

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.08.2011  
Date of Reporting : 22.08.2011

### 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
33473	2339	35812	49.88	32022	680	32702	50.01	761.0	25.57

\* 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	49.65	12.82		62.47	109.64	108.42	-1.22	170.89	6.21
Haryana	69.87	0.77		70.63	49.19	43.04	-6.15	113.67	0.00
Rajasthan	63.39	0.00	3.96	67.35	37.42	43.53	6.11	110.88	2.76
Delhi	25.04			25.04	61.41	58.91	-2.50	83.95	0.16
UP	49.13	15.65	0.00	64.78	135.06	137.67	2.60	202.44	16.44
Uttarakhand		17.26		17.26	6.75	9.93	3.17	27.19	0.00
HP		23.82		23.82	-2.49	-2.87	-0.38	20.95	0.00
J & K		14.48	0.00	14.48	11.71	11.99	0.28	26.47	0.00
Chandigarh				0.00	5.56	4.59	-0.98	4.59	0.00
<b>Total</b>	<b>257.08</b>	<b>84.79</b>	<b>3.96</b>	<b>345.83</b>	<b>414.27</b>	<b>415.20</b>	<b>0.93</b>	<b>761.03</b>	<b>25.57</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	7230	1063	-34	1659	7048	0	-58	2095	52.88
Haryana	5123	0	-174	775	4563	0	-284	883	17.18
Rajasthan	4384	276	-7	-406	4679	30	306	-272	-7.10
Delhi	3863	0	-107	335	3177	0	-368	219	6.53
UP	9100	1000	590	2132	9582	650	839	2127	45.80
Uttarakhand	1234	0	-44	-100	1156	0	316	-100	-2.40
HP	877	0	-7	-1808	812	0	-32	-1818	-42.73
J&K	1436	0	106	-384	837	0	-119	-377	-9.32
Chandigarh	226	0	-19	19	168	0	-42	6	0.58
<b>Total</b>	<b>33473</b>	<b>2339</b>	<b>304</b>	<b>2221</b>	<b>32022</b>	<b>680</b>	<b>558</b>	<b>2763</b>	<b>61.42</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	1481	1784	1384	35.03	1460	34.04	0.99
	Rihand I STPS	1000	940	1036	943	21.87	911	21.20	0.66
	Rihand II STPS	1000	473	519	473	11.09	462	10.73	0.37
	Dadri I STPS	840	596	444	631	11.32	472	11.56	-0.23
	Dadri II STPS	980	844	956	812	19.02	792	19.48	-0.46
	Unchahar I TPS	440	300	327	320	7.07	294	6.97	0.10
	Unchahar II TPS	440	300	304	303	6.82	284	6.67	0.15
	Unchahar III TPS	210	150	172	161	3.57	149	3.33	0.24
	ISTPP (Jhajjar)	500	0	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	792	555	510	15.36	640	12.07	3.30
	Anta GPS	419	392	390	343	7.95	331	7.87	0.08
	Auraiya GPS	663	613	459	545	10.98	458	11.42	-0.44
	<b>Sub Total (A)</b>	<b>9322</b>	<b>6890</b>	<b>6946</b>	<b>6425</b>	<b>150.07</b>	<b>6253</b>	<b>145.33</b>	<b>4.74</b>
B. NPC	NAPS	440	112	0	218	2.23	93	2.68	-0.45
	RAPS- B	440	383	424	428	9.16	382	9.19	-0.03
	RAPS- C	440	420	467	469	10.13	422	10.08	0.05
	<b>Sub Total (B)</b>	<b>1320</b>	<b>915</b>	<b>891</b>	<b>1115</b>	<b>21.52</b>	<b>897</b>	<b>21.95</b>	<b>-0.43</b>
C. NHPC	Chamera I HPS	540	534	540	540	12.80	533	12.81	0.00
	Chamera II HPS	300	297	299	301	7.14	298	7.17	-0.03
	Bairasuil HPS	180	170	120	60	1.91	80	1.97	-0.06
	Salal-HPS	690	124	524	0	2.83	118	2.92	-0.09
	Tanakpur-HPS	94	94	94	94	2.26	94	2.24	0.01
	Uri-HPS	480	302	360	273	7.01	292	7.50	-0.49
	Dhauliganga-HPS	280	277	278	275	6.68	278	6.71	-0.03
	Dulhasti-HPS	390	377	413	403	8.45	352	8.22	0.23
	Sewa-II HPS	120	119	122	120	2.81	117	2.78	0.02
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2294</b>	<b>2750</b>	<b>2066</b>	<b>51.89</b>	<b>2162</b>	<b>52.33</b>	<b>-0.44</b>
D.NJPC	Natpha Jhakri	1500	1600	1616	1617	38.51	1605	38.40	0.11
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1616</b>	<b>1617</b>	<b>38.51</b>	<b>1605</b>	<b>38.40</b>	<b>0.11</b>
E. THDC	Tehri HPS	1000	1030	1031	1000	24.11	1005	24.00	0.11
	Koteshwar HPS	100	92	94	94	2.21	92	2.21	0.00
	<b>Sub Total (E)</b>	<b>1100</b>	<b>1122</b>	<b>1125</b>	<b>1094</b>	<b>26.32</b>	<b>1096</b>	<b>26.21</b>	<b>0.11</b>
F. BBMB	Bhakra HPS	1480	1227	1256	1256	30.15	1256	29.45	0.70
	Dehar HPS	990	608	660	560	15.06	628	14.60	0.46
	Pong HPS	396	354	366	366	8.82	368	8.50	0.32
	<b>Sub Total (F)</b>	<b>2866</b>	<b>2189</b>	<b>2282</b>	<b>2182</b>	<b>54.03</b>	<b>2251</b>	<b>52.54</b>	<b>1.49</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	189	174	3.42	142	3.63	-0.21
	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>789</b>	<b>774</b>	<b>17.72</b>	<b>738</b>	<b>17.91</b>	<b>-0.19</b>
<b>H. Total Regional Entities (A-G)</b>		<b>20075</b>	<b>14999</b>	<b>16399</b>	<b>15273</b>	<b>360.05</b>	<b>15002</b>	<b>354.66</b>	<b>5.39</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	1130.00	1045.00	23.17	965	
	Guru Nanak Dev TPS(Bhatinda)	440	290.00	290.00	6.07	253	
	Guru Hargobind Singh TPS(L.mbt)	920	926.00	941.00	20.42	851	
	Thermal (Total)	2620	2346.00	2276.00	49.65	2069	
	Total Hydro	1148	716.00	414.00	12.82	534	
	<b>Total Punjab</b>	<b>3768</b>	<b>3062</b>	<b>2690</b>	<b>62.47</b>	<b>2603</b>	
Haryana	Panipat TPS	1360	1156.00	1171.00	28.11	1171	
	DCRTPP (Yamuna nagar)	600	490.00	526.00	11.45	477	
	Faridabad GPS (NTPC)	432	303.00	300.00	7.23	301	
	RGTPP (khedar) (IPP)	1200	946.00	836.00	23.08	962	
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0	
	Thermal (Total)	3617	2895.00	2833.00	69.87	2911	
	Total Hydro	62	32.00	10.00	0.77	32	
	<b>Total Haryana</b>	<b>3679</b>	<b>2927</b>	<b>2843</b>	<b>70.63</b>	<b>2943</b>	
	Rajasthan	kota TPS	1240	773.00	768.00	18.25	760
suratgarh TPS		1500	1135.00	1125.00	25.58	1066	
Chabra TPS		500	230.00	222.00	5.38	224	
Dholpur GPS		330	275.00	260.00	6.38	266	
Ramgarh GPS		113	62.00	62.00	1.60	67	
RAPS A (NPC)		300	174.00	174.00	4.29	179	
Barsingsar (NLC)		250	0.00	79.00	0.63	26	
Giral LTPS (IPP)		250	57.00	52.00	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	2706.00	2742.00	63.39	2641	
Total Hydro		550	0.00	0.00	0.00	0	
Wind power		1294	274.00	69.00	3.46	144	
Biomass		71	22.00	22.00	0.49	21	
Renewable/Others (Total)		1365	296	91	3.96	165	
<b>Total Rajasthan</b>		<b>6668</b>	<b>3002</b>	<b>2833</b>	<b>67.35</b>	<b>2806</b>	
UP		Anpara TPS	1630	882	847	18.30	763
		Obra TPS	1442	417	369	8.50	354
	Paricha TPS	640	221	373	7.00	292	
	Panki TPS	210	80	72	1.60	67	
	Harduaganj TPS	375	0	0	0.00	0	
	Tanda TPS (NTPC)	440	292	280	7.08	295	
	Roza TPS (IPP)	600	283	279	6.65	277	
	Anpara-C (IPP)	600	0	0	0.00	0	
	Thermal (Total)	5937	2175	2220	49.13	2047	
	Vishnuparyag HPS (IPP)	400	436	436	10.46	436	
	Other Hydro	527	299	0	5.20	216	
	Cogeneration	951	0	0	0.00	0	
	<b>Total UP</b>	<b>7815</b>	<b>2910</b>	<b>2656</b>	<b>64.78</b>	<b>2263</b>	
	Uttarakhand	Total Hydro	1303	862	633	17.26	719
<b>Total Uttarakhand</b>		<b>1303</b>	<b>862</b>	<b>633</b>	<b>17.26</b>	<b>719</b>	
Delhi	Rajghat TPS	135	107	98	2.62	109	
	Delhi Gas Turbine	282	146	188	3.76	157	
	Pragati Gas Turbine	330	295	303	7.36	307	
	Rithala GPS	108	26	29	0.77	32	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	640	460	10.54	439	
	Thermal (Total)	2000	1214	1078	25.04	1044	
	<b>Total Delhi</b>	<b>2000</b>	<b>1214</b>	<b>1078</b>	<b>25.04</b>	<b>1044</b>	
HP	Baspa HPS (IPP)	330	330	330	7.92	330	
	Malana HPS (IPP)	101	101	103	2.43	101	
	Other Hydro	571	566	558	13.47	561	
	<b>Total HP</b>	<b>1002</b>	<b>997</b>	<b>991</b>	<b>24</b>	<b>992</b>	
J & K	Baglihar HPS (IPP)	450	441	440	10.58	441	
	Other Hydro	323	146	176	3.90	163	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>587</b>	<b>616</b>	<b>14.48</b>	<b>604</b>	
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>15561</b>	<b>14340</b>	<b>345.83</b>	<b>13974</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>3664</b>	<b>3947</b>	<b>88.22</b>	<b>3676</b>	
<b>Total Regional Availability(Gross)</b>		<b>47266</b>	<b>35624</b>	<b>33560</b>	<b>794.10</b>	<b>32652</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	9433	8562	7733	188.46	7853
State Control Area Hydro	5365	3493	2664	74.34	3097
<b>Total Regional Hydro</b>	<b>14797</b>	<b>12055</b>	<b>10397</b>	<b>262.80</b>	<b>10950</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	300	500	500	0	11.31	0.00	11.31
Gwalior-Agra (D/C)	978	1044	1237	0	24.18	0.00	24.18
Zerda-Kankroli	283	223	312	0	5.07	0.00	5.07
Zerda-Bhinmal	283	265	392	0	6.36	0.00	6.36
Malanpur-Auraiya	-3	20	35	58	0.27	0.00	0.27
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>1841</b>	<b>2052</b>			<b>47.19</b>	<b>0.00</b>	<b>47.19</b>
Pusauli Bypass	76	35	76	100	0.51	0.41	0.10
MZP- GKP (D/C)	797	966	1082	0	20.81	0.00	20.81
Patna-Balia(D/C)	497	470	506	0	9.58	0.00	9.58
B'Sharif-Balia (D/C)	348	336	348	0	6.66	0.00	6.66
Barh-Balia (D/C)	0	0	381	0	1.15	0.00	1.15
Pusauli-Sahupuri	137	112	155	0	3.25	0.00	3.25
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>1823</b>	<b>1895</b>			<b>41.95</b>	<b>0.93</b>	<b>41.03</b>
<b>Total IR Exch</b>	<b>3664</b>	<b>3947</b>			<b>89.15</b>	<b>0.93</b>	<b>88.22</b>

**V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]**

ER	ISGS/LT Schedule (MU)		Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
14.58	3.52	18.11	22.17	28.83	-0.76	6.19	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
39.51	34.59	74.11	41.03	47.19	88.22	1.51	12.60	14.11

**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	11.10	97.40	87.10	21.70	1.80

<----- 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				
50.37	17.03	49.43	0.08	49.89	0.38	0.16	50.32	49.63

**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	415	06:31	405	22:09	0.0	0.0	0.0	0.0
Gorakhpur	400	437	06:15	402	20:35	0.0	0.0	67.3	12.1
Bareilly	400	422	08:00	397	20:33	0.0	0.0	1.0	0.0
Kanpur	400	420	09:00	399	19:42	0.0	0.0	0.0	0.0
Dadri	400	414	07:47	398	19:41	0.0	0.0	0.0	0.0
Ballabgarh	400	419	06:16	400	19:40	0.0	0.0	0.0	0.0
Bawana	400	415	06:04	397	19:39	0.0	0.0	0.0	0.0
Bassi	400	426	06:17	405	19:40	0.0	0.0	18.9	0.0
Hissar	400	409	06:03	396	19:39	0.0	0.0	0.0	0.0
Moga	400	416	06:04	403	13:34	0.0	0.0	0.0	0.0
Abdullapur	400	408	07:00	396	20:00	0.0	0.0	0.0	0.0
Nalagarh	400	412	04:06	401	14:24	0.0	0.0	0.0	0.0
Kishenpur	400	407	02:24	392	14:16	0.0	0.0	0.0	0.0
Wagoora	400	406	23:49	381	19:34	0.0	24.7	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	508.40	1470.42	509.58	1530.03	1373.48	927.15
Pong	426.72	384.05	422.71	1020.81	418.22	807.91	1244.52	493.82
Tehri	829.79	740.04	811.75	829.28	NA	NA	600.97	557.00
Koteshwar	612.50	598.50	607.70	3.54	NA	NA	553.00	148.00
Chamera-I	760.00	748.75	758.01	14.00	756.00	NA	403.00	348.29
Rihand	268.22	252.98	263.32	500.10	256.49	136.20	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	519.06	NA	521.03	NA	377.24	138.44

**IX. System Constraints:**

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

**XI. Weather Conditions For 21.08.2011 :**  
Partial rains 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 :**

Report for : 21.08.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER