

# पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 07.07.2011  
Date of Reporting : 08.07.2011

### 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
35366	1230	36596	49.79	35146	100	35246	50.20	872.7	15.87

\* 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	Consumption	Shortages
	Thermal	Hydro	Renewable/others	Total	(Net MU)	(Net MU)	(Net MU)	(Net MU)	(MU)
Punjab	54.12	22.29		76.41	102.30	112.97	10.67	189.38	1.80
Haryana	70.76	0.65		71.41	70.30	61.37	-8.93	132.77	0.00
Rajasthan	68.02	0.00	3.02	71.04	44.25	64.50	20.25	135.54	0.00
Delhi	26.91			26.91	80.37	70.67	-9.70	97.58	0.15
UP	77.12	13.34	1.20	91.65	136.02	141.30	5.28	232.96	13.37
Uttarakhand		18.98		18.98	10.10	11.67	1.57	30.65	0.22
HP		22.89		22.89	-0.75	-0.10	0.65	22.80	0.33
J & K		15.52	0.00	15.52	15.16	9.99	-5.17	25.51	0.00
Chandigarh				0.00	6.07	5.46	-0.60	5.46	0.00
<b>Total</b>	<b>296.93</b>	<b>93.66</b>	<b>4.22</b>	<b>394.81</b>	<b>463.82</b>	<b>477.84</b>	<b>14.02</b>	<b>872.65</b>	<b>15.87</b>

### 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	7996	150	374	1658	7968	0	31	2178	42.01
Haryana	5594	0	-408	1200	5545	0	-184	1016	26.87
Rajasthan	5380	0	1394	-841	5624	0	674	81	0.35
Delhi	4227	0	-277	445	3685	0	-767	330	8.74
UP	8373	1000	-560	1723	10258	100	920	1723	41.36
Uttarakhand	1415	80	156	-100	1199	0	-55	-100	-2.40
HP	818	0	-126	-1695	882	0	-18	-1705	-40.57
J&K	1316	0	31	-497	-230	0	-1424	-497	-12.17
Chandigarh	247	0	-26	34	215	0	-16	9	0.82
<b>Total</b>	<b>35366</b>	<b>1230</b>	<b>558</b>	<b>1927</b>	<b>35146</b>	<b>100</b>	<b>-839</b>	<b>3035</b>	<b>64.99</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	1705	1843	1835	41.49	1729	40.92	0.57
	Rihand I STPS	1000	960	1049	1049	23.11	963	23.04	0.07
	Rihand II STPS	1000	820	520	1035	19.87	828	19.68	0.18
	Dadri I STPS	840	800	804	670	16.80	700	17.00	-0.20
	Dadri II STPS	980	960	957	989	22.59	941	22.41	0.18
	Unchahar I TPS	440	359	433	415	9.45	394	8.52	0.93
	Unchahar II TPS	440	574	422	426	9.78	407	8.69	1.09
	Unchahar III TPS	210	203	217	219	5.11	213	4.73	0.37
	ISTPP (Jhajjar)	500	425	431	429	9.20	383	9.88	-0.68
	Dadri GPS	830	588	466	434	10.88	453	11.15	-0.27
	Anta GPS	419	392	329	323	7.54	314	7.42	0.13
	Auraiya GPS	663	616	557	476	12.36	515	12.09	0.27
	<b>Sub Total (A)</b>	<b>9322</b>	<b>8402</b>	<b>8028</b>	<b>8300</b>	<b>188.17</b>	<b>7841</b>	<b>185.53</b>	<b>2.65</b>
	B. NPC	NAPS	440	186	222	222	4.42	184	4.46
RAPS- B		440	386	426	433	9.13	380	9.26	-0.13
RAPS- C		440	420	456	475	10.01	417	10.08	-0.07
<b>Sub Total (B)</b>		<b>1320</b>	<b>992</b>	<b>1104</b>	<b>1130</b>	<b>23.56</b>	<b>982</b>	<b>23.81</b>	<b>-0.25</b>
C. NHPC	Chamera I HPS	540	534	540	540	12.61	525	12.83	-0.22
	Chamera II HPS	300	297	304	301	7.20	300	7.26	-0.06
	Bairasuil HPS	180	120	120	60	2.29	95	2.32	-0.04
	Salal-HPS	690	621	622	620	14.84	618	14.90	-0.06
	Tanakpur-HPS	94	96	93	95	2.23	93	2.21	0.02
	Uri-HPS	480	476	476	477	11.51	479	11.54	-0.03
	Dhauliganga-HPS	280	277	269	277	6.67	278	6.72	-0.05
	Dulhasti-HPS	390	387	409	339	9.05	377	9.34	-0.29
	Sewa-II HPS	120	79	80	26	0.63	26	0.70	-0.07
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2887</b>	<b>2913</b>	<b>2735</b>	<b>67.02</b>	<b>2793</b>	<b>67.81</b>	<b>-0.79</b>
D.NJPC	Nathpa Jhakri	1500	1600	1581	1615	38.30	1596	38.39	-0.09
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1581</b>	<b>1615</b>	<b>38.30</b>	<b>1596</b>	<b>38.39</b>	<b>-0.09</b>
E. THDC	Tehri HPS	1000	690	689	687	16.01	667	16.00	0.01
	Koteshwar HPS	100	37	0	0	0.00	0	0.88	-0.88
	<b>Sub Total (E)</b>	<b>1100</b>	<b>727</b>	<b>689</b>	<b>687</b>	<b>16.01</b>	<b>667</b>	<b>16.88</b>	<b>-0.87</b>
F. BBMB	Bhakra HPS	1480	1015	1075	1075	25.11	1046	24.37	0.74
	Dehar HPS	990	595	660	620	14.19	591	14.29	-0.09
	Pong HPS	396	193	366	60	4.82	201	4.63	0.19
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1803</b>	<b>2101</b>	<b>1755</b>	<b>44.12</b>	<b>1838</b>	<b>43.28</b>	<b>0.84</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	204	118	3.50	146	3.09	0.41
	KWHEP HPS(IPP)	500	0	300	600	13.57	565	14.25	-0.69
	<b>Sub Total (G)</b>	<b>692</b>	<b>0</b>	<b>504</b>	<b>718</b>	<b>17.07</b>	<b>711</b>	<b>17.35</b>	<b>-0.27</b>
<b>H. Total Cental (A-G)</b>	<b>19875</b>	<b>16411</b>	<b>16920</b>	<b>16940</b>	<b>394.25</b>	<b>16427</b>	<b>393.05</b>	<b>1.20</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	1260.00	27.73	1155
	Guru Nanak Dev TPS(Bhatinda)	440	273.00	273.00	5.86	244
	Guru Hargobind Singh TPS(L.mbt)	920	939.00	935.00	20.53	856
	Thermal (Total)	2620	2472.00	2468.00	54.12	2255
	Total Hydro	1148	987.00	722.00	22.29	929
	<b>Total Punjab</b>	<b>3768</b>	<b>3459</b>	<b>3190</b>	<b>76.41</b>	<b>3184</b>
Haryana	Panipat TPS	1360	1083.00	1109.00	26.74	1114
	DCRTPP (Yamuna nagar)	600	476.00	483.00	11.31	471
	Faridabad GPS (NTPC)	432	394.00	324.00	8.27	345
	RGTPP (khedar) (IPP)	1200	1103.00	870.00	24.44	1018
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	3056.00	2786.00	70.76	2948
	Total Hydro	62	22.00	21.00	0.65	27
	<b>Total Haryana</b>	<b>3679</b>	<b>3078</b>	<b>2807</b>	<b>71.41</b>	<b>2975</b>
Rajasthan	kota TPS	1240	684.00	690.00	15.74	656
	suratgarh TPS	1500	1330.00	1346.00	32.04	1335
	Chabra TPS	500	214.00	197.00	4.59	191
	Dholpur GPS	330	280.00	275.00	6.77	282
	Ramgarh GPS	113	61.00	64.00	1.57	66
	RAPS A (NPC)	300	171.00	72.00	4.28	178
	Barsingsar (NLC)	250	0.00	0.00	0.00	0
	Giral LTTPS (IPP)	250	119.00	174.00	3.03	126
	Rajwest LTTPS (IPP)	135	0.00	0.00	0.00	0
	VSLP LTTPS (IPP)	135	0.00	0.00	0.00	0
	Thermal (Total)	4753	2859.00	2818.00	68.02	2834
	Total Hydro	550	0.00	0.00	0.00	0
	Wind power	1294	58.00	234.00	2.26	94
	Biomass	71	33.00	33.00	0.76	32
	Renewable/Others (Total)	1365	91	267	3.02	126
	<b>Total Rajasthan</b>	<b>6668</b>	<b>2950</b>	<b>3085</b>	<b>71.04</b>	<b>2960</b>
	UP	Anpara TPS	1630	1525	1460	35.74
Obra TPS		1442	328	354	8.41	350
Paricha TPS		640	416	419	9.88	412
Panki TPS		210	170	155	3.92	163
Harduaganj TPS		375	0	0	0.00	0
Tanda TPS (NTPC)		440	291	289	6.89	287
Roza TPS (IPP)		600	432	512	12.27	511
Thermal (Total)		5337	3162	3189	77.12	3213
Vishnuparyag HPS (IPP)		400	436	436	10.47	436
Other Hydro		527	106	0	2.87	120
Cogeneration		951	50	50	1.20	50
<b>Total UP</b>		<b>7215</b>	<b>3754</b>	<b>3675</b>	<b>91.65</b>	<b>3383</b>
Uttarakhand		Total Hydro	1303	854	807	18.98
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>854</b>	<b>807</b>	<b>18.98</b>	<b>791</b>
Delhi	Rajghat TPS	135	97	100	2.58	107
	Delhi Gas Turbine	282	144	148	3.68	153
	Pragati Gas Turbine	330	293	272	7.23	301
	Rithala GPS	108	24	29	0.96	40
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	448	555	12.47	520
	Thermal (Total)	2000	1006	1104	26.91	1121
<b>Total Delhi</b>	<b>2000</b>	<b>1006</b>	<b>1104</b>	<b>26.91</b>	<b>1121</b>	
HP	Baspa HPS (IPP)	300	330	330	7.92	330
	Malana HPS (IPP)	86	104	105	2.47	103
	Other Hydro	584	555	504	12.51	521
	<b>Total HP</b>	<b>970</b>	<b>989</b>	<b>939</b>	<b>22.89</b>	<b>954</b>
J & K	Baglihar HPS (IPP)	450	442	440	10.75	448
	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>489</b>	<b>15.52</b>	<b>647</b>
<b>Total State Generation</b>		<b>26559</b>	<b>16698</b>	<b>16096</b>	<b>394.81</b>	<b>16015</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>3757</b>	<b>4442</b>	<b>87.56</b>	<b>3649</b>
<b>Total Regional Availability(Gross)</b>		<b>46434</b>	<b>37375</b>	<b>37478</b>	<b>876.63</b>	<b>36090</b>

#### IV. Total Hydro Generation:

Central +BBMB Hydro	8541	7284	6792	165.45	6894
State Hydro	4497	3549	3495	82.92	3455
Regional Hydro	13037	10833	10287	248.37	10349

**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	11.95	0.00	11.95
Gwalior-Agra (D/C)	920	1335	1335	0	24.15	0.00	24.15
Zerda-Kankroli	0	0	0	0	0.00	0.00	0.00
Zerda-Bhinmal	357	256	422	3	4.27	0.00	4.27
Malanpur-Auraiya	-44	-37	0	63	0.00	7.89	-7.89
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>1733</b>	<b>2054</b>			<b>40.37</b>	<b>7.89</b>	<b>32.48</b>
Pusauli Bypass	155	200	291	100	4.83	0.10	4.73
MZP- GKP (D/C)	1158	1322	1472	0	30.58	0.00	30.58
Patna-Balia(D/C)	-157	-149	0	157	0.00	3.30	-3.30
B'Sharif-Balia (D/C)	741	850	980	0	18.87	0.00	18.87
Pusauli-Sahupuri	127	165	188	0	4.20	0.00	4.20
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>2024</b>	<b>2388</b>			<b>58.48</b>	<b>3.40</b>	<b>55.08</b>
<b>Total IR Exch</b>	<b>3757</b>	<b>4442</b>			<b>98.85</b>	<b>11.29</b>	<b>87.56</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
20.51	3.76	24.27	24.56	35.76	2.11	0.27	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
50.94	35.76	86.70	55.08	32.48	87.56	4.14	-3.28	0.87

**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	0.30	13.10	98.30	85.50	26.50	0.30

<----- 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)		
50.30	3.03	49.41	14.18	49.89	0.38	0.16	50.28	49.72

**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	19:03	396	00:26	0.0	0.0	0.0	0.0
Gorakhpur	400	426	19:06	399	10:12	0.1	0.1	18.6	0.0
Bareilly	400	418	19:04	384	00:20	0.0	8.5	0.0	0.0
Kanpur	400	414	07:03	390	14:52	0.0	0.0	0.0	0.0
Dadri	400	409	19:04	387	14:54	0.0	2.4	0.0	0.0
Ballabgarh	400	414	19:05	388	14:52	0.0	1.0	0.0	0.0
Bawana	400	409	07:05	386	14:55	0.0	3.5	0.0	0.0
Bassi	400	424	19:03	394	14:16	0.0	0.0	2.4	0.0
Hissar	400	406	19:03	386	12:11	0.0	13.6	0.0	0.0
Moga	400	407	19:02	388	12:34	0.0	1.0	0.0	0.0
Abdullapur	400	410	19:06	390	12:11	0.0	0.0	0.0	0.0
Nalagarh	400	410	19:02	387	12:11	0.0	1.4	0.0	0.0
Kishenpur	400	410	03:05	399	14:17	0.0	0.0	0.0	0.0
Wagoora	400	407	03:04	388	20:14	0.0	4.5	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	488.51	690.35	469.78	262.21	1214.62	855.65
Pong	426.72	384.05	411.99	566.84	391.88	80.40	478.55	301.57
Tehri	829.79	740.04	763.00	145.79	NA	NA	593.26	489.00
Koteswar	612.50	598.50	0.00	0.00	0.00	0.00	0.00	0.00
Chamera-I	760.00	748.75	756.55	12.96	754.58	0.00	355.78	346.99
Rihand	268.22	252.98	256.58	0.00	253.72	0.00	0.00	0.00
RPS	352.80	343.81	0.00	0.00	0.00	0.00	0.00	0.00
Gandhi Sagar	399.89	381.00	0.00	0.00	0.00	0.00	0.00	0.00
RSD	527.91	487.91	0.00	0.00	0.00	0.00	0.00	0.00

**IX. System Constraints:**

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

**XI. Weather Conditions For 07.07.2011 :**

1 : Normal 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 : 07.07.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER