

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 20.10.2011  
Date of Reporting : 21.10.2011

### I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 Hrs) MW			Off Peak (03:00 Hrs) MW				Day Energy (Net MU)	
	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
28806	3277	32083	50.00	25341	2917	28258	49.76	672.5	84.03

\* 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	55.10	11.15		66.25	39.34	39.78	0.44	106.03	6.92
Haryana	54.50	1.21		55.71	35.85	39.11	3.26	94.83	16.66
Rajasthan	100.51	0.05	2.04	102.60	31.19	31.24	0.05	133.83	18.73
Delhi	22.91			22.91	53.70	49.40	-4.30	72.31	0.34
UP	71.31	11.63	1.20	84.14	98.65	97.95	-0.70	182.09	38.27
Uttarakhand		13.65		13.65	12.80	13.13	0.33	26.78	1.31
HP		10.07		10.07	13.85	11.91	-1.94	21.98	0.00
J & K		10.72	0.00	10.72	14.97	19.96	4.98	30.68	1.80
Chandigarh				0.00	4.21	3.97	-0.24	3.97	0.00
<b>Total</b>	<b>304.33</b>	<b>58.49</b>	<b>3.24</b>	<b>366.06</b>	<b>304.56</b>	<b>306.44</b>	<b>1.88</b>	<b>672.50</b>	<b>84.03</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	4565	300	-114	-185	4135	0	14	-105	-3.20
Haryana	4067	1005	57	125	3719	303	120	107	2.42
Rajasthan	5229	288	67	-75	4654	1189	-100	-50	-1.32
Delhi	3467	24	-2	75	2073	0	-98	166	1.62
UP	7377	1500	-339	243	7770	1425	310	243	5.82
Uttarakhand	1255	160	34	50	1006	0	-11	50	1.20
HP	1177	0	-29	-493	736	0	15	114	-0.01
J&K	1453	0	176	-148	1137	0	339	-148	-3.56
Chandigarh	216	0	-25	18	111	0	-8	18	0.43
<b>Total</b>	<b>28806</b>	<b>3277</b>	<b>-175</b>	<b>-391</b>	<b>25341</b>	<b>2917</b>	<b>581</b>	<b>395</b>	<b>3.40</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)	Schedule Net MU	UI Net MU
<b>A. NTPC</b>								
Singrauli STPS	2000	1648	1535	2014	39.76	1657	39.55	0.21
Rihand I STPS	1000	950	1037	1028	22.99	958	22.80	0.19
Rihand II STPS	1000	965	1028	1031	23.33	972	23.16	0.17
Dadri I STPS	840	678	841	606	16.33	680	16.27	0.05
Dadri II STPS	980	808	983	603	19.54	814	19.40	0.14
Unchahar I TPS	440	362	405	382	8.77	365	8.68	0.08
Unchahar II TPS	440	178	201	192	4.31	180	4.27	0.04
Unchahar III TPS	210	178	200	194	4.31	180	4.27	0.04
ISTPP (Jhajihar)	500	460	511	512	11.02	459	10.99	0.03
Dadri GPS	830	789	784	754	18.23	760	18.51	-0.28
Anta GPS	419	387	364	398	9.00	375	8.87	0.13
Auraiya GPS	663	612	616	473	12.52	522	12.16	0.36
<b>Sub Total (A)</b>	<b>9322</b>	<b>8016</b>	<b>8505</b>	<b>8187</b>	<b>190.11</b>	<b>7921</b>	<b>188.95</b>	<b>1.16</b>
<b>B. NPC</b>								
NAPS	440	196	219	234	4.68	195	4.70	-0.02
RAPS- B	440	405	451	454	9.80	408	9.72	0.08
RAPS- C	440	210	236	236	5.35	223	5.04	0.31
<b>Sub Total (B)</b>	<b>1320</b>	<b>811</b>	<b>906</b>	<b>924</b>	<b>19.83</b>	<b>826</b>	<b>19.46</b>	<b>0.37</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	540	0	4.80	200	4.97	-0.17
Chamera II HPS	300	211	166	0	2.64	110	2.59	0.05
Bairasuil HPS	180	179	130	0	0.93	39	0.95	-0.02
Salal-HPS	690	210	230	140	5.00	209	5.07	-0.06
Tanakpur-HPS	94	68	76	66	1.70	71	1.72	-0.02
Uri-HPS	480	153	227	136	3.52	147	3.70	-0.19
Dhauliganga-HPS	280	277	278	0	2.44	102	2.57	-0.13
Dulhasti-HPS	390	387	387	0	7.07	295	7.40	-0.33
Sewa-II HPS	120	119	106	0	0.63	26	0.64	-0.01
<b>Sub Total (C)</b>	<b>3074</b>	<b>2137</b>	<b>2140</b>	<b>342</b>	<b>28.73</b>	<b>1197</b>	<b>29.60</b>	<b>-0.87</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1600	1594	0	14.55	606	14.65	-0.11
<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1594</b>	<b>0</b>	<b>14.55</b>	<b>606</b>	<b>14.65</b>	<b>-0.11</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	1047	0	6.06	253	6.00	0.06
Koteshwar HPS	100	87	156	60	2.18	91	0.75	1.43
<b>Sub Total (E)</b>	<b>1100</b>	<b>1137</b>	<b>1203</b>	<b>60</b>	<b>8.24</b>	<b>343</b>	<b>6.75</b>	<b>1.49</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	530	763	391	13.05	544	12.73	0.32
Dehar HPS	990	287	495	300	6.83	285	6.88	-0.05
Pong HPS	396	201	306	186	5.00	209	4.82	0.18
<b>Sub Total (F)</b>	<b>2866</b>	<b>1018</b>	<b>1564</b>	<b>877</b>	<b>24.88</b>	<b>1037</b>	<b>24.43</b>	<b>0.45</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.74	31	0.71	0.03
KWHEP HPS(IPP)	1000	0	675	255	8.24	343	8.09	0.15
Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
Shree Cement TPS	150	0	112	73	1.78	74	2.99	-1.21
<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>787</b>	<b>328</b>	<b>10.77</b>	<b>449</b>	<b>11.80</b>	<b>-1.03</b>
<b>H. Total Regional Entities (A-G)</b>	<b>20625</b>	<b>14718</b>	<b>16699</b>	<b>10718</b>	<b>297.11</b>	<b>12380</b>	<b>295.64</b>	<b>1.47</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	1250.00	27.59	1150
	Guru Nanak Dev TPS(Bhatinda)	440	297.00	297.00	6.22	259
	Guru Hargobind Singh TPS(L.mbt)	920	961.00	958.00	21.29	887
	Thermal (Total)	2620	2503.00	2505.00	55.10	2296
	Total Hydro	1148	297.00	237.00	11.15	465
	<b>Total Punjab</b>	<b>3768</b>	<b>2800</b>	<b>2742</b>	<b>66.25</b>	<b>2760</b>
Haryana	Panipat TPS	1360	1119.00	1160.00	27.30	1138
	DCRTPP (Yamuna nagar)	600	280.00	283.00	6.65	277
	Faridabad GPS (NTPC)	432	393.00	406.00	9.27	386
	RGTPP (khedar) (IPP)	1200	461.00	399.00	11.28	470
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2253.00	2248.00	54.50	2271
	Total Hydro	62	46.00	49.00	1.21	51
	<b>Total Haryana</b>	<b>3679</b>	<b>2299</b>	<b>2297</b>	<b>55.71</b>	<b>2321</b>
Rajasthan	kota TPS	1240	1158.00	1157.00	27.45	1144
	suratgarh TPS	1500	1167.00	1137.00	27.19	1133
	Chabra TPS	500	420.00	432.00	9.87	411
	Dholpur GPS	330	202.00	236.00	5.75	240
	Ramgarh GPS	113	65.00	65.00	16.35	681
	RAPS A (NPC)	300	194.00	163.00	4.37	182
	Barsingsar (NLC)	250	97.00	84.00	2.62	109
	Giral LTPS (IPP)	250	65.00	44.00	1.16	48
	Rajwest LTPS (IPP)	135	245.00	245.00	5.76	240
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0
	Thermal (Total)	4753	3613.00	3563.00	100.51	4188
	Total Hydro	550	0.00	0.00	0.05	2
	Wind power	1294	45.00	94.00	1.58	66
	Biomass	71	21.00	21.00	0.46	19
	Renewable/Others (Total)	1365	66	115	2.04	85
	<b>Total Rajasthan</b>	<b>6668</b>	<b>3679</b>	<b>3678</b>	<b>102.60</b>	<b>4275</b>
	UP	Anpara TPS	1630	1341	1356	32.50
Obra TPS		1442	593	592	14.30	596
Paricha TPS		640	366	371	8.90	371
Panki TPS		210	0	0	0.00	0
Harduaganj TPS		375	36	36	0.90	38
Tanda TPS (NTPC)		440	318	316	7.93	330
Roza TPS (IPP)		600	284	284	6.78	283
Anpara-C (IPP)		600	0	0	0.00	0
Thermal (Total)		5937	2938	2955	71.31	2971
Vishnuparyag HPS (IPP)		400	239	284	6.38	266
Other Hydro		527	233	0	5.25	219
Cogeneration		951	50	50	1.20	50
<b>Total UP</b>		<b>7815</b>	<b>3460</b>	<b>3289</b>	<b>84.14</b>	<b>3240</b>
Uttarakhand		Total Hydro	1303	627	553	13.65
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>627</b>	<b>553</b>	<b>13.65</b>	<b>569</b>
Delhi	Rajghat TPS	135	56	55	1.26	52
	Delhi Gas Turbine	282	187	195	4.33	181
	Pragati Gas Turbine	330	297	306	7.24	302
	Rithala GPS	108	0	29	0.65	27
	Bawana GPS	440	0	47	4.66	194
	Badarpur TPS (NTPC)	705	210	230	4.77	199
	Thermal (Total)	2000	750	815	22.91	955
	<b>Total Delhi</b>	<b>2000</b>	<b>750</b>	<b>815</b>	<b>22.91</b>	<b>955</b>
HP	Baspa HPS (IPP)	330	142	30	2.52	105
	Malana HPS (IPP)	101	35	0	0.69	29
	Other Hydro	571	310	243	6.86	286
	<b>Total HP</b>	<b>1002</b>	<b>487</b>	<b>273</b>	<b>10</b>	<b>420</b>
J & K	Baglihar HPS (IPP)	450	293	291	7.02	293
	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>423</b>	<b>452</b>	<b>10.72</b>	<b>447</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>14525</b>	<b>14099</b>	<b>366.06</b>	<b>14987</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>-229</b>	<b>1512</b>	<b>23.01</b>	<b>959</b>
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>30995</b>	<b>26329</b>	<b>686.17</b>	<b>28325</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	7288	1607	87.17	3632
State Control Area Hydro	5365	2113	1564	52.11	2171
<b>Total Regional Hydro</b>	<b>15347</b>	<b>9401</b>	<b>3171</b>	<b>139.28</b>	<b>5803</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	-400	-200	0	400	0.00	5.26	-5.26
Gwalior-Agra (D/C)	-98	576	892	130	8.38	0.00	8.38
Zerda-Kankroli	-262	-149	0	288	0.00	4.73	-4.73
Zerda-Bhinmal	-187	-95	63	244	0.00	2.84	-2.84
Malanpur-Auraiya	-210	-87	0	235	0.00	2.93	-2.93
Badod-Kota/Morak	-165	-127	0	224	0.00	3.77	-3.77
<b>Sub Total WR</b>	<b>-1322</b>	<b>-82</b>			<b>8.38</b>	<b>19.54</b>	<b>-11.16</b>
Pusauli Bypass	-44	143	190	125	1.91	0.30	1.61
MZP- GKP (D/C)	338	702	741	0	13.61	0.00	13.61
Patna-Balia(D/C)	233	275	344	0	5.70	0.00	5.70
B'Sharif-Balia (D/C)	198	411	501	0	8.26	0.00	8.26
Barh - balia(D/C)	266	0	316	0	3.06	0.00	3.06
Pusauli-Sahupuri	134	102	181	0	2.82	0.00	2.82
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>1093</b>	<b>1594</b>			<b>35.35</b>	<b>1.18</b>	<b>34.16</b>
<b>Total IR Exch</b>	<b>-229</b>	<b>1512</b>			<b>43.73</b>	<b>20.72</b>	<b>23.01</b>

**V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]**

ER	ISGS/LT Schedule (MU)		Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
19.55	1.78	21.33	2.06	3.14	-1.78	1.54	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
21.61	-0.97	20.64	34.16	-11.16	23.01	12.55	-10.18	2.37

**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	0.70	14.00	56.30	85.40	43.10	3.80	0.60

----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz				
50.33	16.04	49.03	12.39	49.68	1.34	0.18	49.97	0.00

**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	413	16:55	405	06:13	0.0	0.0	0.0	0.0
Gorakhpur	400	428	21:01	402	09:52	0.0	0.0	7.6	0.0
Bareilly	400	423	17:03	396	11:18	0.0	0.0	2.1	0.0
Kanpur	400	417	21:01	400	06:13	0.0	0.0	0.0	0.0
Dadri	400	412	02:56	399	11:18	0.0	0.0	0.0	0.0
Ballabgarh	400	417	21:46	399	12:01	0.0	0.0	0.0	0.0
Bawana	400	417	02:57	401	11:57	0.0	0.0	0.0	0.0
Bassi	400	425	16:55	401	10:00	0.0	0.0	4.3	0.0
Hissar	400	412	02:56	396	07:28	0.0	0.0	0.0	0.0
Moga	400	423	02:57	404	07:28	0.0	0.0	4.5	0.0
Abdullapur	400	420	03:00	398	19:06	0.0	0.0	0.0	0.0
Nalagarh	400	433	02:56	405	19:00	0.0	0.0	42.5	7.2
Kishenpur	400	426	02:23	397	18:12	0.0	0.0	17.1	0.0
Wagoora	400	415	02:23	365	18:12	1.1	21.7	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	510.34	1560.04	512.02	1650.87	336.12	407.42
Pong	426.72	384.05	422.29	990.81	423.70	1066.19	89.00	271.59
Tehri	829.79	740.04	818.85	982.26	NA	NA	126.09	131.00
Koteshwar	612.50	598.50	608.00	3.76	NA	NA	131.00	90.00
Chamera-I	760.00	748.75	751.84	NA	751.84	NA	103.24	83.89
Rihand	268.22	252.98	265.51	650.20	258.10	206.60	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	522.18	NA	522.15	NA	137.00	154.02

**IX. System Constraints:**

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

**XI. Weather Conditions For 20.10.2011 :**

Normal weather

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

**XIII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**

1. 400/220 KV Chamba s/s charged(First Time) successfully alongwith 400 kv Chamera\_2 - Chamba line , ICT-1 and ICT- 2 at 19.34 hrs.

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

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

Report for : 20.10.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER