

# पॉवर सिस्टम ऑपरेशन कापोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 12.07.2011  
Date of Reporting : 13.07.2011

### 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
34990	2762	37752	49.66	35341	0	35341	50.03	840.1	30.00

\* 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		Actual Drawal	UI	UI [OD:(+ve), UD:(-ve)]	
	Thermal	Hydro	Renewable/others	Total	(Net MU)	(Net MU)	(Net MU)	Consumption	Shortages *	
Punjab	46.28	21.54		67.82	116.29	116.20	-0.09	184.02	6.70	
Haryana	53.96	1.08		55.03	66.82	72.61	5.79	127.64	4.23	
Rajasthan	61.99	0.00	9.86	71.85	32.10	49.75	17.65	121.60	5.79	
Delhi	20.94			20.94	80.80	75.98	-4.81	96.92	0.02	
UP	70.99	12.61	1.20	84.80	135.94	140.03	4.09	224.82	12.33	
Uttarakhand		21.82		21.82	9.42	8.67	-0.76	30.49	0.47	
HP		23.44		23.44	-1.50	-1.57	-0.07	21.88	0.47	
J & K		15.19	0.00	15.19	13.65	11.87	-1.78	27.06	0.00	
Chandigarh				0.00	6.31	5.72	-0.59	5.72	0.00	
<b>Total</b>	<b>254.15</b>	<b>95.68</b>	<b>11.06</b>	<b>360.89</b>	<b>459.83</b>	<b>479.25</b>	<b>19.42</b>	<b>840.14</b>	<b>30.00</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	STOA/PX transaction	
Punjab	8020	395	419	1958	7892	0	-243	2676	56.92	
Haryana	5508	459	108	1136	5304	0	195	660	20.60	
Rajasthan	4967	788	755	-629	5248	0	794	-541	-13.50	
Delhi	4414	0	24	440	3629	0	-560	216	9.09	
UP	8412	1050	-534	1724	10179	0	1241	1724	41.34	
Uttarakhand	1324	70	-23	-100	1199	0	-109	-100	-2.40	
HP	837	0	-93	-1635	825	0	-74	-1702	-39.62	
J&K	1256	0	-49	-547	871	0	-204	-540	-13.28	
Chandigarh	252	0	-26	26	194	0	-24	54	1.10	
<b>Total</b>	<b>34990</b>	<b>2762</b>	<b>581</b>	<b>2373</b>	<b>35341</b>	<b>0</b>	<b>1016</b>	<b>2448</b>	<b>60.24</b>	

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

### III. Regional Entities :

Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	UI [OG:(+ve), UG:(-ve)]	
							Schedule Net MU	UI Net MU
<b>A. NTPC</b>								
Singrauli STPS	2000	1705	1832	1840	41.51	1729	40.92	0.59
Rihand I STPS	1000	941	1049	939	22.71	946	22.52	0.19
Rihand II STPS	1000	970	1035	1032	23.39	975	23.17	0.22
Dadri I STPS	840	800	862	589	17.77	740	17.14	0.62
Dadri II STPS	980	960	1021	790	22.33	931	21.72	0.62
Unchahar I TPS	440	403	435	436	9.66	402	9.65	0.01
Unchahar II TPS	440	596	426	438	9.60	400	9.37	0.23
Unchahar III TPS	210	203	221	219	4.75	198	4.85	-0.10
I-STPP (Jhajjar)	500	449	454	451	9.33	389	10.29	-0.96
Dadri GPS	830	498	386	383	9.03	376	10.03	-1.00
Anta GPS	419	389	386	396	9.03	376	8.52	0.51
Auraiya GPS	663	464	451	423	10.42	434	10.37	0.05
<b>Sub Total (A)</b>	<b>9322</b>	<b>8378</b>	<b>8558</b>	<b>7936</b>	<b>189.53</b>	<b>7897</b>	<b>188.55</b>	<b>0.98</b>
<b>B. NPC</b>								
NAPS	440	185	217	219	4.37	182	4.44	-0.07
RAPS- B	440	386	425	429	9.23	385	9.26	-0.03
RAPS- C	440	298	358	318	6.96	290	7.14	-0.18
<b>Sub Total (B)</b>	<b>1320</b>	<b>869</b>	<b>1000</b>	<b>966</b>	<b>20.56</b>	<b>857</b>	<b>20.85</b>	<b>-0.28</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	540	540	12.91	538	12.83	0.08
Chamera II HPS	300	297	302	302	7.21	301	7.18	0.03
Bairasuil HPS	180	159	179	70	1.91	80	1.66	0.25
Salal-HPS	690	625	626	626	15.02	626	15.00	0.03
Tanakpur-HPS	94	68	95	63	1.68	70	1.63	0.04
Uri-HPS	480	442	479	474	10.64	444	10.70	-0.06
Dhauliganga-HPS	280	277	277	277	6.70	279	6.72	-0.01
Dulhasti-HPS	390	387	409	408	9.34	389	8.88	0.46
Sewa-II HPS	120	79	85	0	0.87	36	0.63	0.24
<b>Sub Total (C)</b>	<b>3074</b>	<b>2869</b>	<b>2992</b>	<b>2760</b>	<b>66.29</b>	<b>2762</b>	<b>65.23</b>	<b>1.06</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1593	1607	1612	38.38	1599	38.22	0.16
<b>Sub Total (D)</b>	<b>1500</b>	<b>1593</b>	<b>1607</b>	<b>1612</b>	<b>38.38</b>	<b>1599</b>	<b>38.22</b>	<b>0.16</b>
<b>E. THDC</b>								
Tehri HPS	1000	720	721	602	17.13	714	17.00	0.13
Koteshwar HPS	100	27	0	80	0.64	27	0.62	0.02
<b>Sub Total (E)</b>	<b>1100</b>	<b>747</b>	<b>721</b>	<b>682</b>	<b>17.78</b>	<b>741</b>	<b>17.62</b>	<b>0.16</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	1014	1198	968	24.98	1041	24.34	0.64
Dehar HPS	990	608	640	600	15.00	625	14.59	0.41
Ponq HPS	396	294	360	240	7.23	301	7.05	0.18
<b>Sub Total (F)</b>	<b>2866</b>	<b>1916</b>	<b>2198</b>	<b>1808</b>	<b>47.21</b>	<b>1967</b>	<b>45.97</b>	<b>1.24</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	197	119	3.29	137	3.17	0.12
KWHEP HPS(IPP)	500	0	600	600	14.32	597	14.23	0.09
<b>Sub Total (G)</b>	<b>692</b>	<b>0</b>	<b>797</b>	<b>719</b>	<b>17.61</b>	<b>734</b>	<b>17.40</b>	<b>0.22</b>
<b>H. Total Cental (A-G)</b>	<b>19875</b>	<b>16370</b>	<b>17873</b>	<b>16483</b>	<b>397.35</b>	<b>16556</b>	<b>393.83</b>	<b>3.52</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	805.00	1050.00	19.59	816	
	Guru Nanak Dev TPS(Bhatinda)	440	288.00	285.00	6.06	253	
	Guru Hargobind Singh TPS(L.mbt)	920	939.00	930.00	20.63	860	
	Thermal (Total)	2620	2032.00	2265.00	46.28	1928	
	Total Hydro	1148	1117.00	723.00	21.54	898	
	<b>Total Punjab</b>	<b>3768</b>	<b>3149</b>	<b>2988</b>	<b>67.82</b>	<b>2826</b>	
Haryana	Panipat TPS	1360	1167.00	1157.00	28.02	1167	
	DCRTPP (Yamuna nagar)	600	437.00	437.00	10.33	430	
	Faridabad GPS (NTPC)	432	389.00	399.00	9.49	396	
	RGTPP (khedar) (IPP)	1200	205.00	517.00	6.12	255	
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0	
	Thermal (Total)	3617	2198.00	2510.00	53.96	2248	
	Total Hydro	62	42.00	40.00	1.08	45	
		<b>Total Haryana</b>	<b>3679</b>	<b>2240</b>	<b>2550</b>	<b>55.03</b>	<b>2293</b>
Rajasthan	kota TPS	1240	725.00	577.00	14.51	605	
	suratgarh TPS	1500	1217.00	1209.00	28.97	1207	
	Chabra TPS	500	228.00	224.00	5.08	212	
	Dholpur GPS	330	274.00	278.00	6.70	279	
	Ramgarh GPS	113	56.00	57.00	1.39	58	
	RAPS A (NPC)	300	170.00	171.00	4.25	177	
	Barsingsar (NLC)	250	0.00	0.00	0.00	0	
	Giral LTPS (IPP)	250	55.00	76.00	1.09	46	
	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	2725.00	2592.00	61.99	2583	
	Total Hydro	550	0.00	0.00	0.00	0	
	Wind power	1294	225.00	537.00	9.48	395	
	Biomass	71	17.00	17.00	0.38	16	
	Renewable/Others (Total)	1365	242	554	9.86	411	
		<b>Total Rajasthan</b>	<b>6668</b>	<b>2967</b>	<b>3146</b>	<b>71.85</b>	<b>2994</b>
	UP	Anpara TPS	1630	1362	1321	32.48	1354
Obra TPS		1442	367	343	8.52	355	
Paricha TPS		640	253	244	6.02	251	
Panki TPS		210	163	154	3.82	159	
Harduaganj TPS		375	0	0	0.00	0	
Tanda TPS (NTPC)		440	292	280	6.96	290	
Roza TPS (IPP)		600	532	554	13.20	550	
Thermal (Total)		5337	2969	2896	70.99	2958	
Vishnuparyag HPS (IPP)		400	436	436	10.47	436	
Other Hydro		527	88	0	2.14	89	
Cogeneration		951	50	50	1.20	50	
		<b>Total UP</b>	<b>7215</b>	<b>3543</b>	<b>3382</b>	<b>84.80</b>	<b>3097</b>
Uttarakhand		Total Hydro	1303	907	907	21.82	909
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>907</b>	<b>907</b>	<b>21.82</b>	<b>909</b>
Delhi	Rajghat TPS	135	0	0	0.00	0	
	Delhi Gas Turbine	282	145	146	3.65	152	
	Praqati Gas Turbine	330	292	299	7.24	302	
	Rithala GPS	108	47	29	0.94	39	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	380	427	9.10	379	
	Thermal (Total)	2000	864	901	20.94	872	
	<b>Total Delhi</b>	<b>2000</b>	<b>864</b>	<b>901</b>	<b>20.94</b>	<b>872</b>	
HP	Baspa HPS (IPP)	300	330	330	7.92	330	
	Malana HPS (IPP)	86	105	105	2.48	103	
	Other Hydro	584	548	545	13.04	543	
		<b>Total HP</b>	<b>970</b>	<b>983</b>	<b>980</b>	<b>23.44</b>	<b>977</b>
J & K	Baglihar HPS (IPP)	450	442	442	10.60	442	
	Other Hydro	323	191	47	4.59	191	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>633</b>	<b>489</b>	<b>15.19</b>	<b>633</b>
<b>Total State Generation</b>		<b>26559</b>	<b>15286</b>	<b>15343</b>	<b>360.89</b>	<b>14601</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>3439</b>	<b>3931</b>	<b>96.01</b>	<b>4000</b>	
<b>Total Regional Availability(Gross)</b>		<b>46434</b>	<b>36598</b>	<b>35757</b>	<b>854.25</b>	<b>35158</b>	

#### IV. Total Hydro Generation:

Central +BBMB Hydro	8541	7518	6862	169.65	7069
State Hydro	4497	3723	3301	83.78	3491
Regional Hydro	13037	11241	10163	253.43	10560

**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	12.04	0.00	12.04
Gwalior-Agra (D/C)	1078	1174	1424	0	29.41	0.00	29.41
Zerda-Kankroli	0	0	262	0	0.61	0.00	0.61
Zerda-Bhinmal	338	266	482	0	6.74	0.00	6.74
Malanpur-Auraiya	7	-25	0	94	0.00	0.63	-0.63
Badod-Kota/Morak	89	134	203	0	2.94	0.00	2.94
<b>Sub Total WR</b>	<b>1923</b>	<b>1915</b>			<b>48.80</b>	<b>0.63</b>	<b>48.17</b>
Pusauli Bypass	-12	0	82	200	0.31	1.37	-1.06
MZP- GKP (D/C)	908	956	1188	0	23.37	0.00	23.37
Patna-Balia(D/C)	246	371	774	0	12.56	0.00	12.56
B'Sharif-Balia (D/C)	231	512	604	0	8.72	0.00	8.72
Pusauli-Sahupuri	143	177	179	0	4.25	0.00	4.25
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>1516</b>	<b>2016</b>			<b>49.20</b>	<b>1.37</b>	<b>47.84</b>
<b>Total IR Exch</b>	<b>3439</b>	<b>3931</b>			<b>98.00</b>	<b>1.99</b>	<b>96.01</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
22.85	3.50	26.35	25.56	36.61	-8.54	1.80	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
43.37	38.22	81.59	47.84	48.17	96.01	4.47	9.95	14.42

**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	0.20	11.50	42.30	88.40	57.60	4.10	0.10

<----- 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				
50.24	12.03	49.11	19.31	49.72	1.10	0.18	50.07	49.51

**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	403	06:35	395	23:06	0.0	0.0	0.0	0.0
Gorakhpur	400	426	07:52	399	00:20	0.0	0.0	23.0	2.1
Bareilly	400	414	06:44	378	11:51	0.0	3.6	0.0	0.0
Kanpur	400	412	06:36	390	13:45	0.0	0.0	0.0	0.0
Dadri	400	404	03:42	386	15:23	0.0	5.5	0.0	0.0
Ballabgarh	400	411	08:02	387	15:24	0.0	0.8	0.0	0.0
Bawana	400	405	03:41	383	15:25	0.0	11.7	0.0	0.0
Bassi	400	420	03:30	397	13:13	0.0	0.0	0.0	0.0
Hissar	400	401	03:28	377	15:25	1.0	34.4	0.0	0.0
Moga	400	406	03:30	380	15:23	0.0	14.4	0.0	0.0
Abdullapur	400	407	03:29	235	08:31	0.1	0.7	0.0	0.0
Nalagarh	400	408	03:42	386	16:16	0.0	4.7	0.0	0.0
Kishenpur	400	406	08:03	388	15:21	0.0	2.2	0.0	0.0
Wagoora	400	407	03:02	385	21:08	0.0	11.8	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	489.81	729.18	474.18	340.29	1051.49	845.77
Pong	426.72	384.05	421.44	577.87	394.10	111.75	470.34	449.93
Tehri	829.79	740.04	766.95	180.91	NA	NA	485.04	510.00
Koteshwar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	756.59	13.00	754.58	NA	348.74	352.66
Rihand	268.22	252.98	256.70	NA	253.81	NA	NA	NA
RPS	352.80	343.81	NA	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	NA	NA	NA	NA	NA	NA
RSD	527.91	487.91	509.27	NA	502.44	NA	NA	NA

**IX. System Constraints:**

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

**XI. Weather Conditions For 12.07.2011 :**

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 : 12.07.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER