanakpur-HPS	94	26	28	17	0.54	23	0.53	0.01
	Uri-HPS	480	351	359	325	8.12	338	8.04	0.08
	Dhauliganga-HPS	280	210	210	0	0.97	41	0.93	0.04
	Dulhasti-HPS	390	388	410	0	2.64	110	2.48	0.16
	Sewa-II HPS	120	119	124	39	2.57	107	2.32	0.24
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2251</b>	<b>2319</b>	<b>451</b>	<b>26.46</b>	<b>1102</b>	<b>25.69</b>	<b>0.77</b>
D. NJPC	Nathpa Jhakri	1500	1200	1608	0	6.57	274	6.60	-0.03
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1200</b>	<b>1608</b>	<b>0</b>	<b>6.57</b>	<b>274</b>	<b>6.60</b>	<b>-0.03</b>
E. THDC	Tehri HPS	1000	590	691	0	7.04	293	7.00	0.04
	Koteshwar HPS	300	300	194	0	2.83	118	2.70	0.13
	<b>Sub Total (E)</b>	<b>1300</b>	<b>890</b>	<b>885</b>	<b>0</b>	<b>9.87</b>	<b>411</b>	<b>9.70</b>	<b>0.17</b>
F. BBMB	Bhakra HPS	1480	732	969	390	18.07	753	17.56	0.51
	Dehar HPS	990	151	330	0	3.82	159	3.62	0.21
	Pong HPS	396	230	306	180	5.79	241	5.53	0.26
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1113</b>	<b>1605</b>	<b>570</b>	<b>27.68</b>	<b>1153</b>	<b>26.70</b>	<b>0.98</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.39	16	0.37	0.02
	KWHEP HPS(IPP)	1000	0	250	0	3.66	152	4.18	-0.53
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	18	124	3.05	127	3.12	-0.07
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>268</b>	<b>124</b>	<b>7.09</b>	<b>296</b>	<b>7.68</b>	<b>-0.58</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21475</b>	<b>14082</b>	<b>15962</b>	<b>8975</b>	<b>274.04</b>	<b>11418</b>	<b>268.72</b>	<b>5.32</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	1045	1045	22.53	939
	Guru Nanak Dev TPS(Bhatinda)	440	219	219	4.72	197
	Guru Hargobind Singh TPS(L.mbt)	920	928	966	21.38	891
	Thermal (Total)	2620	2192	2230	48.64	2026
	Total Hydro	1148	450	572	13.14	547
	<b>Total Punjab</b>	<b>3768</b>	<b>2642</b>	<b>2802</b>	<b>61.77</b>	<b>2574</b>
Haryana	Panipat TPS	1360	862	856	20.83	868
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	411	433	10.03	418
	RGTPP (khedar) (IPP)	1200	541	540	13.73	572
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	660	0	0	0.00	0
	Thermal (Total)	4277	1814	1829	44.60	1858
	Total Hydro	62	17	17	0.54	23
	<b>Total Haryana</b>	<b>4339</b>	<b>1831</b>	<b>1846</b>	<b>45.14</b>	<b>1881</b>
Rajasthan	kota TPS	1240	1164	1170	27.74	1156
	suratgarh TPS	1500	1140	1146	26.99	1125
	Chabra TPS	500	219	224	5.28	220
	Dholpur GPS	330	273	295	6.75	281
	Ramgarh GPS	113	36	40	1.03	43
	RAPS A (NPC)	300	181	183	4.51	188
	Barsingsar (NLC)	250	219	150	5.27	220
	Giral LTPS (IPP)	250	85	62	1.55	65
	Rajwest LTPS (IPP)	540	450	352	9.62	401
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5158	3767	3622	88.75	3698
	Total Hydro	550	161	147	4.02	168
	Wind power	1294	0	74	1.03	43
	Biomass	71	24	24	0.58	24
	Solar	50	0	0	0.00	0
	Renewable/Others (Total)	1365	24	98	1.61	67
	<b>Total Rajasthan</b>	<b>7073</b>	<b>3952</b>	<b>3867</b>	<b>94.38</b>	<b>3933</b>
UP	Anpara TPS	1630	1282	1322	31.00	1292
	Obra TPS	1442	516	563	13.10	546
	Paricha TPS	640	227	225	5.50	229
	Panki TPS	210	153	167	3.70	154
	Harduaganj TPS	415	36	36	0.80	33
	Tanda TPS (NTPC)	440	399	357	9.61	400
	Roza TPS (IPP)	900	626	405	13.33	555
	Anpara-C (IPP)	1200	452	500	12.94	539
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	113	72	2.42	101
	Thermal (Total)	7057	3804	3647	92.40	3850
	Vishnuparyag HPS (IPP)	400	74	69	1.66	69
	Other Hydro	527	84	0	3.50	146
	Cogeneration	951	600	600	14.40	600
	<b>Total UP</b>	<b>8935</b>	<b>4562</b>	<b>4316</b>	<b>111.96</b>	<b>4596</b>
Uttarakhand	Total Hydro	1303	454	335	9.43	393
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>454</b>	<b>335</b>	<b>9.43</b>	<b>393</b>
Delhi	Rajghat TPS	135	100	56	2.09	87
	Delhi Gas Turbine	282	158	99	3.43	143
	Pragati Gas Turbine	330	300	60	5.86	244
	Rithala GPS	108	30	30	0.60	25
	Bawana GPS	440	256	43	4.24	177
	Badarpur TPS (NTPC)	705	595	555	13.31	554
	Thermal (Total)	2000	1439	972	29.53	1230
	<b>Total Delhi</b>	<b>2000</b>	<b>1439</b>	<b>972</b>	<b>29.53</b>	<b>1230</b>
HP	Baspa HPS (IPP)	330	0	0	0.94	39
	Malana HPS (IPP)	101	1	0	0.29	12
	Other Hydro	571	163	100	4.02	167
	<b>Total HP</b>	<b>1002</b>	<b>164</b>	<b>100</b>	<b>5</b>	<b>218</b>
J & K	Baglihar HPS (IPP)	450	150	148	3.56	148
	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>245</b>	<b>253</b>	<b>5.98</b>	<b>249</b>
<b>Total State Control Area Generation</b>		<b>29376</b>	<b>15289</b>	<b>14491</b>	<b>363.42</b>	<b>15074</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>797</b>	<b>3177</b>	<b>60.83</b>	<b>2534</b>
<b>Total Regional Availability(Gross)</b>		<b>50851</b>	<b>32048</b>	<b>26643</b>	<b>698.29</b>	<b>29026</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10033	6667	1021	74.62	3109
State Control Area Hydro	5365	1575	1424	41.85	1744
<b>Total Regional Hydro</b>	<b>15397</b>	<b>8242</b>	<b>2445</b>	<b>116.47</b>	<b>4853</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	-100	-100	0	100	0.00	1.69	-1.69
Gwalior-Agra (D/C)	207	984	1145	0	18.16	0.00	18.16
Zerda-Kankroli	-69	100	191	212	0.26	0.00	0.26
Zerda-Bhinmal	-7	-174	281	191	1.84	0.00	1.84
Malanpur-Auraiya	-78	-16	0	191	0.00	1.25	-1.25
Badod-Kota/Morak	-9	45	64	71	0.21	0.00	0.21
<b>Sub Total WR</b>	<b>-56</b>	<b>839</b>			<b>20.47</b>	<b>2.94</b>	<b>17.53</b>
Pusauli Bypass	-114	293	410	114	4.61	0.48	4.13
MZP- GKP (D/C)	200	463	520	0	9.43	0.00	9.43
Patna-Balia(D/C)	260	417	573	0	10.07	0.00	10.07
B'Sharif-Balia (D/C)	150	658	694	0	9.30	0.00	9.30
Barh - balia(D/C)	285	435	479	0	9.06	0.00	9.06
Pusauli-Sahupuri	102	104	155	0	2.44	0.00	2.44
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	1.14	-1.14
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>853</b>	<b>2338</b>			<b>44.91</b>	<b>1.62</b>	<b>43.29</b>
<b>Total IR Exch</b>	<b>797</b>	<b>3177</b>			<b>65.38</b>	<b>4.56</b>	<b>60.83</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
29.78	0.13	29.91	-0.85	-0.39	6.33	-2.17	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
36.96	-6.29	30.67	43.29	17.53	60.83	6.33	23.83	30.16

**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	0.10	2.90	21.20	96.20	87.90	11.20	0.90

<----- 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					
50.30	18.03	49.20	20.08	49.81	0.59	0.16	50.11	49.58

**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	409	03:00	77	16:51	3.5	3.5	0.0	0.0
Gorakhpur	400	431	19:41	414	22:46	0.0	0.0	63.9	0.2
Bareilly	400	421	03:20	408	06:11	0.0	0.0	0.0	0.0
Kanpur	400	417	20:24	400	10:17	0.0	0.0	0.0	0.0
Dadri	400	420	03:17	400	11:07	0.0	0.0	0.0	0.0
Ballabgarh	400	422	02:59	393	00:51	0.0	0.0	7.4	0.0
Bawana	400	424	03:11	402	11:07	0.0	0.0	19.2	0.0
Bassi	400	426	20:44	396	00:47	0.0	0.0	5.4	0.0
Hissar	400	415	20:21	395	11:07	0.0	0.0	0.0	0.0
Moga	400	423	03:59	404	10:30	0.0	0.0	15.1	0.0
Abdullapur	400	426	03:19	246	16:35	0.1	0.1	25.0	0.0
Nalagarh	400	429	20:55	408	11:23	0.0	0.0	42.4	0.0
Kishenpur	400	421	04:00	398	19:12	0.0	0.0	0.1	0.0
Wagoora	400	403	03:59	376	20:06	9.6	43.4	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	482.45	519.70	490.13	738.95	143.00	591.87
Pong	426.72	384.05	405.83	361.16	411.11	534.70	80.05	387.74
Tehri	829.79	740.04	776.60	274.00	818.65	982.26	51.26	196.00
Koteshwar	612.50	598.50	60.81	3.76	NA	NA	198.00	188.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	118.62	134.45
Rihand	268.22	252.98	260.60	338.50	255.67	102.80	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	497.12	NA	504.35	NA	102.73	200.82

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 15.03.2012 :**

1. Normal weather in NR.

**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 : 15.03.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER