

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 28.08.2011  
Date of Reporting : 29.08.2011

### 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
34335	2072	36407	49.88	34200	666	34866	50.04	782.1	33.48

\* 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	51.89	13.44		65.33	111.95	104.36	-7.59	169.69	1.80
Haryana	65.62	0.80		66.42	47.89	49.74	1.85	116.16	1.72
Rajasthan	68.27	1.62	1.94	71.83	39.00	41.43	2.43	113.26	1.75
Delhi	27.60			27.60	60.66	58.42	-2.24	86.02	1.75
UP	49.70	15.66	0.00	65.36	141.00	153.98	12.98	219.34	26.16
Uttarakhand		13.34		13.34	10.07	13.70	3.63	27.04	0.30
HP		23.21		23.21	-1.87	-2.66	-0.79	20.55	0.00
J & K		13.85	0.00	13.85	14.90	11.59	-3.31	25.44	0.00
Chandigarh				0.00	5.70	4.64	-1.06	4.64	0.00
<b>Total</b>	<b>263.08</b>	<b>81.91</b>	<b>1.94</b>	<b>346.93</b>	<b>429.30</b>	<b>435.20</b>	<b>5.90</b>	<b>782.13</b>	<b>33.48</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	7369	450	-209	1861	7505	0	-345	1930	45.06
Haryana	5251	172	183	418	4813	0	-29	437	11.06
Rajasthan	4626	0	97	-272	5215	0	407	-272	-6.54
Delhi	3965	0	-30	553	3325	16	-138	546	13.24
UP	9394	1300	396	1727	10277	650	1168	1727	41.45
Uttarakhand	1192	150	123	-100	1071	0	190	-100	-2.40
HP	912	0	-2	-1861	792	0	-59	-1863	-43.89
J&K	1394	0	78	-375	1020	0	-107	-375	-9.24
Chandigarh	232	0	-18	54	182	0	-49	54	1.54
<b>Total</b>	<b>34335</b>	<b>2072</b>	<b>618</b>	<b>2005</b>	<b>34200</b>	<b>666</b>	<b>1038</b>	<b>2084</b>	<b>50.29</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	1667	1883	1763	40.45	1685	40.01	0.43
	Rihand I STPS	1000	890	1006	951	21.25	886	21.36	-0.11
	Rihand II STPS	1000	480	517	517	11.59	483	11.52	0.07
	Dadri I STPS	840	596	657	652	11.80	491	11.96	-0.17
	Dadri II STPS	980	953	1019	986	19.62	817	19.68	-0.06
	Unchahar I TPS	440	295	389	319	6.85	285	6.79	0.06
	Unchahar II TPS	440	291	389	321	6.91	288	6.48	0.43
	Unchahar III TPS	210	156	205	166	3.68	153	3.55	0.13
	ISTPP (Jhajjar)	500	169	215	0	2.16	90	2.83	-0.67
	Dadri GPS	830	776	557	551	12.34	514	12.56	-0.21
	Anta GPS	419	390	250	253	5.95	248	6.14	-0.19
	Auraiya GPS	663	605	401	466	9.68	403	9.59	0.09
	<b>Sub Total (A)</b>	<b>9322</b>	<b>7269</b>	<b>7488</b>	<b>6945</b>	<b>152.27</b>	<b>6345</b>	<b>152.47</b>	<b>-0.20</b>
	B. NPC	NAPS	440	187	216	218	4.39	183	4.49
RAPS- B		440	193	214	215	4.45	185	4.63	-0.18
RAPS- C		440	420	472	471	10.11	421	10.08	0.03
<b>Sub Total (B)</b>		<b>1320</b>	<b>800</b>	<b>902</b>	<b>904</b>	<b>18.95</b>	<b>789</b>	<b>19.20</b>	<b>-0.25</b>
C. NHPC	Chamera I HPS	540	535	540	540	12.79	533	12.82	-0.02
	Chamera II HPS	300	297	305	299	7.23	301	7.18	0.05
	Bairasuil HPS	180	179	179	80	2.73	114	3.06	-0.33
	Salal-HPS	690	625	626	622	15.01	625	15.00	0.01
	Tanakpur-HPS	94	92	93	94	2.21	92	2.24	-0.04
	Uri-HPS	480	263	360	240	6.14	256	6.23	-0.09
	Dhauliganga-HPS	280	277	278	279	6.67	278	6.71	-0.04
	Dulhasti-HPS	390	259	277	257	5.77	240	5.90	-0.13
	Sewa-II HPS	120	119	122	0	2.01	84	2.91	-0.90
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2646</b>	<b>2780</b>	<b>2411</b>	<b>60.55</b>	<b>2523</b>	<b>62.06</b>	<b>-1.51</b>
D.NJPC	Nathpa Jhakri	1500	1600	1618	1621	38.53	1606	38.37	0.16
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1618</b>	<b>1621</b>	<b>38.53</b>	<b>1606</b>	<b>38.37</b>	<b>0.16</b>
E. THDC	Tehri HPS	1000	1060	1085	1037	24.86	1036	24.75	0.11
	Koteshwar HPS	100	94	96	95	2.25	94	2.26	-0.01
<b>Sub Total (E)</b>	<b>1100</b>	<b>1154</b>	<b>1181</b>	<b>1132</b>	<b>27.11</b>	<b>1129</b>	<b>27.01</b>	<b>0.10</b>	
F. BBMB	Bhakra HPS	1480	1227	1259	1259	30.16	1257	29.45	0.71
	Dehar HPS	990	605	825	580	14.72	613	14.53	0.19
	Pong HPS	396	354	366	366	8.88	370	8.50	0.38
	<b>Sub Total (F)</b>	<b>2866</b>	<b>2186</b>	<b>2450</b>	<b>2205</b>	<b>53.76</b>	<b>2240</b>	<b>52.47</b>	<b>1.29</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	141	105	2.64	110	3.30	-0.66
	KWHEP HPS(IPP)	500	0	650	650	12.39	516	14.40	-2.01
	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>791</b>	<b>755</b>	<b>15.03</b>	<b>626</b>	<b>17.70</b>	<b>-2.67</b>
<b>H. Total Regional Entities (A-G)</b>	<b>20075</b>	<b>15655</b>	<b>17210</b>	<b>15973</b>	<b>366.19</b>	<b>15258</b>	<b>369.27</b>	<b>-3.09</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	1245.00	26.46	1102
	Guru Nanak Dev TPS(Bhatinda)	440	295.00	295.00	6.03	251
	Guru Hargobind Singh TPS(L.mbt)	920	947.00	926.00	19.41	809
	Thermal (Total)	2620	2502.00	2466.00	51.89	2162
	Total Hydro	1148	716.00	534.00	13.44	560
<b>Total Punjab</b>	<b>3768</b>	<b>3218</b>	<b>3000</b>	<b>65.33</b>	<b>2722</b>	
Haryana	Panipat TPS	1360	1144.00	1153.00	27.49	1146
	DCRTPP (Yamuna nagar)	600	566.00	565.00	12.83	535
	Faridabad GPS (NTPC)	432	320.00	401.00	8.00	333
	RGTPP (khedar) (IPP)	1200	668.00	635.00	17.30	721
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2698.00	2754.00	65.62	2734
	Total Hydro	62	32.00	32.00	0.80	33
	<b>Total Haryana</b>	<b>3679</b>	<b>2730</b>	<b>2786</b>	<b>66.42</b>	<b>2767</b>
Rajasthan	kota TPS	1240	946.00	933.00	21.97	915
	suratgarh TPS	1500	1168.00	1161.00	26.31	1096
	Chabra TPS	500	224.00	232.00	5.24	218
	Dholpur GPS	330	263.00	240.00	6.33	264
	Ramgarh GPS	113	62.00	62.00	1.58	66
	RAPS A (NPC)	300	183.00	134.00	4.45	185
	Barsingsar (NLC)	250	46.00	49.00	1.16	49
	Giral LTPS (IPP)	250	49.00	48.00	1.23	51
	Rajwest LTPS (IPP)	135	0.00	0.00	0.00	0
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0
	Thermal (Total)	4753	2941.00	2859.00	68.27	2845
	Total Hydro	550	67.00	46.00	1.62	67
	Wind power	1294	41.00	129.00	1.53	64
	Biomass	71	17.00	17.00	0.41	17
	Renewable/Others (Total)	1365	58	146	1.94	81
	<b>Total Rajasthan</b>	<b>6668</b>	<b>3066</b>	<b>3051</b>	<b>71.83</b>	<b>2993</b>
	UP	Anpara TPS	1630	702	767	17.90
Obra TPS		1442	442	410	9.90	413
Paricha TPS		640	344	359	8.40	350
Panki TPS		210	59	47	1.30	54
Harduaganj TPS		375	0	0	0.00	0
Tanda TPS (NTPC)		440	280	187	5.35	223
Roza TPS (IPP)		600	281	279	6.85	285
Anpara-C (IPP)		600	0	0	0.00	0
Thermal (Total)		5937	2108	2049	49.70	2071
Vishnuparyag HPS (IPP)		400	436	436	10.45	435
Other Hydro		527	256	0	5.21	217
Cogeneration		951	0	0	0.00	0
<b>Total UP</b>		<b>7815</b>	<b>2800</b>	<b>2485</b>	<b>65.36</b>	<b>2288</b>
Uttarakhand		Total Hydro	1303	616	508	13.34
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>616</b>	<b>508</b>	<b>13.34</b>	<b>556</b>
Delhi	Rajghat TPS	135	106	106	2.73	114
	Delhi Gas Turbine	282	148	151	3.71	155
	Pragati Gas Turbine	330	293	300	7.34	306
	Rithala GPS	108	48	29	1.19	50
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	610	570	12.63	526
	Thermal (Total)	2000	1205	1156	27.60	1150
	<b>Total Delhi</b>	<b>2000</b>	<b>1205</b>	<b>1156</b>	<b>27.60</b>	<b>1150</b>
HP	Baspa HPS (IPP)	330	330	330	7.93	330
	Malana HPS (IPP)	101	100	90	2.08	87
	Other Hydro	571	574	548	13.21	551
	<b>Total HP</b>	<b>1002</b>	<b>1004</b>	<b>968</b>	<b>23</b>	<b>967</b>
J & K	Baglihar HPS (IPP)	450	438	437	10.50	437
	Other Hydro	323	133	162	3.35	140
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>571</b>	<b>599</b>	<b>13.85</b>	<b>577</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>15210</b>	<b>14553</b>	<b>346.93</b>	<b>14020</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>3622</b>	<b>4553</b>	<b>78.33</b>	<b>3264</b>
<b>Total Regional Availability(Gross)</b>		<b>47266</b>	<b>36042</b>	<b>35079</b>	<b>791.44</b>	<b>32541</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9433	8820	8124	194.97	8124
State Control Area Hydro	5365	3262	2687	71.46	2977
<b>Total Regional Hydro</b>	<b>14797</b>	<b>12082</b>	<b>10811</b>	<b>266.43</b>	<b>11101</b>

**VI(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	8.79	0.00	8.79
Gwalior-Agra (D/C)	1070	1582	1499	0	28.43	0.00	28.43
Zerda-Kankroli	194	213	288	71	3.04	0.00	3.04
Zerda-Bhinmal	278	285	15	0	2.66	0.00	2.66
Malanpur-Auraiya	21	83	117	0	1.40	0.00	1.40
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>2063</b>	<b>2663</b>			<b>44.32</b>	<b>0.00</b>	<b>44.32</b>
Pusauli Bypass	-72	-93	62	211	0.00	2.16	-2.16
MZP- GKP (D/C)	838	856	862	0	17.14	0.00	17.14
Patna-Balia(D/C)	414	251	452	0	7.55	0.00	7.55
B'Sharif-Balia (D/C)	274	458	463	0	6.99	0.00	6.99
Barh-Balia (D/C)	0	281	283	0	1.84	0.00	1.84
Pusauli-Sahupuri	140	167	185	0	3.24	0.00	3.24
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-35	-30	0	35	0.00	0.60	-0.60
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1559</b>	<b>1890</b>			<b>36.76</b>	<b>2.76</b>	<b>34.01</b>
<b>Total IR Exch</b>	<b>3622</b>	<b>4553</b>			<b>81.08</b>	<b>2.76</b>	<b>78.33</b>

**VI(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
12.04	3.72	15.75	18.14	32.29	0.56	7.26	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
34.45	38.86	73.31	34.01	44.32	78.33	-0.44	5.46	5.02

**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	0.80	7.20	92.20	86.50	35.70	6.30

<----- 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				
50.39	6.04	49.28	19.10	49.94	0.30	0.16	50.37	49.64

**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	416	07:05	400	23:07	0.0	0.0	0.0	0.0
Gorakhpur	400	438	17:04	406	19:16	0.0	0.0	66.4	6.3
Bareilly	400	426	08:00	400	19:20	0.0	0.0	3.0	0.0
Kanpur	400	423	09:00	399	23:07	0.0	0.0	0.8	0.0
Dadri	400	416	07:05	400	23:05	0.0	0.0	0.0	0.0
Ballabgarh	400	423	07:03	403	23:05	0.0	0.0	4.0	0.0
Bawana	400	419	07:04	401	22:39	0.0	0.0	0.0	0.0
Bassi	400	427	07:03	406	23:07	0.0	0.0	20.3	0.0
Hissar	400	414	06:02	400	19:10	0.0	0.0	0.0	0.0
Moga	400	420	06:03	409	19:21	0.0	0.0	0.0	0.0
Abdullapur	400	415	06:08	289	02:02	0.1	0.1	0.0	0.0
Nalagarh	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Kishenpur	400	420	06:05	394	19:19	0.0	0.0	0.0	0.0
Wagoora	400	414	06:06	382	19:18	0.0	8.0	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	510.01	1545.02	510.73	1590.18	1327.00	924.83
Pong	426.72	384.05	421.86	975.89	421.12	946.20	1015.41	497.72
Tehri	829.79	740.04	817.55	953.25	NA	NA	726.78	557.00
Koteshwar	612.50	598.50	607.90	3.54	NA	NA	661.00	149.00
Chamera-I	760.00	748.75	757.31	12.81	757.00	NA	374.82	346.74
Rihand	268.22	252.98	263.59	NA	256.67	143.80	NA	NA
RPS	352.80	343.81	348.30	NA	348.36	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.24	NA	297.82	NA	NA	0.00
RSD	527.91	487.91	520.85	NA	521.55	NA	439.62	174.37

**IX. System Constraints:**

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

**XI. Weather Conditions For 28.08.2011 :**

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 : 28.08.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER