

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 30.01.2012  
Date of Reporting : 31.01.2012

### 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
32531	3245	35776	49.87	24720	650	25370	50.29	710.0	42.03

\* 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	52.77	9.03		61.80	29.94	27.34	-2.60	89.14	1.80
Haryana	59.60	0.55		60.16	25.07	41.54	16.47	101.70	7.25
Rajasthan	85.35	5.38	11.11	101.83	52.97	62.27	9.29	164.10	0.88
Delhi	25.40			25.40	42.18	36.96	-5.22	62.36	0.11
UP	93.65	5.46	15.60	114.71	82.42	89.04	6.63	203.75	30.09
Uttarakhand		9.42		9.42	19.56	17.41	-2.15	26.84	0.00
HP		4.26		4.26	20.10	18.79	-1.31	23.05	0.00
J & K		4.49	0.00	4.49	24.68	30.97	6.30	35.46	1.90
Chandigarh				0.00	3.50	3.63	0.12	3.63	0.00
<b>Total</b>	<b>316.78</b>	<b>38.59</b>	<b>26.71</b>	<b>382.07</b>	<b>300.41</b>	<b>327.95</b>	<b>27.53</b>	<b>710.02</b>	<b>42.03</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	4362	600	100	-333	3117	0	136	-481	-7.41
Haryana	4332	952	976	-203	3314	0	-67	-203	-4.54
Rajasthan	6833	0	366	140	6358	0	429	265	8.91
Delhi	3266	3	-37	-13	1388	0	-168	-328	-2.83
UP	9384	1590	367	265	7591	650	-66	265	6.36
Uttarakhand	1373	0	-92	450	1000	0	-92	450	10.80
HP	1117	0	-152	-38	695	0	-49	405	6.30
J&K	1665	100	89	294	1165	0	101	290	6.44
Chandigarh	199	0	-17	0	92	0	-1	-30	-0.24
<b>Total</b>	<b>32531</b>	<b>3245</b>	<b>1600</b>	<b>562</b>	<b>24720</b>	<b>650</b>	<b>223</b>	<b>633</b>	<b>23.80</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	1760	1879	1683	42.07	1753	41.50	0.58
	Rihand I STPS	1000	815	890	695	18.96	790	18.91	0.05
	Rihand II STPS	1000	977	1040	782	22.70	946	22.62	0.08
	Dadri I STPS	840	796	857	610	16.64	693	16.66	-0.02
	Dadri II STPS	980	976	1019	742	21.66	902	22.45	-0.80
	Unchahar I TPS	440	406	439	348	9.37	390	9.35	0.02
	Unchahar II TPS	440	404	437	307	9.06	378	9.03	0.04
	Unchahar III TPS	210	202	219	164	4.60	191	4.55	0.04
	ISTPP (Jhajjar)	1000	475	353	372	10.12	422	10.26	-0.14
	Dadri GPS	830	846	663	553	15.10	629	15.21	-0.11
	Anta GPS	419	426	297	264	7.31	304	7.18	0.13
	Auraiya GPS	663	662	480	309	9.94	414	10.00	-0.05
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8745</b>	<b>8573</b>	<b>6829</b>	<b>187.53</b>	<b>7814</b>	<b>187.71</b>	<b>-0.19</b>
B. NPC	NAPS	440	137	158	159	3.30	138	3.29	0.01
	RAPS- B	440	406	449	452	9.69	404	9.74	-0.06
	RAPS- C	440	420	472	473	10.18	424	10.08	0.10
	<b>Sub Total (B)</b>	<b>1320</b>	<b>963</b>	<b>1079</b>	<b>1084</b>	<b>23.16</b>	<b>965</b>	<b>23.11</b>	<b>0.05</b>
C. NHPC	Chamera I HPS	540	357	270	0	1.90	79	1.90	0.00
	Chamera II HPS	300	297	247	0	1.15	48	1.18	-0.03
	Bairasuil HPS	180	179	179	0	0.60	25	0.64	-0.04
	Salal-HPS	690	109	300	35	2.96	124	2.99	-0.03
	Tanakpur-HPS	94	28	31	20	0.61	25	0.59	0.02
	Uri-HPS	480	129	240	44	2.88	120	2.95	-0.07
	Dhauliganga-HPS	280	277	209	0	0.85	35	0.88	-0.03
	Dulhasti-HPS	390	388	414	0	2.32	97	2.24	0.08
	Sewa-II HPS	120	119	80	0	0.58	24	0.62	-0.03
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1882</b>	<b>1970</b>	<b>99</b>	<b>13.85</b>	<b>577</b>	<b>13.99</b>	<b>-0.14</b>
D. NJPC	Nathpa Jhakri	1500	956	1349	0	6.38	266	6.47	-0.08
	<b>Sub Total (D)</b>	<b>1500</b>	<b>956</b>	<b>1349</b>	<b>0</b>	<b>6.38</b>	<b>266</b>	<b>6.47</b>	<b>-0.08</b>
E. THDC	Tehri HPS	1000	950	905	0	7.61	317	5.00	2.61
	Koteshwar HPS	200	100	100	0	1.78	74	1.85	-0.07
	<b>Sub Total (E)</b>	<b>1200</b>	<b>1050</b>	<b>1005</b>	<b>0</b>	<b>9.39</b>	<b>391</b>	<b>6.85</b>	<b>2.54</b>
F. BBMB	Bhakra HPS	1480	766	1102	572	18.86	786	18.38	0.48
	Dehar HPS	990	121	330	0	3.01	125	2.91	0.10
	Pong HPS	396	207	306	126	5.31	221	4.97	0.34
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1094</b>	<b>1738</b>	<b>698</b>	<b>27.18</b>	<b>1133</b>	<b>26.26</b>	<b>0.92</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.24	10	0.23	0.01
	KWHEP HPS(IPP)	1000	0	500	0	3.64	152	3.60	0.04
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	20	19	3.24	135	3.44	-0.20
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>520</b>	<b>19</b>	<b>7.12</b>	<b>297</b>	<b>7.27</b>	<b>-0.15</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21225</b>	<b>14690</b>	<b>16234</b>	<b>8729</b>	<b>274.61</b>	<b>11442</b>	<b>271.66</b>	<b>2.95</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	1260	1100	27.61	1150	
	Guru Nanak Dev TPS(Bhatinda)	440	218	205	4.62	192	
	Guru Hargobind Singh TPS(L.mbt)	920	964	790	20.54	856	
	Thermal (Total)	2620	2442	2095	52.77	2199	
	Total Hydro	1148	306	304	9.03	376	
	<b>Total Punjab</b>	<b>3768</b>	<b>2748</b>	<b>2399</b>	<b>61.80</b>	<b>2575</b>	
Haryana	Panipat TPS	1360	803	1006	23.45	977	
	DCRTPP (Yamuna nagar)	600	274	272	6.60	275	
	Faridabad GPS (NTPC)	432	431	288	9.89	412	
	RGTPP (khedar) (IPP)	1200	526	994	19.67	819	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	660	0	0	0.00	0	
	Thermal (Total)	4277	2034	2560	59.60	2484	
	Total Hydro	62	24	25	0.55	23	
	<b>Total Haryana</b>	<b>4339</b>	<b>2058</b>	<b>2585</b>	<b>60.16</b>	<b>2507</b>	
	Rajasthan	kota TPS	1240	1177	1122	27.29	1137
suratgarh TPS		1500	1097	1279	29.74	1239	
Chabra TPS		500	181	188	4.43	185	
Dholpur GPS		330	226	227	5.47	228	
Ramgarh GPS		113	40	46	1.11	46	
RAPS A (NPC)		300	0	0	0.00	0	
Barsingsar (NLC)		250	188	160	4.53	189	
Giral LTPS (IPP)		250	50	50	1.38	58	
Rajwest LTPS (IPP)		540	461	465	11.40	475	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5158	3420	3537	85.35	3556	
Total Hydro		550	231	133	5.38	224	
Wind power		1294	165	281	4.50	187	
Biomass		71	51	51	1.23	51	
Solar		50	0	0	0.00	0	
Renewable/Others (Total)		1365	216	332	11.11	463	
<b>Total Rajasthan</b>		<b>7073</b>	<b>3867</b>	<b>4002</b>	<b>101.83</b>	<b>4243</b>	
UP		Anpara TPS	1630	1355	1384	32.70	1363
		Obra TPS	1442	509	563	12.30	513
	Paricha TPS	640	221	223	5.20	217	
	Panki TPS	210	171	144	3.70	154	
	Harduaganj TPS	415	257	257	6.00	250	
	Tanda TPS (NTPC)	440	402	324	9.49	395	
	Roza TPS (IPP)	900	446	443	9.19	383	
	Anpara-C (IPP)	1200	412	367	9.43	393	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	220	270	5.65	235	
	Thermal (Total)	7057	3993	3975	93.65	3902	
	Vishnuparyag HPS (IPP)	400	74	74	1.79	74	
	Other Hydro	527	198	37	3.67	153	
	Cogeneration	951	650	650	15.60	650	
	<b>Total UP</b>	<b>8935</b>	<b>4915</b>	<b>4736</b>	<b>114.71</b>	<b>4705</b>	
	Uttarakhand	Total Hydro	1303	499	328	9.42	393
<b>Total Uttarakhand</b>		<b>1303</b>	<b>499</b>	<b>328</b>	<b>9.42</b>	<b>393</b>	
Delhi	Rajghat TPS	135	98	96	2.65	111	
	Delhi Gas Turbine	282	75	73	1.89	79	
	Pragati Gas Turbine	330	312	268	7.44	310	
	Rithala GPS	108	19	19	0.42	18	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	600	560	12.99	541	
	Thermal (Total)	2000	1104	1016	25.40	1059	
	<b>Total Delhi</b>	<b>2000</b>	<b>1104</b>	<b>1016</b>	<b>25.40</b>	<b>1059</b>	
HP	Baspa HPS (IPP)	330	0	0	1.01	42	
	Malana HPS (IPP)	101	0	0	0.19	8	
	Other Hydro	571	161	43	3.05	127	
	<b>Total HP</b>	<b>1002</b>	<b>161</b>	<b>43</b>	<b>4</b>	<b>177</b>	
J & K	Baglihar HPS (IPP)	450	130	128	3.11	130	
	Other Hydro	323	27	125	1.38	57	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>157</b>	<b>253</b>	<b>4.49</b>	<b>187</b>	
<b>Total State Control Area Generation</b>		<b>29376</b>	<b>15509</b>	<b>15362</b>	<b>382.07</b>	<b>15845</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1847</b>	<b>1651</b>	<b>66.13</b>	<b>2755</b>	
<b>Total Regional Availability(Gross)</b>		<b>50601</b>	<b>33590</b>	<b>25742</b>	<b>722.81</b>	<b>30043</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	6582	816	63.92	2663
State Control Area Hydro	5365	1576	1123	36.80	1533
<b>Total Regional Hydro</b>	<b>15447</b>	<b>8158</b>	<b>1939</b>	<b>100.72</b>	<b>4197</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	-100	200	100	3.11	0.44	2.67
Gwalior-Agra (D/C)	566	721	1196	0	21.24	0.00	21.24
Zerda-Kankroli	-38	-70	176	81	0.62	0.00	0.62
Zerda-Bhinmal	25	-12	44	299	2.52	0.00	2.52
Malanpur-Auraiya	-84	-83	0	99	0.00	1.42	-1.42
Badod-Kota/Morak	53	56	118	0	1.73	0.00	1.73
<b>Sub Total WR</b>	<b>722</b>	<b>512</b>			<b>29.21</b>	<b>1.86</b>	<b>27.35</b>
Pusauli Bypass	17	41	279	35	2.66	0.01	2.65
MZP- GKP (D/C)	374	297	614	0	10.68	0.00	10.68
Patna-Balia(D/C)	186	253	389	0	7.92	0.00	7.92
B'Sharif-Balia (D/C)	184	191	355	0	7.80	0.00	7.80
Barh - balia(D/C)	252	272	388	0	7.64	0.00	7.64
Pusauli-Sahupuri	142	117	170	0	2.86	0.00	2.86
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	0.77	-0.77
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1125</b>	<b>1139</b>			<b>39.56</b>	<b>0.78</b>	<b>38.78</b>
<b>Total IR Exch</b>	<b>1847</b>	<b>1651</b>			<b>68.78</b>	<b>2.65</b>	<b>66.13</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
22.35	0.23	22.58	11.16	14.66	0.65	6.99	2.90	-2.90

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
37.29	10.71	48.00	38.78	27.35	66.13	1.49	16.65	18.13

**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	0.80	12.20	91.80	80.40	28.40	7.40

<----- 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					
50.45	5.04	49.37	19.09	49.91	0.45	0.19	50.42	49.69

**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	02:26	398	12:12	0.0	0.0	0.0	0.0
Gorakhpur	400	431	22:57	410	12:15	0.0	0.0	43.0	0.3
Bareilly	400	421	22:59	398	12:15	0.0	0.0	0.1	0.0
Kanpur	400	420	01:58	393	12:16	0.0	0.0	0.0	0.0
Dadri	400	420	02:07	394	10:08	0.0	0.0	0.0	0.0
Ballabgarh	400	424	01:57	395	12:11	0.0	0.0	13.2	0.0
Bawana	400	422	02:00	396	10:06	0.0	0.0	10.6	0.0
Bassi	400	423	04:02	389	12:11	0.0	0.1	1.9	0.0
Hissar	400	414	04:01	392	12:10	0.0	0.0	0.0	0.0
Moga	400	425	01:37	405	15:18	0.0	0.0	19.7	0.0
Abdullapur	400	423	04:02	282	14:24	0.2	0.2	10.1	0.0
Nalagarh	400	428	03:09	408	15:19	0.0	0.0	32.5	0.0
Kishenpur	400	424	03:59	398	16:36	0.0	0.0	13.8	0.0
Wagoora	400	411	04:00	378	16:44	1.9	34.0	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	496.82	971.87	499.75	1088.42	171.12	522.56
Pong	426.72	384.05	411.72	555.85	415.08	680.86	72.89	283.90
Tehri	829.79	740.04	799.25	592.30	818.65	982.26	52.09	187.00
Koteshwar	612.50	598.50	670.65	3.54	NA	NA	187.00	225.00
Chamera-I	760.00	748.75	754.00	NA	NA	NA	49.95	32.36
Rihand	268.22	252.98	263.04	482.00	256.70	145.10	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	505.10	NA	508.37	NA	89.99	206.49

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 30.01.2012 :**

Normal weather.

**XII. Synchronisation of new generating units :**

**XIII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus //substation :**

- 1: 220kV Fatehabad-Chormar (HVPN) line-2 first time synchronized at 17.46 hrs of dt. 30.01.2012
- 2: 500 MVA 765/400 ICT-1 first time test charged along with 765kV Bus at 16.45 hrs of dt 30.01.2012 at Lucknow (PG).
- 3: 500 MVA 765/400 ICT-1 first time test charged along with 765kV Bus at 18.46 hrs of dt 30.01.2012
- 4: 400kV Kanpuri -Fatehpur line first time charged at 18.51hrs of dt 30.01.2012 after LILO at Fatehpur from 400kV Singrauli-Kanpur old line.
- 5: 400kV Singrauli -Fatehpur line first time charged at 23.01 hrs of dt 30.01.2012 after LILO at Fatehpur from 400kV Singrauli-Kanpur old line.
- 6: 220kV Sikar(RVPN)-Sikar(PG) & Sikar (PG)-Ratangarh (RVPN) first time charged at 01.22 & 01.28hrs of dt 31.01.2012 respectively.
- 7: 315MVA 400/220 ICT-2 first time test charged along with Bus from 220kV site at 01.57 hrs of dt 31.01.2012 at Sikar (PG)

**XIV. Tripping of lines in pooling stations :**

**XV. Complete generation loss in a generating station :**

Report for : 30.01.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER