

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 11.01.2012  
Date of Reporting : 12.01.2012

### 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
31427	4150	35577	49.84	24902	650	25552	50.12	682.3	54.73

\* 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	47.15	11.61		58.76	30.00	31.14	1.14	89.90	2.55
Haryana	56.03	0.64		56.67	25.49	36.62	11.13	93.29	10.48
Rajasthan	88.04	4.51	8.45	100.99	51.49	58.89	7.40	159.88	3.32
Delhi	31.41			31.41	39.65	34.52	-5.13	65.93	0.00
UP	73.83	6.42	15.60	95.86	85.43	85.44	0.01	181.30	36.42
Uttarakhand		7.98		7.98	19.64	22.06	2.42	30.04	0.00
HP		4.31		4.31	20.76	19.92	-0.84	24.23	0.06
J & K		4.62	0.00	4.62	24.83	29.37	4.54	33.99	1.90
Chandigarh				0.00	3.47	3.70	0.23	3.70	0.00
<b>Total</b>	<b>296.46</b>	<b>40.10</b>	<b>24.05</b>	<b>360.61</b>	<b>300.76</b>	<b>321.67</b>	<b>20.90</b>	<b>682.28</b>	<b>54.73</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	4629	600	123	-333	2904	0	67	-581	-8.01
Haryana	3927	1414	178	-201	3626	0	384	-201	-4.49
Rajasthan	6895	364	636	180	6236	0	225	255	7.86
Delhi	3420	2	-414	-25	1473	0	-79	-340	-3.13
UP	8020	1660	30	265	7256	650	-172	265	6.36
Uttarakhand	1553	0	96	430	1034	0	40	430	10.32
HP	1141	11	-410	24	798	0	27	405	6.65
J&K	1635	100	-25	301	1478	0	227	296	6.59
Chandigarh	207	0	-5	0	97	0	2	-30	-0.24
<b>Total</b>	<b>31427</b>	<b>4150</b>	<b>208</b>	<b>640</b>	<b>24902</b>	<b>650</b>	<b>721</b>	<b>498</b>	<b>21.92</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		UI	
								Net MU	Net MU	Net MU	Net MU
A. NTPC	Singrauli STPS	2000	1757	1884	1861	42.90	1787	42.18		0.72	
	Rihand I STPS	1000	750	838	832	18.04	752	17.55		0.48	
	Rihand II STPS	1000	977	1042	934	23.32	972	22.90		0.41	
	Dadri I STPS	840	784	845	602	17.43	726	17.59		-0.16	
	Dadri II STPS	980	961	1017	836	21.82	909	23.05		-1.23	
	Unchahar I TPS	440	379	441	353	8.89	370	8.84		0.05	
	Unchahar II TPS	440	379	440	316	8.76	365	8.65		0.12	
	Unchahar III TPS	210	189	219	165	4.40	183	4.38		0.02	
	ISTPP (Jhajjar)	1000	475	388	372	9.15	381	9.12		0.03	
	Dadri GPS	830	846	735	510	16.55	689	16.57		-0.03	
	Anta GPS	419	431	353	314	8.37	349	8.18		0.19	
	Auraiya GPS	663	660	330	275	7.44	310	7.74		-0.30	
	<b>Sub Total (A)</b>		<b>9822</b>	<b>8588</b>	<b>8532</b>	<b>7370</b>	<b>187.07</b>	<b>7795</b>	<b>186.76</b>		<b>0.30</b>
B. NPC	NAPS	440	241	275	284	5.81	242	5.78		0.02	
	RAPS- B	440	429	475	477	10.25	427	10.30		-0.05	
	RAPS- C	440	420	470	479	10.22	426	10.08		0.14	
	<b>Sub Total (B)</b>		<b>1320</b>	<b>1090</b>	<b>1220</b>	<b>1240</b>	<b>26.28</b>	<b>1095</b>	<b>26.16</b>		<b>0.12</b>
C. NHPC	Chamera I HPS	540	0	0	0	0.00	0	0.00		0.00	
	Chamera II HPS	300	297	249	0	1.24	52	1.24		0.00	
	Bairasuil HPS	180	179	120	0	0.48	20	0.45		0.03	
	Salal-HPS	690	118	251	60	2.65	111	2.82		-0.17	
	Tanakpur-HPS	94	31	36	25	0.70	29	0.72		-0.02	
	Uri-HPS	480	126	233	105	2.63	110	1.89		0.74	
	Dhauliganga-HPS	280	210	141	0	1.17	49	1.23		-0.06	
	Dulhasti-HPS	390	388	406	0	3.18	133	3.00		0.18	
	Sewa-II HPS	120	119	39	0	0.46	19	0.45		0.02	
	<b>Sub Total (C)</b>		<b>3074</b>	<b>1468</b>	<b>1475</b>	<b>190</b>	<b>12.53</b>	<b>522</b>	<b>11.81</b>		<b>0.72</b>
D. NJPC	Nathpa Jhakri	1500	1071	1440	0	6.89	287	6.97		-0.09	
	<b>Sub Total (D)</b>		<b>1500</b>	<b>1071</b>	<b>1440</b>	<b>6.89</b>	<b>287</b>	<b>6.97</b>		<b>-0.09</b>	
E. THDC	Tehri HPS	1000	1000	1000	0	8.51	354	8.50		0.01	
	Koteshwar HPS	200	119	203	0	2.87	119	2.80		0.07	
	<b>Sub Total (E)</b>		<b>1200</b>	<b>1119</b>	<b>1203</b>	<b>0</b>	<b>11.37</b>	<b>474</b>	<b>11.30</b>		<b>0.07</b>
F. BBMB	Bhakra HPS	1480	679	945	523	16.68	695	16.31		0.37	
	Dehar HPS	990	120	495	0	3.54	148	2.87		0.67	
	Pong HPS	396	142	306	120	3.62	151	3.41		0.21	
	<b>Sub Total (F)</b>		<b>2866</b>	<b>941</b>	<b>1746</b>	<b>643</b>	<b>23.84</b>	<b>993</b>	<b>22.58</b>		<b>1.26</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.42	17	0.39		0.03	
	KWHEP HPS(IPP)	1000	0	125	0	3.75	156	3.72		0.03	
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00		0.00	
	Shree Cement TPS	150	0	133	197	4.23	176	4.69		-0.46	
	<b>Sub Total (G)</b>		<b>1442</b>	<b>0</b>	<b>258</b>	<b>197</b>	<b>8.40</b>	<b>350</b>	<b>8.80</b>		<b>-0.40</b>
<b>H. Total Regional Entities (A-G)</b>		<b>21225</b>	<b>14276</b>	<b>15874</b>	<b>9640</b>	<b>276.37</b>	<b>11515</b>	<b>274.38</b>		<b>1.98</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	1050	900	21.87	911	
	Guru Nanak Dev TPS(Bhatinda)	440	216	215	4.63	193	
	Guru Hargobind Singh TPS(L.mbt)	920	959	763	20.65	861	
	Thermal (Total)	2620	2225	1878	47.15	1965	
	Total Hydro	1148	555	371	11.61	484	
	<b>Total Punjab</b>	<b>3768</b>	<b>2780</b>	<b>2249</b>	<b>58.76</b>	<b>2448</b>	
Haryana	Panipat TPS	1360	1039	1020	25.15	1048	
	DCRTPP (Yamuna nagar)	600	273	274	6.61	275	
	Faridabad GPS (NTPC)	432	436	451	10.70	446	
	RGTPP (kheldar) (IPP)	1200	511	514	13.58	566	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Thermal (Total)	3617	2259	2259	56.03	2335	
	Total Hydro	62	29	23	0.64	27	
	<b>Total Haryana</b>	<b>3679</b>	<b>2288</b>	<b>2282</b>	<b>56.67</b>	<b>2361</b>	
	Rajasthan	kota TPS	1240	1169	1173	27.73	1155
		suratgarh TPS	1500	1154	1074	26.61	1109
Chabra TPS		500	368	440	10.08	420	
Dholpur GPS		330	225	240	5.62	234	
Ramgarh GPS		113	55	57	1.37	57	
RAPS A (NPC)		300	184	185	4.55	190	
Barsingsar (NLC)		250	108	30	2.63	110	
Giral LTPS (IPP)		250	37	112	1.37	57	
Rajwest LTPS (IPP)		540	342	315	8.09	337	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5158	3642	3626	88.04	3668	
Total Hydro		550	214	108	4.51	188	
Wind power		1294	37	306	3.07	128	
Biomass		71	142	42	0.87	36	
Solar		50	0	0	0.00	0	
Renewable/Others (Total)		1365	179	348	8.45	352	
<b>Total Rajasthan</b>		<b>7073</b>	<b>4035</b>	<b>4082</b>	<b>100.99</b>	<b>4208</b>	
UP		Anpara TPS	1630	1171	1209	28.10	1171
		Obra TPS	1442	500	500	12.20	508
		Paricha TPS	640	194	203	4.70	196
	Panki TPS	210	117	149	3.30	138	
	Harduaganj TPS	415	38	36	0.90	38	
	Tanda TPS (NTPC)	440	399	331	9.58	399	
	Roza TPS (IPP)	900	360	387	8.50	354	
	Anpara-C (IPP)	1200	0	495	4.47	186	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	46	140	2.08	87	
	Thermal (Total)	7057	2825	3450	73.83	3076	
	Vishnuparyag HPS (IPP)	400	84	89	2.00	83	
	Other Hydro	527	253	44	4.43	184	
	Cogeneration	951	650	650	15.60	650	
	<b>Total UP</b>	<b>8935</b>	<b>3812</b>	<b>4233</b>	<b>95.86</b>	<b>3911</b>	
	Uttarakhand	Total Hydro	1303	418	268	7.98	333
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>418</b>	<b>268</b>	<b>7.98</b>	<b>333</b>
Delhi	Rajghat TPS	135	51	50	1.15	48	
	Delhi Gas Turbine	282	236	153	4.68	195	
	Pragati Gas Turbine	330	316	270	7.30	304	
	Rithala GPS	108	19	33	0.94	39	
	Bawana GPS	440	172	36	3.55	148	
	Badarpur TPS (NTPC)	705	625	540	13.79	575	
	Thermal (Total)	2000	1419	1111	31.41	1309	
	<b>Total Delhi</b>	<b>2000</b>	<b>1419</b>	<b>1111</b>	<b>31.41</b>	<b>1309</b>	
HP	Baspa HPS (IPP)	330	0	0	0.95	40	
	Malana HPS (IPP)	101	0	0	0.22	9	
	Other Hydro	571	163	75	3.14	131	
	<b>Total HP</b>	<b>1002</b>	<b>163</b>	<b>75</b>	<b>4</b>	<b>180</b>	
J & K	Baglihar HPS (IPP)	450	143	142	3.39	141	
	Other Hydro	323	25	120	1.24	51	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>168</b>	<b>262</b>	<b>4.62</b>	<b>193</b>	
<b>Total State Control Area Generation</b>		<b>28716</b>	<b>15083</b>	<b>14562</b>	<b>360.61</b>	<b>14942</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1115</b>	<b>1380</b>	<b>61.50</b>	<b>2563</b>	
<b>Total Regional Availability(Gross)</b>		<b>49941</b>	<b>32072</b>	<b>25582</b>	<b>698.48</b>	<b>29020</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	6122	1030	63.02	2626
State Control Area Hydro	5365	1800	1151	38.11	1588
<b>Total Regional Hydro</b>	<b>15447</b>	<b>7922</b>	<b>2181</b>	<b>101.13</b>	<b>4214</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	300	1.09	0.00	1.09
Gwalior-Agra (D/C)	97	573	1125	0	17.19	0.00	17.19
Zerda-Kankroli	-130	-103	120	130	0.00	0.26	-0.26
Zerda-Bhinmal	-30	2	274	81	2.37	0.00	2.37
Malanpur-Auraiya	-181	-74	0	181	0.00	1.14	-1.14
Badod-Kota/Morak	-41	2	127	33	0.40	0.00	0.40
<b>Sub Total WR</b>	<b>-85</b>	<b>500</b>			<b>21.05</b>	<b>1.40</b>	<b>19.64</b>
Pusauli Bypass	-13	12	315	330	1.62	3.05	-1.43
MZP- GKP (D/C)	550	243	984	0	14.81	0.00	14.81
Patna-Balia(D/C)	342	325	502	0	10.60	0.00	10.60
B'Sharif-Balia (D/C)	201	253	525	0	11.69	0.00	11.69
Barh - balia(D/C)	0	0	480	0	4.38	0.00	4.38
Pusauli-Sahupuri	150	79	179	0	2.74	0.00	2.74
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	0.93	-0.93
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1200</b>	<b>880</b>			<b>45.84</b>	<b>3.98</b>	<b>41.86</b>
<b>Total IR Exch</b>	<b>1115</b>	<b>1380</b>			<b>66.89</b>	<b>5.38</b>	<b>61.50</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
22.26	0.28	22.54	10.96	13.39	1.41	7.56	2.77	-2.77

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
37.68	11.50	49.18	41.86	19.64	61.50	4.18	8.15	12.32

**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	5.50	29.00	93.50	70.00	15.50	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					
50.29	23.30	49.26	9.10	49.81	0.72	0.19	50.23	49.56

**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	22:53	400	06:42	0.0	0.0	0.0	0.0
Gorakhpur	400	433	22:59	406	06:45	0.0	0.0	57.6	1.6
Bareilly	400	424	02:58	398	10:17	0.0	0.0	17.3	0.0
Kanpur	400	418	02:59	396	16:46	0.0	0.0	0.0	0.0
Dadri	400	419	03:00	398	16:44	0.0	0.0	0.0	0.0
Ballabgarh	400	424	02:58	397	16:46	0.0	0.0	13.4	0.0
Bawana	400	423	03:00	400	16:46	0.0	0.0	10.9	0.0
Bassi	400	423	20:47	396	16:46	0.0	0.0	0.5	0.0
Hissar	400	412	02:58	391	15:45	0.0	0.0	0.0	0.0
Moga	400	423	03:00	400	16:46	0.0	0.0	9.8	0.0
Abdullapur	400	425	20:45	402	08:25	0.0	0.0	13.3	0.0
Nalagarh	400	425	03:00	405	11:10	0.0	0.0	26.3	0.0
Kishenpur	400	420	03:01	391	15:19	0.0	0.0	0.0	0.0
Wagoora	400	383	19:16	378	19:34	15.7	100.0	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	500.11	1101.35	502.84	1219.07	160.02	468.73
Pong	426.72	384.05	412.62	588.94	416.17	718.14	66.66	223.22
Tehri	829.79	740.04	806.50	724.19	818.65	982.26	52.48	201.00
Koteshwar	612.50	598.50	608.50	3.76	NA	NA	170.00	162.00
Chamera-I	760.00	748.75	751.07	NA	750.49	NA	53.66	NA
Rihand	268.22	252.98	263.44	508.00	257.04	159.40	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	509.29	NA	511.64	NA	43.64	114.20

\* NA: Not Available

**IX. System Constraints:**

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

1. CLP Unit(660MW) Synchronise at 02:28 hrs on 11.01.2012

**XI. Weather Conditions For 11.01.2012 :**

1. Normal & Cold weather

**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 : 11.01.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER