

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 07.12.2011  
Date of Reporting : 08.12.2011

### I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 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
28888	3628	32515	49.63	23530	650	24180	50.12	632.2	54.33

\* 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	49.19	9.64		58.83	27.92	25.44	-2.48	84.27	6.67
Haryana	56.28	0.77		57.05	27.65	31.46	3.81	88.51	12.47
Rajasthan	79.48	4.74	12.35	96.57	50.72	57.31	6.59	153.88	5.00
Delhi	24.17			24.17	38.27	32.97	-5.30	57.14	0.09
UP	73.33	6.55	14.40	94.27	80.31	70.11	-10.20	164.38	26.86
Uttarakhand		8.82		8.82	16.35	17.61	1.25	26.43	0.99
HP		5.42		5.42	17.26	16.28	-0.98	21.71	0.00
J & K		5.61	0.00	5.61	23.80	26.91	3.12	32.53	1.90
Chandigarh				0.00	3.40	3.39	-0.01	3.39	0.36
<b>Total</b>	<b>282.45</b>	<b>41.56</b>	<b>26.75</b>	<b>350.75</b>	<b>285.68</b>	<b>281.48</b>	<b>-4.21</b>	<b>632.23</b>	<b>54.33</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	3919	600	-279	-384	2721	0	-388	-696	-9.63
Haryana	3790	916	-21	-51	3335	0	287	-67	-1.54
Rajasthan	6152	525	67	431	6800	0	993	546	14.72
Delhi	3101	2	-108	-277	1365	0	-421	-753	-9.99
UP	7810	1335	-594	267	6424	650	-184	267	6.41
Uttarakhand	1396	150	49	332	868	0	-57	332	7.97
HP	1106	0	-124	78	686	0	58	237	4.39
J&K	1419	100	-156	203	1247	0	170	247	5.73
Chandigarh	195	0	-10	0	84	0	-8	-30	-0.24
<b>Total</b>	<b>28888</b>	<b>3628</b>	<b>-1176</b>	<b>599</b>	<b>23530</b>	<b>650</b>	<b>451</b>	<b>83</b>	<b>17.82</b>

\* STOA figures are at sellers boundary & PX figures are at regional boundary.

### III. Regional Entities :

A. NTPC	Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW	Off Peak MW	Energy	Average	Schedule	UI
				(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU
	Singrauli STPS	2000	1914	2056	2046	46.15	1923	45.95	0.20
	Rihand I STPS	1000	817	907	873	19.79	825	19.60	0.19
	Rihand II STPS	1000	977	1040	1040	23.71	988	23.45	0.26
	Dadri I STPS	840	585	638	578	13.91	579	13.85	0.06
	Dadri II STPS	980	922	983	912	22.14	923	21.98	0.17
	Unchahar I TPS	440	343	440	365	8.29	345	8.22	0.07
	Unchahar II TPS	440	341	442	365	8.24	343	8.18	0.05
	Unchahar III TPS	210	171	220	185	4.13	172	4.11	0.03
	ISTPP (Jhajjar)	1000	475	499	488	11.24	469	11.28	-0.03
	Dadri GPS	830	816	777	554	16.99	708	16.60	0.38
	Anta GPS	419	272	263	203	5.82	243	5.53	0.29
	Auraiya GPS	663	637	625	457	13.75	573	12.64	1.11
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8269</b>	<b>8890</b>	<b>8066</b>	<b>194.16</b>	<b>8090</b>	<b>191.38</b>	<b>2.77</b>
B. NPC	NAPS	440	200	237	241	4.85	202	4.80	0.05
	RAPS- B	440	409	458	463	9.97	415	9.82	0.15
	RAPS- C	440	420	466	471	10.08	420	10.08	0.00
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1029</b>	<b>1161</b>	<b>1175</b>	<b>24.90</b>	<b>1038</b>	<b>24.70</b>	<b>0.21</b>
C. NHPC	Chamera I HPS	540	0	0	0	0.00	0	0.00	0.00
	Chamera II HPS	300	297	231	0	1.41	59	1.32	0.08
	Bairasuil HPS	180	113	60	0	0.59	25	0.49	0.10
	Salal-HPS	690	147	110	146	3.39	141	3.52	-0.13
	Tanakpur-HPS	94	38	39	33	0.94	39	0.91	0.03
	Uri-HPS	480	109	218	32	2.80	117	2.04	0.76
	Dhauliganga-HPS	280	277	277	0	1.47	61	1.43	0.04
	Dulhasti-HPS	390	388	407	0	3.35	139	3.27	0.08
	Sewa-II HPS	120	0	0	0	0.00	0	0.00	0.00
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1368</b>	<b>1342</b>	<b>211</b>	<b>13.94</b>	<b>581</b>	<b>12.98</b>	<b>0.96</b>
D. NJPC	Nathpa Jhakri	1500	1267	1582	0	9.61	400	9.27	0.34
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1267</b>	<b>1582</b>	<b>0</b>	<b>9.61</b>	<b>400</b>	<b>9.27</b>	<b>0.34</b>
E. THDC	Tehri HPS	1000	823	1001	0	6.99	291	7.00	-0.01
	Koteswar HPS	200	114	202	0	2.11	88	1.90	0.21
	<b>Sub Total (E)</b>	<b>1200</b>	<b>938</b>	<b>1203</b>	<b>0</b>	<b>9.10</b>	<b>379</b>	<b>8.90</b>	<b>0.20</b>
F. BBMB	Bhakra HPS	1480	694	941	522	16.90	704	16.66	0.24
	Dehar HPS	990	158	495	0	4.12	172	3.79	0.33
	Pong HPS	396	264	366	186	6.59	275	6.33	0.26
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1116</b>	<b>1802</b>	<b>708</b>	<b>27.61</b>	<b>1150</b>	<b>26.78</b>	<b>0.83</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	64	0	0.38	16	0.26	0.13
	KWHEP HPS(IPP)	1000	0	470	0	4.92	205	4.90	0.02
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	0	145	1.44	60	1.48	-0.05
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>534</b>	<b>145</b>	<b>6.74</b>	<b>281</b>	<b>6.63</b>	<b>0.10</b>
<b>H. Total Regional Entities (A-G)</b>		<b>21225</b>	<b>13987</b>	<b>16514</b>	<b>10305</b>	<b>286.06</b>	<b>11919</b>	<b>280.64</b>	<b>5.41</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	1050	23.35	973	
	Guru Nanak Dev TPS(Bhatinda)	440	213	210	4.52	188	
	Guru Hargobind Singh TPS(L.mbt)	920	963	957	21.32	889	
	Thermal (Total)	2620	2226	2217	49.19	2050	
	Total Hydro	1148	297	282	9.64	402	
	<b>Total Punjab</b>	<b>3768</b>	<b>2523</b>	<b>2499</b>	<b>58.83</b>	<b>2451</b>	
Haryana	Panipat TPS	1360	1103	898	26.00	1083	
	DCRTPP (Yamuna nagar)	600	271	267	6.51	271	
	Faridabad GPS (NTPC)	432	401	377	10.03	418	
	RGTPP (khedar) (IPP)	1200	528	487	13.74	572	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Thermal (Total)	3617	2303	2029	56.28	2345	
	Total Hydro	62	26	36	0.77	32	
		<b>Total Haryana</b>	<b>3679</b>	<b>2329</b>	<b>2065</b>	<b>57.05</b>	<b>2377</b>
Rajasthan	kota TPS	1240	982	980	23.64	985	
	suratgarh TPS	1500	1147	1150	27.53	1147	
	Chabra TPS	500	207	205	4.62	192	
	Dholpur GPS	330	253	251	5.98	249	
	Ramgarh GPS	113	65	65	1.55	65	
	RAPS A (NPC)	300	174	177	4.24	177	
	Barsingar (NLC)	250	0	0	0.10	4	
	Giral LTPS (IPP)	250	104	105	2.42	101	
	Rajwest LTPS (IPP)	540	486	352	9.40	392	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5158	3418	3285	79.48	3312	
	Total Hydro	550	191	159	4.74	197	
	Wind power	1294	256	385	6.82	284	
	Biomass	71	33	33	0.79	33	
	Solar	50	0	0	0.00	0	
	Renewable/Others (Total)	1365	289	418	12.35	515	
		<b>Total Rajasthan</b>	<b>7073</b>	<b>3898</b>	<b>3862</b>	<b>96.57</b>	<b>4024</b>
	UP	Anpara TPS	1630	1528	1067	27.20	1133
Obra TPS		1442	556	593	12.30	513	
Paricha TPS		640	336	333	6.70	279	
Panki TPS		210	145	140	3.20	133	
Harduaganj TPS		415	44	0	0.80	33	
Tanda TPS (NTPC)		440	404	401	9.83	410	
Roza TPS (IPP)		600	284	275	6.72	280	
Anpara-C (IPP)		1200	324	279	5.52	230	
Bajaj Energy Pvt.Ltd(IPP) TPS		180	37	116	1.06	44	
Thermal (Total)		6757	3658	3204	73.33	3055	
Vishnuparyag HPS (IPP)		400	118	119	2.70	113	
Other Hydro		527	270	38	3.84	160	
Cogeneration		951	600	600	14.40	600	
		<b>Total UP</b>	<b>8635</b>	<b>4646</b>	<b>3961</b>	<b>94.27</b>	<b>3816</b>
Uttarakhand		Total Hydro	1303	517	259	8.82	368
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>517</b>	<b>259</b>	<b>8.82</b>	<b>368</b>	
Delhi	Rajghat TPS	135	96	94	2.47	103	
	Delhi Gas Turbine	282	187	197	4.17	174	
	Praagati Gas Turbine	330	306	273	7.12	297	
	Rithala GPS	108	0	0	0.00	0	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	497	400	10.41	434	
	Thermal (Total)	2000	1086	964	24.17	1007	
	<b>Total Delhi</b>	<b>2000</b>	<b>1086</b>	<b>964</b>	<b>24.17</b>	<b>1007</b>	
HP	Baspa HPS (IPP)	330	12	0	1.38	57	
	Malana HPS (IPP)	101	1	0	0.29	12	
	Other Hydro	571	168	109	3.76	157	
		<b>Total HP</b>	<b>1002</b>	<b>181</b>	<b>109</b>	<b>5</b>	<b>226</b>
J & K	Baglihar HPS (IPP)	450	296	146	4.18	174	
	Other Hydro	323	54	100	1.43	60	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>350</b>	<b>246</b>	<b>5.61</b>	<b>234</b>
<b>Total State Control Area Generation</b>		<b>28416</b>	<b>15530</b>	<b>13965</b>	<b>350.75</b>	<b>14502</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>-150</b>	<b>684</b>	<b>23.64</b>	<b>985</b>	
<b>Total Regional Availability(Gross)</b>		<b>49641</b>	<b>31894</b>	<b>24954</b>	<b>660.45</b>	<b>27406</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	6463	1064	67.00	2792
State Control Area Hydro	5365	1832	1129	38.86	1619
<b>Total Regional Hydro</b>	<b>15447</b>	<b>8295</b>	<b>2193</b>	<b>105.85</b>	<b>4411</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	-300	-450	0	450	0.00	9.12	-9.12
Gwalior-Agra (D/C)	104	326	1129	0	11.03	0.00	11.03
Zerda-Kankroli	-237	-103	0	256	0.00	3.36	-3.36
Zerda-Bhinmal	-197	-38	100	214	0.00	1.69	-1.69
Malanpur-Auraiya	-238	-181	0	238	0.00	4.43	-4.43
Badod-Kota/Morak	-86	-87	0	113	0.00	1.70	-1.70
<b>Sub Total WR</b>	<b>-954</b>	<b>-533</b>			<b>11.03</b>	<b>20.30</b>	<b>-9.27</b>
Pusauli Bypass	0	0	250	0	4.36	0.09	4.26
MZP- GKP (D/C)	293	415	542	0	8.57	0.00	8.57
Patna-Balia(D/C)	106	427	427	0	7.30	0.00	7.30
B'Sharif-Balia (D/C)	155	337	371	0	6.31	0.00	6.31
Barh - balia(D/C)	195	0	357	0	4.56	0.00	4.56
Pusauli-Sahupuri	87	74	149	0	2.36	0.00	2.36
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-36	0	48	0.00	0.46	-0.46
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>804</b>	<b>1217</b>			<b>33.46</b>	<b>0.55</b>	<b>32.90</b>
<b>Total IR Exch</b>	<b>-150</b>	<b>684</b>			<b>44.49</b>	<b>20.85</b>	<b>23.64</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
18.43	0.67	19.11	11.25	9.15	-3.26	-4.38	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
29.99	-3.68	26.31	32.90	-9.27	23.64	2.92	-5.58	-2.67

**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	0.20	2.80	24.10	61.80	75.60	37.90	6.30	0.30

←----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz			(Hz)	(Hz)
50.24	3.12	48.93	20.34	49.65	1.74	0.22	50.18	49.14

**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	21:55	396	10:30	0.0	0.0	0.0	0.0
Gorakhpur	400	433	22:16	412	15:43	0.0	0.0	43.4	1.8
Bareilly	400	425	20:56	394	11:08	0.0	0.0	12.3	0.0
Kanpur	400	420	21:55	395	10:34	0.0	0.0	0.0	0.0
Dadri	400	418	21:54	396	10:28	0.0	0.0	0.0	0.0
Ballabgarh	400	421	03:12	396	10:32	0.0	0.0	1.4	0.0
Bawana	400	422	02:28	398	10:28	0.0	0.0	3.8	0.0
Bassi	400	425	04:01	386	10:51	0.0	3.2	4.7	0.0
Hissar	400	413	20:55	388	10:27	0.0	2.3	0.0	0.0
Moga	400	420	02:23	397	10:36	0.0	0.0	0.0	0.0
Abdullapur	400	423	02:24	397	10:28	0.0	0.0	5.3	0.0
Nalagarh	400	428	02:24	400	10:25	0.0	0.0	14.9	0.0
Kishenpur	400	411	02:34	384	07:52	0.0	6.0	0.0	0.0
Wagooora	400	386	02:34	360	18:05	84.0	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	506.30	1367.40	508.40	1470.42	181.20	506.30
Pong	426.72	384.05	416.79	743.82	419.59	875.59	60.85	410.54
Tehri	829.79	740.04	815.10	902.26	818.65	982.26	73.67	149.00
Koteshwar	612.50	598.50	605.30	2.25	NA	NA	179.00	141.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	38.55	NA
Rihand	268.22	252.98	264.32	566.70	257.62	184.50	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	516.64	NA	518.00	NA	102.39	169.53

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 07.12.2011 :**

Dence fog in eastern UP

**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 : 07.12.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER