

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 16.08.2011  
Date of Reporting : 17.08.2011

### I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 Hrs) MW			Demand Met	Off Peak (03:00 Hrs) MW			Day Energy (Net MU)	
	Shortage	Requirement	Freq* (Hz)		Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
27316	3773	31089	49.46	24232	0	24232	50.33	601.8	28.70

\* 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	17.08	8.57		25.66	89.80	85.57	-4.24	111.22	1.80
Haryana	41.36	0.00		41.36	52.57	51.35	-1.23	92.71	2.92
Rajasthan	60.58	0.52	9.01	70.10	30.27	23.52	-6.75	93.62	0.45
Delhi	21.35			21.35	56.86	52.80	-4.06	74.15	0.07
UP	38.62	7.55	1.20	47.37	117.04	120.79	3.75	168.16	21.82
Uttarakhand		3.15		3.15	5.35	13.66	8.30	16.81	0.84
HP		11.67		11.67	-9.25	4.27	13.51	15.94	0.00
J & K		14.29	0.00	14.29	10.98	10.66	-0.32	24.95	0.80
Chandigarh				0.00	5.40	4.25	-1.14	4.25	0.00
<b>Total</b>	<b>178.99</b>	<b>45.75</b>	<b>10.21</b>	<b>234.95</b>	<b>359.03</b>	<b>366.85</b>	<b>7.83</b>	<b>601.80</b>	<b>28.70</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	4891	450	-205	1576	4158	0	-444	1893	44.15
Haryana	4174	679	78	880	3487	0	-320	873	20.05
Rajasthan	4319	144	-203	-445	3714	0	-93	-301	-8.16
Delhi	3610	0	18	403	2568	0	-300	653	12.25
UP	7346	2350	196	1214	8224	0	601	1727	35.20
Uttarakhand	852	150	532	-100	596	0	-52	-100	-2.40
HP	584	0	489	-1295	593	0	-139	-1817	-36.49
J&K	1326	0	183	-380	765	0	-344	-380	-9.36
Chandigarh	214	0	-29	32	127	0	-70	9	0.88
<b>Total</b>	<b>27316</b>	<b>3773</b>	<b>1059</b>	<b>1886</b>	<b>24232</b>	<b>0</b>	<b>-1161</b>	<b>2556</b>	<b>56.12</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	1482	1805	1181	34.67	1445	33.76	0.90
	Rihand I STPS	1000	917	1020	868	21.31	888	21.08	0.23
	Rihand II STPS	1000	473	511	458	10.84	452	10.80	0.04
	Dadri I STPS	840	594	654	298	10.65	444	11.86	-1.21
	Dadri II STPS	980	745	502	305	10.00	417	11.16	-1.16
	Unchahar I TPS	440	347	343	349	7.71	321	7.98	-0.28
	Unchahar II TPS	440	349	320	144	5.81	242	6.15	-0.33
	Unchahar III TPS	210	172	170	186	3.80	159	3.80	0.01
	ISTPP (Jhajjar)	500	352	164	303	5.20	217	6.44	-1.24
	Dadri GPS	830	797	551	183	7.39	308	10.06	-2.66
	Anta GPS	419	390	258	122	5.49	229	6.07	-0.58
	Auraiya GPS	663	616	306	153	5.60	233	8.06	-2.46
	<b>Sub Total (A)</b>	<b>9322</b>	<b>7233</b>	<b>6604</b>	<b>4550</b>	<b>128.47</b>	<b>5353</b>	<b>137.21</b>	<b>-8.74</b>
B. NPC	NAPS	440	189	223	227	4.49	187	4.54	-0.04
	RAPS- B	440	382	422	427	9.16	381	9.17	-0.01
	RAPS- C	440	420	462	477	10.14	422	10.08	0.06
	<b>Sub Total (B)</b>	<b>1320</b>	<b>991</b>	<b>1107</b>	<b>1131</b>	<b>23.79</b>	<b>991</b>	<b>23.78</b>	<b>0.00</b>
C. NHPC	Chamera I HPS	540	542	540	540	12.89	537	12.59	0.30
	Chamera II HPS	300	155	74	298	3.69	154	3.55	0.14
	Bairasuil HPS	180	179	170	110	3.07	128	2.80	0.26
	Salal-HPS	690	543	547	534	13.02	542	12.98	0.04
	Tanakpur-HPS	94	4	0	0	0.00	0	0.09	-0.09
	Uri-HPS	480	274	387	405	6.98	291	6.70	0.29
	Dhauliganga-HPS	280	124	0	278	2.99	125	2.98	0.01
	Dulhasti-HPS	390	390	410	46	8.91	371	8.94	-0.03
	Sewa-II HPS	120	119	128	90	2.83	118	2.84	-0.01
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2329</b>	<b>2256</b>	<b>2301</b>	<b>54.38</b>	<b>2266</b>	<b>53.46</b>	<b>0.92</b>
D. NJPC	Nathpa Jhakri	1500	1600	0	1598	5.94	248	5.98	-0.03
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>0</b>	<b>1598</b>	<b>5.94</b>	<b>248</b>	<b>5.98</b>	<b>-0.03</b>
E. THDC	Tehri HPS	1000	981	997	600	22.56	940	22.31	0.25
	Koteshwar HPS	100	57	93	92	0.99	41	1.33	-0.35
	<b>Sub Total (E)</b>	<b>1100</b>	<b>1038</b>	<b>1090</b>	<b>692</b>	<b>23.55</b>	<b>981</b>	<b>23.64</b>	<b>-0.10</b>
F. BBMB	Bhakra HPS	1480	968	1097	967	23.79	991	23.22	0.57
	Dehar HPS	990	425	495	660	11.23	468	10.20	1.04
	Pong HPS	396	354	366	366	8.80	367	8.50	0.30
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1746</b>	<b>1958</b>	<b>1993</b>	<b>43.82</b>	<b>1826</b>	<b>41.91</b>	<b>1.91</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	231	323	5.54	231	3.30	2.24
	KWHEP HPS(IPP)	500	0	0	600	2.73	114	9.21	-6.49
	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>231</b>	<b>923</b>	<b>8.27</b>	<b>344</b>	<b>12.51</b>	<b>-4.25</b>
<b>H. Total Regional Entities (A-G)</b>		<b>20075</b>	<b>14937</b>	<b>13246</b>	<b>13188</b>	<b>288.20</b>	<b>12008</b>	<b>298.49</b>	<b>-10.29</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	550.00	320.00	9.85	411
	Guru Nanak Dev TPS(Bhatinda)	440	85.00	105.00	1.85	77
	Guru Hargobind Singh TPS(L.mbt)	920	353.00	189.00	5.38	224
	Thermal (Total)	2620	988.00	614.00	17.08	712
	Total Hydro	1148	466.00	368.00	8.57	357
<b>Total Punjab</b>	<b>3768</b>	<b>1454</b>	<b>982</b>	<b>25.66</b>	<b>1069</b>	
Haryana	Panipat TPS	1360	658.00	617.00	15.47	645
	DCRTPP (Yamuna nagar)	600	263.00	259.00	5.55	231
	Faridabad GPS (NTPC)	432	0.00	0.00	0.00	0
	RGTPP (khedar) (IPP)	1200	839.00	757.00	20.34	848
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	1760.00	1633.00	41.36	1723
	Total Hydro	62	0.00	0.00	0.00	0
	<b>Total Haryana</b>	<b>3679</b>	<b>1760</b>	<b>1633</b>	<b>41.36</b>	<b>1723</b>
Rajasthan	kota TPS	1240	947.00	790.00	21.05	877
	suratgarh TPS	1500	1139.00	579.00	20.46	853
	Chabra TPS	500	231.00	199.00	5.08	212
	Dholpur GPS	330	214.00	214.00	5.99	250
	Ramgarh GPS	113	62.00	62.00	1.60	67
	RAPS A (NPC)	300	173.00	176.00	4.31	180
	Barsingsar (NLC)	250	87.00	85.00	2.09	87
	Giral LTPS (IPP)	250	0.00	0.00	0.00	0
	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	2853.00	2105.00	60.58	2524
	Total Hydro	550	9.00	28.00	0.52	22
	Wind power	1294	546.00	177.00	8.68	362
	Biomass	71	14.00	14.00	0.32	14
	Renewable/Others (Total)	1365	560	191	9.01	375
	<b>Total Rajasthan</b>	<b>6668</b>	<b>3422</b>	<b>2324</b>	<b>70.10</b>	<b>2921</b>
	UP	Anpara TPS	1630	526	450	11.10
Obra TPS		1442	381	136	5.60	233
Paricha TPS		640	314	389	7.60	317
Panki TPS		210	62	60	1.10	46
Harduaganj TPS		375	18	30	0.50	21
Tanda TPS (NTPC)		440	293	287	7.14	297
Roza TPS (IPP)		600	189	247	5.58	233
Anpara-C (IPP)		600	0	0	0.00	0
Thermal (Total)		5937	1783	1599	38.62	1609
Vishnuparyag HPS (IPP)		400	436	398	4.28	178
Other Hydro		527	138	0	3.27	136
Cogeneration		951	50	50	1.20	50
<b>Total UP</b>		<b>7815</b>	<b>2407</b>	<b>2047</b>	<b>47.37</b>	<b>1795</b>
Uttarakhand		Total Hydro	1303	0	437	3.15
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>0</b>	<b>437</b>	<b>3.15</b>	<b>131</b>
Delhi	Rajghat TPS	135	106	95	1.97	82
	Delhi Gas Turbine	282	150	37	2.93	122
	Pragati Gas Turbine	330	299	136	6.01	250
	Rithala GPS	108	0	29	0.85	36
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	460	385	9.59	400
	Thermal (Total)	2000	1015	682	21.35	890
	<b>Total Delhi</b>	<b>2000</b>	<b>1015</b>	<b>682</b>	<b>21.35</b>	<b>890</b>
HP	Baspa HPS (IPP)	330	0	330	2.82	117
	Malana HPS (IPP)	101	101	104	2.19	91
	Other Hydro	571	238	541	6.66	278
	<b>Total HP</b>	<b>1002</b>	<b>339</b>	<b>975</b>	<b>12</b>	<b>486</b>
J & K	Baglihar HPS (IPP)	450	442	441	10.57	441
	Other Hydro	323	167	172	3.72	155
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>609</b>	<b>613</b>	<b>14.29</b>	<b>595</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>11006</b>	<b>9693</b>	<b>234.95</b>	<b>9611</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>4249</b>	<b>2354</b>	<b>93.39</b>	<b>3891</b>
<b>Total Regional Availability(Gross)</b>		<b>47266</b>	<b>28501</b>	<b>25235</b>	<b>616.53</b>	<b>25510</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9433	5535	7507	135.95	5665
State Control Area Hydro	5365	1561	2421	41.47	1728
<b>Total Regional Hydro</b>	<b>14797</b>	<b>7096</b>	<b>9928</b>	<b>177.42</b>	<b>7392</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	0	500	0	7.35	0.00	7.35
Gwalior-Agra (D/C)	1031	720	1535	0	27.13	0.00	27.13
Zerda-Kankroli	198	0	198	0	0.87	0.00	0.87
Zerda-Bhinmal	131	97	471	40	5.17	0.00	5.17
Malanpur-Auraiya	36	34	16	0	1.92	0.00	1.92
Badod-Kota/Morak	0	25	25	0	0.29	0.00	0.29
<b>Sub Total WR</b>	<b>1896</b>	<b>876</b>			<b>42.72</b>	<b>0.00</b>	<b>42.72</b>
Pusauli Bypass	286	176	429	0	6.42	0.00	6.42
MZP- GKP (D/C)	1090	716	1406	0	25.66	0.00	25.66
Patna-Balia(D/C)	525	189	581	0	8.20	0.00	8.20
B'Sharif-Balia (D/C)	449	293	586	0	8.21	0.00	8.21
Barh-Balia (D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	28	117	147	0	2.63	0.00	2.63
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-25	-13	0	30	0.00	0.47	-0.47
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>2353</b>	<b>1478</b>			<b>51.13</b>	<b>0.47</b>	<b>50.66</b>
<b>Total IR Exch</b>	<b>4249</b>	<b>2354</b>			<b>93.86</b>	<b>0.47</b>	<b>93.39</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
15.49	3.81	19.30	23.20	29.36	-4.24	5.72	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
38.26	34.73	72.99	50.66	42.72	93.39	12.41	7.99	20.40

**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	2.80	5.40	12.80	30.20	79.60	62.20	25.40	7.60

<----- 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				
50.42	2.27	48.78	19.10	49.81	1.33	0.31	50.46	48.97

**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	421	00:29	403	19:06	0.0	0.0	8.0	0.0
Gorakhpur	400	437	07:43	411	05:33	0.0	0.0	69.1	14.1
Bareilly	400	427	08:00	397	09:17	0.0	0.0	32.5	0.0
Kanpur	400	423	09:00	397	09:16	0.0	0.0	10.8	0.0
Dadri	400	421	02:18	398	09:16	0.0	0.0	2.9	0.0
Ballabgarh	400	424	02:16	397	09:16	0.0	0.0	19.4	0.0
Bawana	400	424	03:56	401	09:16	0.0	0.0	8.4	0.0
Bassi	400	429	02:26	400	08:38	0.0	0.0	31.4	0.0
Hissar	400	419	03:57	397	09:15	0.0	0.0	0.0	0.0
Moga	400	421	02:16	400	14:36	0.0	0.0	0.3	0.0
Abdullapur	400	430	04:00	238	11:04	0.4	0.4	22.3	0.0
Nalagarh	400	439	04:00	408	15:13	0.0	0.0	52.7	9.9
Kishenpur	400	412	00:08	393	19:45	0.0	0.0	0.0	0.0
Wagoora	400	402	23:55	379	19:45	0.1	23.5	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	506.45	1382.01	506.44	1382.01	2587.07	584.83
Pong	426.72	384.05	422.50	1005.78	413.44	611.20	3549.60	1017.17
Tehri	829.79	740.04	800.45	608.45	NA	NA	599.20	502.00
Koteshwar	612.50	598.50	607.90	3.54	NA	NA	417.00	145.00
Chamera-I	760.00	748.75	756.00	11.09	756.00	NA	684.71	344.85
Rihand	268.22	252.98	261.95	415.40	256.21	125.00	NA	NA
RPS	352.80	343.81	347.92	NA	347.49	NA	347.76	0.00
Jawahar Sagar	298.70	295.78	297.58	NA	297.61	NA	0.00	44.29
RSD	527.91	487.91	515.04	NA	518.98	NA	631.27	143.42

**IX. System Constraints:**

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

**XI. Weather Conditions For 16.08.2011 :**

1 : Rain in Northern Region.

**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 :**

1: NJPC, Tanakpur, Korcham, Dhauliganga (1600+93+600+280) MW hydro generation loss due to high silt level in River water.

Report for : 16.08.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER