

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 22.08.2011

Date of Reporting : 23.08.2011

### 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
34657	3496	38153	49.68	33321	768	34089	49.91	799.4	40.07

\* 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	54.46	13.61		68.07	113.94	112.27	-1.67	180.34	8.66
Haryana	69.16	0.87		70.04	54.89	49.81	-5.09	119.84	0.13
Rajasthan	64.44	0.26	1.19	65.89	35.42	50.97	15.54	116.86	4.63
Delhi	25.17			25.17	67.26	62.87	-4.39	88.03	0.43
UP	49.13	18.67	0.00	67.79	137.73	143.67	5.93	211.46	25.77
Uttarakhand		20.20		20.20	9.23	6.63	-2.60	26.83	0.45
HP		23.94		23.94	-3.34	-2.20	-1.14	21.74	0.00
J & K		14.45	0.00	14.45	14.45	14.72	0.27	29.17	0.00
Chandigarh				0.00	5.75	5.14	-0.61	5.14	0.00
<b>Total</b>	<b>262.36</b>	<b>92.00</b>	<b>1.19</b>	<b>355.55</b>	<b>435.36</b>	<b>443.87</b>	<b>8.51</b>	<b>799.42</b>	<b>40.07</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	7617	1308	8	1878	7368	0	-189	2064	54.41
Haryana	5403	22	84	913	4684	0	-482	1024	18.77
Rajasthan	4696	396	448	-534	4996	118	703	-374	-10.56
Delhi	3939	0	-31	413	3441	0	-297	228	8.67
UP	9115	1770	706	1809	9739	650	512	2063	44.48
Uttarakhand	1267	0	-162	-100	1147	0	8	-100	-2.40
HP	938	0	85	-1804	805	0	-18	-1773	-42.22
J&K	1431	0	108	-384	951	0	-186	-377	-9.35
Chandigarh	251	0	-14	24	190	0	-21	6	0.60
<b>Total</b>	<b>34657</b>	<b>3496</b>	<b>1232</b>	<b>2214</b>	<b>33321</b>	<b>768</b>	<b>30</b>	<b>2761</b>	<b>62.39</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	1672	1821	1800	40.74	1697	40.13
	Rihand I STPS	1000	935	1048	1028	22.36	931	22.06	0.30
	Rihand II STPS	1000	475	521	525	11.46	477	11.22	0.23
	Dadri I STPS	840	596	605	627	13.01	542	12.91	0.10
	Dadri II STPS	980	960	962	1007	21.40	892	21.38	0.02
	Unchahar I TPS	440	300	330	332	7.24	302	7.14	0.11
	Unchahar II TPS	440	300	330	334	7.06	294	7.01	0.05
	Unchahar III TPS	210	150	166	171	3.63	151	3.51	0.13
	ISTPP (Jhajjar)	500	0	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	790	554	573	12.55	523	13.06	-0.50
	Anta GPS	419	389	379	325	8.36	348	8.35	0.01
	Auraiya GPS	663	611	604	463	11.24	468	11.60	-0.36
	<b>Sub Total (A)</b>	<b>9322</b>	<b>7177</b>	<b>7320</b>	<b>7185</b>	<b>159.05</b>	<b>6627</b>	<b>158.36</b>	<b>0.68</b>
B. NPC	NAPS	440	0	0	0	0.00	0	0.00	0.00
	RAPS- B	440	385	423	426	9.15	381	9.24	-0.09
	RAPS- C	440	420	466	474	10.10	421	10.08	0.02
	<b>Sub Total (B)</b>	<b>1320</b>	<b>805</b>	<b>889</b>	<b>900</b>	<b>19.24</b>	<b>802</b>	<b>19.32</b>	<b>-0.08</b>
C. NHPC	Chamera I HPS	540	540	540	540	12.93	539	12.81	0.12
	Chamera II HPS	300	297	301	301	7.17	299	7.19	-0.02
	Bairasuil HPS	180	179	179	60	2.04	85	1.89	0.14
	Salal-HPS	690	523	523	529	12.48	520	12.55	-0.07
	Tanakpur-HPS	94	94	94	94	2.26	94	2.24	0.01
	Uri-HPS	480	276	360	275	7.11	296	6.96	0.15
	Dhauliganga-HPS	280	277	280	277	6.70	279	6.70	-0.01
	Dulhasti-HPS	390	387	410	411	9.20	383	9.03	0.17
	Sewa-II HPS	120	119	126	81	1.89	79	1.85	0.04
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2691</b>	<b>2813</b>	<b>2568</b>	<b>61.77</b>	<b>2574</b>	<b>61.22</b>	<b>0.55</b>
D.NJPC	Nathpa Jhakri	1500	1600	1615	1618	38.50	1604	38.40	0.10
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1615</b>	<b>1618</b>	<b>38.50</b>	<b>1604</b>	<b>38.40</b>	<b>0.10</b>
E. THDC	Tehri HPS	1000	1030	1032	1000	24.21	1009	24.00	0.21
	Koteshwar HPS	100	92	95	95	2.24	93	2.22	0.02
	<b>Sub Total (E)</b>	<b>1100</b>	<b>1122</b>	<b>1127</b>	<b>1095</b>	<b>26.46</b>	<b>1102</b>	<b>26.22</b>	<b>0.24</b>
F. BBMB	Bhakra HPS	1480	1227	1257	1256	30.15	1256	29.45	0.70
	Dehar HPS	990	608	660	610	14.75	615	14.60	0.15
	Pong HPS	396	354	366	366	8.88	370	8.50	0.38
	<b>Sub Total (F)</b>	<b>2866</b>	<b>2189</b>	<b>2283</b>	<b>2232</b>	<b>53.78</b>	<b>2241</b>	<b>52.54</b>	<b>1.24</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	143	96	2.90	121	2.80	0.10
	KWHEP HPS(IPP)	500	0	600	600	14.30	596	14.28	0.02
	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>743</b>	<b>696</b>	<b>17.19</b>	<b>716</b>	<b>17.07</b>	<b>0.12</b>
<b>H. Total Regional Entities (A-G)</b>		<b>20075</b>	<b>15584</b>	<b>16790</b>	<b>16294</b>	<b>375.99</b>	<b>15666</b>	<b>373.14</b>	<b>2.85</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	1245.00	1220.00	27.49	1145	
	Guru Nanak Dev TPS(Bhatinda)	440	285.00	290.00	6.03	251	
	Guru Hargobind Singh TPS(L.mbt)	920	933.00	942.00	20.94	872	
	Thermal (Total)	2620	2463.00	2452.00	54.46	2269	
	Total Hydro	1148	710.00	561.00	13.61	567	
	<b>Total Punjab</b>	<b>3768</b>	<b>3173</b>	<b>3013</b>	<b>68.07</b>	<b>2836</b>	
Haryana	Panipat TPS	1360	1135.00	1142.00	27.34	1139	
	DCRTPP (Yamuna nagar)	600	530.00	521.00	11.99	500	
	Faridabad GPS (NTPC)	432	331.00	301.00	7.73	322	
	RGTPP (khedar) (IPP)	1200	695.00	943.00	22.11	921	
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0	
	Thermal (Total)	3617	2691.00	2907.00	69.16	2882	
	Total Hydro	62	33.00	32.00	0.87	36	
	<b>Total Haryana</b>	<b>3679</b>	<b>2724</b>	<b>2939</b>	<b>70.04</b>	<b>2918</b>	
Rajasthan	kota TPS	1240	886.00	765.00	19.31	805	
	suratgarh TPS	1500	1160.00	1112.00	26.76	1115	
	Chabra TPS	500	230.00	227.00	4.87	203	
	Dholpur GPS	330	271.00	275.00	6.40	267	
	Ramgarh GPS	113	62.00	62.00	1.60	67	
	RAPS A (NPC)	300	171.00	173.00	4.29	179	
	Barsingsar (NLC)	250	0.00	0.00	0.00	0	
	Giral LTPS (IPP)	250	53.00	48.00	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	2833.00	2662.00	64.44	2685	
	Total Hydro	550	0.00	0.00	0.26	11	
	Wind power	1294	27.00	17.00	0.77	32	
	Biomass	71	19.00	19.00	0.43	18	
	Renewable/Others (Total)	1365	46	36	1.19	50	
	<b>Total Rajasthan</b>	<b>6668</b>	<b>2879</b>	<b>2698</b>	<b>65.89</b>	<b>2746</b>	
	UP	Anpara TPS	1630	844	799	18.00	750
		Obra TPS	1442	280	393	7.40	308
Paricha TPS		640	392	379	8.30	346	
Panki TPS		210	80	74	1.60	67	
Harduaganj TPS		375	0	0	0.00	0	
Tanda TPS (NTPC)		440	294	290	7.15	298	
Roza TPS (IPP)		600	279	284	6.68	278	
Anpara-C (IPP)		600	0	0	0.00	0	
Thermal (Total)		5937	2169	2219	49.13	2047	
Vishnuparyag HPS (IPP)		400	436	436	10.45	435	
Other Hydro		527	283	0	8.21	342	
Cogeneration		951	0	0	0.00	0	
<b>Total UP</b>		<b>7815</b>	<b>2888</b>	<b>2655</b>	<b>67.79</b>	<b>2389</b>	
Uttarakhand		Total Hydro	1303	928	858	20.20	842
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>928</b>	<b>858</b>	<b>20.20</b>	<b>842</b>	
Delhi	Rajghat TPS	135	106	108	2.73	114	
	Delhi Gas Turbine	282	144	146	3.57	149	
	Pragati Gas Turbine	330	288	296	7.31	305	
	Rithala GPS	108	49	29	0.98	41	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	475	590	10.58	441	
	Thermal (Total)	2000	1062	1169	25.17	1049	
	<b>Total Delhi</b>	<b>2000</b>	<b>1062</b>	<b>1169</b>	<b>25.17</b>	<b>1049</b>	
HP	Baspa HPS (IPP)	330	330	330	7.92	330	
	Malana HPS (IPP)	101	97	98	2.25	94	
	Other Hydro	571	579	575	13.77	574	
	<b>Total HP</b>	<b>1002</b>	<b>1006</b>	<b>1003</b>	<b>24</b>	<b>998</b>	
J & K	Baglihar HPS (IPP)	450	441	441	10.59	441	
	Other Hydro	323	143	174	3.86	161	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>584</b>	<b>615</b>	<b>14.45</b>	<b>602</b>	
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>15244</b>	<b>14950</b>	<b>355.55</b>	<b>14379</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>4189</b>	<b>3494</b>	<b>94.88</b>	<b>3953</b>	
<b>Total Regional Availability(Gross)</b>		<b>47266</b>	<b>36223</b>	<b>34738</b>	<b>826.41</b>	<b>33998</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	9433	8581	8209	197.70	8237
State Control Area Hydro	5365	3544	3069	81.55	3398
<b>Total Regional Hydro</b>	<b>14797</b>	<b>12125</b>	<b>11278</b>	<b>279.25</b>	<b>11635</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	400	500	0	9.69	0.00	9.69
Gwalior-Agra (D/C)	985	867	1228	0	25.23	0.00	25.23
Zerda-Kankroli	356	238	438	0	7.16	0.00	7.16
Zerda-Bhinmal	365	281	473	0	7.97	0.00	7.97
Malanpur-Auraiya	-35	-2	45	52	0.13	0.00	0.13
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>2171</b>	<b>1784</b>			<b>50.17</b>	<b>0.00</b>	<b>50.17</b>
Pusauli Bypass	24	-43	96	97	0.41	0.44	-0.03
MZP- GKP (D/C)	994	912	1180	0	22.64	0.00	22.64
Patna-Balia(D/C)	516	257	592	0	8.91	0.00	8.91
B'Sharif-Balia (D/C)	368	209	630	0	7.38	0.00	7.38
Barh-Balia (D/C)	0	283	369	0	2.91	0.00	2.91
Pusauli-Sahupuri	148	116	170	0	3.42	0.00	3.42
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-24	0	30	0.00	0.52	-0.52
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>2018</b>	<b>1710</b>			<b>45.67</b>	<b>0.96</b>	<b>44.71</b>
<b>Total IR Exch</b>	<b>4189</b>	<b>3494</b>			<b>95.84</b>	<b>0.96</b>	<b>94.88</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
15.13	3.70	18.84	25.07	30.58	-4.97	7.01	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
38.94	37.00	75.94	44.71	50.17	94.88	5.77	13.17	18.94

**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	0.60	1.30	7.60	23.90	92.00	75.70	6.20	0.40

<----- 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				
50.35	6.06	48.89	21.11	49.78	0.83	0.18	50.18	49.33

**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	420	06:22	402	20:53	0.0	0.0	0.0	0.0
Gorakhpur	400	434	16:23	204	11:53	0.0	0.0	62.8	5.1
Bareilly	400	420	08:00	393	21:08	0.0	0.0	0.0	0.0
Kanpur	400	418	09:00	399	13:30	0.0	0.0	0.0	0.0
Dadri	400	413	06:05	392	14:37	0.0	0.0	0.0	0.0
Ballabgarh	400	419	06:06	396	14:36	0.0	0.0	0.0	0.0
Bawana	400	414	06:07	394	14:11	0.0	0.0	0.0	0.0
Bassi	400	425	06:06	400	11:06	0.0	0.0	2.4	0.0
Hissar	400	408	06:06	384	11:10	0.0	0.2	0.0	0.0
Moga	400	416	01:01	392	15:36	0.0	0.0	0.0	0.0
Abdullapur	400	400	09:15	395	11:04	0.0	0.0	0.0	0.0
Nalagarh	400	413	04:33	403	10:51	0.0	0.0	0.0	0.0
Kishenpur	400	407	00:59	388	15:32	0.0	0.8	0.0	0.0
Wagoora	400	410	00:34	381	20:33	0.0	28.1	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	508.64	1485.27	509.92	1545.02	1346.24	927.40
Pong	426.72	384.05	422.44	1005.78	419.03	848.35	1081.51	493.82
Tehri	829.79	740.04	811.95	842.28	NA	NA	719.38	558.00
Koteshwar	612.50	598.50	607.70	3.54	NA	NA	553.00	148.00
Chamera-I	760.00	748.75	757.57	13.85	756.00	NA	389.98	350.40
Rihand	268.22	252.98	263.38	504.00	256.52	137.50	NA	NA
RPS	352.80	343.81	348.03	NA	349.18	NA	NA	0.00
Jawahar Sagar	298.70	295.78	297.00	NA	298.03	NA	NA	0.00
RSD	527.91	487.91	519.25	NA	521.16	NA	483.91	161.80

**IX. System Constraints:**

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

**XI. Weather Conditions For 22.08.2011 :**

1. Hot & Humid Weather 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 : 22.08.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER