

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 10.08.2013  
Date of Reporting : 11.08.2013

### 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
37627	1970	39597	50.03	34288	340	34628	50.57	861.8	16.31

\* 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	40.99	8.81		49.80	123.06	124.19	1.13	173.99	0.00
Haryana	51.36	0.65		52.00	83.56	86.66	3.10	138.66	0.00
Rajasthan	62.33	7.19	18.68	88.19	57.95	55.16	-2.79	143.35	0.00
Delhi	22.71			22.71	61.40	59.68	-1.72	82.39	0.00
UP	115.17	3.72	1.20	120.09	115.58	114.54	-1.03	234.63	14.61
Uttarakhand		20.42		20.42	13.68	11.81	-1.87	32.23	0.00
HP		22.84		22.84	1.51	1.53	0.02	24.37	0.00
J & K		13.59	0.00	13.59	16.77	13.45	-3.31	27.04	1.70
Chandigarh				0.00	5.59	5.10	-0.48	5.10	0.00
<b>Total</b>	<b>292.55</b>	<b>77.21</b>	<b>19.88</b>	<b>389.63</b>	<b>479.10</b>	<b>472.13</b>	<b>-6.97</b>	<b>861.77</b>	<b>16.31</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	7502	0	59	1874	7159	0	-112	1881	44.80
Haryana	6735	0	187	760	5380	0	57	738	16.52
Rajasthan	5789	0	-188	0	5519	0	-48	21	0.96
Delhi	3881	0	153	269	2987	0	-103	14	4.19
UP	9538	1870	-206	644	10106	340	-31	1239	20.10
Uttarakhand	1590	0	46	40	1227	0	-159	-64	-0.32
HP	971	0	63	-1184	956	0	28	-1116	-24.83
J&K	1394	100	-68	-226	789	0	-316	-426	-8.05
Chandigarh	228	0	-20	0	165	0	-38	-20	0.10
<b>Total</b>	<b>37627</b>	<b>1970</b>	<b>26</b>	<b>2176</b>	<b>34288</b>	<b>340</b>	<b>-721</b>	<b>2266</b>	<b>53.47</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	1723	1866	1338	37.59	1566	37.76	-0.18	
	Rihand I STPS	1000	915	935	680	18.58	774	18.77	-0.19	
	Rihand II STPS	1000	470	514	338	9.62	401	9.72	-0.10	
	Rihand III STPS	500	485	514	339	10.15	423	10.37	-0.22	
	Dadri I STPS	840	600	480	459	10.13	422	10.37	-0.24	
	Dadri II STPS	980	485	507	349	8.91	371	9.14	-0.23	
	Unchahar I TPS	420	391	392	306	7.23	301	7.30	-0.07	
	Unchahar II TPS	420	403	371	305	7.04	293	6.99	0.05	
	Unchahar III TPS	210	201	185	153	3.47	144	3.48	-0.01	
	ISTPP (Jhajjar)	1500	1430	430	703	11.86	494	12.73	-0.87	
	Dadri GPS	830	523	381	384	8.81	367	8.95	-0.13	
	Anta GPS	419	404	382	375	9.11	380	9.30	-0.19	
	Auraiya GPS	663	615	307	300	7.09	295	7.17	-0.08	
	<b>Sub Total (A)</b>	<b>10782</b>	<b>8644</b>	<b>7264</b>	<b>6029</b>	<b>149.58</b>	<b>6233</b>	<b>152.04</b>	<b>-2.46</b>	
	B. NPC	NAPS	440	159	179	181	3.67	153	3.80	-0.14
		RAPS- B	440	400	444	447	9.57	399	9.60	-0.03
RAPS- C		440	210	237	237	5.03	210	5.04	-0.01	
<b>Sub Total (B)</b>		<b>1320</b>	<b>769</b>	<b>860</b>	<b>865</b>	<b>18.27</b>	<b>761</b>	<b>18.44</b>	<b>-0.17</b>	
C. NHPC	Chamera I HPS	540	534	540	540	12.34	514	12.82	-0.48	
	Chamera II HPS	300	293	301	288	7.00	292	7.01	-0.01	
	Chamera III HPS	231	231	233	216	5.53	230	5.52	0.01	
	Bairasuil HPS	180	123	179	150	2.31	96	2.36	-0.05	
	Salal-HPS	690	667	667	667	15.98	666	16.01	-0.03	
	Tanakpur-HPS	94	94	94	94	2.22	92	2.18	0.03	
	Uri-HPS	480	238	342	203	5.51	230	5.51	0.01	
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00	
	Dulhasti-HPS	390	387	401	385	9.14	381	9.14	0.00	
	Sewa-II HPS	120	119	118	117	2.82	117	2.89	-0.07	
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2686</b>	<b>2875</b>	<b>2660</b>	<b>62.85</b>	<b>2619</b>	<b>63.43</b>	<b>-0.58</b>	
D. NJPC	Nathpa Jhakri	1500	1605	1621	1623	38.56	1607	38.50	0.06	
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1621</b>	<b>1623</b>	<b>38.56</b>	<b>1607</b>	<b>38.50</b>	<b>0.06</b>	
E. THDC	Tehri HPS	1000	1060	1063	1042	25.32	1055	25.25	0.07	
	Koteshwar HPS	400	349	275	290	8.08	337	8.35	-0.27	
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1409</b>	<b>1338</b>	<b>1332</b>	<b>33.40</b>	<b>1392</b>	<b>33.60</b>	<b>-0.20</b>	
F. BBMB	Bhakra HPS	1480	1181	1345	1095	28.70	1196	28.35	0.35	
	Dehar HPS	990	621	825	560	15.37	640	14.91	0.46	
	Pong HPS	396	329	372	312	8.22	343	7.88	0.34	
	<b>Sub Total (F)</b>	<b>2866</b>	<b>2131</b>	<b>2542</b>	<b>1967</b>	<b>52.29</b>	<b>2179</b>	<b>51.14</b>	<b>1.15</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	229	121	4.14	173	4.03	0.11	
	KWHEP HPS(IPP)	1000	0	1200	1081	28.09	1170	28.51	-0.43	
	Malana Stg-II HPS	100	0	113	113	2.70	112	2.52	0.17	
	Shree Cement TPS	300	0	128	92	2.15	90	3.00	-0.85	
	Budhil HPS(IPP)	70	0	74	74	1.76	74	1.68	0.09	
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1744</b>	<b>1481</b>	<b>38.84</b>	<b>1619</b>	<b>39.75</b>	<b>-0.91</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>17243</b>	<b>18244</b>	<b>15957</b>	<b>393.81</b>	<b>16409</b>	<b>396.91</b>	<b>-3.11</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	1050	1040	22.64	943
	Guru Nanak Dev TPS(Bhatinda)	440	90	170	3.74	156
	Guru Hargobind Singh TPS(L.mbt)	920	712	564	14.61	609
	Goindwal(GVK)		0	0	0.00	0
	Thermal (Total)	2620	1852	1774	40.99	1708
	Total Hydro	1148	363	348	8.81	367
<b>Total Punjab</b>	<b>3768</b>	<b>2215</b>	<b>2122</b>	<b>49.80</b>	<b>2075</b>	
Haryana	Panipat TPS	1367	765	760	18.38	766
	DCRTPP (Yamuna nagar)	600	277	251	6.12	255
	Faridabad GPS (NTPC)	432	354	300	7.03	293
	RGTPP (khedar) (IPP)	1200	480	356	9.97	415
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	525	353	9.87	411
	Thermal (Total)	4944	2401	2020	51.36	2140
	Total Hydro	62	28	26	0.65	27
	<b>Total Haryana</b>	<b>5006</b>	<b>2429</b>	<b>2046</b>	<b>52.00</b>	<b>2167</b>
	Rajasthan	kota TPS	1240	644	601	14.69
suratgarh TPS		1500	656	569	13.76	573
Chabra TPS		500	191	196	4.37	182
Dholpur GPS		330	80	71	1.91	79
Ramgarh GPS		111	62	45	1.35	56
RAPS A (NPC)		300	176	176	4.09	170
Barsingsar (NLC)		250	89	90	2.07	86
Giral LTPS		250	0	0	0.00	0
Rajwest LTPS (IPP)		1080	419	445	8.30	346
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		660	540	515	11.81	492
Thermal (Total)		6956	2857	2708	62.33	2597
Total Hydro		550	291	299	7.19	299
Wind power		2191	297	514	9.50	396
Biomass		91	25	26	0.63	26
Solar		201	0	0	1.36	57
Renewable/Others (Total)		2483	322	540	18.68	778
<b>Total Rajasthan</b>		<b>9989</b>	<b>3470</b>	<b>3547</b>	<b>88.19</b>	<b>3675</b>
UP		Anpara TPS	1630	1186	1158	26.80
	Obra TPS	1288	440	324	9.80	408
	Paricha TPS	1140	410	690	14.90	621
	Panki TPS	210	131	72	2.60	108
	Harduaganj TPS	665	353	365	8.60	358
	Tanda TPS (NTPC)	440	385	395	9.32	388
	Roza TPS (IPP)	1200	1007	828	22.05	919
	Anpara-C (IPP)	1200	743	718	16.44	685
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	242	186	4.66	194
	Thermal (Total)	8223	4897	4736	115.17	4799
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	169	151	3.72	155
	Cogeneration	981	50	50	1.20	50
	<b>Total UP</b>	<b>10131</b>	<b>5116</b>	<b>4937</b>	<b>120.09</b>	<b>5004</b>
	Uttarakhand	Total Hydro	1303	906	873	20.42
<b>Total Uttarakhand</b>		<b>1303</b>	<b>906</b>	<b>873</b>	<b>20.42</b>	<b>851</b>
Delhi	Rajghat TPS	135	40	41	0.98	41
	Delhi Gas Turbine	282	82	75	1.80	75
	Pragati Gas Turbine	330	263	263	6.31	263
	Riithala GPS	95	0	0	0.00	0
	Bawana GPS	686	255	206	5.28	220
	Badarpur TPS (NTPC)	705	375	435	8.34	348
	Thermal (Total)	2232	1015	1020	22.71	946
	<b>Total Delhi</b>	<b>2232</b>	<b>1015</b>	<b>1020</b>	<b>22.71</b>	<b>946</b>
HP	Baspa HPS (IPP)	330	308	308	7.49	312
	Malana HPS (IPP)	86	62	49	1.37	57
	Other Hydro	589	595	586	13.98	582
	<b>Total HP</b>	<b>1005</b>	<b>965</b>	<b>943</b>	<b>22.84</b>	<b>952</b>
J & K	Baglihar HPS (IPP)	450	440	434	10.45	436
	Other Hydro	323	135	135	3.14	131
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>575</b>	<b>569</b>	<b>13.59</b>	<b>566</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>16691</b>	<b>16057</b>	<b>389.63</b>	<b>16235</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>4222</b>	<b>3098</b>	<b>91.12</b>	<b>3797</b>
<b>Total Regional Availability(Gross)</b>		<b>57226</b>	<b>39157</b>	<b>35112</b>	<b>874.56</b>	<b>36440</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9918	8897	222.03	9251
State Control Area Hydro	5368	3297	3209	77.21	3217
<b>Total Regional Hydro</b>	<b>15731</b>	<b>13215</b>	<b>12106</b>	<b>299.25</b>	<b>12469</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	-100	400	200	2.65	1.88	0.77
Gwalior-Agra (D/C)	1286	1101	1558	0	27.72	0.00	27.72
Zerda-Kankroli	47	-149	47	236	0.00	2.30	-2.30
Zerda-Bhinmal	95	-107	113	236	0.00	0.79	-0.79
Malanpur-Auraiya	-57	-51	0	101	0.00	1.43	-1.43
Badod-Kota/Morak	0	24	56	71	0.21	0.00	0.21
Mundra-Mohindergarh(HVDC)	1448	1038	1452	0	27.25	0.00	27.25
<b>Sub Total WR</b>	<b>2919</b>	<b>1756</b>			<b>57.83</b>	<b>6.40</b>	<b>51.43</b>
Pusauli Bypass	-265	-189	0	265	0.00	4.23	-4.23
MZP- GKP (D/C)	525	643	890	0	16.93	0.00	16.93
Patna-Balia(D/C)	318	406	587	0	11.31	0.00	11.31
B'Sharif-Balia (D/C)	242	244	341	0	6.54	0.00	6.54
Pusauli-Balia	-18	-5	29	31	0.00	0.30	-0.30
Gaya-Fatehpur (765 Kv)	107	-12	107	12	1.37	0.00	1.37
Pusauli-Sahupuri	111	148	156	0	3.43	0.00	3.43
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-38	-40	0	45	0.00	0.90	-0.90
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	321	147	321	0	5.53	0.00	5.53
<b>Sub Total ER</b>	<b>1303</b>	<b>1342</b>			<b>45.11</b>	<b>5.43</b>	<b>39.69</b>
<b>Total IR Exch</b>	<b>4222</b>	<b>3098</b>			<b>102.94</b>	<b>11.83</b>	<b>91.12</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
35.52	3.79	39.31	-3.65	41.03	-0.73	-17.67	3.18	-3.18

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
38.12	61.49	99.61	39.69	51.43	91.12	1.57	-10.06	-8.49

**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	73.00	0.80	73.00	72.70	27.00

<----- 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					
50.63	4.03	49.74	12.08	50.12	0.44	0.17	50.58	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	419	04:02	401	12:48	0.0	0.0	0.0	0.0
Gorakhpur	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Barilly	400	422	04:03	399	12:20	0.0	0.0	0.2	0.0
Kanpur	400	424	03:09	405	10:21	0.0	0.0	16.1	0.0
Dadri	400	424	04:03	400	12:20	0.0	0.0	10.1	0.0
Ballabgarh	400	431	04:03	406	12:20	0.0	0.0	42.3	0.1
Bawana	400	425	04:03	403	12:21	0.0	0.0	14.9	0.0
Bassi	400	430	02:38	403	20:11	0.0	0.0	23.0	0.0
Hissar	400	415	04:02	394	12:20	0.0	0.0	0.0	0.0
Moga	400	412	03:18	397	12:16	0.0	0.0	0.0	0.0
Abdullapur	400	420	04:03	401	12:20	0.0	0.0	0.0	0.0
Nalagarh	400	416	04:02	397	12:20	0.0	0.0	0.0	0.0
Kishenpur	400	420	04:04	406	20:12	0.0	0.0	0.0	0.0
Wagoora	400	417	04:05	394	20:13	0.0	0.0	0.0	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	779	04:04	740	10:23	0.0	0.4	0.0	0.0
Balia	765	765	16:27	727	09:56	0.9	58.9	0.0	0.0
Moga	765	782	04:04	750	12:20	0.0	0.0	0.0	0.0
Agra	765	816	04:03	749	20:46	0.0	0.0	18.3	0.0
Bhiwani	765	804	04:03	764	12:23	0.0	0.0	5.8	0.0
Unnao	765	761	00:00	761	00:00	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	505.10	1312.37	485.38	593.99	1340.80	870.15
Pong	426.72	384.05	420.42	912.94	402.76	290.12	1102.00	468.00
Tehri	829.79	740.04	818.50	972.58	818.65	982.26	580.47	564.00
Koteshwar	612.50	598.50	610.45	4.69	NA	NA	NA	597.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	335.27	344.07
Rihand	268.22	252.98	257.07	159.40	258.04	242.70	NA	NA
RPS	352.80	343.81	352.22	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.39	NA	NA	NA	NA	NA
RSD	527.91	487.91	517.15	145.00	501.51	144.00	525.96	NA

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 10.08.2013 :**

1. Rains in UP , NCR , Punjab , Raj , HP , Uttranchal , Haryana.

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

**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 :**

1. Dhauliganga (280 MW) closed down till 30.09.2013 due to flooding of power house.
2. Vishnuprayg( UPPCL) ( 400 MW ) Closed due to High Silt level in river water.

Report for : 10.08.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER