

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 08.10.2011  
Date of Reporting : 09.10.2011

### I. Regional Availability/Demand:

Evening Peak (19:00 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
30151	4378	34529	49.32	27395	4988	32383	49.49	674.0	112.36

\* 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	53.50	16.91		70.41	62.69	61.75	-0.94	132.16	7.30
Haryana	47.69	1.19		48.88	39.37	43.76	4.39	92.64	25.97
Rajasthan	77.20	0.31	2.39	79.90	30.52	27.13	-3.39	107.03	26.34
Delhi	26.78			26.78	48.69	47.12	-1.58	73.90	2.05
UP	69.18	13.56	1.20	83.95	79.79	103.50	23.71	187.44	47.31
Uttarakhand		17.86		17.86	8.44	9.47	1.03	27.32	2.05
HP		13.42		13.42	8.13	8.22	0.09	21.65	0.54
J & K		14.26	0.00	14.26	11.55	13.36	1.80	27.62	0.80
Chandigarh				0.00	4.78	4.23	-0.55	4.23	0.00
<b>Total</b>	<b>274.35</b>	<b>77.51</b>	<b>3.59</b>	<b>355.45</b>	<b>293.96</b>	<b>318.53</b>	<b>24.57</b>	<b>673.98</b>	<b>112.36</b>

\* Shortage furnished by the respective constituent.

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

State	Evening Peak (19:00 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	6234	300	105	770	5402	200	17	770	18.49
Haryana	3888	1278	26	176	3768	898	167	176	3.76
Rajasthan	4673	1160	-146	-118	4249	1368	-196	-118	-2.82
Delhi	3647	0	52	-80	2704	0	-153	61	-1.01
UP	7937	1445	763	399	8256	2510	1794	499	11.57
Uttarakhand	1226	150	63	-49	1123	0	119	0	-0.29
HP	979	45	100	-438	797	12	-34	-3	-2.74
J&K	1346	0	135	-253	943	0	8	-253	-6.07
Chandigarh	221	0	-28	18	153	0	-18	18	0.43
<b>Total</b>	<b>30151</b>	<b>4378</b>	<b>1070</b>	<b>426</b>	<b>27395</b>	<b>4988</b>	<b>1704</b>	<b>1151</b>	<b>21.32</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	1236	1510	1222	30.12	1255	29.65	0.47
	Rihand I STPS	1000	341	509	296	8.71	363	8.18	0.54
	Rihand II STPS	1000	475	515	510	11.51	480	11.40	0.11
	Dadri I STPS	840	640	825	676	16.34	681	15.36	0.97
	Dadri II STPS	980	766	980	797	18.45	769	18.39	0.06
	Unchahar I TPS	440	225	190	309	5.31	221	5.40	-0.09
	Unchahar II TPS	440	152	188	158	3.69	154	3.64	0.05
	Unchahar III TPS	210	152	188	158	3.69	154	3.64	0.05
	ISTPP (Jhajihar)	500	333	376	363	8.15	340	7.98	0.17
	Dadri GPS	830	763	762	796	18.19	758	18.32	-0.13
	Anta GPS	419	383	372	393	9.19	383	9.17	0.02
	Auraiya GPS	663	602	607	631	14.82	618	14.43	0.39
	<b>Sub Total (A)</b>	<b>9322</b>	<b>6066</b>	<b>7022</b>	<b>6309</b>	<b>148.16</b>	<b>6173</b>	<b>145.56</b>	<b>2.60</b>
	B. NPC	NAPS	440	187	219	231	4.51	188	4.49
RAPS- B		440	402	441	447	9.59	400	9.65	-0.06
RAPS- C		440	440	469	472	10.09	420	10.56	-0.47
<b>Sub Total (B)</b>		<b>1320</b>	<b>1029</b>	<b>1129</b>	<b>1150</b>	<b>24.19</b>	<b>1008</b>	<b>24.70</b>	<b>-0.51</b>
C. NHPC		Chamera I HPS	540	534	540	0	5.65	235	5.47
	Chamera II HPS	300	297	256	48	3.47	144	3.15	0.32
	Bairasuil HPS	180	113	120	60	1.29	54	1.19	0.10
	Salal-HPS	690	356	372	345	8.74	364	8.54	0.21
	Tanakpur-HPS	94	94	94	94	2.27	95	2.24	0.03
	Uri-HPS	480	213	250	200	5.46	228	5.44	0.02
	Dhauliganga-HPS	280	277	215	0	3.15	131	3.10	0.05
	Dulhasti-HPS	390	387	415	398	9.70	404	8.49	1.20
	Sewa-II HPS	120	119	124	0	0.89	37	0.85	0.04
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2390</b>	<b>2386</b>	<b>1145</b>	<b>40.61</b>	<b>1692</b>	<b>38.47</b>	<b>2.15</b>
D. NJPC	Nathpa Jhakri	1500	1600	1612	365	20.74	864	20.38	0.36
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1612</b>	<b>365</b>	<b>20.74</b>	<b>864</b>	<b>20.38</b>	<b>0.36</b>
E. THDC	Tehri HPS	1000	1050	1050	0	9.17	382	9.00	0.17
	Koteshwar HPS	100	87	91	90	2.13	89	2.09	0.04
<b>Sub Total (E)</b>	<b>1100</b>	<b>1137</b>	<b>1141</b>	<b>90</b>	<b>11.29</b>	<b>471</b>	<b>11.09</b>	<b>0.21</b>	
F. BBMB	Bhakra HPS	1480	1070	1256	991	26.28	1095	25.69	0.59
	Dehar HPS	990	469	660	495	12.18	508	11.26	0.92
	Pong HPS	396	237	306	186	6.05	252	5.69	0.36
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1777</b>	<b>2222</b>	<b>1672</b>	<b>44.51</b>	<b>1855</b>	<b>42.64</b>	<b>1.87</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	40	40	0.95	40	0.92	0.03
	KWHEP HPS(IPP)	1000	0	700	360	11.22	468	11.27	-0.05
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	138	137	3.75	156	0.00	3.75
<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>878</b>	<b>537</b>	<b>15.92</b>	<b>663</b>	<b>12.20</b>	<b>3.72</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>20625</b>	<b>13998</b>	<b>16390</b>	<b>11268</b>	<b>305.43</b>	<b>12726</b>	<b>295.03</b>	<b>10.40</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	1235.00	1040.00	26.16	1090
	Guru Nanak Dev TPS(Bhatinda)	440	292.00	287.00	6.09	254
	Guru Hargobind Singh TPS(L.mbt)	920	961.00	958.00	21.26	886
	Thermal (Total)	2620	2488.00	2285.00	53.50	2229
	Total Hydro	1148	869.00	719.00	16.91	704
	<b>Total Punjab</b>	<b>3768</b>	<b>3357</b>	<b>3004</b>	<b>70.41</b>	<b>2934</b>
Haryana	Panipat TPS	1360	1105.00	1164.00	27.37	1140
	DCRTPP (Yamuna nagar)	600	247.00	204.00	5.38	224
	Faridabad GPS (NTPC)	432	391.00	406.00	9.56	398
	RGTPP (khedar) (IPP)	1200	273.00	282.00	5.38	224
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2016.00	2056.00	47.69	1987
	Total Hydro	62	45.00	44.00	1.19	50
	<b>Total Haryana</b>	<b>3679</b>	<b>2061</b>	<b>2100</b>	<b>48.88</b>	<b>2037</b>
	Rajasthan	kota TPS	1240	1054.00	1058.00	25.33
suratgarh TPS		1500	1167.00	1162.00	26.92	1122
Chabra TPS		500	437.00	421.00	10.20	425
Dholpur GPS		330	280.00	190.00	6.29	262
Ramgarh GPS		113	62.00	62.00	1.57	65
RAPS A (NPC)		300	180.00	181.00	4.34	181
Barsingsar (NLC)		250	0.00	0.00	0.00	0
Giral LTPS (IPP)		250	118.00	112.00	2.55	106
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	3298.00	3186.00	77.20	3217
Total Hydro		550	25.00	0.00	0.31	13
Wind power		1294	15.00	174.00	1.82	76
Biomass		71	25.00	25.00	0.58	24
Renewable/Others (Total)		1365	40	199	2.39	100
<b>Total Rajasthan</b>		<b>6668</b>	<b>3363</b>	<b>3385</b>	<b>79.90</b>	<b>3329</b>
UP		Anpara TPS	1630	1258	1260	30.10
	Obra TPS	1442	518	486	12.10	504
	Paricha TPS	640	280	275	6.70	279
	Panki TPS	210	122	59	2.60	108
	Harduaganj TPS	375	40	44	1.00	42
	Tanda TPS (NTPC)	440	381	384	9.53	397
	Roza TPS (IPP)	600	284	284	6.77	282
	Anpara-C (IPP)	600	40	0	0.38	16
	Thermal (Total)	5937	2923	2792	69.18	2883
	Vishnuparyag HPS (IPP)	400	352	357	8.30	346
	Other Hydro	527	248	0	5.26	219
	Cogeneration	951	50	50	1.20	50
	<b>Total UP</b>	<b>7815</b>	<b>3573</b>	<b>3199</b>	<b>83.95</b>	<b>3152</b>
	Uttarakhand	Total Hydro	1303	704	592	17.86
<b>Total Uttarakhand</b>		<b>1303</b>	<b>704</b>	<b>592</b>	<b>17.86</b>	<b>744</b>
Delhi	Rajghat TPS	135	101	103	2.61	109
	Delhi Gas Turbine	282	155	159	3.88	162
	Pragati Gas Turbine	330	288	300	7.09	296
	Rithala GPS	108	26	29	0.16	7
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	665	630	13.04	543
	Thermal (Total)	2000	1235	1221	26.78	1116
	<b>Total Delhi</b>	<b>2000</b>	<b>1235</b>	<b>1221</b>	<b>26.78</b>	<b>1116</b>
HP	Baspa HPS (IPP)	330	122	132	3.81	159
	Malana HPS (IPP)	101	36	43	0.94	39
	Other Hydro	571	343	364	8.68	362
	<b>Total HP</b>	<b>1002</b>	<b>501</b>	<b>539</b>	<b>13</b>	<b>559</b>
J & K	Baglihar HPS (IPP)	450	442	442	10.56	440
	Other Hydro	323	130	161	3.70	154
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>572</b>	<b>603</b>	<b>14.26</b>	<b>594</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>15366</b>	<b>14643</b>	<b>355.45</b>	<b>14465</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>848</b>	<b>2225</b>	<b>33.14</b>	<b>1381</b>
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>32604</b>	<b>28136</b>	<b>694.01</b>	<b>28571</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	8239	3809	133.08	5545
State Control Area Hydro	5365	2964	2497	69.21	2884
<b>Total Regional Hydro</b>	<b>15347</b>	<b>11203</b>	<b>6306</b>	<b>202.28</b>	<b>8428</b>

**V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(19:00 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	100	0	0.24	0.00	0.24
Gwalior-Agra (D/C)	516	838	898	0	13.34	0.00	13.34
Zerda-Kankroli	-134	-92	0	274	0.00	4.03	-4.03
Zerda-Bhinmal	-29	-20	98	192	0.00	1.49	-1.49
Malanpur-Auraiya	-81	-21	0	163	0.00	2.05	-2.05
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>272</b>	<b>705</b>			<b>13.58</b>	<b>7.57</b>	<b>6.02</b>
Pusauli Bypass	-182	149	149	217	1.77	0.77	1.00
MZP- GKP (D/C)	470	752	802	0	15.63	0.00	15.63
Patna-Balia(D/C)	60	322	329	0	4.47	0.00	4.47
B'Sharif-Balia (D/C)	105	238	238	0	4.19	0.00	4.19
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	155	98	185	0	3.23	0.00	3.23
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-39	0	40	0.00	1.40	-1.40
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>576</b>	<b>1520</b>			<b>29.29</b>	<b>2.17</b>	<b>27.12</b>
<b>Total IR Exch</b>	<b>848</b>	<b>2225</b>			<b>42.87</b>	<b>9.74</b>	<b>33.14</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
11.48	2.67	14.15	3.68	13.67	-8.91	-11.74	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
8.92	-2.39	6.53	27.12	6.02	33.14	18.20	8.41	26.61

**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
0.21	19.89	47.00	80.10	96.00	19.90	4.00	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				
50.05	23.59	48.75	21.09	49.24	6.41	0.27	49.83	48.91

**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	421	07:00	411	22:33	0.0	0.0	3.1	0.0
Gorakhpur	400	435	13:12	408	14:25	0.0	0.0	49.6	2.0
Bareilly	400	425	13:06	398	14:25	0.0	0.0	3.1	0.0
Kanpur	400	420	13:04	399	14:08	0.0	0.0	0.0	0.0
Dadri	400	416	13:03	401	19:32	0.0	0.0	0.0	0.0
Ballabgarh	400	420	13:04	402	14:05	0.0	0.0	0.0	0.0
Bawana	400	419	13:04	401	19:32	0.0	0.0	0.0	0.0
Bassi	400	424	02:07	404	12:11	0.0	0.0	5.7	0.0
Hissar	400	412	13:02	395	14:05	0.0	0.0	0.0	0.0
Moga	400	419	02:40	401	18:42	0.0	0.0	0.0	0.0
Abdullapur	400	417	13:08	397	19:32	0.0	0.0	0.0	0.0
Nalagarh	400	425	02:37	328	12:52	0.2	0.2	19.5	0.0
Kishenpur	400	420	02:40	397	19:33	0.0	0.0	0.0	0.0
Wagoora	400	412	02:41	377	19:32	1.3	14.3	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 (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	511.17	1605.30	512.17	1650.87	465.44	785.06
Pong	426.72	384.05	422.97	1035.89	424.50	1114.45	136.86	330.04
Tehri	829.79	740.04	819.55	992.00	NA	NA	193.09	254.00
Koteshwar	612.50	598.50	608.00	4.21	NA	NA	254.00	141.00
Chamera-I	760.00	748.75	753.50	NA	NA	NA	154.57	167.77
Rihand	268.22	252.98	NA	NA	258.10	206.60	NA	NA
RPS	352.80	343.81	350.11	NA	349.08	NA	NA	NA
Jawahar Sagar	298.70	295.78	233.22	NA	297.88	NA	NA	NA
RSD	527.91	487.91	522.92	NA	523.40	NA	155.74	254.99

**IX. System Constraints:**

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

**XI. Weather Conditions For 08.10.2011 :**  
Normal weather

**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 : 08.10.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER