

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 11.08.2011  
Date of Reporting : 12.08.2011

### 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
33844	3231	37075	49.62	34067	850	34917	49.92	791.4	30.80

\* 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	54.11	15.91		70.03	106.41	108.14	1.73	178.17	1.80
Haryana	57.83	0.83		58.66	68.03	68.74	0.71	127.39	2.11
Rajasthan	70.64	0.63	2.01	73.28	23.24	35.73	12.49	109.01	2.77
Delhi	28.59			28.59	71.92	63.59	-8.33	92.19	0.00
UP	47.90	13.77	1.20	62.87	136.78	141.48	4.70	204.35	23.39
Uttarakhand		18.67		18.67	8.47	10.57	2.09	29.24	0.72
HP		23.23		23.23	-3.00	-2.29	0.71	20.94	0.02
J & K		14.15	0.00	14.15	14.84	10.46	-4.38	24.61	0.00
Chandigarh				0.00	6.31	5.53	-0.78	5.53	0.00
<b>Total</b>	<b>259.07</b>	<b>87.19</b>	<b>3.21</b>	<b>349.48</b>	<b>433.01</b>	<b>441.96</b>	<b>8.94</b>	<b>791.43</b>	<b>30.80</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	7530	450	-120	1842	7609	0	-60	2300	51.47
Haryana	5500	308	-15	1148	5442	0	84	1077	27.13
Rajasthan	4365	548	36	-774	4778	0	836	-670	-16.83
Delhi	4117	0	-389	511	3455	0	-395	253	9.79
UP	8475	1855	451	2117	9708	850	657	2530	48.11
Uttarakhand	1228	70	74	-167	1226	0	45	-144	-3.89
HP	921	0	54	-1815	822	0	-29	-1789	-42.37
J&K	1451	0	68	-380	839	0	-288	-380	-9.36
Chandigarh	257	0	-23	39	188	0	-43	30	1.23
<b>Total</b>	<b>33844</b>	<b>3231</b>	<b>136</b>	<b>2520</b>	<b>34067</b>	<b>850</b>	<b>807</b>	<b>3206</b>	<b>65.29</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	897	1084	978	22.30	929	21.52	0.78
	Rihand I STPS	1000	890	945	925	21.24	885	21.06	0.18
	Rihand II STPS	1000	928	1031	998	22.38	933	21.99	0.39
	Dadri I STPS	840	596	602	615	13.56	565	13.42	0.14
	Dadri II STPS	980	960	829	830	21.43	893	21.47	-0.04
	Unchahar I TPS	440	322	405	350	7.70	321	7.65	0.04
	Unchahar II TPS	440	242	155	320	6.50	271	5.67	0.82
	Unchahar III TPS	210	143	140	180	3.54	148	3.36	0.19
	ISTPP (Jhajjar)	500	400	389	355	7.81	325	9.09	-1.28
	Dadri GPS	830	759	766	753	16.14	672	16.31	-0.17
	Anta GPS	419	253	259	247	5.54	231	5.42	0.12
	Auraiya GPS	663	613	612	623	12.89	537	12.82	0.07
	<b>Sub Total (A)</b>	<b>9322</b>	<b>7004</b>	<b>7217</b>	<b>7174</b>	<b>161.02</b>	<b>6709</b>	<b>159.78</b>	<b>1.24</b>
	B. NPC	NAPS	440	185	223	227	4.47	186	4.44
RAPS- B		440	382	422	426	9.14	381	9.17	-0.02
RAPS- C		440	420	468	477	9.77	407	10.08	-0.31
<b>Sub Total (B)</b>		<b>1320</b>	<b>987</b>	<b>1113</b>	<b>1130</b>	<b>23.38</b>	<b>974</b>	<b>23.69</b>	<b>-0.31</b>
C. NHPC	Chamera I HPS	540	534	540	540	12.90	538	12.82	0.09
	Chamera II HPS	300	297	301	301	7.21	300	7.24	-0.03
	Bairasuil HPS	180	179	179	130	3.78	158	3.83	-0.05
	Salal-HPS	690	634	632	634	15.17	632	15.22	-0.05
	Tanakpur-HPS	94	94	94	95	2.28	95	2.24	0.04
	Uri-HPS	480	218	282	223	5.52	230	4.98	0.53
	Dhauliganga-HPS	280	277	275	279	6.65	277	6.42	0.23
	Dulhasti-HPS	390	387	408	407	9.25	385	9.24	0.01
	Sewa-II HPS	120	119	126	110	2.78	116	2.85	-0.07
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2738</b>	<b>2837</b>	<b>2719</b>	<b>65.54</b>	<b>2731</b>	<b>64.84</b>	<b>0.71</b>
D.NJPC	Natpha Jhakri	1500	1600	1618	1622	38.63	1610	38.38	0.24
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1618</b>	<b>1622</b>	<b>38.63</b>	<b>1610</b>	<b>38.38</b>	<b>0.24</b>
E. THDC	Tehri HPS	1000	871	932	913	20.77	865	20.70	0.07
	Koteshwar HPS	100	90	91	90	2.16	90	2.15	0.01
	<b>Sub Total (E)</b>	<b>1100</b>	<b>961</b>	<b>1023</b>	<b>1003</b>	<b>22.93</b>	<b>955</b>	<b>22.85</b>	<b>0.08</b>
F. BBMB	Bhakra HPS	1480	945	1075	859	23.20	967	22.68	0.52
	Dehar HPS	990	608	660	660	15.46	644	14.59	0.87
	Pong HPS	396	224	366	180	5.68	237	5.38	0.30
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1777</b>	<b>2101</b>	<b>1699</b>	<b>44.34</b>	<b>1848</b>	<b>42.65</b>	<b>1.69</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	142	101	2.80	117	2.71	0.10
	KWHEP HPS(IPP)	500	0	604	604	11.31	471	14.40	-3.09
	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>705</b>	<b>14.11</b>	<b>588</b>	<b>17.10</b>	<b>-2.99</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>20075</b>	<b>15066</b>	<b>16655</b>	<b>16052</b>	<b>369.95</b>	<b>15414</b>	<b>369.29</b>	<b>0.65</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	1260.00	28.04	1169	
	Guru Nanak Dev TPS(Bhatinda)	440	287.00	274.00	5.83	243	
	Guru Hargobind Singh TPS(L.mbt)	920	946.00	943.00	20.23	843	
	Thermal (Total)	2620	2493.00	2477.00	54.11	2255	
	Total Hydro	1148	957.00	648.00	15.91	663	
	<b>Total Punjab</b>	<b>3768</b>	<b>3450</b>	<b>3125</b>	<b>70.03</b>	<b>2918</b>	
Haryana	Panipat TPS	1360	1158.00	1175.00	28.13	1172	
	DCRTPP (Yamuna nagar)	600	499.00	518.00	10.66	444	
	Faridabad GPS (NTPC)	432	396.00	391.00	9.15	381	
	RGTPP (khedar) (IPP)	1200	383.00	419.00	9.89	412	
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0	
	Thermal (Total)	3617	2436.00	2503.00	57.83	2409	
	Total Hydro	62	33.00	32.00	0.83	35	
	<b>Total Haryana</b>	<b>3679</b>	<b>2469</b>	<b>2535</b>	<b>58.66</b>	<b>2444</b>	
	Rajasthan	kota TPS	1240	1119.00	955.00	24.72	1030
suratgarh TPS		1500	1370.00	1382.00	31.83	1326	
Chabra TPS		500	0.00	0.00	0.00	0	
Dholpur GPS		330	272.00	275.00	6.68	278	
Ramgarh GPS		113	62.00	62.00	1.60	67	
RAPS A (NPC)		300	223.00	227.00	4.47	186	
Barsingsar (NLC)		250	40.00	0.00	0.26	11	
Giral LTPS (IPP)		250	58.00	57.00	1.09	45	
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	3144.00	2958.00	70.64	2943	
Total Hydro		550	9.00	9.00	0.63	26	
Wind power		1294	16.00	75.00	1.58	66	
Biomass		71	18.00	18.00	0.43	18	
Renewable/Others (Total)		1365	34	93	2.01	84	
<b>Total Rajasthan</b>		<b>6668</b>	<b>3187</b>	<b>3060</b>	<b>73.28</b>	<b>3053</b>	
UP		Anpara TPS	1630	459	425	10.10	421
		Obra TPS	1442	378	407	8.70	363
	Paricha TPS	640	372	389	8.20	342	
	Panki TPS	210	75	80	1.70	71	
	Harduaganj TPS	375	0	0	0.00	0	
	Tanda TPS (NTPC)	440	297	287	7.16	298	
	Roza TPS (IPP)	600	401	405	9.63	401	
	Anpara-C (IPP)	600	137	0	2.42	101	
	Thermal (Total)	5937	2119	1993	47.90	1996	
	Vishnuparyag HPS (IPP)	400	436	436	9.33	389	
	Other Hydro	527	180	0	4.44	185	
	Cogeneration	951	50	50	1.20	50	
	<b>Total UP</b>	<b>7815</b>	<b>2785</b>	<b>2479</b>	<b>62.87</b>	<b>2231</b>	
	Uttarakhand	Total Hydro	1303	799	802	18.67	778
<b>Total Uttarakhand</b>		<b>1303</b>	<b>799</b>	<b>802</b>	<b>18.67</b>	<b>778</b>	
Delhi	Rajghat TPS	135	103	103	2.64	110	
	Delhi Gas Turbine	282	149	151	3.58	149	
	Pragati Gas Turbine	330	297	299	7.38	308	
	Rithala GPS	108	26	29	1.02	43	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	660	570	13.98	582	
	Thermal (Total)	2000	1235	1152	28.59	1191	
	<b>Total Delhi</b>	<b>2000</b>	<b>1235</b>	<b>1152</b>	<b>28.59</b>	<b>1191</b>	
HP	Baspa HPS (IPP)	330	330	330	7.92	330	
	Malana HPS (IPP)	101	95	90	2.22	93	
	Other Hydro	571	569	529	13.09	545	
	<b>Total HP</b>	<b>1002</b>	<b>994</b>	<b>949</b>	<b>23</b>	<b>968</b>	
J & K	Baglihar HPS (IPP)	450	442	440	10.57	441	
	Other Hydro	323	140	169	3.58	149	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>582</b>	<b>609</b>	<b>14.15</b>	<b>590</b>	
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>15501</b>	<b>14711</b>	<b>349.48</b>	<b>14173</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2846</b>	<b>4413</b>	<b>93.83</b>	<b>3910</b>	
<b>Total Regional Availability(Gross)</b>		<b>47266</b>	<b>35002</b>	<b>35176</b>	<b>813.25</b>	<b>33497</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	9433	8325	7748	185.55	7731
State Control Area Hydro	5365	3554	3049	77.86	3244
<b>Total Regional Hydro</b>	<b>14797</b>	<b>11879</b>	<b>10797</b>	<b>263.41</b>	<b>10976</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	500	500	500	0	9.87	0.00	9.87
Gwalior-Agra (D/C)	681	1086	1250	0	24.72	0.00	24.72
Zerda-Kankroli	86	443	444	0	8.59	0.00	8.59
Zerda-Bhinmal	163	485	521	0	7.41	0.00	7.41
Malanpur-Auraiya	-51	12	16	83	0.02	0.00	0.02
Badod-Kota/Morak	100	0	100	0	1.19	0.00	1.19
<b>Sub Total WR</b>	<b>1479</b>	<b>2526</b>			<b>51.79</b>	<b>0.00</b>	<b>51.79</b>
Pusauli Bypass	116	109	260	0	3.79	0.00	3.79
MZP- GKP (D/C)	606	1020	1150	0	21.86	0.00	21.86
Patna-Balia(D/C)	210	377	423	0	7.06	0.00	7.06
B'Sharif-Balia (D/C)	336	274	432	0	6.91	0.00	6.91
Barh-Balia (D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	131	127	152	0	2.90	0.00	2.90
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>1367</b>	<b>1887</b>			<b>42.53</b>	<b>0.49</b>	<b>42.04</b>
<b>Total IR Exch</b>	<b>2846</b>	<b>4413</b>			<b>94.32</b>	<b>0.49</b>	<b>93.83</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
13.69	3.77	17.46	25.45	29.67	0.97	6.16	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
43.88	35.47	79.35	42.04	51.79	93.83	-1.84	16.32	14.48

**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	0.00	0.40	6.30	27.30	93.30	72.30	8.04

<----- 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				
50.26	7.03	49.09	20.39	49.78	0.76	0.17	50.21	49.41

**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	418	08:00	409	11:48	0.0	0.0	0.0	0.0
Gorakhpur	400	438	06:04	344	17:14	0.2	0.2	80.8	16.0
Bareilly	400	422	08:00	399	11:52	0.0	0.0	0.8	0.0
Kanpur	400	423	09:00	404	11:48	0.0	0.0	2.3	0.0
Dadri	400	415	07:35	397	14:55	0.0	0.0	0.0	0.0
Ballabgarh	400	421	07:35	400	14:56	0.0	0.0	0.1	0.0
Bawana	400	417	07:34	398	14:54	0.0	0.0	0.0	0.0
Bassi	400	427	08:02	405	13:41	0.0	0.0	25.7	0.0
Hissar	400	411	07:39	392	14:55	0.0	0.0	0.0	0.0
Moga	400	419	07:58	403	14:56	0.0	0.0	0.0	0.0
Abdullapur	400	414	07:34	398	14:56	0.0	0.0	0.0	0.0
Nalagarh	400	413	07:35	398	14:34	0.0	0.0	0.0	0.0
Kishenpur	400	419	06:06	397	20:33	0.0	0.0	0.0	0.0
Wagoora	400	416	06:06	382	20:34	0.0	11.8	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	502.39	1192.70	502.94	1219.07	1350.71	713.05
Pong	426.72	384.05	417.78	794.52	409.05	464.36	818.16	332.41
Tehri	829.79	740.04	795.95	544.69	NA	NA	663.68	520.00
Koteshwar	612.50	598.50	606.55	3.10	NA	NA	527.00	143.00
Chamera-I	760.00	748.75	755.88	11.17	752.00	NA	438.28	349.72
Rihand	268.22	252.98	260.42	256.21	256.28	127.50	NA	NA
RPS	352.80	343.81	347.47	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	509.26	NA	517.49	NA	370.75	229.14

**IX. System Constraints:**

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

**XI. Weather Conditions For 11.08.2011 :**

1 : Scatterd rain in NR

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

1. Malana Stage II unit II of 50 synchronised at 04.33 hrs of 12.08.2011.

**XIII. Synchronisation of new 400 / 765 KV lines and energising of bus //substation :**

1. 500 MVA ICT 1st time test Charged at Patiala at 20.23 hrs of 12.08.2011.

**XIV. Tripping of lines in pooling stations :**

**XV. Complete generation loss in a generating station :**

Report for : 11.08.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER