

**पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड**  
(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)  
**उत्तरी क्षेत्रीय भार प्रेषण केंद्र**



**Power Supply Position in Northern Region for 09.07.2011**  
**Date of Reporting : 10.07.2011**

**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
33252	1200	34452	49.82	32306	10	32316	50.20	785.4	8.69

\* 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:**

UI [OD:(+ve), UD: (-ve)]

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	51.80	19.43		71.23	101.84	99.59	-2.25	170.81	1.80
Haryana	66.60	0.85		67.45	59.39	49.28	-10.11	116.72	0.00
Rajasthan	65.47	0.00	7.94	73.41	34.06	41.61	7.55	115.03	0.00
Delhi	20.88			20.88	68.03	65.27	-2.76	86.16	0.05
UP	64.73	11.30	1.20	77.23	138.73	134.17	-4.56	211.41	6.84
Uttarakhand		20.72		20.72	10.74	9.90	-0.84	30.62	0.00
HP		23.05		23.05	-1.38	-0.73	0.65	22.32	0.00
J & K		15.37	0.00	15.37	16.35	12.33	-4.02	27.71	0.00
Chandigarh				0.00	5.71	4.66	-1.05	4.66	0.00
<b>Total</b>	<b>269.48</b>	<b>90.72</b>	<b>9.14</b>	<b>369.34</b>	<b>433.48</b>	<b>416.09</b>	<b>-17.39</b>	<b>785.43</b>	<b>8.69</b>

\* Shortage furnished by the respective constituent.

**II. B. State's Demand Met in MWs:**

UI/OA/PX [OD/Import: (+ve), UD/Export: (-ve)]

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	STOA/PX transaction	
Punjab	7517	150	-205	1963	6872	0	-433	2614	54.35	
Haryana	5203	0	-135	1216	4477	0	-766	1306	26.38	
Rajasthan	4819	0	201	-681	4795	0	347	-661	-10.55	
Delhi	3851	0	-187	426	3294	10	-267	429	8.33	
UP	8235	1050	-652	1723	9746	0	297	1721	41.35	
Uttarakhand	1435	0	128	-100	1241	0	-116	-100	-2.40	
HP	765	0	-191	-1697	818	0	-30	-1705	-40.78	
J&K	1203	0	-142	-497	884	0	-345	-490	-12.12	
Chandigarh	224	0	-18	26	179	0	-51	9	0.75	
<b>Total</b>	<b>33252</b>	<b>1200</b>	<b>-1201</b>	<b>2379</b>	<b>32306</b>	<b>10</b>	<b>-1364</b>	<b>3124</b>	<b>65.30</b>	

\* STOA figures are at sellers boundary & PX figures are at regional boundary.

**III. Regional Entities :**

UI [OG:(+ve), UG: (-ve)]

Entity	Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW	Off Peak MW	Energy	Average	Schedule	UI
				(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU
A. NTPC	Singrauli STPS	2000	1705	1837	1523	37.76	1573	36.54	1.22
	Rihand I STPS	1000	960	952	929	19.99	833	19.65	0.34
	Rihand II STPS	1000	970	966	754	19.63	818	19.34	0.29
	Dadri I STPS	840	800	646	558	13.58	566	13.70	-0.12
	Dadri II STPS	980	934	779	712	16.40	683	16.59	-0.19
	Unchahar I TPS	440	402	431	383	8.36	348	8.39	-0.03
	Unchahar II TPS	440	598	411	359	7.77	324	7.69	0.08
	Unchahar III TPS	210	203	213	201	4.13	172	3.94	0.18
	ISTPP (Jhajjar)	500	450	388	156	6.92	288	7.31	-0.39
	Dadri GPS	830	590	455	380	9.34	389	9.64	-0.30
	Anta GPS	419	393	246	280	6.25	260	6.55	-0.30
	Auraiya GPS	663	614	467	462	10.11	421	10.10	0.01
	<b>Sub Total (A)</b>	<b>9322</b>	<b>8619</b>	<b>7791</b>	<b>6697</b>	<b>160.23</b>	<b>6676</b>	<b>159.43</b>	<b>0.80</b>
	B. NPC	NAPS	440	185	221	219	4.47	186	4.44
RAPS- B		440	386	430	436	9.38	391	9.26	0.12
RAPS- C		440	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (B)</b>		<b>1320</b>	<b>571</b>	<b>651</b>	<b>655</b>	<b>13.85</b>	<b>577</b>	<b>13.70</b>	<b>0.15</b>
C. NHPC	Chamera I HPS	540	534	540	540	12.63	526	12.82	-0.20
	Chamera II HPS	300	297	301	301	7.15	298	7.21	-0.06
	Bairasul HPS	180	179	179	0	2.87	120	3.18	-0.31
	Salal-HPS	690	623	626	614	14.88	620	14.89	-0.02
	Tanakpur-HPS	94	92	94	95	2.18	91	2.24	-0.06
	Uri-HPS	480	476	478	478	11.51	480	11.50	0.01
	Dhauliganga-HPS	280	277	281	277	6.70	279	6.69	0.01
	Dulhasti-HPS	390	387	409	276	8.87	369	9.05	-0.18
	Sewa-II HPS	120	74	83	0	0.88	37	1.00	-0.12
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2939</b>	<b>2991</b>	<b>2581</b>	<b>67.66</b>	<b>2819</b>	<b>68.59</b>	<b>-0.93</b>
D. NJPC	Nathpa Jhakri	1500	1600	1618	1613	38.33	1597	38.22	0.11
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1618</b>	<b>1613</b>	<b>38.33</b>	<b>1597</b>	<b>38.22</b>	<b>0.11</b>
E. THDC	Tehri HPS	1000	700	701	695	16.29	679	16.50	-0.21
	Koteshwar HPS	100	98	100	98	2.21	92	2.18	0.02
	<b>Sub Total (E)</b>	<b>1100</b>	<b>798</b>	<b>801</b>	<b>793</b>	<b>18.49</b>	<b>771</b>	<b>18.68</b>	<b>-0.19</b>
F. BBMB	Bhakra HPS	1480	1015	1076	966	25.01	1042	24.37	0.64
	Dehar HPS	990	609	660	600	15.27	636	14.61	0.66
	Pong HPS	396	215	366	180	5.34	223	5.16	0.18
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1839</b>	<b>2102</b>	<b>1746</b>	<b>45.62</b>	<b>1901</b>	<b>44.13</b>	<b>1.49</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	195	131	3.59	150	3.33	0.26
	KWHEP HPS(IPP)	500	0	600	600	13.78	574	14.25	-0.47
	<b>Sub Total (G)</b>	<b>692</b>	<b>0</b>	<b>795</b>	<b>731</b>	<b>17.37</b>	<b>724</b>	<b>17.59</b>	<b>-0.22</b>
<b>H. Total Cental (A-G)</b>	<b>19875</b>	<b>16366</b>	<b>16749</b>	<b>14816</b>	<b>361.56</b>	<b>15065</b>	<b>360.34</b>	<b>1.22</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	1080.00	26.00	1083
	Guru Nanak Dev TPS(Bhatinda)	440	288.00	293.00	6.13	255
	Guru Hargobind Singh TPS(L.mbt)	920	953.00	793.00	19.67	819
	Thermal (Total)	2620	2501.00	2166.00	51.80	2158
	Total Hydro	1148	957.00	754.00	19.43	810
	<b>Total Punjab</b>	<b>3768</b>	<b>3458</b>	<b>2920</b>	<b>71.23</b>	<b>2968</b>
Haryana	Panipat TPS	1360	1004.00	1136.00	25.59	1066
	DCRTPP (Yamuna nagar)	600	398.00	384.00	9.73	405
	Faridabad GPS (NTPC)	432	193.00	324.00	6.54	273
	RGTPP (khedar) (IPP)	1200	1005.00	895.00	24.74	1031
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2600.00	2739.00	66.60	2775
	Total Hydro	62	34.00	25.00	0.85	35
	<b>Total Haryana</b>	<b>3679</b>	<b>2634</b>	<b>2764</b>	<b>67.45</b>	<b>2810</b>
Rajasthan	kota TPS	1240	764.00	800.00	17.21	717
	suratgarh TPS	1500	1351.00	1158.00	30.68	1278
	Chabra TPS	500	201.00	184.00	4.51	188
	Dholpur GPS	330	272.00	278.00	6.79	283
	Ramgarh GPS	113	56.00	66.00	0.79	33
	RAPS A (NPC)	300	257.00	162.00	4.36	182
	Barsingsar (NLC)	250	0.00	0.00	0.00	0
	Giral LTTPS (IPP)	250	0.00	0.00	0.27	11
	Rajwest LTTPS (IPP)	135	0.00	0.00	0.00	0
	VSLP LTTPS (IPP)	135	36.00	36.00	0.86	36
	Thermal (Total)	4753	2937.00	2684.00	65.47	2728
	Total Hydro	550	0.00	0.00	0.00	0
	Wind power	1294	343.00	344.00	7.32	305
	Biomass	71	26.00	26.00	0.63	26
	Renewable/Others (Total)	1365	369	370	7.94	331
	<b>Total Rajasthan</b>	<b>6668</b>	<b>3306</b>	<b>3054</b>	<b>73.41</b>	<b>3059</b>
	UP	Anpara TPS	1630	1160	1535	29.09
Obra TPS		1442	525	277	9.51	396
Paricha TPS		640	184	351	5.73	239
Panki TPS		210	170	170	3.42	142
Harduaganj TPS		375	0	0	0.00	0
Tanda TPS (NTPC)		440	290	227	6.49	270
Roza TPS (IPP)		600	549	396	10.50	438
Thermal (Total)		5337	2878	2956	64.73	2697
Vishnuparyag HPS (IPP)		400	436	436	8.78	366
Other Hydro		527	101	0	2.52	105
Cogeneration		951	50	50	1.20	50
<b>Total UP</b>		<b>7215</b>	<b>3465</b>	<b>3442</b>	<b>77.23</b>	<b>2852</b>
Uttarakhand		Total Hydro	1303	859	893	20.72
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>859</b>	<b>893</b>	<b>20.72</b>	<b>863</b>
Delhi	Rajghat TPS	135	95	92	2.21	92
	Delhi Gas Turbine	282	72	72	1.68	70
	Pragati Gas Turbine	330	297	271	6.94	289
	Rithala GPS	108	39	29	0.94	39
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	455	395	9.11	380
	Thermal (Total)	2000	958	859	20.88	870
	<b>Total Delhi</b>	<b>2000</b>	<b>958</b>	<b>859</b>	<b>20.88</b>	<b>870</b>
HP	Baspa HPS (IPP)	300	330	330	7.92	330
	Malana HPS (IPP)	86	104	105	2.48	104
	Other Hydro	584	541	553	12.65	527
	<b>Total HP</b>	<b>970</b>	<b>975</b>	<b>988</b>	<b>23.05</b>	<b>961</b>
J & K	Baglihar HPS (IPP)	450	442	442	10.60	442
	Other Hydro	323	166	49	4.78	199
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>608</b>	<b>491</b>	<b>15.37</b>	<b>641</b>
<b>Total State Generation</b>		<b>26559</b>	<b>16263</b>	<b>15411</b>	<b>369.34</b>	<b>15023</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>2256</b>	<b>3411</b>	<b>71.62</b>	<b>2984</b>
<b>Total Regional Availability(Gross)</b>		<b>46434</b>	<b>35268</b>	<b>33638</b>	<b>802.53</b>	<b>33073</b>

#### IV. Total Hydro Generation:

Central +BBMB Hydro	8541	7512	6733	170.11	7088
State Hydro	4497	3590	3405	83.22	3468
Regional Hydro	13037	11102	10138	253.33	10555

**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	200	500	500	0	10.61	0.00	10.61
Gwalior-Agra (D/C)	823	1218	1300	0	24.93	0.00	24.93
Zerda-Kankroli	0	0	166	0	0.43	0.00	0.43
Zerda-Bhinmal	0	0	172	6	0.19	0.00	0.19
Malanpur-Auraiya	-30	28	28	129	0.00	0.22	-0.22
Badod-Kota/Morak	155	160	231	0	3.90	0.00	3.90
<b>Sub Total WR</b>	<b>993</b>	<b>1746</b>			<b>36.15</b>	<b>0.22</b>	<b>35.93</b>
Pusauli Bypass	-111	67	217	268	0.75	1.37	-0.62
MZP- GKP (D/C)	600	1000	1162	0	20.94	0.00	20.94
Patna-Balia(D/C)	299	-114	328	139	0.38	0.00	0.38
B'Sharif-Balia (D/C)	312	529	794	0	10.53	0.00	10.53
Pusauli-Sahupuri	163	183	205	0	4.46	0.00	4.46
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	0	0	0	0	0.00	0.00	0.00
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1263</b>	<b>1665</b>			<b>37.05</b>	<b>1.37</b>	<b>35.69</b>
<b>Total IR Exch</b>	<b>2256</b>	<b>3411</b>			<b>73.21</b>	<b>1.59</b>	<b>71.62</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
18.50	3.51	22.01	26.81	42.03	-2.83	-2.57	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
45.98	39.23	85.21	35.69	35.93	71.62	-10.30	-3.30	-13.59

**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	0.00	2.91	88.42	85.51	54.79	11.58

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz	(Hz)	(Hz)		
50.37	5.08	49.53	21.11	50.01	0.24	0.15	50.37	49.78

**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	409	06:15	400	14:50	0.0	0.0	0.0	0.0
Gorakhpur	400	426	18:05	399	12:47	0.0	0.0	64.7	15.4
Bareilly	400	418	06:07	392	23:32	0.0	0.0	0.0	0.0
Kanpur	400	419	06:22	397	23:23	0.0	0.0	0.0	0.0
Dadri	400	412	06:19	397	23:29	0.0	0.0	0.0	0.0
Ballabgarh	400	418	04:00	399	14:26	0.0	0.0	0.0	0.0
Bawana	400	412	03:37	397	23:31	0.0	0.0	0.0	0.0
Bassi	400	429	04:02	399	14:26	0.0	0.0	27.6	0.0
Hissar	400	412	04:02	397	12:16	0.0	0.0	0.0	0.0
Moga	400	417	04:06	401	12:47	0.0	0.0	0.0	0.0
Abdullapur	400	413	04:00	287	01:50	0.0	0.0	0.0	0.0
Nalagarh	400	416	03:33	405	12:14	0.0	0.0	0.0	0.0
Kishenpur	400	418	03:42	399	20:09	0.0	0.0	0.0	0.0
Wagoora	400	413	03:28	391	20:12	0.0	0.0	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	489.19	709.72	471.84	298.24	1340.04	852.02
Pong	426.72	384.05	412.30	577.87	393.73	106.94	720.13	332.16
Tehri	829.79	740.04	763.75	4.65	NA	NA	604.17	488.00
Koteswar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	756.55	12.96	754.58	NA	355.78	346.99
Rihand	268.22	252.98	256.64	NA	253.72	NA	NA	NA
RPS	352.80	343.81	NA	NA	NA	NA	NA	NA
Jawahar Sagar	399.89	381.00	NA	NA	NA	NA	NA	NA
RSD	527.91	487.91	NA	NA	NA	NA	NA	NA

**IX. System Constraints:**

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

**XI. Weather Conditions For 09.07.2011 :**

1 : Partil rains and cloudy 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 : 09.07.2011

पारी प्रभासी अभियंता / SHIFT CHARGE ENGINEER