

# पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 19.08.2011  
Date of Reporting : 20.08.2011

### 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
33001	2803	35804	49.80	32041	650	32691	49.96	758.0	28.99

\* 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	53.61	9.28		62.89	109.33	106.71	-2.62	169.60	1.80
Haryana	51.19	0.61		51.79	58.86	63.54	4.67	115.33	1.49
Rajasthan	67.67	0.24	5.73	73.64	35.02	38.01	3.00	111.65	2.90
Delhi	25.09			25.09	63.02	61.26	-1.76	86.35	0.08
UP	43.63	13.95	0.00	57.58	131.98	137.17	5.19	194.75	21.80
Uttarakhand		22.42		22.42	11.87	3.22	-8.65	25.64	0.87
HP		23.94		23.94	-3.91	-1.77	2.14	22.18	0.05
J & K		14.71	0.00	14.71	15.79	12.69	-3.10	27.40	0.00
Chandigarh				0.00	6.03	5.10	-0.93	5.10	0.00
<b>Total</b>	<b>241.18</b>	<b>85.16</b>	<b>5.73</b>	<b>332.07</b>	<b>428.00</b>	<b>425.93</b>	<b>-2.06</b>	<b>758.00</b>	<b>28.99</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	7180	450	-87	1655	7094	0	-208	2498	52.53
Haryana	5369	313	659	726	4944	0	416	823	18.06
Rajasthan	4408	317	-98	-441	4876	0	72	-288	-8.96
Delhi	4029	0	-14	393	3258	0	-100	133	8.03
UP	8279	1575	544	1727	8961	650	574	2127	43.98
Uttarakhand	1140	140	-359	-100	1006	0	-416	-100	-2.40
HP	923	8	74	-1755	782	0	-6	-1817	-42.13
J&K	1431	0	70	-387	951	0	-291	-380	-9.47
Chandigarh	242	0	-27	32	169	0	-43	10	0.90
<b>Total</b>	<b>33001</b>	<b>2803</b>	<b>762</b>	<b>1850</b>	<b>32041</b>	<b>650</b>	<b>-2</b>	<b>3006</b>	<b>60.55</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	1129	1174	1351	27.20	1133	27.10	0.10
	Rihand I STPS	1000	841	817	975	19.99	833	20.18	-0.19
	Rihand II STPS	1000	473	514	516	11.49	479	11.35	0.14
	Dadri I STPS	840	585	648	483	12.56	523	12.73	-0.17
	Dadri II STPS	980	793	829	640	17.85	744	17.82	0.03
	Unchahar I TPS	440	313	348	335	7.41	309	7.35	0.06
	Unchahar II TPS	440	308	344	326	7.16	298	7.06	0.10
	Unchahar III TPS	210	156	173	165	3.64	152	3.62	0.02
	ISTPP (Jhajjar)	500	0	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	791	778	588	15.36	640	15.55	-0.19
	Anta GPS	419	390	392	349	7.81	326	7.83	-0.02
	Auraiya GPS	663	616	613	461	11.80	492	11.76	0.04
	<b>Sub Total (A)</b>	<b>9322</b>	<b>6395</b>	<b>6630</b>	<b>6189</b>	<b>142.26</b>	<b>5928</b>	<b>142.35</b>	<b>-0.09</b>
B. NPC	NAPS	440	188	214	228	4.53	189	4.51	0.02
	RAPS- B	440	382	424	426	9.28	387	9.17	0.12
	RAPS- C	440	420	469	471	10.10	421	10.08	0.02
	<b>Sub Total (B)</b>	<b>1320</b>	<b>990</b>	<b>1107</b>	<b>1125</b>	<b>23.91</b>	<b>996</b>	<b>23.76</b>	<b>0.15</b>
C. NHPC	Chamera I HPS	540	539	540	540	12.80	533	12.82	-0.02
	Chamera II HPS	300	297	300	300	7.15	298	6.89	0.26
	Bairasui HPS	180	179	110	120	2.31	96	2.21	0.10
	Salal-HPS	690	625	626	626	15.00	625	14.98	0.02
	Tanakpur-HPS	94	94	94	94	2.25	94	2.24	0.01
	Uri-HPS	480	293	360	229	7.36	307	7.45	-0.09
	Dhauliganga-HPS	280	277	278	277	6.69	279	6.67	0.02
	Dulhasti-HPS	390	387	395	386	9.03	376	9.03	0.00
	Sewa-II HPS	120	119	123	119	2.87	120	2.83	0.04
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2810</b>	<b>2826</b>	<b>2691</b>	<b>65.46</b>	<b>2728</b>	<b>65.12</b>	<b>0.34</b>
D. NJPC	Nathpa Jhakri	1500	1600	1619	1617	38.51	1604	38.40	0.11
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1619</b>	<b>1617</b>	<b>38.51</b>	<b>1604</b>	<b>38.40</b>	<b>0.11</b>
E. THDC	Tehri HPS	1000	1020	1015	1000	24.18	1008	24.00	0.18
	Koteswar HPS	100	92	92	92	2.21	92	2.21	0.00
	<b>Sub Total (E)</b>	<b>1100</b>	<b>1112</b>	<b>1107</b>	<b>1092</b>	<b>26.39</b>	<b>1100</b>	<b>26.21</b>	<b>0.18</b>
F. BBMB	Bhakra HPS	1480	1227	1256	1257	30.19	1258	29.45	0.74
	Dehar HPS	990	595	660	640	14.92	622	14.28	0.64
	Pong HPS	396	354	366	366	8.84	368	8.50	0.34
	<b>Sub Total (F)</b>	<b>2866</b>	<b>2176</b>	<b>2282</b>	<b>2263</b>	<b>53.95</b>	<b>2248</b>	<b>52.22</b>	<b>1.73</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	231	323	3.34	139	3.30	0.04
	KWHEP HPS(IPP)	500	0	594	594	14.27	595	14.27	0.00
	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>825</b>	<b>917</b>	<b>17.61</b>	<b>734</b>	<b>17.57</b>	<b>0.04</b>
<b>H. Total Regional Entities (A-G)</b>	<b>20075</b>	<b>15082</b>	<b>16396</b>	<b>15894</b>	<b>368.09</b>	<b>15337</b>	<b>365.63</b>	<b>2.46</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	1110.00	27.40	1142	
	Guru Nanak Dev TPS(Bhatinda)	440	295.00	292.00	6.14	256	
	Guru Hargobind Singh TPS(L.mbt)	920	933.00	849.00	20.07	836	
	Thermal (Total)	2620	2473.00	2251.00	53.61	2234	
	Total Hydro	1148	616.00	318.00	9.28	387	
	<b>Total Punjab</b>	<b>3768</b>	<b>3089</b>	<b>2569</b>	<b>62.89</b>	<b>2620</b>	
Haryana	Panipat TPS	1360	850.00	902.00	21.10	879	
	DCRTPP (Yamuna nagar)	600	548.00	552.00	12.56	523	
	Faridabad GPS (NTPC)	432	403.00	405.00	9.49	395	
	RGTPP (khedar) (IPP)	1200	455.00	100.00	8.04	335	
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0	
	Thermal (Total)	3617	2256.00	1959.00	51.19	2133	
	Total Hydro	62	13.00	38.00	0.61	25	
	<b>Total Haryana</b>	<b>3679</b>	<b>2269</b>	<b>1997</b>	<b>51.79</b>	<b>2158</b>	
Rajasthan	kota TPS	1240	971.00	964.00	22.54	939	
	suratgarh TPS	1500	1158.00	1131.00	26.48	1103	
	Chabra TPS	500	215.00	230.00	4.11	171	
	Dholpur GPS	330	277.00	256.00	6.39	266	
	Ramgarh GPS	113	62.00	62.00	1.61	67	
	RAPS A (NPC)	300	174.00	174.00	4.30	179	
	Barsingsar (NLC)	250	79.00	85.00	2.17	90	
	Giral LTPS (IPP)	250	27.00	0.00	0.08	3	
	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	2963.00	2902.00	67.67	2820	
	Total Hydro	550	9.00	10.00	0.24	10	
	Wind power	1294	134.00	334.00	5.35	223	
	Biomass	71	17.00	17.00	0.38	16	
	Renewable/Others (Total)	1365	151	351	5.73	239	
		<b>Total Rajasthan</b>	<b>6668</b>	<b>3123</b>	<b>3263</b>	<b>73.64</b>	<b>3068</b>
	UP	Anpara TPS	1630	638	594	15.20	633
Obra TPS		1442	317	326	7.50	313	
Paricha TPS		640	351	321	8.10	338	
Panki TPS		210	43	65	1.30	54	
Harduaganj TPS		375	0	0	0.00	0	
Tanda TPS (NTPC)		440	277	266	6.81	284	
Roza TPS (IPP)		600	180	199	4.72	197	
Anpara-C (IPP)		600	0	0	0.00	0	
Thermal (Total)		5937	1806	1771	43.63	1818	
Vishnuparyag HPS (IPP)		400	436	436	9.90	413	
Other Hydro		527	225	0	4.05	169	
Cogeneration		951	0	0	0.00	0	
		<b>Total UP</b>	<b>7815</b>	<b>2467</b>	<b>2207</b>	<b>57.58</b>	<b>1987</b>
Uttarakhand	Total Hydro	1303	997	919	22.42	934	
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>997</b>	<b>919</b>	<b>22.42</b>	<b>934</b>	
Delhi	Rajghat TPS	135	96	101	2.17	90	
	Delhi Gas Turbine	282	151	136	3.60	150	
	Pragati Gas Turbine	330	302	300	7.28	303	
	Rithala GPS	108	44	29	0.98	41	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	505	570	11.07	461	
	Thermal (Total)	2000	1098	1136	25.09	1045	
	<b>Total Delhi</b>	<b>2000</b>	<b>1098</b>	<b>1136</b>	<b>25.09</b>	<b>1045</b>	
HP	Baspa HPS (IPP)	330	330	330	7.92	330	
	Malana HPS (IPP)	101	105	105	2.52	105	
	Other Hydro	571	575	571	13.51	563	
		<b>Total HP</b>	<b>1002</b>	<b>1010</b>	<b>1006</b>	<b>24</b>	<b>998</b>
J & K	Baglihar HPS (IPP)	450	442	440	10.57	441	
	Other Hydro	323	184	185	4.14	173	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>626</b>	<b>625</b>	<b>14.71</b>	<b>613</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>14679</b>	<b>13722</b>	<b>332.07</b>	<b>13424</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>3439</b>	<b>3499</b>	<b>75.22</b>	<b>3134</b>	
<b>Total Regional Availability(Gross)</b>		<b>47266</b>	<b>34514</b>	<b>33115</b>	<b>775.38</b>	<b>31895</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	9433	8659	8580	201.92	8413
State Control Area Hydro	5365	3496	2916	75.26	3136
<b>Total Regional Hydro</b>	<b>14797</b>	<b>12155</b>	<b>11496</b>	<b>277.18</b>	<b>11549</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	500	500	0	9.39	0.00	9.39
Gwalior-Agra (D/C)	952	977	1118	0	22.81	0.00	22.81
Zerda-Kankroli	158	157	207	51	2.22	0.00	2.22
Zerda-Bhinmal	236	100	267	60	2.70	0.00	2.70
Malanpur-Auraiya	11	28	28	5	0.05	0.00	0.05
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>1857</b>	<b>1762</b>			<b>37.17</b>	<b>0.00</b>	<b>37.17</b>
Pusauli Bypass	81	-51	164	91	1.49	0.12	1.37
MZP- GKP (D/C)	651	972	1106	0	17.89	0.00	17.89
Patna-Balia(D/C)	156	290	311	0	6.47	0.00	6.47
B'Sharif-Balia (D/C)	345	370	438	0	7.86	0.00	7.86
Barh-Balia (D/C)	259	0	335	0	1.57	0.00	1.57
Pusauli-Sahupuri	115	169	174	0	3.37	0.00	3.37
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>1582</b>	<b>1737</b>			<b>38.64</b>	<b>0.59</b>	<b>38.05</b>
<b>Total IR Exch</b>	<b>3439</b>	<b>3499</b>			<b>75.81</b>	<b>0.59</b>	<b>75.22</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
14.75	3.71	18.46	23.63	28.57	-1.08	7.74	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
41.01	35.89	76.90	38.05	37.17	75.22	-2.96	1.28	-1.68

**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	0.30	2.50	17.10	96.70	82.10	17.00	0.80

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz	Index		(Hz)	(Hz)
50.28	8.18	49.06	19.13	49.85	0.52	0.17	50.27	49.53

**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	417	08:16	410	19:12	0.0	0.0	0.0	0.0
Gorakhpur	400	437	06:25	411	19:27	0.0	0.0	74.2	4.8
Bareilly	400	426	08:00	403	19:13	0.0	0.0	10.9	0.0
Kanpur	400	424	09:00	407	14:10	0.0	0.0	9.2	0.0
Dadri	400	415	06:07	400	11:11	0.0	0.0	0.0	0.0
Ballabgarh	400	422	06:06	403	11:12	0.0	0.0	1.1	0.0
Bawana	400	417	06:02	401	11:13	0.0	0.0	0.0	0.0
Bassi	400	428	06:03	408	11:14	0.0	0.0	33.8	0.0
Hissar	400	411	06:07	397	19:12	0.0	0.0	0.0	0.0
Moga	400	416	06:03	401	11:11	0.0	0.0	0.0	0.0
Abdullapur	400	413	06:03	399	19:13	0.0	0.0	0.0	0.0
Nalagarh	400	413	02:32	400	11:18	0.0	0.0	0.0	0.0
Kishenpur	400	409	02:25	393	19:45	0.0	0.0	0.0	0.0
Wagoora	400	409	02:25	383	19:46	0.0	11.3	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	507.83	1440.82	508.43	1470.42	1557.54	929.33
Pong	426.72	384.05	422.84	1020.81	492.68	415.53	1468.06	492.68
Tehri	829.79	740.04	809.75	802.26	NA	NA	617.72	565.00
Koteswar	612.50	598.50	607.70	3.54	NA	NA	565.00	147.00
Chamera-I	760.00	748.75	758.38	12.93	756.00	NA	459.46	347.39
Rihand	268.22	252.98	NA	NA	256.37	131.20	NA	NA
RPS	352.80	343.81	347.95	NA	349.18	NA	347.76	0.00
Jawahar Sagar	298.70	295.78	297.15	NA	298.03	NA	0.00	44.29
RSD	527.91	487.91	518.05	NA	519.65	NA	330.00	74.84

**IX. System Constraints:**

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

**XI. Weather Conditions For 19.08.2011 :**  
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 : 19.08.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER