

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.02.2012  
Date of Reporting : 22.02.2012

### 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
30985	2529	33513	49.73	25990	670	26660	50.09	703.0	43.58

\* 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	53.50	12.55		66.05	34.59	31.49	-3.09	97.54	1.80
Haryana	50.98	0.69		51.67	24.40	44.25	19.85	95.92	6.59
Rajasthan	85.50	4.75	14.79	105.04	46.69	55.31	8.62	160.35	0.78
Delhi	23.91			23.91	44.61	33.20	-11.41	57.10	0.02
UP	92.30	6.60	14.40	113.30	85.44	91.76	6.31	205.05	30.45
Uttarakhand		9.87		9.87	18.12	17.74	-0.38	27.61	1.65
HP		4.76		4.76	20.08	18.33	-1.75	23.09	0.00
J & K		5.34	0.00	5.34	25.67	27.45	1.78	32.78	2.30
Chandigarh				0.00	3.62	3.50	-0.12	3.50	0.00
<b>Total</b>	<b>306.19</b>	<b>44.55</b>	<b>29.19</b>	<b>379.93</b>	<b>303.22</b>	<b>323.02</b>	<b>19.81</b>	<b>702.95</b>	<b>43.58</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	4640	150	32	-287	3537	0	215	-407	-6.66
Haryana	4377	469	1071	-127	3454	0	143	-127	-3.05
Rajasthan	6124	0	-153	12	6847	0	888	62	4.27
Delhi	3021	0	-204	-122	1346	0	-420	-419	-5.40
UP	8812	1610	203	265	7744	670	110	265	6.36
Uttarakhand	1318	150	-41	350	971	0	13	350	8.40
HP	1018	0	-374	223	721	0	0	323	7.25
J&K	1493	150	-49	248	1284	0	77	255	5.67
Chandigarh	182	0	-30	0	86	0	0	-41	-0.33
<b>Total</b>	<b>30985</b>	<b>2529</b>	<b>455</b>	<b>562</b>	<b>25990</b>	<b>670</b>	<b>1026</b>	<b>261</b>	<b>16.51</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	1765	1890	1883	41.80	1741	42.26	-0.47
	Rihand I STPS	1000	920	1000	826	21.77	907	21.28	0.49
	Rihand II STPS	1000	967	1031	951	23.20	967	22.32	0.88
	Dadri I STPS	840	785	845	600	16.51	688	16.52	-0.01
	Dadri II STPS	980	968	1020	680	21.14	881	21.74	-0.60
	Unchahar I TPS	440	406	422	316	9.30	387	9.15	0.15
	Unchahar II TPS	440	404	432	306	9.27	386	9.02	0.25
	Unchahar III TPS	210	202	205	159	4.62	193	4.55	0.08
	ISTPP (Jhajjar)	1000	0	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	633	533	408	11.52	480	11.77	-0.25
	Anta GPS	419	429	344	274	7.90	329	7.73	0.17
	Auraiya GPS	663	649	466	371	10.21	425	10.16	0.05
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8127</b>	<b>8188</b>	<b>6774</b>	<b>177.22</b>	<b>7384</b>	<b>176.49</b>	<b>0.73</b>
	B. NPC	NAPS	440	139	157	161	3.28	137	3.34
RAPS- B		440	425	463	467	10.06	419	10.20	-0.14
RAPS- C		440	420	468	475	10.20	425	10.08	0.12
<b>Sub Total (B)</b>		<b>1320</b>	<b>984</b>	<b>1088</b>	<b>1103</b>	<b>23.54</b>	<b>981</b>	<b>23.62</b>	<b>-0.08</b>
C. NHPC	Chamera I HPS	540	360	360	0	3.01	125	2.99	0.02
	Chamera II HPS	300	198	168	0	1.52	63	1.52	0.01
	Bairasuil HPS	180	85	120	20	1.24	52	1.31	-0.07
	Salal-HPS	690	181	313	142	4.53	189	4.34	0.20
	Tanakpur-HPS	94	26	30	16	0.52	22	0.53	0.00
	Uri-HPS	480	243	315	206	6.13	255	5.80	0.33
	Dhauliganga-HPS	280	210	210	0	0.76	32	0.79	-0.02
	Dulhasti-HPS	390	0	0	0	0.00	0	0.00	0.00
	Sewa-II HPS	120	119	125	75	2.58	107	2.52	0.05
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1420</b>	<b>1641</b>	<b>459</b>	<b>20.29</b>	<b>846</b>	<b>19.78</b>	<b>0.51</b>
D. NJPC	Nathpa Jhakri	1500	1133	1607	0	6.59	275	6.75	-0.16
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1133</b>	<b>1607</b>	<b>0</b>	<b>6.59</b>	<b>275</b>	<b>6.75</b>	<b>-0.16</b>
E. THDC	Tehri HPS	1000	725	882	0	8.00	333	8.00	0.00
	Koteshwar HPS	200	156	202	80	2.95	123	2.90	0.05
	<b>Sub Total (E)</b>	<b>1200</b>	<b>881</b>	<b>1084</b>	<b>80</b>	<b>10.95</b>	<b>456</b>	<b>10.90</b>	<b>0.05</b>
F. BBMB	Bhakra HPS	1480	743	971	392	18.37	765	17.84	0.53
	Dehar HPS	990	156	495	0	3.96	165	3.75	0.21
	Pong HPS	396	202	306	66	5.14	214	4.85	0.29
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1102</b>	<b>1772</b>	<b>458</b>	<b>27.47</b>	<b>1145</b>	<b>26.44</b>	<b>1.03</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.25	10	0.23	0.02
	KWHEP HPS(IPP)	1000	0	550	0	3.40	142	3.36	0.04
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	144	145	3.48	145	3.46	0.02
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>694</b>	<b>145</b>	<b>7.13</b>	<b>297</b>	<b>7.05</b>	<b>0.08</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21225</b>	<b>13647</b>	<b>16074</b>	<b>9019</b>	<b>273.19</b>	<b>11383</b>	<b>271.02</b>	<b>2.17</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	1255	1110	27.24	1135	
	Guru Nanak Dev TPS(Bhatinda)	440	218	218	4.75	198	
	Guru Hargobind Singh TPS(L.mbt)	920	967	949	21.52	897	
	Thermal (Total)	2620	2440	2277	53.50	2229	
	Total Hydro	1148	485	332	12.55	523	
	<b>Total Punjab</b>	<b>3768</b>	<b>2925</b>	<b>2609</b>	<b>66.05</b>	<b>2752</b>	
Haryana	Panipat TPS	1360	849	856	20.66	861	
	DCRTPP (Yamuna nagar)	600	273	273	5.55	231	
	Faridabad GPS (NTPC)	432	407	328	9.70	404	
	RGTPP (kheldar) (IPP)	1200	439	996	15.07	628	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	660	0	0	0.00	0	
	Thermal (Total)	4277	1968	2453	50.98	2124	
	Total Hydro	62	25	22	0.69	29	
	<b>Total Haryana</b>	<b>4339</b>	<b>1993</b>	<b>2475</b>	<b>51.67</b>	<b>2153</b>	
	Rajasthan	kota TPS	1240	1154	1156	27.75	1156
suratgarh TPS		1500	1081	1121	26.39	1099	
Chabra TPS		500	434	433	10.35	431	
Dholpur GPS		330	225	225	5.49	229	
Ramgarh GPS		113	42	44	1.07	45	
RAPS A (NPC)		300	185	185	4.57	190	
Barsingsar (NLC)		250	108	106	2.58	108	
Giral LTPS (IPP)		250	0	0	0.00	0	
Rajwest LTPS (IPP)		540	302	302	7.31	304	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5158	3531	3572	85.50	3562	
Total Hydro		550	212	192	4.75	198	
Wind power		1294	385	503	8.88	370	
Biomass		71	48	48	1.16	48	
Solar		50	0	0	0.00	0	
Renewable/Others (Total)		1365	433	551	14.79	616	
<b>Total Rajasthan</b>		<b>7073</b>	<b>4176</b>	<b>4315</b>	<b>105.04</b>	<b>4377</b>	
UP		Anpara TPS	1630	1353	1552	31.60	1317
		Obra TPS	1442	577	641	12.80	533
	Paricha TPS	640	234	241	5.10	213	
	Panki TPS	210	190	200	4.00	167	
	Harduaganj TPS	415	258	259	5.40	225	
	Tanda TPS (NTPC)	440	397	315	9.65	402	
	Roza TPS (IPP)	900	554	383	12.35	515	
	Anpara-C (IPP)	1200	378	369	9.01	375	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	143	81	2.39	100	
	Thermal (Total)	7057	4084	4041	92.30	3846	
	Vishnuparyag HPS (IPP)	400	64	70	1.70	71	
	Other Hydro	527	219	50	4.90	204	
	Cogeneration	951	600	600	14.40	600	
	<b>Total UP</b>	<b>8935</b>	<b>4967</b>	<b>4761</b>	<b>113.30</b>	<b>4650</b>	
	Uttarakhand	Total Hydro	1303	508	315	9.87	411
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>508</b>	<b>315</b>	<b>9.87</b>	<b>411</b>
Delhi	Rajghat TPS	135	102	102	2.50	104	
	Delhi Gas Turbine	282	81	82	1.80	75	
	Pragati Gas Turbine	330	297	269	7.00	292	
	Rithala GPS	108	15	24	0.40	17	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	575	560	12.21	509	
	Thermal (Total)	2000	1070	1037	23.91	996	
	<b>Total Delhi</b>	<b>2000</b>	<b>1070</b>	<b>1037</b>	<b>23.91</b>	<b>996</b>	
HP	Baspa HPS (IPP)	330	0	0	0.94	39	
	Malana HPS (IPP)	101	0	0	0.17	7	
	Other Hydro	571	166	96	3.65	152	
	<b>Total HP</b>	<b>1002</b>	<b>166</b>	<b>96</b>	<b>5</b>	<b>198</b>	
J & K	Baglihar HPS (IPP)	450	150	148	3.57	149	
	Other Hydro	323	70	92	1.76	73	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>220</b>	<b>240</b>	<b>5.34</b>	<b>222</b>	
<b>Total State Control Area Generation</b>		<b>29376</b>	<b>16025</b>	<b>15848</b>	<b>379.93</b>	<b>15760</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1127</b>	<b>2449</b>	<b>63.98</b>	<b>2666</b>	
<b>Total Regional Availability(Gross)</b>		<b>50601</b>	<b>33226</b>	<b>27316</b>	<b>717.10</b>	<b>29809</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	6798	1142	72.43	3018
State Control Area Hydro	5365	1835	1247	42.85	1786
<b>Total Regional Hydro</b>	<b>15447</b>	<b>8633</b>	<b>2389</b>	<b>115.29</b>	<b>4804</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	300	0	3.08	0.00	3.08
Gwalior-Agra (D/C)	356	782	1146	0	19.97	0.00	19.97
Zerda-Kankroli	-152	-105	27	165	0.00	1.44	-1.44
Zerda-Bhinmal	-79	-1	226	134	1.07	0.00	1.07
Malanpur-Auraiya	-172	-80	0	172	0.00	1.55	-1.55
Badod-Kota/Morak	-7	36	78	0	0.93	0.00	0.93
<b>Sub Total WR</b>	<b>146</b>	<b>732</b>			<b>25.05</b>	<b>3.00</b>	<b>22.06</b>
Pusauli Bypass	-41	275	311	41	3.62	0.12	3.50
MZP- GKP (D/C)	226	410	668	0	11.00	0.00	11.00
Patna-Balia(D/C)	199	326	367	0	7.21	0.00	7.21
B'Sharif-Balia (D/C)	277	313	648	0	9.72	0.00	9.72
Barh - balia(D/C)	226	347	390	0	8.11	0.00	8.11
Pusauli-Sahupuri	124	78	160	0	3.39	0.00	3.39
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	1.00	-1.00
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>981</b>	<b>1717</b>			<b>43.04</b>	<b>1.12</b>	<b>41.93</b>
<b>Total IR Exch</b>	<b>1127</b>	<b>2449</b>			<b>68.09</b>	<b>4.11</b>	<b>63.98</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
23.48	0.18	23.66	8.69	10.30	0.11	5.65	2.84	-2.84

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
35.30	10.89	46.19	41.93	22.06	63.98	6.62	11.17	17.79

**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	1.10	18.60	97.90	80.40	18.20	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					
50.31	17.05	49.35	23.06	49.85	0.48	0.16	50.19	49.71

**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	406	03:08	395	08:39	0.0	0.0	0.0	0.0
Gorakhpur	400	435	18:31	335	18:01	0.1	0.1	37.8	0.7
Bareilly	400	422	04:01	399	11:16	0.0	0.0	4.4	0.0
Kanpur	400	415	03:33	396	06:25	0.0	0.0	0.0	0.0
Dadri	400	421	03:39	398	08:42	0.0	0.0	0.5	0.0
Ballabgarh	400	425	04:01	400	08:42	0.0	0.0	11.2	0.0
Bawana	400	427	03:31	401	08:45	0.0	0.0	17.6	0.0
Bassi	400	422	04:03	395	12:16	0.0	0.0	1.0	0.0
Hissar	400	416	04:03	397	08:12	0.0	0.0	0.0	0.0
Moga	400	430	05:06	402	12:02	0.0	0.0	29.3	0.0
Abdullapur	400	427	03:33	283	11:52	0.3	0.3	20.2	0.0
Nalagarh	400	425	20:50	404	12:03	0.0	0.0	10.2	0.0
Kishenpur	400	426	05:03	397	11:54	0.0	0.0	13.7	0.0
Wagoora	400	410	05:05	382	14:19	0.0	53.7	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	490.87	758.57	495.77	937.45	145.94	585.62
Pong	426.72	384.05	409.35	474.29	412.89	600.05	51.00	309.95
Tehri	829.79	740.04	789.40	439.29	818.65	982.26	50.60	216.00
Koteshwar	612.50	598.50	607.40	3.32	NA	NA	216.00	206.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	88.85	109.96
Rihand	268.22	252.98	261.95	415.40	256.15	122.50	NA	NA
RPS	352.80	343.81	348.65	NA	NA	NA	NA	264.22
Jawahar Sagar	298.70	295.78	298.03	NA	NA	NA	NA	243.16
RSD	527.91	487.91	499.90	NA	504.01	NA	140.45	190.35

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 21.02.2012 :**

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 : 21.02.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER