

# पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 23.01.2012  
Date of Reporting : 24.01.2012

### 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
31283	2620	33903	49.81	24946	650	25596	50.19	701.3	37.15

\* 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	47.53	10.82		58.36	30.06	29.45	-0.61	87.81
Haryana	62.52	0.62		63.14	24.67	30.62	5.94	93.76	3.75
Rajasthan	93.43	3.64	8.21	105.28	50.43	54.88	4.45	160.17	1.50
Delhi	31.74			31.74	43.26	33.96	-9.30	65.70	0.11
UP	94.75	4.93	15.60	115.28	85.18	87.25	2.07	202.53	27.40
Uttarakhand		8.44		8.44	19.19	22.05	2.87	30.49	0.00
HP		4.20		4.20	20.51	18.20	-2.31	22.40	0.12
J & K		4.70	0.00	4.70	25.37	30.08	4.71	34.77	1.90
Chandigarh				0.00	3.62	3.73	0.11	3.73	0.00
<b>Total</b>	<b>329.97</b>	<b>37.35</b>	<b>23.81</b>	<b>391.13</b>	<b>302.28</b>	<b>310.22</b>	<b>7.93</b>	<b>701.35</b>	<b>37.15</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	STOA/PX transaction
Punjab	4302	600	-133	-333	3079	0	49	-481	-7.41
Haryana	4406	678	462	-201	3417	0	-103	-201	-4.48
Rajasthan	6712	0	428	160	6271	0	474	285	8.28
Delhi	3354	2	-403	-25	1497	0	-98	-340	-3.13
UP	8238	1240	-799	265	7583	650	-111	265	6.36
Uttarakhand	1557	0	129	450	1024	0	-8	450	10.80
HP	1138	0	-257	-38	669	0	-49	405	6.30
J&K	1375	100	-297	300	1303	0	200	296	6.59
Chandigarh	201	0	-22	0	103	0	9	-30	-0.24
<b>Total</b>	<b>31283</b>	<b>2620</b>	<b>-892</b>	<b>578</b>	<b>24946</b>	<b>650</b>	<b>363</b>	<b>648</b>	<b>23.07</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)	Schedule Net MU	UI
									Net MU
A. NTPC	Singrauli STPS	2000	1760	1893	1762	42.36	1765	41.83	0.53
	Rihand I STPS	1000	830	907	710	19.47	811	19.22	0.25
	Rihand II STPS	1000	977	1038	792	22.81	950	22.55	0.26
	Dadri I STPS	840	784	859	600	16.50	687	16.36	0.13
	Dadri II STPS	980	970	1025	740	21.91	913	22.49	-0.58
	Unchahar I TPS	440	383	438	315	9.07	378	8.98	0.09
	Unchahar II TPS	440	383	439	320	9.05	377	8.80	0.24
	Unchahar III TPS	210	192	219	153	4.53	189	4.46	0.07
	ISTPP (Jhajjar)	1000	475	495	461	10.56	440	10.65	-0.09
	Dadri GPS	830	740	676	412	13.77	574	13.98	-0.21
	Anta GPS	419	433	321	279	8.07	336	7.86	0.22
	Auraiya GPS	663	662	476	319	9.52	397	9.73	-0.21
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8588</b>	<b>8786</b>	<b>6863</b>	<b>187.61</b>	<b>7817</b>	<b>186.92</b>	<b>0.69</b>
	B. NPC	NAPS	440	128	149	148	3.01	125	3.07
RAPS- B		440	406	446	451	9.70	404	9.74	-0.04
RAPS- C		440	420	472	470	10.19	425	10.08	0.11
<b>Sub Total (B)</b>		<b>1320</b>	<b>954</b>	<b>1067</b>	<b>1069</b>	<b>22.91</b>	<b>954</b>	<b>22.90</b>	<b>0.01</b>
C. NHPC	Chamera I HPS	540	356	360	0	3.26	136	3.25	0.01
	Chamera II HPS	300	297	199	0	1.21	50	1.12	0.09
	Bairasuil HPS	180	179	120	0	0.49	20	0.48	0.01
	Salal-HPS	690	136	331	21	2.93	122	2.90	0.02
	Tanakpur-HPS	94	29	28	0	0.64	27	0.65	0.00
	Uri-HPS	480	125	236	45	2.97	124	3.12	-0.15
	Dhauliganga-HPS	280	210	138	0	0.96	40	0.94	0.02
	Dulhasti-HPS	390	388	358	0	2.71	113	2.28	0.43
	Sewa-II HPS	120	119	111	0	0.52	22	0.49	0.03
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1838</b>	<b>1881</b>	<b>66</b>	<b>15.69</b>	<b>654</b>	<b>15.22</b>	<b>0.47</b>
D. NJPC	Nathpa Jhakri	1500	956	1356	0	6.92	288	6.93	-0.02
	<b>Sub Total (D)</b>	<b>1500</b>	<b>956</b>	<b>1356</b>	<b>0</b>	<b>6.92</b>	<b>288</b>	<b>6.93</b>	<b>-0.02</b>
E. THDC	Tehri HPS	1000	980	977	0	8.75	365	8.75	0.00
	Koteshwar HPS	200	119	204	0	2.86	119	2.80	0.06
	<b>Sub Total (E)</b>	<b>1200</b>	<b>1099</b>	<b>1181</b>	<b>0</b>	<b>11.61</b>	<b>484</b>	<b>11.55</b>	<b>0.06</b>
F. BBMB	Bhakra HPS	1480	700	944	572	17.18	716	16.79	0.39
	Dehar HPS	990	127	495	0	3.08	128	3.06	0.02
	Pong HPS	396	165	306	0	4.25	177	3.97	0.28
	<b>Sub Total (F)</b>	<b>2866</b>	<b>992</b>	<b>1745</b>	<b>572</b>	<b>24.51</b>	<b>1021</b>	<b>23.81</b>	<b>0.70</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.34	14	0.32	0.02
	KWHEP HPS(IPP)	1000	0	480	0	3.78	157	3.71	0.07
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	143	144	3.46	144	3.44	0.03
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>623</b>	<b>144</b>	<b>7.58</b>	<b>316</b>	<b>7.46</b>	<b>0.11</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21225</b>	<b>14428</b>	<b>16639</b>	<b>8714</b>	<b>276.82</b>	<b>11534</b>	<b>274.79</b>	<b>2.03</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	840	970	21.64	902	
	Guru Nanak Dev TPS(Bhatinda)	440	216	217	4.71	196	
	Guru Hargobind Singh TPS(L.mbt)	920	958	889	21.18	883	
	Thermal (Total)	2620	2014	2076	47.53	1981	
	Total Hydro	1148	630	156	10.82	451	
	<b>Total Punjab</b>	<b>3768</b>	<b>2644</b>	<b>2232</b>	<b>58.36</b>	<b>2432</b>	
Haryana	Panipat TPS	1360	1030	952	23.92	997	
	DCRTPP (Yamuna nagar)	600	280	281	6.58	274	
	Faridabad GPS (NTPC)	432	206	428	5.18	216	
	RGTPP (khedar) (IPP)	1200	1020	1059	26.84	1118	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	660	0	0	0.00	0	
	Thermal (Total)	4277	2536	2720	62.52	2605	
	Total Hydro	62	21	19	0.62	26	
	<b>Total Haryana</b>	<b>4339</b>	<b>2557</b>	<b>2739</b>	<b>63.14</b>	<b>2631</b>	
	Rajasthan	kota TPS	1240	1175	986	25.78	1074
suratgarh TPS		1500	1153	1352	31.21	1300	
Chabra TPS		500	405	376	8.79	366	
Dholpur GPS		330	220	256	5.46	227	
Ramgarh GPS		113	43	46	1.14	47	
RAPS A (NPC)		300	192	186	4.69	195	
Barsingsar (NLC)		250	105	174	3.96	165	
Giral LTPS (IPP)		250	96	96	1.28	53	
Rajwest LTPS (IPP)		540	455	455	11.13	464	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5158	3844	3927	93.43	3893	
Total Hydro		550	151	82	3.64	152	
Wind power		1294	195	0	3.92	163	
Biomass		71	39	39	0.64	27	
Solar		50	0	0	0.00	0	
Renewable/Others (Total)		1365	234	39	8.21	342	
<b>Total Rajasthan</b>		<b>7073</b>	<b>4229</b>	<b>4048</b>	<b>105.28</b>	<b>4387</b>	
UP		Anpara TPS	1630	1382	1519	30.90	1288
		Obra TPS	1442	597	659	13.70	571
	Paricha TPS	640	218	207	4.60	192	
	Panki TPS	210	202	160	3.90	163	
	Harduaganj TPS	415	292	292	6.20	258	
	Tanda TPS (NTPC)	440	404	317	9.41	392	
	Roza TPS (IPP)	900	450	396	10.50	438	
	Anpara-C (IPP)	1200	495	495	11.86	494	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	127	188	3.67	153	
	Thermal (Total)	7057	4167	4233	94.75	3948	
	Vishnuparyag HPS (IPP)	400	79	74	1.86	77	
	Other Hydro	527	115	31	3.07	128	
	Cogeneration	951	650	650	15.60	650	
	<b>Total UP</b>	<b>8935</b>	<b>5011</b>	<b>4988</b>	<b>115.28</b>	<b>4726</b>	
	Uttarakhand	Total Hydro	1303	515	296	8.44	352
<b>Total Uttarakhand</b>		<b>1303</b>	<b>515</b>	<b>296</b>	<b>8.44</b>	<b>352</b>	
Delhi	Rajghat TPS	135	114	112	2.84	118	
	Delhi Gas Turbine	282	201	117	4.11	171	
	Pragati Gas Turbine	330	308	265	7.39	308	
	Rithala GPS	108	19	33	0.37	16	
	Bawana GPS	440	135	30	2.97	124	
	Badarpur TPS (NTPC)	705	685	570	14.07	586	
	Thermal (Total)	2000	1462	1137	31.74	1323	
	<b>Total Delhi</b>	<b>2000</b>	<b>1462</b>	<b>1137</b>	<b>31.74</b>	<b>1323</b>	
HP	Baspa HPS (IPP)	330	0	0	1.00	42	
	Malana HPS (IPP)	101	0	0	0.26	11	
	Other Hydro	571	159	54	2.95	123	
	<b>Total HP</b>	<b>1002</b>	<b>159</b>	<b>54</b>	<b>4</b>	<b>175</b>	
J & K	Baglihar HPS (IPP)	450	140	138	3.32	138	
	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>167</b>	<b>263</b>	<b>4.70</b>	<b>196</b>	
<b>Total State Control Area Generation</b>		<b>29376</b>	<b>16744</b>	<b>15757</b>	<b>391.13</b>	<b>16220</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>806</b>	<b>1291</b>	<b>43.53</b>	<b>1814</b>	
<b>Total Regional Availability(Gross)</b>		<b>50601</b>	<b>34189</b>	<b>25762</b>	<b>711.48</b>	<b>29568</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	6786	782	66.31	2763
State Control Area Hydro	5365	1758	901	35.49	1479
<b>Total Regional Hydro</b>	<b>15447</b>	<b>8544</b>	<b>1683</b>	<b>101.80</b>	<b>4242</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	-350	-350	0	350	0.00	8.52	-8.52
Gwalior-Agra (D/C)	321	717	1202	0	18.36	0.00	18.36
Zerda-Kankroli	-150	-79	103	181	0.00	1.51	-1.51
Zerda-Bhinmal	-80	11	267	145	0.58	0.00	0.58
Malanpur-Auraiya	-141	-72	0	141	0.00	1.32	-1.32
Badod-Kota/Morak	-54	-22	55	90	0.00	0.75	-0.75
<b>Sub Total WR</b>	<b>-454</b>	<b>205</b>			<b>18.94</b>	<b>12.10</b>	<b>6.84</b>
Pusauli Bypass	-90	8	214	90	1.24	0.36	0.87
MZP- GKP (D/C)	470	313	792	0	13.22	0.00	13.22
Patna-Balia(D/C)	251	212	552	0	8.04	0.00	8.04
B'Sharif-Balia (D/C)	200	219	400	0	5.11	0.00	5.11
Barh - balia(D/C)	276	297	448	0	7.04	0.00	7.04
Pusauli-Sahupuri	183	69	183	0	3.07	0.00	3.07
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	0.67	-0.67
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1260</b>	<b>1086</b>			<b>37.72</b>	<b>1.03</b>	<b>36.69</b>
<b>Total IR Exch</b>	<b>806</b>	<b>1291</b>			<b>56.66</b>	<b>13.13</b>	<b>43.53</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
27.61	0.23	27.84	9.38	14.13	-1.65	4.99	2.24	-2.24

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
37.81	8.67	46.48	36.69	6.84	43.53	-1.13	-1.83	-2.95

**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	5.20	30.90	93.80	68.10	15.80	1.00

<----- 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					
50.42	4.03	49.27	19.49	49.80	0.74	0.19	50.38	49.55

**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	01:46	397	06:26	0.0	0.0	0.0	0.0
Gorakhpur	400	431	02:57	405	06:25	0.0	0.0	43.5	0.2
Bareilly	400	421	23:55	400	10:08	0.0	0.0	0.1	0.0
Kanpur	400	422	04:02	397	06:40	0.0	0.0	1.3	0.0
Dadri	400	422	04:01	400	10:06	0.0	0.0	4.8	0.0
Ballabgarh	400	428	03:16	402	10:19	0.0	0.0	19.8	0.0
Bawana	400	428	04:03	402	10:18	0.0	0.0	21.7	0.0
Bassi	400	428	04:02	398	06:24	0.0	0.0	13.7	0.0
Hissar	400	411	16:29	397	10:14	0.0	0.0	0.0	0.0
Moga	400	426	01:43	407	11:53	0.0	0.0	9.3	0.0
Abdullapur	400	423	02:33	292	13:37	0.0	0.0	11.4	0.0
Nalagarh	400	423	16:29	410	10:27	0.0	0.0	16.0	0.0
Kishenpur	400	421	01:30	395	05:42	0.0	0.0	0.8	0.0
Wagoora	400	402	01:31	370	19:10	22.8	89.2	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	498.17	1018.16	501.02	1140.31	181.43	482.66
Pong	426.72	384.05	412.19	566.84	415.45	693.24	59.69	189.01
Tehri	829.79	740.04	801.80	646.42	818.65	982.26	53.22	208.00
Koteshwar	612.50	598.50	607.90	3.54	NA	NA	208.00	186.00
Chamera-I	760.00	748.75	754.55	NA	753.15	1.20	59.83	28.65
Rihand	268.22	252.98	263.14	490.00	256.76	147.70	NA	NA
RPS	352.80	343.81	349.83	NA	348.47	NA	NA	157.92
Jawahar Sagar	298.70	295.78	297.55	NA	297.85	NA	NA	200.14
RSD	527.91	487.91	506.17	NA	509.57	NA	14.72	235.74

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 23.01.2012 :**

Cold wether.

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

**XIII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus //substation :**  
1: 765kV Anpara-Unnao s/c line first time test synchronized at 20.06 hrs but could not hold.

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

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

Report for : 23.01.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER