

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 12.10.2013  
Date of Reporting : 13.10.2013

### 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
34786	2048	36834	50.11	29258	250	29508	50.19	735.9	33.65

\* 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	36.02	10.64		46.66	61.55	66.29	4.74	112.94	0.00
Haryana	39.90	0.49		40.38	60.88	62.16	1.27	102.54	0.25
Rajasthan	54.89	5.77	8.81	69.47	72.65	71.16	-1.49	140.63	0.00
Delhi	17.65			17.65	55.50	55.29	-0.21	72.94	0.03
UP	110.87	3.12	1.70	115.70	98.47	101.43	2.97	217.13	31.77
Uttarakhand		16.47		16.47	13.35	14.75	1.40	31.22	0.00
HP		13.62		13.62	8.97	9.81	0.83	23.42	0.00
J & K		13.60	0.00	13.60	17.96	17.61	-0.35	31.20	1.60
Chandigarh				0.00	4.22	3.90	-0.32	3.90	0.00
<b>Total</b>	<b>259.34</b>	<b>63.70</b>	<b>10.51</b>	<b>333.55</b>	<b>393.55</b>	<b>402.38</b>	<b>8.83</b>	<b>735.94</b>	<b>33.65</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	
Punjab	5033	0	9	458	4404	0	241	390	17.78
Haryana	5503	168	390	-542	4001	0	-86	-502	-13.65
Rajasthan	6673	0	-75	1530	5622	0	-119	1511	36.74
Delhi	3572	0	-133	-174	2380	0	-248	-640	-7.30
UP	9780	1780	-197	1400	9798	250	455	1639	17.96
Uttarakhand	1417	0	26	219	1159	0	23	170	4.43
HP	1106	0	13	-615	778	0	136	-233	-7.05
J&K	1505	100	-99	19	983	0	-17	-273	-1.86
Chandigarh	197	0	-27	-40	133	0	-13	0	-0.04
<b>Total</b>	<b>34786</b>	<b>2048</b>	<b>-94</b>	<b>2255</b>	<b>29258</b>	<b>250</b>	<b>374</b>	<b>2063</b>	<b>47.01</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	
										UI (OG:(+ve), UG: (-ve))
A. NTPC	Singrauli STPS	2000	1940	2034	1655	38.61	1609	38.01	0.59	
	Rihand I STPS	1000	920	892	762	17.15	715	17.13	0.02	
	Rihand II STPS	1000	478	466	431	8.81	367	8.87	-0.06	
	Rihand III STPS	500	485	441	403	9.28	387	9.36	-0.08	
	Dadri I STPS	840	810	472	476	10.79	450	10.84	-0.05	
	Dadri II STPS	980	975	718	726	17.92	747	18.33	-0.40	
	Unchahar I TPS	420	201	152	159	3.51	146	3.54	-0.04	
	Unchahar II TPS	420	403	314	313	6.80	283	6.77	0.03	
	Unchahar III TPS	210	200	155	154	3.35	139	3.38	-0.04	
	ISTPP (Jhajjar)	1500	1480	823	635	14.34	598	14.65	-0.31	
	Dadri GPS	830	804	189	403	7.54	314	7.66	-0.12	
	Anta GPS	419	401	0	0	0.00	0	0.00	0.00	
	Auraiya GPS	663	625	152	156	3.56	149	3.60	-0.04	
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9721</b>	<b>6808</b>	<b>6273</b>	<b>141.66</b>	<b>5903</b>	<b>142.16</b>	<b>-0.49</b>	
	B. NPC	NAPS	440	293	331	336	7.16	298	7.03	0.13
		RAPS- B	440	400	450	455	9.80	408	9.60	0.20
RAPS- C		440	410	470	471	10.05	419	9.84	0.21	
<b>Sub Total (B)</b>		<b>1320</b>	<b>1103</b>	<b>1251</b>	<b>1262</b>	<b>27.01</b>	<b>1125</b>	<b>26.47</b>	<b>0.53</b>	
C. NHPC	Chamera I HPS	540	539	360	0	3.71	155	3.70	0.01	
	Chamera II HPS	300	300	300	14	3.89	162	3.97	-0.08	
	Chamera III HPS	231	231	222	67	2.63	110	2.79	-0.16	
	Bairasuil HPS	180	122	120	0	1.07	45	1.24	-0.17	
	Salal-HPS	690	449	521	452	10.76	448	10.78	-0.02	
	Tanakpur-HPS	94	78	74	81	1.85	77	1.87	-0.01	
	Uri-HPS	480	159	234	80	3.55	148	3.59	-0.04	
	Uri-II HPS	240		120	100	2.19	91		2.19	
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00	
	Dulhasti-HPS	390	387	403	402	9.29	387	9.24	0.04	
	Sewa-II HPS	120	119	82	0	0.80	33	0.79	0.02	
	<b>Sub Total (C)</b>	<b>3545</b>	<b>2384</b>	<b>2436</b>	<b>1196</b>	<b>39.75</b>	<b>1656</b>	<b>37.97</b>	<b>1.79</b>	
	D. NJPC	Nathpa Jhakri	1500	1605	1628	407	19.45	811	19.06	0.40
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1628</b>	<b>407</b>	<b>19.45</b>	<b>811</b>	<b>19.06</b>	<b>0.40</b>	
E. THDC	Tehri HPS	1000	1060	1065	0	10.08	420	10.00	0.08	
	Koteshwar HPS	400	175	392	89	3.16	132	3.10	0.06	
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1235</b>	<b>1457</b>	<b>89</b>	<b>13.24</b>	<b>552</b>	<b>13.10</b>	<b>0.14</b>	
F. BBMB	Bhakra HPS	1497	554	1059	529	14.32	597	13.29	1.03	
	Dehar HPS	990	410	660	305	10.34	431	9.84	0.50	
	Pong HPS	396	234	312	186	5.86	244	5.61	0.25	
	<b>Sub Total (F)</b>	<b>2883</b>	<b>1197</b>	<b>2031</b>	<b>1020</b>	<b>30.52</b>	<b>1272</b>	<b>28.74</b>	<b>1.78</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	147	26	1.28	53	1.35	-0.07	
	KWHEP HPS(IPP)	1000	0	885	280	10.02	418	10.10	-0.08	
	Malana Stg-II HPS	100	0	49	0	0.71	30	0.72	-0.01	
	Shree Cement TPS	300	0	236	159	4.49	187	4.49	0.00	
	Budhil HPS(IPP)	70	0	25	35	0.74	31	0.83	-0.09	
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1342</b>	<b>500</b>	<b>17.25</b>	<b>719</b>	<b>17.48</b>	<b>-0.24</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>23092</b>	<b>17246</b>	<b>16953</b>	<b>10747</b>	<b>288.88</b>	<b>12037</b>	<b>284.97</b>	<b>3.91</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	870	860	19.54	814
	Guru Nanak Dev TPS(Bhatinda)	440	200	175	4.11	171
	Guru Hargobind Singh TPS(L.mbt)	920	613	580	12.37	516
	Goindwal(GVK)		0	0	0.00	0
	Thermal (Total)	2620	1683	1615	36.02	1501
	Total Hydro	1148	299	438	10.64	443
<b>Total Punjab</b>	<b>3768</b>	<b>1982</b>	<b>2053</b>	<b>46.66</b>	<b>1944</b>	
Haryana	Panipat TPS	1367	69	77	1.66	69
	DCRTPP (Yamuna nagar)	600	559	500	12.16	507
	Faridabad GPS (NTPC)	432	162	162	3.96	165
	RGTPP (khedar) (IPP)	1200	501	429	10.77	449
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	529	373	11.35	473
	Thermal (Total)	4944	1820	1541	39.90	1662
	Total Hydro	62	20	20	0.49	20
	<b>Total Haryana</b>	<b>5006</b>	<b>1840</b>	<b>1561</b>	<b>40.38</b>	<b>1683</b>
	Rajasthan	kota TPS	1240	711	673	17.06
suratgarh TPS		1500	757	746	18.28	762
Chabra TPS		500	0	0	0.00	0
Dholpur GPS		330	100	89	2.42	101
Ramgarh GPS		111	54	73	2.38	99
RAPS A (NPC)		300	179	179	4.02	168
Barsingsar (NLC)		250	112	110	2.54	106
Giral LTPS		250	0	0	0.00	0
Rajwest LTPS (IPP)		1080	321	319	8.19	341
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	2234	2189	54.89	2287
Total Hydro		550	203	349	5.77	240
Wind power		2191	217	384	6.39	266
Biomass		91	22	22	0.53	22
Solar		201	0	0	1.89	79
Renewable/Others (Total)		2483	239	406	8.81	367
<b>Total Rajasthan</b>		<b>9989</b>	<b>2676</b>	<b>2944</b>	<b>69.47</b>	<b>2895</b>
UP		Anpara TPS	1630	1354	1312	28.70
	Obra TPS	1288	515	448	10.20	425
	Paricha TPS	1140	666	448	12.30	513
	Panki TPS	210	0	0	0.00	0
	Harduaganj TPS	665	472	422	8.90	371
	Tanda TPS (NTPC)	440	264	296	7.18	299
	Roza TPS (IPP)	1200	720	729	17.70	738
	Anpara-C (IPP)	1200	837	602	19.27	803
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	284	279	6.62	276
	Thermal (Total)	8223	5112	4536	110.87	4620
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	118	138	3.12	130
	Cogeneration	981	70	70	1.70	71
	<b>Total UP</b>	<b>10131</b>	<b>5300</b>	<b>4744</b>	<b>115.70</b>	<b>4821</b>
Uttarakhand	Total Hydro	1303	676	691	16.47	686
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>676</b>	<b>691</b>	<b>16.47</b>	<b>686</b>
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	78	80	1.85	77
	Pragati Gas Turbine	330	259	263	6.46	269
	Riithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	410	420	9.34	389
	Thermal (Total)	2232	747	763	17.65	736
<b>Total Delhi</b>	<b>2232</b>	<b>747</b>	<b>763</b>	<b>17.65</b>	<b>736</b>	
HP	Baspa HPS (IPP)	330	119	0	3.25	135
	Malana HPS (IPP)	86	86	0	0.73	30
	Other Hydro	589	400	419	9.64	402
	<b>Total HP</b>	<b>1005</b>	<b>605</b>	<b>419</b>	<b>13.62</b>	<b>567</b>
J & K	Baglihar HPS (IPP)	450	432	438	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>560</b>	<b>570</b>	<b>13.60</b>	<b>566</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>14386</b>	<b>13745</b>	<b>333.55</b>	<b>13898</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>4482</b>	<b>5360</b>	<b>116.44</b>	<b>4852</b>
<b>Total Regional Availability(Gross)</b>		<b>57482</b>	<b>35821</b>	<b>29852</b>	<b>738.87</b>	<b>30786</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10620	8633	3018	114.98	4791
State Control Area Hydro	5368	2481	2625	63.70	2654
<b>Total Regional Hydro</b>	<b>15988</b>	<b>11114</b>	<b>5643</b>	<b>178.68</b>	<b>7445</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	100	200	300	100	3.00	0.00	3.00
Gwalior-Agra (D/C)	975	1534	1578	0	28.25	0.00	28.25
Zerda-Kankroli	22	36	64	217	0.00	1.14	-1.14
Zerda-Bhinmal	37	86	142	263	0.12	0.00	0.12
Malanpur-Auraiya	-73	-8	0	74	0.00	1.24	-1.24
Badod-Kota/Morak	107	84	131	0	1.53	0.00	1.53
Mundra-Mohindergarh(HVDC)	1501	1499	1505	0	36.26	0.00	36.26
<b>Sub Total WR</b>	<b>2669</b>	<b>3431</b>			<b>69.15</b>	<b>2.38</b>	<b>66.77</b>
Pusauli Bypass	100	100	100	0	2.46	0.00	2.46
MZP- GKP (D/C)	582	656	954	0	17.59	0.00	17.59
Patna-Balia(D/C)	445	494	660	0	12.29	0.00	12.29
B'Sharif-Balia (D/C)	352	417	538	0	10.07	0.00	10.07
Pusauli-Balia	9	14	66	0	0.44	0.00	0.44
Gaya-Fatehpur (765 Kv)	217	129	371	0	4.12	0.00	4.12
Pusauli-Sahupuri	142	154	162	0	3.44	0.00	3.44
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-34	-35	0	36	0.00	0.75	-0.75
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>1813</b>	<b>1929</b>			<b>50.41</b>	<b>0.75</b>	<b>49.66</b>
<b>Total IR Exch</b>	<b>4482</b>	<b>5360</b>			<b>119.57</b>	<b>3.13</b>	<b>116.44</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
34.12	1.79	35.91	8.36	-1.57	13.69	11.39	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
58.57	60.89	119.46	49.66	66.77	116.44	-8.91	5.88	-3.02

**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	0.00	84.70	0.90	84.70	75.80	15.30

<----- 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				
50.43	8.03	49.71	17.41	50.08	0.21	0.12	50.40	49.99

**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	417	08:01	409	21:08	0.0	0.0	0.0	0.0
Gorakhpur	400	428	08:03	406	22:48	0.0	0.0	21.3	0.0
Barailly	400	424	04:04	405	18:37	0.0	0.0	15.5	0.0
Kanpur	400	424	03:11	415	09:47	0.0	0.0	57.8	0.0
Dadri	400	426	02:59	412	11:35	0.0	0.0	44.0	0.0
Ballabgarh	400	433	03:05	412	18:35	0.0	0.0	60.6	9.0
Bawana	400	429	04:03	410	18:36	0.0	0.0	43.9	0.0
Bassi	400	434	03:02	407	18:36	0.0	0.0	41.3	5.1
Hissar	400	421	04:04	404	11:58	0.0	0.0	0.0	0.0
Moga	400	423	04:00	403	18:37	0.0	0.0	9.2	0.0
Abdullapur	400	424	02:57	407	11:49	0.0	0.0	20.3	0.0
Nalagarh	400	428	01:58	410	18:37	0.0	0.0	43.1	0.0
Kishenpur	400	427	04:03	403	19:06	0.0	0.0	21.4	0.0
Wagoora	400	424	04:02	390	18:54	0.0	0.0	11.1	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	767	04:02	733	18:35	0.0	3.6	0.0	0.0
Balia	765	764	08:01	729	19:09	0.0	26.8	0.0	0.0
Moga	765	802	04:02	764	18:37	0.0	0.0	0.6	0.0
Agra	765	813	04:03	771	18:37	0.0	0.0	24.4	0.0
Bhiwani	765	814	03:03	778	18:35	0.0	0.0	38.6	0.0
Unnao	765	764	00:00	742	22:46	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 12.10.2013 :**

1. Normal

**XIII. Synchronisation of new generating units :**  
0.00

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

**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 .

Report for : 12.10.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER