

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 11.10.2013  
Date of Reporting : 12.10.2013

### I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 Hrs) MW			Demand Met	Off Peak (03:00 Hrs) MW			Day Energy (Net MU)	
	Shortage	Requirement	Freq* (Hz)		Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
34003	2487	36490	50.42	33837	780	34617	50.06	754.8	27.23

\* Half hourly (two 15 minutes block-one block each before and after the designated time) average frequency

### II. A. State's Load 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	45.47	10.35		55.81	72.44	72.08	-0.36	127.89	0.00
Haryana	46.34	0.50		46.84	57.91	54.41	-3.50	101.25	0.77
Rajasthan	64.33	7.23	4.49	76.05	76.66	68.82	-7.84	144.87	0.00
Delhi	22.40			22.40	56.98	53.78	-3.20	76.17	0.10
UP	109.11	3.63	1.70	114.44	107.23	102.69	-4.55	217.13	24.66
Uttarakhand		17.00		17.00	13.59	11.53	-2.06	28.52	0.00
HP		13.52		13.52	9.05	10.26	1.21	23.78	0.00
J & K		13.60	0.00	13.60	17.97	17.38	-0.59	30.97	1.70
Chandigarh				0.00	4.40	4.22	-0.18	4.22	0.00
<b>Total</b>	<b>287.64</b>	<b>65.82</b>	<b>6.19</b>	<b>359.65</b>	<b>416.24</b>	<b>395.16</b>	<b>-21.08</b>	<b>754.81</b>	<b>27.23</b>

\* Shortage furnished by the respective constituent.\$ Others include UP Co-generation and JK Diesel

### 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	5285	0	2	507	5535	0	19	479	17.00	
Haryana	5308	287	282	-389	4821	0	-291	-406	-10.04	
Rajasthan	6317	0	-216	1333	6531	0	-145	1506	35.46	
Delhi	3494	0	-345	-5	3241	0	-103	-604	-4.89	
UP	9342	2100	-610	1287	10396	780	1	1848	28.03	
Uttarakhand	1459	0	-1	186	1216	0	70	156	4.06	
HP	1087	0	-87	-621	844	0	160	-243	-7.13	
J&K	1507	100	-144	19	1109	0	81	-273	-1.86	
Chandigarh	203	0	-34	-20	144	0	-9	0	0.08	
<b>Total</b>	<b>34003</b>	<b>2487</b>	<b>-1154</b>	<b>2294</b>	<b>33837</b>	<b>780</b>	<b>-217</b>	<b>2464</b>	<b>60.73</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	1939	1763	2082	40.51	1688	40.69	-0.18
	Rihand I STPS	1000	917	848	964	17.63	735	18.58	-0.95
	Rihand II STPS	1000	478	408	517	9.12	380	9.44	-0.32
	Rihand III STPS	500	478	404	507	9.41	392	9.71	-0.30
	Dadri I STPS	840	638	515	652	11.94	498	11.97	-0.02
	Dadri II STPS	980	975	893	973	18.69	779	19.00	-0.32
	Unchahar I TPS	420	201	179	211	3.72	155	3.79	-0.07
	Unchahar II TPS	420	403	309	438	7.50	313	7.60	-0.10
	Unchahar III TPS	210	200	152	215	3.71	155	3.76	-0.05
	ISTPP (Jhajjar)	1500	1480	805	846	15.49	645	15.78	-0.29
	Dadri GPS	830	804	405	396	9.37	390	9.60	-0.24
	Anta GPS	419	401	0	0	0.00	0	0.00	0.00
	Auraiya GPS	663	626	158	155	3.61	151	3.66	-0.05
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9540</b>	<b>6839</b>	<b>7956</b>	<b>150.70</b>	<b>6279</b>	<b>153.58</b>	<b>-2.87</b>
	B. NPC	NAPS	440	293	341	334	7.19	300	7.03
RAPS- B		440	397	455	450	9.71	404	9.53	0.18
RAPS- C		440	410	475	466	10.02	418	9.84	0.18
<b>Sub Total (B)</b>		<b>1320</b>	<b>1100</b>	<b>1271</b>	<b>1250</b>	<b>26.92</b>	<b>1122</b>	<b>26.40</b>	<b>0.52</b>
C. NHPC	Chamera I HPS	540	539	540	0	4.07	169	4.39	-0.32
	Chamera II HPS	300	300	290	0	3.48	145	3.82	-0.34
	Chamera III HPS	231	231	183	78	2.52	105	2.80	-0.28
	Bairasuil HPS	180	122	20	10	0.99	41	1.13	-0.14
	Salal-HPS	690	445	487	410	10.54	439	10.63	-0.09
	Tanakpur-HPS	94	78	87	72	1.92	80	1.87	0.05
	Uri-HPS	480	163	250	80	3.53	147	3.79	-0.25
	Uri-II HPS	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	387	356	398	9.14	381	9.40	-0.26
	Sewa-II HPS	120	119	76	38	0.76	32	0.81	-0.05
	<b>Sub Total (C)</b>	<b>3545</b>	<b>2384</b>	<b>2289</b>	<b>1086</b>	<b>36.94</b>	<b>1539</b>	<b>38.63</b>	<b>-1.69</b>
D. NJPC	Nathpa Jhakri	1500	1605	1613	397	18.29	762	18.19	0.09
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1613</b>	<b>397</b>	<b>18.29</b>	<b>762</b>	<b>18.19</b>	<b>0.09</b>
E. THDC	Tehri HPS	1000	1060	1052	0	8.17	340	8.25	-0.08
	Koteshwar HPS	400	150	301	92	2.97	124	3.00	-0.03
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1210</b>	<b>1353</b>	<b>92</b>	<b>11.14</b>	<b>464</b>	<b>11.25</b>	<b>-0.11</b>
F. BBMB	Bhakra HPS	1497	606	1037	527	14.63	610	14.55	0.08
	Dehar HPS	990	418	660	305	10.34	431	10.03	0.32
	Pong HPS	396	235	312	120	5.36	223	5.63	-0.27
	<b>Sub Total (F)</b>	<b>2883</b>	<b>1259</b>	<b>2009</b>	<b>952</b>	<b>30.33</b>	<b>1264</b>	<b>30.21</b>	<b>0.12</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	107	26	1.26	53	1.44	-0.18
	KWHEP HPS(IPP)	1000	0	900	261	10.13	422	10.09	0.05
	Malana Stg-II HPS	100	0	35	0	0.93	39	0.92	0.00
	Shree Cement TPS	300	0	222	184	5.04	210	5.15	-0.11
	Budhil HPS(IPP)	70	0	34	35	0.57	24	0.83	-0.26
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1298</b>	<b>506</b>	<b>17.94</b>	<b>747</b>	<b>18.43</b>	<b>-0.49</b>
<b>H. Total Regional Entities (A-G)</b>	<b>23092</b>	<b>17098</b>	<b>16672</b>	<b>12239</b>	<b>292.26</b>	<b>12178</b>	<b>296.69</b>	<b>-4.43</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	860	1160	23.17	965	
	Guru Nanak Dev TPS(Bhatinda)	440	215	312	5.93	247	
	Guru Hargobind Singh TPS(L.mbt)	920	547	920	16.37	682	
	Goindwal(GVK)		0	0	0.00	0	
	Thermal (Total)	2620	1622	2392	45.47	1894	
	Total Hydro	1148	451	397	10.35	431	
	<b>Total Punjab</b>	<b>3768</b>	<b>2073</b>	<b>2789</b>	<b>55.81</b>	<b>2325</b>	
Haryana	Panipat TPS	1367	81	488	7.47	311	
	DCRTPP (Yamuna nagar)	600	557	558	12.49	520	
	Faridabad GPS (NTPC)	432	162	196	4.37	182	
	RGTPP (khedar) (IPP)	1200	561	1005	16.47	686	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	557	0	5.55	231	
	Thermal (Total)	4944	1918	2247	46.34	1931	
	Total Hydro	62	20	23	0.50	21	
		<b>Total Haryana</b>	<b>5006</b>	<b>1938</b>	<b>2270</b>	<b>46.84</b>	<b>1952</b>
	Rajasthan	kota TPS	1240	675	872	19.13	797
suratgarh TPS		1500	947	955	22.49	937	
Chabra TPS		500	0	0	0.00	0	
Dholpur GPS		330	89	94	2.40	100	
Ramgarh GPS		111	66	107	1.92	80	
RAPS A (NPC)		300	179	179	4.01	167	
Barsingsar (NLC)		250	111	111	2.46	103	
Giral LTPS		250	0	0	0.00	0	
Rajwest LTPS (IPP)		1080	323	743	11.92	497	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Kalisindh Thermal		600	0	0	0.00	0	
Kawai(Adani)		660	0	0	0.00	0	
Thermal (Total)		6956	2390	3061	64.33	2680	
Total Hydro		550	257	271	7.23	301	
Wind power		2191	29	69	2.02	84	
Biomass		91	29	29	0.70	29	
Solar		201	0	0	1.77	74	
Renewable/Others (Total)		2483	58	98	4.49	187	
		<b>Total Rajasthan</b>	<b>9989</b>	<b>2705</b>	<b>3430</b>	<b>76.05</b>	<b>3169</b>
UP		Anpara TPS	1630	1324	1275	25.70	1071
	Obra TPS	1288	506	355	8.90	371	
	Paricha TPS	1140	453	678	12.70	529	
	Panki TPS	210	0	0	0.00	0	
	Harduaganj TPS	665	457	520	10.20	425	
	Tanda TPS (NTPC)	440	298	280	6.84	285	
	Roza TPS (IPP)	1200	738	954	19.40	808	
	Anpara-C (IPP)	1200	716	961	18.49	770	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	303	403	6.88	287	
	Thermal (Total)	8223	4795	5426	109.11	4546	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	187	152	3.63	151	
	Cogeneration	981	70	70	1.70	71	
		<b>Total UP</b>	<b>10131</b>	<b>5052</b>	<b>5648</b>	<b>114.44</b>	<b>4769</b>
Uttarakhand	Total Hydro	1303	746	644	17.00	708	
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>746</b>	<b>644</b>	<b>17.00</b>	<b>708</b>	
Delhi	Raighat TPS	135	0	0	0.00	0	
	Delhi Gas Turbine	282	81	111	2.11	88	
	Pragati Gas Turbine	330	263	264	6.70	279	
	Riithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	0	281	2.73	114	
	Badarpur TPS (NTPC)	705	425	555	10.86	453	
	Thermal (Total)	2232	769	1211	22.40	933	
		<b>Total Delhi</b>	<b>2232</b>	<b>769</b>	<b>1211</b>	<b>22.40</b>	<b>933</b>
HP	Baspa HPS (IPP)	330	196	0	3.34	139	
	Malana HPS (IPP)	86	86	10	1.02	42	
	Other Hydro	589	376	423	9.16	382	
		<b>Total HP</b>	<b>1005</b>	<b>658</b>	<b>433</b>	<b>13.52</b>	<b>563</b>
J & K	Baglihar HPS (IPP)	450	436	436	10.46	436	
	Other Hydro	323	128	132	3.14	131	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>564</b>	<b>568</b>	<b>13.60</b>	<b>566</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>14505</b>	<b>16993</b>	<b>359.65</b>	<b>14985</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>3956</b>	<b>5870</b>	<b>115.41</b>	<b>4809</b>	
<b>Total Regional Availability(Gross)</b>		<b>57482</b>	<b>35133</b>	<b>35102</b>	<b>767.32</b>	<b>31972</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10620	8306	2814	109.02	4543
State Control Area Hydro	5368	2883	2488	65.82	2742
<b>Total Regional Hydro</b>	<b>15988</b>	<b>11189</b>	<b>5302</b>	<b>174.84</b>	<b>7285</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	50	500	500	100	4.09	0.88	3.21
Gwalior-Agra (D/C)	1095	1587	1661	0	31.82	0.00	31.82
Zerda-Kankroli	37	103	170	95	0.71	0.00	0.71
Zerda-Bhinmal	95	119	211	96	1.65	0.00	1.65
Malanpur-Auraiya	-146	-43	0	146	0.00	1.00	-1.00
Badod-Kota/Morak	86	91	97	0	1.70	0.00	1.70
Mundra-Mohindergarh(HVDC)	1501	1500	2152	0	32.89	0.00	32.89
<b>Sub Total WR</b>	<b>2718</b>	<b>3857</b>			<b>72.86</b>	<b>1.88</b>	<b>70.98</b>
Pusauli Bypass	100	100	100	0	2.43	0.00	2.43
MZP- GKP (D/C)	379	696	761	0	14.08	0.00	14.08
Patna-Balia(D/C)	196	444	691	0	10.42	0.00	10.42
B'Sharif-Balia (D/C)	286	390	645	0	9.39	0.00	9.39
Pusauli-Balia	1	49	147	0	1.10	0.00	1.10
Gaya-Fatehpur (765 Kv)	180	203	260	0	4.27	0.00	4.27
Pusauli-Sahupuri	133	167	172	0	3.59	0.00	3.59
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-37	-36	0	38	0.00	0.85	-0.85
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1238</b>	<b>2013</b>			<b>45.28</b>	<b>0.85</b>	<b>44.43</b>
<b>Total IR Exch</b>	<b>3956</b>	<b>5870</b>			<b>118.14</b>	<b>2.73</b>	<b>115.41</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
35.50	2.01	37.51	8.02	-1.47	17.03	21.36	0.61	-0.61

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
63.17	67.61	130.78	44.43	70.98	115.41	-18.74	3.37	-15.37

**VI. Frequency Profile** <----- % of Time Frequency ----->

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7-49.8	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	0.00	0.10	62.20	1.10	62.20	80.50	37.80

<----- 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				
50.63	8.03	49.69	0.49	50.14	0.47	0.16	50.52	49.94

**VII. Voltage profile 400 kV**

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	418	13:03	403	00:09	0.0	0.0	0.0	0.0
Gorakhpur	400	428	05:06	412	22:20	0.0	0.0	40.8	0.0
Barailly	400	433	08:03	408	00:00	0.0	0.0	23.5	0.3
Kanpur	400	425	13:03	410	18:22	0.0	0.0	26.6	0.0
Dadri	400	428	07:57	408	18:37	0.0	0.0	20.9	0.0
Ballabgarh	400	431	10:04	413	18:35	0.0	0.0	84.6	0.8
Bawana	400	431	09:02	411	18:22	0.0	0.0	46.4	0.1
Bassi	400	431	23:25	409	08:15	0.0	0.0	59.9	0.1
Hissar	400	418	23:26	405	15:34	0.0	0.0	0.0	0.0
Moga	400	420	04:02	401	15:46	0.0	0.0	0.0	0.0
Abdullapur	400	429	09:01	407	18:19	0.0	0.0	20.2	0.0
Nalagarh	400	427	08:02	411	15:39	0.0	0.0	47.5	0.0
Kishenpur	400	425	04:02	409	18:34	0.0	0.0	10.9	0.0
Wagoora	400	423	04:03	399	18:37	0.0	0.0	4.7	0.0

**VIII. Voltage profile 765 kV**

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)			
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV
Fatehpur	765	768	13:03	739	18:33	0.0	0.8	0.0	0.0
Balia	765	779	06:56	736	22:36	0.0	5.4	0.0	0.0
Moga	765	801	11:22	754	15:30	0.0	0.0	0.0	0.0
Agra	765	822	08:01	750	15:12	0.0	0.0	21.4	0.1
Bhiwani	765	813	07:58	776	15:33	0.0	0.0	30.2	0.0
Unnao	765	779	06:54	756	00:18	0.0	0.0	0.0	0.0

**IX. 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	510.78	1590.18	504.11	1272.20	436.00	410.46
Pong	426.72	384.05	422.13	990.81	421.88	975.89	153.42	279.77
Tehri	829.79	740.04	824.95	1101.00	818.65	982.26	140.35	154.00
Koteshwar	612.50	598.50	610.65	4.80	609.05	NA	154.00	159.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	128.89	120.10
Rihand	268.22	252.98	261.15	369.40	264.08	550.30	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	518.71	144.00	520.62	144.00	152.26	137.36

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 11.10.2013 :**

1. Scattered Rain in some part of NR.

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

0.00

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

1: Didwana s/station (RRVFN): 315 MVA ICT-1 first time charged at 22.15 hrs dt 11.10.2013.

50 MVAR Bus Reactor first time charged at 20.45 hrs dt. 11.10.2013

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

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

Vishnuprayag (400MW) and Dhauliganga (280MW) are out of operation since 16.06.2013.

Civil construction is in progress for rectification of the major damages in Plants/Dam caused due to flood  
Vishnuprayag and Dhauliganga expected by Dec, 2013 .