

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 13.08.2011  
Date of Reporting : 14.08.2011

### 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
30177	1679	31856	49.92	31323	650	31973	50.07	700.5	24.30

\* 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	41.12	11.80		52.92	92.84	74.50	-18.34	127.42	1.00
Haryana	65.19	0.91		66.09	57.06	52.74	-4.32	118.84	0.00
Rajasthan	74.00	0.24	1.80	76.04	23.11	28.78	5.67	104.82	0.15
Delhi	26.00			26.00	59.44	50.95	-8.49	76.95	0.12
UP	37.27	14.17	1.20	52.64	137.51	144.95	7.44	197.59	21.71
Uttarakhand		17.43		17.43	7.67	8.68	1.01	26.11	1.33
HP		19.56		19.56	-2.76	1.16	3.91	20.72	0.00
J & K		14.15	0.00	14.15	14.37	9.65	-4.73	23.80	0.00
Chandigarh				0.00	5.68	4.30	-1.38	4.30	0.00
<b>Total</b>	<b>243.56</b>	<b>78.27</b>	<b>3.00</b>	<b>324.83</b>	<b>394.93</b>	<b>375.70</b>	<b>-19.23</b>	<b>700.53</b>	<b>24.30</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	5596	450	-613	1843	5503	0	-1414	2458	54.50
Haryana	5164	0	-565	1139	5144	0	-137	1069	24.39
Rajasthan	4234	139	69	-763	4730	0	409	-681	-16.74
Delhi	3387	0	-393	388	3077	0	-537	117	7.13
UP	8332	950	632	2132	9967	650	1465	2527	47.89
Uttarakhand	1128	140	15	-167	1233	0	31	-144	-3.93
HP	794	0	127	-1793	848	0	90	-1773	-41.80
J&K	1338	0	-25	-387	647	0	-543	-387	-9.50
Chandigarh	204	0	-42	38	174	0	-76	32	1.17
<b>Total</b>	<b>30177</b>	<b>1679</b>	<b>-795</b>	<b>2429</b>	<b>31323</b>	<b>650</b>	<b>-712</b>	<b>3217</b>	<b>63.09</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	1100	1318	1073	24.48	1020	24.30	0.18
	Rihand I STPS	1000	920	1007	982	21.31	888	19.48	1.83
	Rihand II STPS	1000	933	966	972	19.57	816	19.99	-0.42
	Dadri I STPS	840	596	438	486	10.96	457	11.89	-0.92
	Dadri II STPS	980	960	435	768	15.65	652	17.58	-1.93
	Unchahar I TPS	440	353	420	368	7.56	315	7.54	0.02
	Unchahar II TPS	440	197	236	164	3.61	150	3.88	-0.28
	Unchahar III TPS	210	175	197	170	3.60	150	3.43	0.17
	ISTPP (Jhajjar)	500	400	188	328	6.02	251	7.29	-1.28
	Dadri GPS	830	778	476	632	11.36	473	11.38	-0.03
	Anta GPS	419	311	237	176	4.38	183	4.68	-0.29
	Auraiya GPS	663	615	388	495	9.69	404	9.45	0.24
	<b>Sub Total (A)</b>	<b>9322</b>	<b>7339</b>	<b>6306</b>	<b>6614</b>	<b>138.19</b>	<b>5758</b>	<b>140.88</b>	<b>-2.69</b>
B. NPC	NAPS	440	186	224	223	4.50	187	4.46	0.03
	RAPS- B	440	381	424	429	9.20	383	9.14	0.05
	RAPS- C	440	420	460	474	10.13	422	10.08	0.05
	<b>Sub Total (B)</b>	<b>1320</b>	<b>987</b>	<b>1108</b>	<b>1126</b>	<b>23.82</b>	<b>993</b>	<b>23.69</b>	<b>0.14</b>
C. NHPC	Chamera I HPS	540	542	540	540	12.58	524	12.53	0.05
	Chamera II HPS	300	108	0	302	1.94	81	2.60	-0.66
	Bairasuil HPS	180	90	139	0	1.79	75	1.81	-0.02
	Salal-HPS	690	563	540	634	13.71	571	13.72	-0.01
	Tanakpur-HPS	94	87	94	94	2.13	89	2.10	0.03
	Uri-HPS	480	221	359	207	5.43	226	5.79	-0.36
	Dhauliganga-HPS	280	277	280	277	6.77	282	6.67	0.10
	Dulhasti-HPS	390	257	419	356	5.68	237	6.11	-0.43
	Sewa-II HPS	120	119	127	114	2.78	116	2.85	-0.07
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2263</b>	<b>2498</b>	<b>2524</b>	<b>52.79</b>	<b>2200</b>	<b>54.17</b>	<b>-1.38</b>
D.NJPC	Nathpa Jhakri	1500	1600	1605	1600	38.28	1595	38.40	-0.12
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1605</b>	<b>1600</b>	<b>38.28</b>	<b>1595</b>	<b>38.40</b>	<b>-0.12</b>
E. THDC	Tehri HPS	1000	892	954	941	20.71	863	20.70	0.01
	Koteshwar HPS	100	94	93	93	2.18	91	2.21	-0.03
	<b>Sub Total (E)</b>	<b>1100</b>	<b>986</b>	<b>1047</b>	<b>1034</b>	<b>22.89</b>	<b>954</b>	<b>22.91</b>	<b>-0.02</b>
F. BBMB	Bhakra HPS	1480	733	809	859	17.47	728	17.59	-0.12
	Dehar HPS	990	502	330	660	13.27	553	12.06	1.22
	Pong HPS	396	289	366	180	7.38	308	6.95	0.43
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1525</b>	<b>1505</b>	<b>1699</b>	<b>38.12</b>	<b>1588</b>	<b>36.60</b>	<b>1.52</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	220	229	4.51	188	2.50	2.01
	KWHEP HPS(IPP)	500	0	604	604	11.28	470	14.40	-3.11
	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>824</b>	<b>833</b>	<b>15.79</b>	<b>658</b>	<b>16.89</b>	<b>-1.10</b>
<b>H. Total Regional Entities (A-G)</b>		<b>20075</b>	<b>14699</b>	<b>14893</b>	<b>15430</b>	<b>329.88</b>	<b>13745</b>	<b>333.54</b>	<b>-3.66</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	1050.00	1080.00	21.64	902
	Guru Nanak Dev TPS(Bhatinda)	440	200.00	295.00	4.90	204
	Guru Hargobind Singh TPS(L.mbt)	920	712.00	785.00	14.58	608
	Thermal (Total)	2620	1962.00	2160.00	41.12	1713
	Total Hydro	1148	545.00	573.00	11.80	492
<b>Total Punjab</b>	<b>3768</b>	<b>2507</b>	<b>2733</b>	<b>52.92</b>	<b>2205</b>	
Haryana	Panipat TPS	1360	1146.00	1162.00	27.34	1139
	DCRTPP (Yamuna nagar)	600	538.00	524.00	11.63	484
	Faridabad GPS (NTPC)	432	324.00	320.00	7.73	322
	RGTPP (khedar) (IPP)	1200	910.00	479.00	18.49	771
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2918.00	2485.00	65.19	2716
	Total Hydro	62	36.00	34.00	0.91	38
	<b>Total Haryana</b>	<b>3679</b>	<b>2954</b>	<b>2519</b>	<b>66.09</b>	<b>2754</b>
Rajasthan	kota TPS	1240	1010.00	1055.00	23.50	979
	suratgarh TPS	1500	1293.00	1368.00	29.57	1232
	Chabra TPS	500	216.00	218.00	4.96	207
	Dholpur GPS	330	288.00	280.00	6.54	272
	Ramgarh GPS	113	62.00	62.00	1.60	67
	RAPS A (NPC)	300	173.00	173.00	4.36	182
	Barsingsar (NLC)	250	89.00	93.00	2.00	83
	Giral LTPS (IPP)	250	37.00	86.00	1.48	62
	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	3168.00	3335.00	74.00	3083
	Total Hydro	550	9.00	9.00	0.24	10
	Wind power	1294	116.00	11.00	1.44	60
	Biomass	71	16.00	16.00	0.36	15
	Renewable/Others (Total)	1365	132	27	1.80	75
	<b>Total Rajasthan</b>	<b>6668</b>	<b>3309</b>	<b>3371</b>	<b>76.04</b>	<b>3168</b>
	UP	Anpara TPS	1630	455	428	9.50
Obra TPS		1442	324	350	7.00	292
Paricha TPS		640	398	389	8.30	346
Panki TPS		210	85	0	0.40	17
Harduaganj TPS		375	26	36	0.50	21
Tanda TPS (NTPC)		440	298	292	7.20	300
Roza TPS (IPP)		600	203	162	4.37	182
Anpara-C (IPP)		600	0	0	0.00	0
Thermal (Total)		5937	1789	1657	37.27	1553
Vishnuparyag HPS (IPP)		400	436	436	10.47	436
Other Hydro		527	123	0	3.71	155
Cogeneration		951	50	50	1.20	50
<b>Total UP</b>		<b>7815</b>	<b>2398</b>	<b>2143</b>	<b>52.64</b>	<b>1757</b>
Uttarakhand		Total Hydro	1303	806	844	17.43
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>806</b>	<b>844</b>	<b>17.43</b>	<b>726</b>
Delhi	Rajghat TPS	135	107	107	2.74	114
	Delhi Gas Turbine	282	111	153	2.93	122
	Pragati Gas Turbine	330	271	303	7.12	297
	Rithala GPS	108	42	29	0.86	36
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	585	570	12.35	515
	Thermal (Total)	2000	1116	1162	26.00	1083
	<b>Total Delhi</b>	<b>2000</b>	<b>1116</b>	<b>1162</b>	<b>26.00</b>	<b>1083</b>
HP	Baspa HPS (IPP)	330	330	330	7.92	330
	Malana HPS (IPP)	101	72	105	2.32	97
	Other Hydro	571	401	458	9.32	388
	<b>Total HP</b>	<b>1002</b>	<b>803</b>	<b>893</b>	<b>20</b>	<b>815</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>14475</b>	<b>14274</b>	<b>324.83</b>	<b>13099</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2213</b>	<b>2399</b>	<b>51.79</b>	<b>2158</b>
<b>Total Regional Availability(Gross)</b>		<b>47266</b>	<b>31581</b>	<b>32103</b>	<b>706.50</b>	<b>29001</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9433	7479	7690	167.87	6994
State Control Area Hydro	5365	2904	2962	67.80	2825
<b>Total Regional Hydro</b>	<b>14797</b>	<b>10383</b>	<b>10652</b>	<b>235.67</b>	<b>9819</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	0	100	400	0	1.40	0.00	1.40
Gwalior-Agra (D/C)	799	777	1082	0	19.89	0.00	19.89
Zerda-Kankroli	41	147	265	156	1.63	0.00	1.63
Zerda-Bhinmal	137	212	298	0	3.65	0.00	3.65
Malanpur-Auraiya	-26	-15	20	55	0.24	0.00	0.24
Badod-Kota/Morak	36	-50	45	50	0.00	0.15	-0.15
<b>Sub Total WR</b>	<b>987</b>	<b>1171</b>			<b>26.82</b>	<b>0.15</b>	<b>26.67</b>
Pusauli Bypass	98	26	323	218	2.14	6.33	-4.19
MZP- GKP (D/C)	602	634	826	0	15.61	0.00	15.61
Patna-Balia(D/C)	186	266	455	0	6.30	0.00	6.30
B'Sharif-Balia (D/C)	266	199	343	0	4.92	0.00	4.92
Barh-Balia (D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	106	123	169	0	2.97	0.00	2.97
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>1226</b>	<b>1228</b>			<b>31.94</b>	<b>6.82</b>	<b>25.12</b>
<b>Total IR Exch</b>	<b>2213</b>	<b>2399</b>			<b>58.76</b>	<b>6.97</b>	<b>51.79</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
11.55	3.77	15.32	26.06	29.51	-0.78	6.57	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
40.61	35.64	76.25	25.12	26.67	51.79	-15.48	-8.98	-24.46

**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	1.50	89.40	87.90	63.90	10.60

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	Hz				
50.43	17.04	49.53	19.15	50.04	0.20	0.14	50.35	49.85

**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	422	08:46	409	00:00	0.0	0.0	6.8	0.0
Gorakhpur	400	442	18:07	12	23:46	0.0	0.0	91.9	14.0
Bareilly	400	429	08:00	404	12:35	0.0	0.0	19.8	0.0
Kanpur	400	426	09:00	407	12:31	0.0	0.0	19.4	0.0
Dadri	400	417	08:14	403	12:35	0.0	0.0	0.0	0.0
Ballabgarh	400	423	04:03	406	12:38	0.0	0.0	12.6	0.0
Bawana	400	419	08:15	404	12:33	0.0	0.0	0.0	0.0
Bassi	400	430	04:02	406	12:38	0.0	0.0	49.6	0.0
Hissar	400	413	04:01	399	12:33	0.0	0.0	0.0	0.0
Moga	400	425	04:02	0	10:02	12.2	12.2	14.8	0.0
Abdullapur	400	416	06:08	402	12:38	0.0	0.0	0.0	0.0
Nalagarh	400	417	08:14	408	12:38	0.0	0.0	0.0	0.0
Kishenpur	400	412	08:04	391	19:53	0.0	0.0	0.0	0.0
Wagoora	400	408	06:04	403	05:50	0.0	0.0	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	504.22	1272.20	504.26	1272.20	2889.00	520.60
Pong	426.72	384.05	420.26	902.94	411.88	556.85	5779.18	428.07
Tehri	829.79	740.04	798.50	576.30	NA	NA	843.71	512.00
Koteshwar	612.50	598.50	607.95	3.54	NA	NA	520.00	147.00
Chamera-I	760.00	748.75	755.86	10.50	756.00	NA	1265.78	340.94
Rihand	268.22	252.98	261.18	371.10	256.21	125.00	NA	NA
RPS	352.80	343.81	347.78	NA	347.76	NA	347.76	0.00
Jawahar Sagar	298.70	295.78	297.27	NA	297.30	NA	0.00	44.29
RSD	527.91	487.91	513.10	NA	518.73	NA	1141.38	143.42

**IX. System Constraints:**

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

**XI. Weather Conditions For 13.08.2011 :**

1 : Rain in Punjab,Haryana , Raj , UP ,HP,J&K , Ultranchal & NCR.

**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 : 13.08.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER