

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 30.09.2011  
Date of Reporting : 01.10.2011

### 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
32161	4413	36574	49.82	28625	3717	32342	49.72	702.4	104.44

\* 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	53.20	17.26		70.46	68.90	66.99	-1.92	137.44	10.20
Haryana	51.00	1.03		52.03	40.06	49.74	9.68	101.77	11.98
Rajasthan	66.40	0.92	7.97	75.29	22.86	23.82	0.96	99.12	38.02
Delhi	27.92			27.92	60.72	53.98	-6.75	81.90	0.02
UP	60.65	17.26	1.20	79.11	100.76	122.32	21.56	201.43	37.40
Uttarakhand		18.66		18.66	6.21	8.13	1.92	26.79	3.29
HP		15.67		15.67	2.18	4.79	2.61	20.46	3.54
J & K		12.90	0.00	12.90	12.70	15.70	3.00	28.60	0.00
Chandigarh				0.00	5.10	4.86	-0.24	4.86	0.00
<b>Total</b>	<b>259.17</b>	<b>83.70</b>	<b>9.17</b>	<b>352.04</b>	<b>319.50</b>	<b>350.32</b>	<b>30.82</b>	<b>702.36</b>	<b>104.44</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	6795	800	23	883	5468	400	-78	930	21.25
Haryana	4669	529	450	272	4198	463	476	272	5.54
Rajasthan	4022	1179	-410	-353	4022	1244	162	-406	-9.40
Delhi	3843	0	-454	154	2831	0	-282	104	3.35
UP	9001	1595	694	1294	9124	1520	1690	795	24.63
Uttarakhand	1129	310	-86	-100	1114	0	148	-100	-2.40
HP	1028	0	123	-1474	790	90	134	-754	-24.23
J&K	1438	0	88	-375	917	0	-88	-275	-8.10
Chandigarh	236	0	-28	30	161	0	-19	30	0.72
<b>Total</b>	<b>32161</b>	<b>4413</b>	<b>400</b>	<b>330</b>	<b>28625</b>	<b>3717</b>	<b>2143</b>	<b>596</b>	<b>11.35</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	1035	1149	1115	25.30	1054	24.84	0.46
	Rihand I STPS	1000	712	900	774	17.38	724	17.08	0.30
	Rihand II STPS	1000	475	507	511	11.50	479	11.40	0.10
	Dadri I STPS	840	752	861	664	18.24	760	18.05	0.19
	Dadri II STPS	980	939	1031	884	22.65	944	22.54	0.11
	Unchahar I TPS	440	278	392	378	6.68	279	6.67	0.02
	Unchahar II TPS	440	173	192	192	4.19	174	4.15	0.03
	Unchahar III TPS	210	173	201	196	4.18	174	4.15	0.03
	ISTPP (Jhajjar)	500	317	501	456	7.17	299	7.60	-0.42
	Dadri GPS	830	768	790	802	18.51	771	18.41	0.10
	Anta GPS	419	386	391	392	9.28	387	9.21	0.07
	Auraiya GPS	663	602	625	637	14.56	606	14.34	0.21
	<b>Sub Total (A)</b>	<b>9322</b>	<b>6608</b>	<b>7540</b>	<b>7001</b>	<b>159.63</b>	<b>6651</b>	<b>158.43</b>	<b>1.20</b>
B. NPC	NAPS	440	106	224	219	4.47	186	2.54	1.93
	RAPS- B	440	392	438	439	9.36	390	9.41	-0.05
	RAPS- C	440	420	470	472	10.14	422	10.08	0.06
	<b>Sub Total (B)</b>	<b>1320</b>	<b>918</b>	<b>1132</b>	<b>1130</b>	<b>23.97</b>	<b>999</b>	<b>22.03</b>	<b>1.93</b>
C. NHPC	Chamera I HPS	540	517	540	0	6.28	261	5.73	0.54
	Chamera II HPS	300	297	278	120	4.50	188	4.18	0.32
	Bairasuil HPS	180	120	120	60	1.53	64	1.45	0.08
	Salal-HPS	690	431	504	406	10.25	427	10.29	-0.04
	Tanakpur-HPS	94	94	95	94	2.25	94	2.24	0.00
	Uri-HPS	480	396	360	434	9.70	404	9.78	-0.08
	Dhauliganga-HPS	280	130	282	0	2.82	118	2.77	0.06
	Dulhasti-HPS	390	387	327	352	9.20	383	9.46	-0.26
	Sewa-II HPS	120	119	105	0	1.08	45	1.03	0.06
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2490</b>	<b>2611</b>	<b>1466</b>	<b>47.61</b>	<b>1984</b>	<b>46.92</b>	<b>0.69</b>
D. NJPC	Nathpa Jhakri	1500	1600	1592	354	21.57	899	21.37	0.20
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1592</b>	<b>354</b>	<b>21.57</b>	<b>899</b>	<b>21.37</b>	<b>0.20</b>
E. THDC	Tehri HPS	1000	1050	920	0	5.16	215	5.00	0.15
	Koteshwar HPS	100	87	88	88	2.08	87	2.09	-0.01
	<b>Sub Total (E)</b>	<b>1100</b>	<b>1137</b>	<b>1008</b>	<b>88</b>	<b>7.23</b>	<b>301</b>	<b>7.09</b>	<b>0.14</b>
F. BBMB	Bhakra HPS	1480	904	1101	836	22.24	927	21.69	0.55
	Dehar HPS	990	444	660	495	11.28	470	10.65	0.63
	Pong HPS	396	239	306	186	6.01	250	5.74	0.27
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1586</b>	<b>2067</b>	<b>1517</b>	<b>39.53</b>	<b>1647</b>	<b>38.07</b>	<b>1.46</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	44	45	1.07	45	1.04	0.03
	KWHEP HPS(IPP)	1000	0	735	415	12.54	522	11.97	0.56
	Malana Stg-II HPS	100	0	50	42	1.02	43	0.00	1.02
	Shree Cement TPS	150	0	0	0	0.00	0	0.00	0.00
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>829</b>	<b>502</b>	<b>14.63</b>	<b>609</b>	<b>13.01</b>	<b>1.62</b>
<b>H. Total Regional Entities (A-G)</b>		<b>20625</b>	<b>14339</b>	<b>16779</b>	<b>12058</b>	<b>314.17</b>	<b>13090</b>	<b>306.93</b>	<b>7.24</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	1035.00	26.00	1083
	Guru Nanak Dev TPS(Bhatinda)	440	287.00	287.00	5.91	246
	Guru Hargobind Singh TPS(L.mbt)	920	963.00	960.00	21.29	887
	Thermal (Total)	2620	2495.00	2282.00	53.20	2217
	Total Hydro	1148	706.00	532.00	17.26	719
<b>Total Punjab</b>	<b>3768</b>	<b>3201</b>	<b>2814</b>	<b>70.46</b>	<b>2936</b>	
Haryana	Panipat TPS	1360	1044.00	1044.00	25.04	1043
	DCRTPP (Yamuna nagar)	600	270.00	237.00	6.09	254
	Faridabad GPS (NTPC)	432	398.00	403.00	9.44	394
	RGTPP (khedar) (IPP)	1200	410.00	383.00	10.43	435
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2122.00	2067.00	51.00	2125
	Total Hydro	62	40.00	39.00	1.03	43
	<b>Total Haryana</b>	<b>3679</b>	<b>2162</b>	<b>2106</b>	<b>52.03</b>	<b>2168</b>
Rajasthan	kota TPS	1240	1059.00	723.00	23.05	961
	suratgarh TPS	1500	1172.00	1175.00	27.01	1126
	Chabra TPS	500	225.00	216.00	5.12	213
	Dholpur GPS	330	90.00	133.00	2.61	109
	Ramgarh GPS	113	62.00	62.00	1.59	66
	RAPS A (NPC)	300	180.00	180.00	4.29	179
	Barsingsar (NLC)	250	31.00	0.00	0.36	15
	Giral LTPS (IPP)	250	120.00	105.00	2.36	98
	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	2939.00	2594.00	66.40	2767
	Total Hydro	550	104.00	10.00	0.92	39
	Wind power	1294	176.00	470.00	7.33	306
	Biomass	71	28.00	28.00	0.64	27
	Renewable/Others (Total)	1365	204	498	7.97	332
	<b>Total Rajasthan</b>	<b>6668</b>	<b>3247</b>	<b>3102</b>	<b>75.29</b>	<b>3137</b>
UP	Anpara TPS	1630	1212	1170	26.70	1113
	Obra TPS	1442	502	323	9.30	388
	Paricha TPS	640	403	400	8.70	363
	Panki TPS	210	105	111	2.20	92
	Harduaganj TPS	375	0	0	0.00	0
	Tanda TPS (NTPC)	440	294	278	6.98	291
	Roza TPS (IPP)	600	284	281	6.77	282
	Anpara-C (IPP)	600	0	0	0.00	0
	Thermal (Total)	5937	2800	2563	60.65	2527
	Vishnuparyag HPS (IPP)	400	436	436	10.17	424
	Other Hydro	527	314	0	7.09	295
	Cogeneration	951	50	50	1.20	50
	<b>Total UP</b>	<b>7815</b>	<b>3600</b>	<b>3049</b>	<b>79.11</b>	<b>2873</b>
	Uttarakhand	Total Hydro	1303	788	765	18.66
<b>Total Uttarakhand</b>		<b>1303</b>	<b>788</b>	<b>765</b>	<b>18.66</b>	<b>778</b>
Delhi	Rajghat TPS	135	95	91	2.45	102
	Delhi Gas Turbine	282	159	113	3.41	142
	Pragati Gas Turbine	330	298	305	7.41	309
	Rithala GPS	108	27	29	0.64	27
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	645	660	14.01	584
	Thermal (Total)	2000	1224	1198	27.92	1163
	<b>Total Delhi</b>	<b>2000</b>	<b>1224</b>	<b>1198</b>	<b>27.92</b>	<b>1163</b>
HP	Baspa HPS (IPP)	330	319	155	4.23	176
	Malana HPS (IPP)	101	51	30	0.95	39
	Other Hydro	571	435	422	10.49	437
	<b>Total HP</b>	<b>1002</b>	<b>805</b>	<b>607</b>	<b>16</b>	<b>653</b>
J & K	Baglihar HPS (IPP)	450	420	410	9.50	396
	Other Hydro	323	110	170	3.40	142
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>530</b>	<b>580</b>	<b>12.90</b>	<b>538</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>15557</b>	<b>14221</b>	<b>352.04</b>	<b>14245</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>845</b>	<b>2936</b>	<b>52.67</b>	<b>2195</b>
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>33181</b>	<b>29215</b>	<b>718.88</b>	<b>29530</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	8107	3927	130.57	5440
State Control Area Hydro	5365	3287	2533	73.53	3064
<b>Total Regional Hydro</b>	<b>15347</b>	<b>11394</b>	<b>6460</b>	<b>204.10</b>	<b>8504</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	0	0	0	0	0.00	0.00	0.00
Gwalior-Agra (D/C)	75	832	1040	0	15.92	0.00	15.92
Zerda-Kankroli	-191	109	109	191	0.00	1.05	-1.05
Zerda-Bhinmal	-111	120	174	161	0.23	0.00	0.23
Malanpur-Auraiya	-159	-51	0	170	0.00	1.55	-1.55
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>-386</b>	<b>1010</b>			<b>16.14</b>	<b>2.60</b>	<b>13.54</b>
Pusauli Bypass	28	273	366	96	4.15	0.12	4.03
MZP- GKP (D/C)	688	870	1074	0	21.14	0.00	21.14
Patna-Balia(D/C)	26	283	283	0	3.44	0.00	3.44
B'Sharif-Balia (D/C)	229	407	419	0	7.99	0.00	7.99
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	137	125	163	0	3.21	0.00	3.21
K'nasa-Sahupuri	158	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-35	-32	0	38	0.00	0.67	-0.67
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1231</b>	<b>1926</b>			<b>39.92</b>	<b>0.79</b>	<b>39.13</b>
<b>Total IR Exch</b>	<b>845</b>	<b>2936</b>			<b>56.06</b>	<b>3.39</b>	<b>52.67</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
14.29	3.63	17.92	-3.03	15.85	-0.56	-5.54	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
14.34	9.59	23.92	39.13	13.54	52.67	24.79	3.96	28.75

**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
0.00	0.70	2.60	31.80	75.40	68.20	24.60	1.30

<----- 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				
50.11	13.03	48.87	9.14	49.57	2.17	0.19	49.99	49.20

**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	426	13:17	417	09:12	0.0	0.0	46.6	0.0
Gorakhpur	400	437	13:02	409	02:16	0.0	0.0	57.9	4.4
Bareilly	400	424	08:00	398	01:20	0.0	0.0	1.9	0.0
Kanpur	400	426	09:00	405	09:42	0.0	0.0	3.1	0.0
Dadri	400	416	13:02	401	09:42	0.0	0.0	0.0	0.0
Ballabgarh	400	423	13:02	402	09:44	0.0	0.0	1.1	0.0
Bawana	400	421	13:02	403	09:42	0.0	0.0	0.2	0.0
Bassi	400	429	13:02	407	09:12	0.0	0.0	39.0	0.0
Hissar	400	419	13:02	401	09:14	0.0	0.0	0.0	0.0
Moga	400	421	02:47	407	10:55	0.0	0.0	3.0	0.0
Abdullapur	400	418	13:02	290	07:17	0.0	0.0	0.0	0.0
Nalagarh	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Kishenpur	400	421	02:59	403	18:49	0.0	0.0	0.3	0.0
Wagoora	400	410	02:46	384	18:51	0.0	11.6	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	511.80	1635.65	512.26	1167.20	547.70	635.88
Pong	426.72	384.05	423.42	1051.02	424.59	1114.45	165.65	334.14
Tehri	829.79	740.04	819.20	982.26	NA	NA	215.38	115.00
Koteshwar	612.50	598.50	607.90	3.54	NA	NA	115.00	141.00
Chamera-I	760.00	748.75	753.60	NA	NA	NA	163.64	170.35
Rihand	268.22	252.98	265.48	648.00	258.17	209.50	NA	NA
RPS	352.80	343.81	349.97	NA	NA	NA	NA	150.76
Jawahar Sagar	298.70	295.78	297.64	NA	NA	NA	NA	NA
RSD	527.91	487.91	523.68	NA	524.01	NA	239.02	305.79

**IX. System Constraints:**

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

**XI. Weather Conditions For 30.09.2011 :**

Normal weather

**XII. Synchronisation of new generating units :**

**XIII. Synchronisation of new 400 / 765 KV lines and energising of bus //substation :**

1. 125MVAR Bus Reactor at Patiala (PGCIL) first time test chaged at 19.02 hrs / 30.09.2011.
2. 400KV Ludiana - Patiala(PGCIL) - I & II first time Synchronised at 22.40hrs & 21.30hrs /30.09.2011.
3. 500MVA ICT-III at Malerkotla (PGCIL) charged from both end at 23.30hrs/30.09.2011.
4. 125MVAR bus Reactor at Lcknow (PGCIL) first time test charged 23.56 hrs/30.09.2011.
5. III rd ICT of 100 MVA (220/132KV) at Raibareilly(PGCIL) first time test chaged at 15.05 hrs/30.09.2011.

**XIV. Tripping of lines in pooling stations :**

**XV. Complete generation loss in a generating station :**

Report for : 30.09.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER