

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 11.10.2011  
Date of Reporting : 12.10.2011

### 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
28386	4788	33174	49.45	25958	5579	31537	48.89	645.0	138.93

\* 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	52.40	13.90		66.30	57.61	53.86	-3.75	120.16	7.30
Haryana	54.10	1.15		55.24	34.53	35.37	0.84	90.61	29.24
Rajasthan	78.26	0.08	2.29	80.63	25.12	24.56	-0.56	105.19	36.23
Delhi	24.55			24.55	47.24	45.30	-1.94	69.84	7.68
UP	67.01	13.11	1.20	81.32	80.76	98.63	17.87	179.95	52.06
Uttarakhand		16.45		16.45	5.68	8.35	2.66	24.79	3.79
HP		12.23		12.23	9.53	9.32	-0.21	21.54	1.05
J & K		14.26	0.00	14.26	11.47	14.43	2.96	28.69	1.60
Chandigarh				0.00	4.32	4.21	-0.10	4.21	0.00
<b>Total</b>	<b>276.31</b>	<b>71.17</b>	<b>3.49</b>	<b>350.98</b>	<b>276.25</b>	<b>294.01</b>	<b>17.76</b>	<b>644.99</b>	<b>138.93</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	5521	300	-167	751	4793	200	-273	753	17.88
Haryana	3903	1008	-33	176	3664	823	-15	176	3.77
Rajasthan	4550	1180	-78	-174	4354	2194	-3	-182	-4.19
Delhi	3449	293	147	-180	2611	47	-103	-39	-3.41
UP	7340	1645	166	723	7504	2315	1033	823	19.34
Uttarakhand	1038	300	-7	-49	1099	0	286	-49	-1.18
HP	1024	62	97	-442	737	0	-119	9	-1.62
J&K	1331	0	100	-253	1055	0	84	-253	-6.07
Chandigarh	230	0	0	7	141	0	-23	7	0.17
<b>Total</b>	<b>28386</b>	<b>4788</b>	<b>225</b>	<b>559</b>	<b>25958</b>	<b>5579</b>	<b>867</b>	<b>1245</b>	<b>24.70</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	658	920	658	15.89	662	15.79
	Rihand I STPS	1000	475	508	510	11.53	480	11.40	0.13
	Rihand II STPS	1000	475	513	520	11.55	481	11.40	0.15
	Dadri I STPS	840	693	830	608	17.27	719	16.64	0.62
	Dadri II STPS	980	746	904	667	18.06	752	17.91	0.15
	Unchahar I TPS	440	192	214	210	4.65	194	4.61	0.04
	Unchahar II TPS	440	192	212	213	4.62	193	4.61	0.02
	Unchahar III TPS	210	192	212	216	4.65	194	4.61	0.04
	ISTPP (Jhajihar)	500	337	462	435	7.26	303	8.08	-0.82
	Dadri GPS	830	766	780	781	18.15	756	18.39	-0.24
	Anta GPS	419	377	376	388	9.10	379	9.06	0.04
	Auraiya GPS	663	599	607	620	14.34	597	14.36	-0.03
	<b>Sub Total (A)</b>	<b>9322</b>	<b>5702</b>	<b>6538</b>	<b>5826</b>	<b>137.05</b>	<b>5710</b>	<b>136.85</b>	<b>0.20</b>
B. NPC	NAPS	440	187	227	231	4.51	188	4.49	0.02
	RAPS- B	440	400	439	437	9.77	407	9.60	0.17
	RAPS- C	440	440	473	466	10.06	419	10.56	-0.50
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1027</b>	<b>1139</b>	<b>1134</b>	<b>24.34</b>	<b>1014</b>	<b>24.64</b>	<b>-0.30</b>
C. NHPC	Chamera I HPS	540	534	540	0	6.05	252	5.99	0.06
	Chamera II HPS	300	297	247	59	2.94	122	2.64	0.30
	Bairasuil HPS	180	120	120	0	1.20	50	1.10	0.11
	Salal-HPS	690	324	342	343	8.16	340	7.79	0.38
	Tanakpur-HPS	94	87	93	56	2.18	91	2.10	0.09
	Uri-HPS	480	189	373	403	5.21	217	5.07	0.14
	Dhauliganga-HPS	280	277	281	69	3.63	151	3.56	0.07
	Dulhasti-HPS	390	387	409	273	7.78	324	6.69	1.08
	Sewa-II HPS	120	119	121	0	0.76	32	0.76	0.00
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2334</b>	<b>2526</b>	<b>1203</b>	<b>37.91</b>	<b>1580</b>	<b>35.70</b>	<b>2.21</b>
D. NJPC	Nathpa Jhakri	1500	1600	1601	546	17.39	725	16.84	0.55
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1601</b>	<b>546</b>	<b>17.39</b>	<b>725</b>	<b>16.84</b>	<b>0.55</b>
E. THDC	Tehri HPS	1000	1050	1059	0	8.65	360	8.50	0.15
	Koteshwar HPS	100	87	145	90	2.55	106	2.09	0.46
	<b>Sub Total (E)</b>	<b>1100</b>	<b>1137</b>	<b>1204</b>	<b>90</b>	<b>11.20</b>	<b>467</b>	<b>10.59</b>	<b>0.61</b>
F. BBMB	Bhakra HPS	1480	927	1071	966	22.44	935	22.25	0.19
	Dehar HPS	990	317	660	150	8.26	344	7.60	0.66
	Pong HPS	396	132	186	186	3.28	137	3.17	0.11
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1376</b>	<b>1917</b>	<b>1302</b>	<b>33.98</b>	<b>1416</b>	<b>33.02</b>	<b>0.96</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	32	33	0.79	33	0.76	0.03
	KWHEP HPS(IPP)	1000	0	700	300	9.34	389	7.92	1.42
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	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>732</b>	<b>333</b>	<b>10.13</b>	<b>422</b>	<b>8.68</b>	<b>1.45</b>
<b>H. Total Regional Entities (A-G)</b>		<b>20625</b>	<b>13176</b>	<b>15657</b>	<b>10434</b>	<b>271.99</b>	<b>11333</b>	<b>266.31</b>	<b>5.69</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	1250.00	1250.00	26.88	1120
	Guru Nanak Dev TPS(Bhatinda)	440	187.00	212.00	4.19	175
	Guru Hargobind Singh TPS(L.mbt)	920	954.00	959.00	21.33	889
	Thermal (Total)	2620	2391.00	2421.00	52.40	2183
	Total Hydro	1148	257.00	369.00	13.90	579
	<b>Total Punjab</b>	<b>3768</b>	<b>2648</b>	<b>2790</b>	<b>66.30</b>	<b>2763</b>
Haryana	Panipat TPS	1360	1150.00	1140.00	27.62	1151
	DCRTPP (Yamuna nagar)	600	266.00	277.00	6.43	268
	Faridabad GPS (NTPC)	432	395.00	399.00	9.45	394
	RGTPP (khedar) (IPP)	1200	402.00	417.00	10.60	442
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2213.00	2233.00	54.10	2254
	Total Hydro	62	44.00	44.00	1.15	48
	<b>Total Haryana</b>	<b>3679</b>	<b>2257</b>	<b>2277</b>	<b>55.24</b>	<b>2302</b>
Rajasthan	kota TPS	1240	1155.00	1054.00	26.06	1086
	suratgarh TPS	1500	1157.00	1149.00	27.15	1131
	Chabra TPS	500	428.00	428.00	10.66	444
	Dholpur GPS	330	279.00	271.00	6.80	283
	Ramgarh GPS	113	62.00	62.00	1.36	57
	RAPS A (NPC)	300	146.00	186.00	4.32	180
	Barsingsar (NLC)	250	0.00	0.00	0.00	0
	Giral LTPS (IPP)	250	55.00	50.00	1.83	76
	Rajwst LTPS (IPP)	135	0.00	0.00	0.09	4
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0
	Thermal (Total)	4753	3282.00	3200.00	78.26	3261
	Total Hydro	550	0.00	0.00	0.08	3
	Wind power	1294	44.00	105.00	1.85	77
	Biomass	71	19.00	19.00	0.45	19
	Renewable/Others (Total)	1365	63	124	2.29	96
	<b>Total Rajasthan</b>	<b>6668</b>	<b>3345</b>	<b>3324</b>	<b>80.63</b>	<b>3360</b>
	UP	Anpara TPS	1630	1481	1186	28.50
Obra TPS		1442	633	660	13.30	554
Paricha TPS		640	385	379	8.30	346
Panki TPS		210	42	70	1.30	54
Harduaganj TPS		375	44	44	0.90	38
Tanda TPS (NTPC)		440	322	318	7.93	330
Roza TPS (IPP)		600	284	283	6.78	283
Anpara-C (IPP)		600	0	0	0.00	0
Thermal (Total)		5937	3191	2940	67.01	2792
Vishnuparyag HPS (IPP)		400	328	303	7.18	299
Other Hydro		527	308	0	5.94	247
Cogeneration		951	50	50	1.20	50
<b>Total UP</b>		<b>7815</b>	<b>3877</b>	<b>3293</b>	<b>81.32</b>	<b>3089</b>
Uttarakhand		Total Hydro	1303	759	645	16.45
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>759</b>	<b>645</b>	<b>16.45</b>	<b>685</b>
Delhi	Rajghat TPS	135	99	103	2.74	114
	Delhi Gas Turbine	282	158	156	3.86	161
	Pragati Gas Turbine	330	292	293	7.23	301
	Rithala GPS	108	24	29	0.63	26
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	475	425	10.09	420
	Thermal (Total)	2000	1048	1006	24.55	1023
	<b>Total Delhi</b>	<b>2000</b>	<b>1048</b>	<b>1006</b>	<b>24.55</b>	<b>1023</b>
HP	Baspa HPS (IPP)	330	60	60	3.10	129
	Malana HPS (IPP)	101	40	31	0.74	31
	Other Hydro	571	294	262	8.39	349
	<b>Total HP</b>	<b>1002</b>	<b>394</b>	<b>353</b>	<b>12</b>	<b>509</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>14900</b>	<b>14291</b>	<b>350.98</b>	<b>14325</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>-143</b>	<b>1872</b>	<b>30.73</b>	<b>1280</b>
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>30414</b>	<b>26597</b>	<b>653.70</b>	<b>26939</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	7980	3474	110.61	4609
State Control Area Hydro	5365	2334	2014	64.00	2667
<b>Total Regional Hydro</b>	<b>15347</b>	<b>10314</b>	<b>5488</b>	<b>174.61</b>	<b>7275</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	-200	-200	0	300	0.00	4.24	-4.24
Gwalior-Agra (D/C)	167	879	1145	0	17.74	0.00	17.74
Zerda-Kankroli	-285	69	104	285	0.00	1.81	-1.81
Zerda-Bhinmal	-155	137	216	163	0.72	0.00	0.72
Malanpur-Auraiya	-80	-28	0	110	0.00	1.21	-1.21
Badod-Kota/Morak	0	0	0	0	0.00	0.40	-0.40
<b>Sub Total WR</b>	<b>-553</b>	<b>857</b>			<b>18.46</b>	<b>7.65</b>	<b>10.81</b>
Pusauli Bypass	-200	-25	101	200	0.49	1.08	-0.59
MZP- GKP (D/C)	372	523	614	0	11.27	0.00	11.27
Patna-Balia(D/C)	49	159	219	0	3.20	0.00	3.20
B'Sharif-Balia (D/C)	79	251	304	0	4.28	0.00	4.28
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	142	146	146	0	2.65	0.00	2.65
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-39	0	40	0.00	0.88	-0.88
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>410</b>	<b>1015</b>			<b>21.89</b>	<b>1.96</b>	<b>19.92</b>
<b>Total IR Exch</b>	<b>-143</b>	<b>1872</b>			<b>40.35</b>	<b>9.61</b>	<b>30.73</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
9.24	2.49	11.74	3.19	23.46	-9.29	-5.30	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
5.63	13.96	19.60	19.92	10.81	30.73	14.29	-3.16	11.13

**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
16.72	37.58	70.40	87.60	97.20	12.40	2.80	0.00

<----- 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				
49.92	18.02	48.61	15.15	49.06	9.76	0.31	49.70	48.74

**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	427	12:03	413	00:01	0.0	0.0	21.3	0.0
Gorakhpur	400	429	07:10	401	00:11	0.0	0.0	34.5	0.0
Bareilly	400	425	07:02	398	14:17	0.0	0.0	9.8	0.0
Kanpur	400	421	07:03	405	00:03	0.0	0.0	0.6	0.0
Dadri	400	417	07:03	403	09:41	0.0	0.0	0.0	0.0
Ballabgarh	400	420	07:02	403	09:41	0.0	0.0	0.0	0.0
Bawana	400	420	07:03	405	10:14	0.0	0.0	0.0	0.0
Bassi	400	429	18:01	405	09:41	0.0	0.0	15.1	0.0
Hissar	400	415	17:35	395	11:46	0.0	0.0	0.0	0.0
Moga	400	419	17:35	402	11:46	0.0	0.0	0.0	0.0
Abdullapur	400	415	18:08	402	19:19	0.0	0.0	0.0	0.0
Nalagarh	400	426	04:29	0	09:48	31.5	31.5	18.3	0.0
Kishenpur	400	419	17:35	398	20:17	0.0	0.0	0.0	0.0
Wagoora	400	0	00:00	9999	00:00	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	510.52	1575.10	512.15	1650.87	396.97	672.52
Pong	426.72	384.05	422.69	1020.81	424.21	1098.31	82.15	183.24
Tehri	829.79	740.04	819.20	982.26	NA	NA	140.81	192.00
Koteshwar	612.50	598.50	607.50	3.32	NA	NA	192.00	169.00
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 11.10.2011 :**  
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 : 11.10.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER