

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 11.04.2012  
Date of Reporting : 12.04.2012

### I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 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
30927	1145	32072	50.18	24363	300	24663	50.28	630.4	9.19

\* 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	44.16	3.76		47.92	43.43	40.86	-2.58	88.78	1.80
Haryana	52.07	0.70		52.78	29.56	25.67	-3.89	78.45	0.91
Rajasthan	87.71	0.22	7.70	95.63	37.26	39.08	1.83	134.71	0.00
Delhi	25.18			25.18	50.79	43.80	-6.99	68.97	0.01
UP	94.20	5.97	9.60	109.77	79.16	71.82	-7.34	181.59	4.60
Uttarakhand		12.00		12.00	11.87	13.90	2.03	25.89	0.67
HP		9.72		9.72	15.47	12.29	-3.18	22.01	0.00
J & K		13.58	0.00	13.58	18.27	12.75	-5.52	26.33	1.20
Chandigarh				0.00	4.44	3.68	-0.76	3.68	0.00
<b>Total</b>	<b>303.31</b>	<b>45.95</b>	<b>17.30</b>	<b>366.57</b>	<b>290.24</b>	<b>263.84</b>	<b>-26.40</b>	<b>630.40</b>	<b>9.19</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 (20:00 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	4332	450	-134	-94	3486	0	-110	-94	-2.24	
Haryana	4153	395	376	74	2947	0	-550	74	1.78	
Rajasthan	5551	0	-812	-290	5548	0	279	-290	-6.96	
Delhi	3299	0	-216	308	2485	0	-111	308	7.39	
UP	9694	0	275	265	7396	300	-14	265	6.36	
Uttarakhand	1272	150	23	47	889	0	33	47	1.14	
HP	976	0	-73	-436	771	0	-37	-42	-3.68	
J&K	1446	150	-59	-358	718	0	-463	-358	-8.60	
Chandigarh	204	0	-26	0	123	0	-15	0	0.00	
<b>Total</b>	<b>30927</b>	<b>1145</b>	<b>-646</b>	<b>-483</b>	<b>24363</b>	<b>300</b>	<b>-988</b>	<b>-89</b>	<b>-4.81</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	1460	1576	1383	33.20	1383	33.37	-0.17
	Rihand I STPS	1000	905	985	712	19.23	801	18.96	0.27
	Rihand II STPS	1000	975	1046	750	20.90	871	20.56	0.34
	Dadri I STPS	840	803	632	613	13.71	571	14.13	-0.42
	Dadri II STPS	980	470	465	360	9.31	388	9.98	-0.67
	Unchahar I TPS	440	398	435	350	8.36	348	8.51	-0.15
	Unchahar II TPS	440	200	215	155	3.85	160	3.88	-0.03
	Unchahar III TPS	210	199	211	155	3.98	166	4.00	-0.02
	ISTPP (Jhajjar)	1000	477	376	404	11.10	463	8.01	3.09
	Dadri GPS	830	797	574	468	11.62	484	11.74	-0.12
	Anta GPS	419	390	241	247	5.74	239	5.70	0.04
	Auraiya GPS	663	609	453	389	9.54	398	9.27	0.28
	<b>Sub Total (A)</b>	<b>9822</b>	<b>7682</b>	<b>7209</b>	<b>5986</b>	<b>150.53</b>	<b>6272</b>	<b>148.10</b>	<b>2.43</b>
	B. NPC	NAPS	440	266	308	314	6.54	273	6.38
RAPS- B		440	410	437	454	9.79	408	9.84	-0.05
RAPS- C		440	416	468	471	10.07	419	9.98	0.08
<b>Sub Total (B)</b>		<b>1320</b>	<b>1092</b>	<b>1213</b>	<b>1239</b>	<b>26.40</b>	<b>1100</b>	<b>26.21</b>	<b>0.19</b>
C. NHPC	Chamera I HPS	540	534	540	0	8.61	359	8.83	-0.22
	Chamera II HPS	300	297	298	42	4.81	200	4.51	0.29
	Bairasuil HPS	180	179	179	80	3.92	163	3.94	-0.01
	Salal-HPS	690	551	554	526	13.04	543	13.06	-0.02
	Tanakpur-HPS	94	30	41	29	0.76	32	0.72	0.04
	Uri-HPS	480	480	482	483	11.54	481	11.57	-0.03
	Dhauliganga-HPS	280	277	278	0	1.78	74	1.76	0.02
	Dulhasti-HPS	390	388	403	0	7.63	318	7.78	-0.15
	Sewa-II HPS	120	118	121	120	2.60	109	2.69	-0.09
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2854</b>	<b>2896</b>	<b>1280</b>	<b>54.69</b>	<b>2279</b>	<b>54.87</b>	<b>-0.18</b>
D. NJPC	Nathpa Jhakri	1500	1600	1475	0	14.65	610	15.33	-0.68
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1475</b>	<b>0</b>	<b>14.65</b>	<b>610</b>	<b>15.33</b>	<b>-0.68</b>
E. THDC	Tehri HPS	1000	525	510	0	4.90	204	5.00	-0.10
	Koteshwar HPS	300	100	204	0	1.72	72	1.80	-0.08
	<b>Sub Total (E)</b>	<b>1300</b>	<b>625</b>	<b>714</b>	<b>0</b>	<b>6.62</b>	<b>276</b>	<b>6.80</b>	<b>-0.18</b>
F. BBMB	Bhakra HPS	1480	475	912	381	11.68	487	11.39	0.29
	Dehar HPS	990	372	660	145	9.15	381	8.93	0.22
	Pong HPS	396	10	120	0	0.26	11	0.24	0.02
	<b>Sub Total (F)</b>	<b>2866</b>	<b>857</b>	<b>1692</b>	<b>526</b>	<b>21.09</b>	<b>879</b>	<b>20.56</b>	<b>0.53</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	123	0	1.08	45	1.22	-0.14
	KWHEP HPS(IPP)	1000	0	850	220	7.48	312	8.64	-1.16
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	125	131	2.85	119	3.25	-0.41
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>1098</b>	<b>351</b>	<b>11.41</b>	<b>475</b>	<b>13.11</b>	<b>-1.71</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21475</b>	<b>14710</b>	<b>16297</b>	<b>9382</b>	<b>285.39</b>	<b>11891</b>	<b>284.97</b>	<b>0.42</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	1080	22.85	952
	Guru Nanak Dev TPS(Bhatinda)	440	95	200	2.62	109
	Guru Hargobind Singh TPS(L.mbt)	920	963	746	18.69	779
	Thermal (Total)	2620	2098	2026	44.16	1840
	Total Hydro	1148	125	95	3.76	157
	<b>Total Punjab</b>	<b>3768</b>	<b>2223</b>	<b>2121</b>	<b>47.92</b>	<b>1997</b>
Haryana	Panipat TPS	1360	1000	904	22.42	934
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	398	281	7.43	310
	RGTPP (kheldar) (IPP)	1200	801	941	17.63	735
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	660	0	409	4.60	192
	Thermal (Total)	4277	2199	2535	52.07	2170
	Total Hydro	62	17	17	0.70	29
	<b>Total Haryana</b>	<b>4339</b>	<b>2216</b>	<b>2552</b>	<b>52.78</b>	<b>2199</b>
Rajasthan	kota TPS	1240	1049	1073	25.96	1082
	suratgarh TPS	1500	1147	966	23.83	993
	Chabra TPS	500	357	377	9.21	384
	Dholpur GPS	330	225	205	5.83	243
	Ramgarh GPS	111	21	21	0.41	17
	RAPS A (NPC)	300	180	180	4.49	187
	Barsingsar (NLC) IPP	250	234	204	5.00	208
	Giral LTPS	250	88	58	2.15	89
	Rajwest LTPS (IPP)	540	458	458	10.83	451
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5156	3759	3542	87.71	3655
	Total Hydro	550	0	44	0.22	9
	Wind power	1843	438	330	6.81	284
	Biomass	91	37	37	0.89	37
	Solar	128	0	0	0.00	0
	Renewable/Others (Total)	1934	475	367	7.70	321
	<b>Total Rajasthan</b>	<b>7640</b>	<b>4234</b>	<b>3953</b>	<b>95.63</b>	<b>3984</b>
	UP	Anpara TPS	1630	1259	1258	30.20
Obra TPS		1382	502	491	11.90	496
Paricha TPS		640	385	388	9.10	379
Panki TPS		210	126	131	3.10	129
Harduaganj TPS		415	0	0	0.00	0
Tanda TPS (NTPC)		440	290	248	6.66	277
Roza TPS (IPP)		1200	958	602	17.01	709
Anpara-C (IPP)		1200	446	480	9.40	392
Bajaj Energy Pvt.Ltd(IPP) TPS		450	295	264	6.83	284
Thermal (Total)		7567	4261	3862	94.20	3925
Vishnuparyag HPS (IPP)		400	128	144	3.19	133
Other Hydro		527	255	0	2.78	116
Cogeneration		981	400	400	9.60	400
<b>Total UP</b>		<b>9475</b>	<b>5044</b>	<b>4406</b>	<b>109.77</b>	<b>4441</b>
Uttarakhand		Total Hydro	1303	609	444	12.00
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>609</b>	<b>444</b>	<b>12.00</b>	<b>500</b>
Delhi	Rajghat TPS	135	105	103	2.15	90
	Delhi Gas Turbine	282	188	191	4.55	189
	Pragati Gas Turbine	330	289	264	6.94	289
	Rithala GPS	108	36	29	0.90	38
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	480	470	10.64	443
	Thermal (Total)	2000	1098	1057	25.18	1049
	<b>Total Delhi</b>	<b>2000</b>	<b>1098</b>	<b>1057</b>	<b>25.18</b>	<b>1049</b>
HP	Baspa HPS (IPP)	330	55	55	1.64	68
	Malana HPS (IPP)	101	44	0	0.57	24
	Other Hydro	571	332	311	7.51	313
	<b>Total HP</b>	<b>1002</b>	<b>431</b>	<b>366</b>	<b>10</b>	<b>405</b>
J & K	Baglihar HPS (IPP)	450	442	440	10.57	440
	Other Hydro	323	120	128	3.01	125
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>562</b>	<b>568</b>	<b>13.58</b>	<b>566</b>
<b>Total State Control Area Generation</b>		<b>30483</b>	<b>16417</b>	<b>15467</b>	<b>366.57</b>	<b>15141</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>181</b>	<b>169</b>	<b>-0.67</b>	<b>-28</b>
<b>Total Regional Availability(Gross)</b>		<b>51958</b>	<b>32895</b>	<b>25018</b>	<b>651.29</b>	<b>27004</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10033	7750	2026	105.61	4401
State Control Area Hydro	5365	1999	1534	42.76	1782
<b>Total Regional Hydro</b>	<b>15397</b>	<b>9749</b>	<b>3560</b>	<b>148.38</b>	<b>6182</b>

**V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(20:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal B/B	-200	-400	0	400	0.00	7.30	-7.30
Gwalior-Agra (D/C)	288	266	967	150	7.54	0.00	7.54
Zerda-Kankroli	-253	-396	0	414	0.00	7.31	-7.31
Zerda-Bhinmal	-213	-389	0	438	0.00	6.51	-6.51
Malanpur-Auraiya	-63	-124	0	215	0.00	2.59	-2.59
Badod-Kota/Morak	15	-25	35	58	0.00	0.37	-0.37
<b>Sub Total WR</b>	<b>-426</b>	<b>-1068</b>			<b>7.54</b>	<b>24.08</b>	<b>-16.54</b>
Pusauli Bypass	-249	-71	0	327	0.00	4.04	-4.04
MZP- GKP (D/C)	172	358	382	0	4.65	0.00	4.65
Patna-Balia(D/C)	159	254	254	0	4.39	0.00	4.39
B'Sharif-Balia (D/C)	124	232	232	0	3.01	0.00	3.01
Barh - balia(D/C)	192	277	277	0	5.12	0.00	5.12
Pusauli-Sahupuri	203	161	203	0	3.69	0.00	3.69
K'nasa-Sahupuri	48	60	60	0	0.10	0.00	0.10
Son Ngr-Rihand	-42	-34	0	49	0.00	1.05	-1.05
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>607</b>	<b>1237</b>			<b>20.96</b>	<b>5.09</b>	<b>15.87</b>
<b>Total IR Exch</b>	<b>181</b>	<b>169</b>			<b>28.50</b>	<b>29.17</b>	<b>-0.67</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
24.51	0.25	24.76	-8.11	4.19	4.67	-0.53	1.68	-1.68

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
23.00	-4.88	18.11	15.87	-16.54	-0.67	-7.13	-11.66	-18.78

**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	0.00	2.12	90.24	88.12	75.35	9.76

<----- 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					
50.47	0.19	49.51	19.28	50.11	0.34	0.12	50.42	49.83

**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	412	23:50	402	18:24	0.0	0.0	0.0	0.0
Gorakhpur	400	432	11:00	399	19:28	0.0	0.0	37.5	3.8
Bareilly	400	429	03:04	400	19:29	0.0	0.0	58.9	0.0
Kanpur	400	424	03:23	405	19:12	0.0	0.0	14.7	0.0
Dadri	400	427	02:59	407	19:08	0.0	0.0	46.9	0.0
Ballabgarh	400	429	03:03	408	19:11	0.0	0.0	48.9	0.0
Bawana	400	429	02:59	406	19:08	0.0	0.0	50.9	0.0
Bassi	400	428	21:56	409	06:23	0.0	0.0	50.7	0.0
Hissar	400	420	03:23	398	19:09	0.0	0.0	0.0	0.0
Moga	400	431	03:00	407	18:55	0.0	0.0	24.4	0.3
Abdullapur	400	431	03:21	406	19:09	0.0	0.0	68.2	0.2
Nalagarh	400	428	01:14	405	19:09	0.0	0.0	39.9	0.0
Kishenpur	400	428	03:00	400	19:09	0.0	0.0	8.8	0.0
Wagoora	400	420	03:00	382	19:23	0.0	18.3	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	474.82	350.94	484.37	577.33	339.43	462.84
Pong	426.72	384.05	402.84	288.96	410.14	504.32	43.86	59.66
Tehri	829.79	740.04	764.85	154.42	818.65	982.26	76.96	193.00
Koteshwar	612.50	598.50	609.80	4.44	NA	NA	196.00	188.00
Chamera-I	760.00	748.75	754.87	NA	NA	NA	200.71	202.47
Rihand	268.22	252.98	259.32	268.20	255.15	82.20	NA	NA
RPS	352.80	343.81	347.65	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.16	NA	NA	NA	NA	NA
RSD	527.91	487.91	496.38	NA	504.81	NA	231.34	186.32

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 11.04.2012 :**

1. Scattered Rain with cold wind in Northern Region.

**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 : 11.04.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER