

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 09.08.2011  
Date of Reporting : 10.08.2011

### I. Regional Availability/Demand:

Evening Peak (20:00 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
33625	3697	37322	49.75	33673	1100	34773	50.00	781.7	34.84

\* Half hourly (two 15 minutes block--one block each before and after the designated time) average frequency

### II. A. State's Load Energy 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	53.48	15.76		69.24	100.38	90.08	-10.31	159.32	1.80
Haryana	58.74	0.76		59.50	68.98	67.46	-1.53	126.96	2.24
Rajasthan	68.51	2.63	4.69	75.83	25.11	37.31	12.19	113.13	0.34
Delhi	25.09			25.09	74.05	69.73	-4.32	94.82	0.14
UP	46.34	13.61	1.20	61.15	133.27	142.65	9.38	203.80	30.00
Uttarakhand		14.12		14.12	7.50	15.66	8.16	29.79	0.33
HP		23.23		23.23	-1.84	-0.49	1.36	22.74	0.00
J & K		14.19	0.00	14.19	15.94	11.38	-4.56	25.57	0.00
Chandigarh				0.00	6.24	5.59	-0.65	5.59	0.00
<b>Total</b>	<b>252.17</b>	<b>84.30</b>	<b>5.89</b>	<b>342.36</b>	<b>429.63</b>	<b>439.36</b>	<b>9.72</b>	<b>781.72</b>	<b>34.84</b>

\* Shortage furnished by the respective constituent.

### 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	
Punjab	7346	450	-89	1841	5969	0	-1176	2256	48.90
Haryana	5643	420	222	1147	6212	0	-209	1111	26.97
Rajasthan	4550	102	-113	-720	4849	0	964	-702	-16.24
Delhi	4270	0	-127	556	3738	0	-144	221	10.13
UP	8026	2505	434	1730	9883	1100	646	2502	45.81
Uttarakhand	1279	220	215	-167	1180	0	502	-144	-3.89
HP	910	0	17	-1814	840	0	-58	-1824	-42.68
J&K	1328	0	-22	-380	805	0	-403	-380	-9.36
Chandigarh	273	0	0	31	197	0	-44	19	1.01
<b>Total</b>	<b>33625</b>	<b>3697</b>	<b>537</b>	<b>2223</b>	<b>33673</b>	<b>1100</b>	<b>78</b>	<b>3058</b>	<b>60.65</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 (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule Net MU	UI Net MU
	Singrauli STPS	2000	694	809	950	17.26	719	16.66	0.59
	Rihand I STPS	1000	867	830	1023	20.74	864	20.64	0.09
	Rihand II STPS	1000	893	818	1029	21.45	894	21.26	0.19
	Dadri I STPS	840	596	653	440	12.74	531	12.87	-0.14
	Dadri II STPS	980	958	1022	950	21.99	916	22.45	-0.45
	Unchahar I TPS	440	347	342	436	8.20	341	7.94	0.26
	Unchahar II TPS	440	351	347	436	8.13	339	7.61	0.52
	Unchahar III TPS	210	171	181	222	4.04	169	3.85	0.20
	ISTPP (Jhajjar)	500	449	362	338	7.71	321	10.14	-2.43
	Dadri GPS	830	737	683	662	15.06	628	15.23	-0.16
	Anta GPS	419	256	254	218	5.82	243	5.55	0.27
	Auraiya GPS	663	612	610	579	12.81	534	12.71	0.10
	<b>Sub Total (A)</b>	<b>9322</b>	<b>6931</b>	<b>6911</b>	<b>7283</b>	<b>155.94</b>	<b>6498</b>	<b>156.91</b>	<b>-0.97</b>
B. NPC	NAPS	440	185	220	226	4.44	185	4.44	0.00
	RAPS- B	440	385	421	426	9.08	378	9.24	-0.16
	RAPS- C	440	420	462	464	10.04	418	10.08	-0.04
	<b>Sub Total (B)</b>	<b>1320</b>	<b>990</b>	<b>1103</b>	<b>1116</b>	<b>23.56</b>	<b>982</b>	<b>23.76</b>	<b>-0.20</b>
C. NHPC	Chamera I HPS	540	534	540	540	12.85	536	12.82	0.04
	Chamera II HPS	300	297	302	301	7.17	299	7.22	-0.04
	Bairasuil HPS	180	179	179	120	2.32	97	2.43	-0.11
	Salal-HPS	690	630	634	630	15.11	629	15.11	0.00
	Tanakpur-HPS	94	39	0	76	1.03	43	0.91	0.13
	Uri-HPS	480	213	360	240	5.24	218	4.82	0.42
	Dhauliganga-HPS	280	277	281	276	6.65	277	6.73	-0.07
	Dulhasti-HPS	390	387	409	406	9.01	376	9.11	-0.09
	Sewa-II HPS	120	119	1236	121	2.77	115	2.88	-0.11
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2674</b>	<b>3941</b>	<b>2710</b>	<b>62.16</b>	<b>2590</b>	<b>62.00</b>	<b>0.16</b>
D.NJPC	Nathpa Jhakri	1500	1600	1621	1618	38.53	1606	38.40	0.14
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1621</b>	<b>1618</b>	<b>38.53</b>	<b>1606</b>	<b>38.40</b>	<b>0.14</b>
E. THDC	Tehri HPS	1000	865	916	802	20.64	860	20.50	0.14
	Koteshwar HPS	100	86	91	87	2.06	86	2.05	0.02
	<b>Sub Total (E)</b>	<b>1100</b>	<b>951</b>	<b>1007</b>	<b>889</b>	<b>22.71</b>	<b>946</b>	<b>22.55</b>	<b>0.16</b>
F. BBMB	Bhakra HPS	1480	995	1075	967	24.43	1018	23.89	0.54
	Dehar HPS	990	608	660	660	15.32	638	14.58	0.74
	Pong HPS	396	224	366	180	5.60	233	5.37	0.23
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1826</b>	<b>2101</b>	<b>1807</b>	<b>45.35</b>	<b>1890</b>	<b>43.83</b>	<b>1.52</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	142	143	3.13	130	3.07	0.06
	KWHEP HPS(IPP)	500	0	604	604	12.41	517	14.40	-1.98
	Malana Stg-II HPS	50	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	0	0	0.00	0	0.00	0.00
	<b>Sub Total (G)</b>	<b>892</b>	<b>0</b>	<b>746</b>	<b>747</b>	<b>15.54</b>	<b>647</b>	<b>17.47</b>	<b>-1.93</b>
<b>H. Total Regional Entities (A-G)</b>		<b>20075</b>	<b>14973</b>	<b>17430</b>	<b>16170</b>	<b>363.79</b>	<b>15158</b>	<b>364.92</b>	<b>-1.13</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	1260.00	1110.00	27.33	1139
	Guru Nanak Dev TPS(Bhatinda)	440	295.00	295.00	6.13	255
	Guru Hargobind Singh TPS(L.mbt)	920	921.00	795.00	20.02	834
	Thermal (Total)	2620	2476.00	2200.00	53.48	2228
	Total Hydro	1148	775.00	626.00	15.76	657
	<b>Total Punjab</b>	<b>3768</b>	<b>3251</b>	<b>2826</b>	<b>69.24</b>	<b>2885</b>
Haryana	Panipat TPS	1360	1168.00	1182.00	28.30	1179
	DCRTPP (Yamuna nagar)	600	543.00	500.00	11.33	472
	Faridabad GPS (NTPC)	432	391.00	399.00	9.16	382
	RGTPP (khedar) (IPP)	1200	391.00	404.00	9.95	415
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2493.00	2485.00	58.74	2448
	Total Hydro	62	31.00	26.00	0.76	32
	<b>Total Haryana</b>	<b>3679</b>	<b>2524</b>	<b>2511</b>	<b>59.50</b>	<b>2479</b>
Rajasthan	kota TPS	1240	1158.00	920.00	24.82	1034
	suratgarh TPS	1500	1313.00	1119.00	29.95	1248
	Chabra TPS	500	0.00	0.00	0.00	0
	Dholpur GPS	330	270.00	275.00	6.67	278
	Ramgarh GPS	113	62.00	62.00	1.59	66
	RAPS A (NPC)	300	172.00	174.00	4.27	178
	Barsingsar (NLC)	250	0.00	0.00	0.00	0
	Giral LTPS (IPP)	250	54.00	50.00	1.22	51
	Rajwst LTPS (IPP)	135	0.00	0.00	0.00	0
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0
	Thermal (Total)	4753	3029.00	2600.00	68.51	2855
	Total Hydro	550	120.00	84.00	2.63	110
	Wind power	1294	494.00	75.00	4.35	181
	Biomass	71	14.00	14.00	0.34	14
	Renewable/Others (Total)	1365	508	89	4.69	195
	<b>Total Rajasthan</b>	<b>6668</b>	<b>3657</b>	<b>2773</b>	<b>75.83</b>	<b>3159</b>
	UP	Anpara TPS	1630	284	626	9.70
Obra TPS		1442	347	350	8.40	350
Paricha TPS		640	357	352	8.40	350
Panki TPS		210	72	72	1.70	71
Harduaganj TPS		375	0	0	0.00	0
Tanda TPS (NTPC)		440	298	282	7.12	297
Roza TPS (IPP)		600	365	468	11.02	459
Anpara-C (IPP)		600	0	0	0.00	0
Thermal (Total)		5937	1723	2150	46.34	1931
Vishnuparyag HPS (IPP)		400	436	436	10.34	431
Other Hydro		527	204	33	3.27	136
Cogeneration		951	50	50	1.20	50
<b>Total UP</b>		<b>7815</b>	<b>2413</b>	<b>2669</b>	<b>61.15</b>	<b>2117</b>
Uttarakhand		Total Hydro	1303	777	320	14.12
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>777</b>	<b>320</b>	<b>14.12</b>	<b>589</b>
Delhi	Rajghat TPS	135	106	107	2.25	94
	Delhi Gas Turbine	282	147	150	2.48	103
	Pragati Gas Turbine	330	291	295	7.07	295
	Rithala GPS	108	23	29	0.74	31
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	600	560	12.55	523
	Thermal (Total)	2000	1167	1141	25.09	1046
	<b>Total Delhi</b>	<b>2000</b>	<b>1167</b>	<b>1141</b>	<b>25.09</b>	<b>1046</b>
HP	Baspa HPS (IPP)	330	340	340	7.92	330
	Malana HPS (IPP)	101	94	94	2.22	93
	Other Hydro	571	576	558	13.09	545
	<b>Total HP</b>	<b>1002</b>	<b>1010</b>	<b>992</b>	<b>23</b>	<b>968</b>
J & K	Baglihar HPS (IPP)	450	440	439	10.57	440
	Other Hydro	323	163	175	3.63	151
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>603</b>	<b>614</b>	<b>14.19</b>	<b>591</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>15402</b>	<b>13846</b>	<b>342.36</b>	<b>13834</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>3147</b>	<b>3609</b>	<b>92.49</b>	<b>3854</b>
<b>Total Regional Availability(Gross)</b>		<b>47266</b>	<b>35979</b>	<b>33625</b>	<b>798.64</b>	<b>32846</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9433	9416	7771	184.29	7679
State Control Area Hydro	5365	3520	2695	73.97	3082
<b>Total Regional Hydro</b>	<b>14797</b>	<b>12936</b>	<b>10466</b>	<b>258.26</b>	<b>10761</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	300	300	500	0	7.51	0.00	7.51
Gwalior-Agra (D/C)	898	991	1267	0	25.80	0.00	25.80
Zerda-Kankroli	68	-4	280	50	1.86	0.00	1.86
Zerda-Bhinmal	58	122	403	0	3.41	0.00	3.41
Malanpur-Auraiya	-25	5	37	35	0.23	0.00	0.23
Badod-Kota/Morak	43	111	149	0	1.31	0.00	1.31
<b>Sub Total WR</b>	<b>1342</b>	<b>1525</b>			<b>40.11</b>	<b>0.00</b>	<b>40.11</b>
Pusauli Bypass	271	197	501	0	7.01	0.00	7.01
MZP- GKP (D/C)	966	1080	1300	0	26.06	0.00	26.06
Patna-Balia(D/C)	242	429	455	0	8.11	0.00	8.11
B'Sharif-Balia (D/C)	342	277	595	0	8.89	0.00	8.89
Barh-Balia (D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	16	121	187	0	2.80	0.00	2.80
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-20	0	35	0.00	0.49	-0.49
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1805</b>	<b>2084</b>			<b>52.86</b>	<b>0.49</b>	<b>52.38</b>
<b>Total IR Exch</b>	<b>3147</b>	<b>3609</b>			<b>92.98</b>	<b>0.49</b>	<b>92.49</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
17.94	3.79	21.73	26.83	30.23	-0.90	2.80	0.00	0.00

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
47.66	32.68	80.33	52.38	40.11	92.49	4.72	7.44	12.16

**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
0.00	0.60	0.14	5.80	14.30	93.40	84.90	14.60

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz				
50.30	13.04	48.89	20.46	49.84	0.60	0.19	50.26	49.40

**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	419	08:00	406	00:00	0.0	0.0	0.0	0.0
Gorakhpur	400	439	06:02	24	16:44	0.1	0.1	82.4	30.3
Bareilly	400	422	08:00	396	14:31	0.0	0.0	0.1	0.0
Kanpur	400	424	09:00	402	11:36	0.0	0.0	2.3	0.0
Dadri	400	415	08:01	393	14:33	0.0	0.0	0.0	0.0
Ballabgarh	400	421	08:00	396	14:35	0.0	0.0	0.1	0.0
Bawana	400	416	07:59	393	14:34	0.0	0.0	0.0	0.0
Bassi	400	428	04:04	402	12:29	0.0	0.0	31.9	0.0
Hissar	400	412	08:01	392	14:25	0.0	0.0	0.0	0.0
Moga	400	421	03:04	403	14:35	0.0	0.0	0.1	0.0
Abdullapur	400	414	08:01	285	18:52	0.1	0.1	0.0	0.0
Nalagarh	400	414	03:52	397	14:31	0.0	0.0	0.0	0.0
Kishenpur	400	415	02:54	395	19:31	0.0	0.0	0.0	0.0
Wagoora	400	414	01:43	385	20:38	0.0	10.0	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	501.26	1153.36	500.98	1140.31	1540.00	760.87
Pong	426.72	384.05	416.90	755.83	407.38	416.46	2719.83	339.09
Tehri	829.79	740.04	792.50	483.10	NA	NA	750.21	525.00
Koteshwar	612.50	598.50	606.90	3.10	NA	NA	526.00	132.00
Chamera-I	760.00	748.75	753.74	12.30	752.00	NA	265.13	310.05
Rihand	268.22	252.98	259.08	255.50	256.28	127.50	NA	NA
RPS	352.80	343.81	346.44	NA	NA	NA	246.70	0.00
Jawahar Sagar	298.70	295.78	297.27	NA	NA	NA	88.80	230.56
RSD	527.91	487.91	508.31	NA	515.85	NA	275.21	255.73

**IX. System Constraints:**

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

**XI. Weather Conditions For 09.08.2011 :**

1 : Scattered Rain in some parts of Rajasthan and cloudy weather in other parts of NR.

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

**XIII. Synchronisation of new 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 : 09.08.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER