

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 12.08.2011

Date of Reporting : 13.08.2011

### 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
32255	2735	34990	49.94	33454	995	34449	49.94	767.6	31.27

\* 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	14.54		68.01	104.09	98.07	-6.03	166.08	1.80
Haryana	59.36	0.90		60.27	66.38	63.85	-2.53	124.11	0.00
Rajasthan	71.84	0.25	1.53	73.61	22.92	36.86	13.94	110.48	1.26
Delhi	27.90			27.90	67.74	58.91	-8.83	86.81	0.00
UP	44.95	14.06	1.20	60.21	136.55	140.63	4.07	200.83	28.12
Uttarakhand		18.92		18.92	7.42	9.38	1.96	28.30	0.07
HP		22.76		22.76	-2.09	0.32	2.41	23.08	0.02
J & K		14.15	0.00	14.15	14.11	8.44	-5.67	22.59	0.00
Chandigarh				0.00	6.30	5.30	-1.00	5.30	0.00
<b>Total</b>	<b>257.52</b>	<b>85.58</b>	<b>2.73</b>	<b>345.83</b>	<b>423.43</b>	<b>421.76</b>	<b>-1.67</b>	<b>767.58</b>	<b>31.27</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	6371	450	-772	1842	7603	0	128	2272	50.89
Haryana	5694	0	156	1147	5315	0	14	1107	25.45
Rajasthan	4362	230	25	-775	4795	0	704	-678	-16.78
Delhi	3891	0	-472	463	3288	0	-538	160	8.76
UP	8270	1845	446	1906	9245	995	183	2530	47.82
Uttarakhand	1260	140	163	-167	1224	0	45	-144	-3.89
HP	930	70	75	-1810	828	0	-16	-1779	-42.20
J&K	1234	0	-146	-387	956	0	-160	-387	-9.50
Chandigarh	243	0	-37	36	200	0	-30	19	1.18
<b>Total</b>	<b>32255</b>	<b>2735</b>	<b>-562</b>	<b>2255</b>	<b>33454</b>	<b>995</b>	<b>330</b>	<b>3099</b>	<b>61.73</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	782	1073	1070	19.04	793	18.76	0.28
	Rihand I STPS	1000	903	987	1002	21.83	910	21.66	0.17
	Rihand II STPS	1000	945	1030	1025	22.86	952	22.68	0.18
	Dadri I STPS	840	596	599	668	14.13	589	13.98	0.15
	Dadri II STPS	980	843	765	1015	19.37	807	19.68	-0.31
	Unchahar I TPS	440	344	401	396	8.31	346	8.20	0.11
	Unchahar II TPS	440	151	179	168	3.62	151	3.56	0.05
	Unchahar III TPS	210	135	184	145	3.25	135	3.20	0.05
	ISTPP (Jhajjar)	500	400	327	310	7.42	309	8.19	-0.77
	Dadri GPS	830	769	715	769	16.27	678	16.52	-0.25
	Anta GPS	419	253	248	238	5.43	226	5.46	-0.03
	Auraiya GPS	663	615	545	630	13.07	545	13.08	-0.01
	<b>Sub Total (A)</b>	<b>9322</b>	<b>6735</b>	<b>7053</b>	<b>7436</b>	<b>154.59</b>	<b>6441</b>	<b>154.99</b>	<b>-0.40</b>
	B. NPC	NAPS	440	185	224	223	4.45	186	4.44
RAPS- B		440	382	425	427	9.18	382	9.17	0.01
RAPS- C		440	420	471	474	10.17	424	10.08	0.09
<b>Sub Total (B)</b>		<b>1320</b>	<b>987</b>	<b>1120</b>	<b>1124</b>	<b>23.80</b>	<b>992</b>	<b>23.69</b>	<b>0.11</b>
C. NHPC	Chamera I HPS	540	534	540	540	12.79	533	12.82	-0.03
	Chamera II HPS	300	297	301	300	7.17	299	7.20	-0.04
	Bairasuil HPS	180	179	179	179	3.11	130	3.12	-0.01
	Salal-HPS	690	621	637	628	15.13	631	15.00	0.13
	Tanakpur-HPS	94	90	94	95	2.26	94	2.24	0.01
	Uri-HPS	480	220	335	165	5.41	225	5.41	0.00
	Dhauliganga-HPS	280	277	275	279	6.65	277	6.67	-0.02
	Dulhasti-HPS	390	387	398	406	9.07	378	9.01	0.06
	Sewa-II HPS	120	119	121	121	2.80	117	2.86	-0.06
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2723</b>	<b>2880</b>	<b>2713</b>	<b>64.38</b>	<b>2683</b>	<b>64.33</b>	<b>0.05</b>
D.NJPC	Natpha Jhakri	1500	1600	1601	1620	38.41	1600	38.38	0.03
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1601</b>	<b>1620</b>	<b>38.41</b>	<b>1600</b>	<b>38.38</b>	<b>0.03</b>
E. THDC	Tehri HPS	1000	874	932	913	20.90	871	20.80	0.10
	Koteshwar HPS	100	93	94	92	2.21	92	2.20	0.01
	<b>Sub Total (E)</b>	<b>1100</b>	<b>967</b>	<b>1026</b>	<b>1005</b>	<b>23.11</b>	<b>963</b>	<b>23.00</b>	<b>0.11</b>
F. BBMB	Bhakra HPS	1480	941	1075	859	23.09	962	22.57	0.52
	Dehar HPS	990	608	660	640	15.38	641	14.59	0.79
	Pong HPS	396	227	366	186	5.70	238	5.46	0.24
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1776</b>	<b>2101</b>	<b>1685</b>	<b>44.17</b>	<b>1840</b>	<b>42.62</b>	<b>1.55</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	142	101	2.80	117	2.65	0.15
	KWHEP HPS(IPP)	500	0	604	604	11.32	472	14.40	-3.08
	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>14.12</b>	<b>588</b>	<b>17.05</b>	<b>-2.93</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>20075</b>	<b>14788</b>	<b>16527</b>	<b>16288</b>	<b>362.58</b>	<b>15108</b>	<b>364.06</b>	<b>-1.48</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	1190.00	1260.00	28.08	1170	
	Guru Nanak Dev TPS(Bhatinda)	440	295.00	180.00	5.37	224	
	Guru Hargobind Singh TPS(L.mbt)	920	853.00	946.00	20.03	835	
	Thermal (Total)	2620	2338.00	2386.00	53.48	2228	
	Total Hydro	1148	635.00	604.00	14.54	606	
	<b>Total Punjab</b>	<b>3768</b>	<b>2973</b>	<b>2990</b>	<b>68.01</b>	<b>2834</b>	
Haryana	Panipat TPS	1360	1112.00	1172.00	27.56	1148	
	DCRTPP (Yamuna nagar)	600	524.00	484.00	11.27	470	
	Faridabad GPS (NTPC)	432	385.00	404.00	9.00	375	
	RGTPP (khedar) (IPP)	1200	468.00	369.00	11.54	481	
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0	
	Thermal (Total)	3617	2489.00	2429.00	59.36	2473	
	Total Hydro	62	35.00	33.00	0.90	38	
	<b>Total Haryana</b>	<b>3679</b>	<b>2524</b>	<b>2462</b>	<b>60.27</b>	<b>2511</b>	
Rajasthan	kota TPS	1240	1041.00	829.00	22.14	922	
	suratgarh TPS	1500	1366.00	1370.00	32.37	1349	
	Chabra TPS	500	213.00	182.00	1.60	67	
	Dholpur GPS	330	273.00	272.00	6.53	272	
	Ramgarh GPS	113	62.00	62.00	1.60	67	
	RAPS A (NPC)	300	174.00	175.00	4.32	180	
	Barsingsar (NLC)	250	88.00	67.00	1.98	82	
	Giral LTPS (IPP)	250	60.00	68.00	1.29	54	
	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	3277.00	3025.00	71.84	2993	
	Total Hydro	550	9.00	9.00	0.25	10	
	Wind power	1294	69.00	27.00	1.09	45	
	Biomass	71	19.00	19.00	0.44	18	
	Renewable/Others (Total)	1365	88	46	1.53	64	
	<b>Total Rajasthan</b>	<b>6668</b>	<b>3374</b>	<b>3080</b>	<b>73.61</b>	<b>3067</b>	
	UP	Anpara TPS	1630	435	441	10.50	438
		Obra TPS	1442	310	362	8.20	342
Paricha TPS		640	348	342	8.10	338	
Panki TPS		210	0	66	0.40	17	
Harduaganj TPS		375	41	0	0.40	17	
Tanda TPS (NTPC)		440	295	290	7.19	300	
Roza TPS (IPP)		600	324	315	7.46	311	
Anpara-C (IPP)		600	0	136	2.70	112	
Thermal (Total)		5937	1753	1952	44.95	1873	
Vishnuparyag HPS (IPP)		400	436	436	10.46	436	
Other Hydro		527	169	0	3.61	150	
Cogeneration		951	50	50	1.20	50	
<b>Total UP</b>		<b>7815</b>	<b>2408</b>	<b>2438</b>	<b>60.21</b>	<b>2073</b>	
Uttarakhand		Total Hydro	1303	776	830	18.92	788
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>776</b>	<b>830</b>	<b>18.92</b>	<b>788</b>	
Delhi	Rajghat TPS	135	106	101	2.70	112	
	Delhi Gas Turbine	282	150	149	3.26	136	
	Pragati Gas Turbine	330	296	297	7.35	306	
	Rithala GPS	108	52	29	0.99	41	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	595	570	13.61	567	
	Thermal (Total)	2000	1199	1146	27.90	1163	
	<b>Total Delhi</b>	<b>2000</b>	<b>1199</b>	<b>1146</b>	<b>27.90</b>	<b>1163</b>	
HP	Baspa HPS (IPP)	330	330	330	7.93	330	
	Malana HPS (IPP)	101	87	61	1.93	81	
	Other Hydro	571	541	573	12.90	537	
	<b>Total HP</b>	<b>1002</b>	<b>958</b>	<b>964</b>	<b>23</b>	<b>948</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>14794</b>	<b>14519</b>	<b>345.83</b>	<b>13974</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2062</b>	<b>4156</b>	<b>78.62</b>	<b>3276</b>	
<b>Total Regional Availability(Gross)</b>		<b>47266</b>	<b>33383</b>	<b>34963</b>	<b>787.03</b>	<b>32357</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	9433	8354	7728	184.19	7675
State Control Area Hydro	5365	3164	3049	75.12	3130
<b>Total Regional Hydro</b>	<b>14797</b>	<b>11518</b>	<b>10777</b>	<b>259.32</b>	<b>10805</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	400	500	500	0	10.61	0.00	10.61
Gwalior-Agra (D/C)	548	1143	1194	0	22.32	0.00	22.32
Zerda-Kankroli	21	335	368	9	3.70	0.00	3.70
Zerda-Bhinmal	163	485	521	0	7.41	0.00	7.41
Malanpur-Auraiya	-78	15	57	30	0.25	0.00	0.25
Badod-Kota/Morak	50	100	100	50	1.12	0.00	1.12
<b>Sub Total WR</b>	<b>1104</b>	<b>2578</b>			<b>45.41</b>	<b>0.00</b>	<b>45.41</b>
Pusauli Bypass	72	42	153	176	1.00	0.92	0.09
MZP- GKP (D/C)	445	898	1156	0	17.67	0.00	17.67
Patna-Balia(D/C)	291	300	407	0	6.73	0.00	6.73
B'Sharif-Balia (D/C)	140	251	510	0	5.70	0.00	5.70
Barh-Balia (D/C)	0	0	319	0	0.44	0.00	0.44
Pusauli-Sahupuri	42	107	157	0	3.07	0.00	3.07
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>958</b>	<b>1578</b>			<b>34.61</b>	<b>1.40</b>	<b>33.21</b>
<b>Total IR Exch</b>	<b>2062</b>	<b>4156</b>			<b>80.02</b>	<b>1.40</b>	<b>78.62</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
12.87	3.77	16.63	25.72	29.69	-1.89	5.17	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
40.46	34.44	74.90	33.21	45.41	78.62	-7.25	10.98	3.72

**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	0.00	0.80	12.50	98.60	86.90	11.60

<----- 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	17.05	49.40	10.04	49.85	0.39	0.13	50.22	49.71

**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	07:57	407	21:15	0.0	0.0	0.0	0.0
Gorakhpur	400	439	18:07	4	16:38	1.0	1.0	82.5	29.8
Bareilly	400	424	08:00	405	10:04	0.0	0.0	10.2	0.0
Kanpur	400	423	09:00	406	14:23	0.0	0.0	8.4	0.0
Dadri	400	416	08:01	401	14:20	0.0	0.0	0.0	0.0
Ballabgarh	400	423	08:03	405	14:24	0.0	0.0	5.0	0.0
Bawana	400	419	07:57	402	14:23	0.0	0.0	0.0	0.0
Bassi	400	427	07:03	408	14:23	0.0	0.0	40.0	0.0
Hissar	400	411	07:56	397	15:42	0.0	0.0	0.0	0.0
Moga	400	421	17:04	404	15:40	0.0	0.0	0.6	0.0
Abdullapur	400	416	08:03	402	13:52	0.0	0.0	0.0	0.0
Nalagarh	400	412	06:01	399	15:46	0.0	0.0	0.0	0.0
Kishenpur	400	416	07:54	400	03:36	0.0	0.0	0.0	0.0
Wagoora	400	413	08:07	392	03:53	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	502.79	1219.07	503.67	1245.57	1378.55	710.50
Pong	426.72	384.05	418.18	807.91	411.03	534.70	1360.59	334.25
Tehri	829.79	740.04	797.25	560.42	NA	NA	759.19	520.00
Koteshwar	612.50	598.50	607.95	3.54	NA	NA	520.00	147.00
Chamera-I	760.00	748.75	756.00	11.04	752.00	NA	504.10	346.72
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	509.88	NA	518.33	NA	606.72	143.00

**IX. System Constraints:**

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

**XI. Weather Conditions For 12.08.2011 :**

1 : Scatterd rain in 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 : 12.08.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER