

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 10.09.2013  
Date of Reporting : 11.09.2013

### 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
40368	3802	44170	50.01	39407	2285	41692	50.12	946.0	67.40

\* 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	52.05	19.29		71.33	115.27	114.75	-0.53	186.08	0.00
Haryana	88.08	0.67		88.75	65.92	65.63	-0.29	154.38	0.46
Rajasthan	94.80	1.51	9.35	105.65	88.28	87.19	-1.09	192.85	0.87
Delhi	25.16			25.16	75.85	71.67	-4.18	96.83	0.05
UP	107.44	4.30	1.00	112.75	113.84	113.31	-0.53	226.06	62.30
Uttarakhand		19.78		19.78	10.65	11.23	0.58	31.01	1.97
HP		21.78		21.78	3.17	3.18	0.00	24.96	0.06
J & K		13.69	0.00	13.69	15.70	15.23	-0.48	28.91	1.70
Chandigarh				0.00	5.44	4.90	-0.54	4.90	0.00
<b>Total</b>	<b>367.53</b>	<b>81.02</b>	<b>10.35</b>	<b>458.90</b>	<b>492.12</b>	<b>487.07</b>	<b>-5.05</b>	<b>945.97</b>	<b>67.40</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	8471	0	-4	1854	7551	0	-122	1965	46.14	
Haryana	6803	231	-157	204	6362	0	-52	379	-3.46	
Rajasthan	7769	213	-4	1164	8112	0	-272	1298	26.58	
Delhi	4468	0	-44	47	3555	0	-418	-17	-0.16	
UP	8776	2985	-203	182	10612	2285	288	1704	22.72	
Uttarakhand	1336	225	26	-86	1263	0	-15	-25	-1.20	
HP	1136	47	51	-979	865	0	-74	-916	-20.69	
J&K	1375	100	6	-244	933	0	-109	-377	-6.44	
Chandigarh	234	0	-20	0	155	0	-36	0	0.36	
<b>Total</b>	<b>40368</b>	<b>3802</b>	<b>-348</b>	<b>2142</b>	<b>39407</b>	<b>2285</b>	<b>-810</b>	<b>4011</b>	<b>63.86</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	1735	1862	1860	42.05	1752	41.48	0.57
	Rihand I STPS	1000	905	1006	910	21.59	899	21.33	0.25
	Rihand II STPS	1000	477	510	515	11.36	473	11.26	0.10
	Rihand III STPS	500	485	508	513	11.60	483	11.57	0.03
	Dadri I STPS	840	805	870	864	17.15	715	17.46	-0.31
	Dadri II STPS	980	975	1025	986	22.25	927	22.33	-0.08
	Unchahar I TPS	420	392	436	416	9.26	386	9.23	0.02
	Unchahar II TPS	420	404	446	410	9.14	381	9.09	0.04
	Unchahar III TPS	210	200	213	204	4.62	193	4.61	0.02
	ISTPP (Jhajjar)	1500	1480	943	683	19.00	792	19.18	-0.18
	Dadri GPS	830	793	380	583	10.99	458	11.26	-0.27
	Anta GPS	419	393	0	0	0.00	0	0.00	0.00
	Auraiya GPS	663	625	153	156	3.54	148	3.71	-0.16
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9668</b>	<b>8352</b>	<b>8100</b>	<b>182.56</b>	<b>7606</b>	<b>182.53</b>	<b>0.03</b>
B. NPC	NAPS	440	294	329	335	7.05	294	7.06	-0.01
	RAPS- B	440	194	218	219	4.67	194	4.66	0.01
	RAPS- C	440	410	453	465	9.79	408	9.84	-0.05
	<b>Sub Total (B)</b>	<b>1320</b>	<b>898</b>	<b>1000</b>	<b>1019</b>	<b>21.50</b>	<b>896</b>	<b>21.55</b>	<b>-0.05</b>
C. NHPC	Chamera I HPS	540	534	540	180	6.91	288	7.68	-0.77
	Chamera II HPS	300	300	203	100	5.05	211	4.98	0.07
	Chamera III HPS	231	163	147	160	3.77	157	3.53	0.24
	Bairasuil HPS	180	182	120	110	2.05	85	2.04	0.01
	Salal-HPS	690	665	660	671	11.02	459	15.96	-4.95
	Tanakpur-HPS	94	44	64	51	1.16	48	1.09	0.07
	Uri-HPS	480	293	232	314	7.26	303	7.22	0.04
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	387	394	400	9.41	392	9.43	-0.03
	Sewa-II HPS	120	119	125	0	1.34	56	1.32	0.02
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2687</b>	<b>2485</b>	<b>1986</b>	<b>47.97</b>	<b>1999</b>	<b>53.26</b>	<b>-5.29</b>
D. NJPC	Nathpa Jhakri	1500	1350	1354	1357	32.34	1347	32.40	-0.06
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1350</b>	<b>1354</b>	<b>1357</b>	<b>32.34</b>	<b>1347</b>	<b>32.40</b>	<b>-0.06</b>
E. THDC	Tehri HPS	1000	1060	1060	0	12.25	510	12.00	0.25
	Koteshwar HPS	400	391	398	0	4.05	169	4.00	0.05
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1451</b>	<b>1458</b>	<b>0</b>	<b>16.30</b>	<b>679</b>	<b>16.00</b>	<b>0.30</b>
F. BBMB	Bhakra HPS	1497	957	1313	779	24.02	1001	22.96	1.06
	Dehar HPS	990	573	825	570	14.08	587	13.76	0.32
	Pong HPS	396	184	306	60	4.55	190	4.42	0.13
	<b>Sub Total (F)</b>	<b>2883</b>	<b>1714</b>	<b>2444</b>	<b>1409</b>	<b>42.65</b>	<b>1777</b>	<b>41.14</b>	<b>1.51</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	127	112	2.36	98	2.22	0.15
	KWHEP HPS(IPP)	1000	0	997	599	18.93	789	18.79	0.13
	Malana Stg-II HPS	100	0	95	51	1.50	62	1.21	0.29
	Shree Cement TPS	300	0	129	125	3.10	129	3.11	0.00
	Budhil HPS(IPP)	70	0	68	30	0.94	39	0.95	-0.01
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1416</b>	<b>917</b>	<b>26.83</b>	<b>1118</b>	<b>26.28</b>	<b>0.55</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22852</b>	<b>17769</b>	<b>18509</b>	<b>14788</b>	<b>370.14</b>	<b>15422</b>	<b>373.15</b>	<b>-3.02</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	1255	1075	25.57	1065
	Guru Nanak Dev TPS(Bhatinda)	440	331	300	6.81	284
	Guru Hargobind Singh TPS(L.mbt)	920	952	829	19.67	819
	Goindwal(GVK)		0	0	0.00	0
	Thermal (Total)	2620	2538	2204	52.05	2169
	Total Hydro	1148	880	820	19.29	804
<b>Total Punjab</b>	<b>3768</b>	<b>3418</b>	<b>3024</b>	<b>71.33</b>	<b>2972</b>	
Haryana	Panipat TPS	1367	1048	956	24.93	1039
	DCRTPP (Yamuna nagar)	600	549	509	12.45	519
	Faridabad GPS (NTPC)	432	195	193	4.67	195
	RGTPP (khedar) (IPP)	1200	915	758	19.55	814
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	1180	1036	27.33	1139
	Thermal (Total)	4944	3887	3452	88.08	3670
	Total Hydro	62	28	29	0.67	28
	<b>Total Haryana</b>	<b>5006</b>	<b>3915</b>	<b>3481</b>	<b>88.75</b>	<b>3698</b>
	Rajasthan	kota TPS	1240	1142	1138	27.83
suratgarh TPS		1500	1058	980	24.99	1041
Chabra TPS		500	224	225	5.33	222
Dholpur GPS		330	111	110	2.65	110
Ramgarh GPS		111	65	65	1.64	68
RAPS A (NPC)		300	180	180	3.99	166
Barsingsar (NLC)		250	84	83	1.87	78
Giral LTPS		250	0	50	0.15	6
Rajwest LTPS (IPP)		1080	753	715	16.68	695
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		660	0	560	9.66	403
Thermal (Total)		6956	3617	4106	94.80	3950
Total Hydro		550	134	42	1.51	63
Wind power		2191	217	378	7.14	297
Biomass		91	20	20	0.47	20
Solar		201	0	0	1.74	73
Renewable/Others (Total)		2483	237	398	9.35	390
<b>Total Rajasthan</b>		<b>9989</b>	<b>3988</b>	<b>4546</b>	<b>105.65</b>	<b>4402</b>
UP		Anpara TPS	1630	768	749	18.30
	Obra TPS	1288	308	354	7.90	329
	Paricha TPS	1140	684	680	16.20	675
	Panki TPS	210	135	167	3.60	150
	Harduaganj TPS	665	387	395	9.30	388
	Tanda TPS (NTPC)	440	296	294	7.35	306
	Roza TPS (IPP)	1200	810	806	19.55	815
	Anpara-C (IPP)	1200	833	962	18.84	785
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	241	251	6.40	267
	Thermal (Total)	8223	4462	4658	107.44	4477
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	185	201	4.30	179
	Cogeneration	981	40	40	1.00	42
	<b>Total UP</b>	<b>10131</b>	<b>4687</b>	<b>4899</b>	<b>112.75</b>	<b>4698</b>
Uttarakhand	Total Hydro	1303	820	836	19.78	824
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>820</b>	<b>836</b>	<b>19.78</b>	<b>824</b>
Delhi	Raighat TPS	135	50	47	1.08	45
	Delhi Gas Turbine	282	80	81	1.85	77
	Pragati Gas Turbine	330	290	298	6.70	279
	Riithala GPS	95	0	0	0.00	0
	Bawana GPS	686	253	246	5.91	246
	Badarpur TPS (NTPC)	705	460	430	9.62	401
	Thermal (Total)	2232	1133	1102	25.16	1049
<b>Total Delhi</b>	<b>2232</b>	<b>1133</b>	<b>1102</b>	<b>25.16</b>	<b>1049</b>	
HP	Baspa HPS (IPP)	330	327	278	6.68	278
	Malana HPS (IPP)	86	71	51	1.40	58
	Other Hydro	589	598	578	13.71	571
	<b>Total HP</b>	<b>1005</b>	<b>996</b>	<b>907</b>	<b>21.78</b>	<b>908</b>
J & K	Baglihar HPS (IPP)	450	438	438	10.49	437
	Other Hydro	323	132	128	3.20	133
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>570</b>	<b>566</b>	<b>13.69</b>	<b>570</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>19527</b>	<b>19361</b>	<b>458.90</b>	<b>19121</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>4307</b>	<b>6186</b>	<b>131.55</b>	<b>5481</b>
<b>Total Regional Availability(Gross)</b>		<b>57242</b>	<b>42343</b>	<b>40335</b>	<b>960.58</b>	<b>40024</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10380	8960	5514	162.04	6752
State Control Area Hydro	5368	3613	3401	81.02	3376
<b>Total Regional Hydro</b>	<b>15748</b>	<b>12573</b>	<b>8915</b>	<b>243.05</b>	<b>10127</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	250	500	500	0	8.56	0.00	8.56
Gwalior-Agra (D/C)	682	1514	1882	0	27.20	0.00	27.20
Zerda-Kankroli	182	68	255	0	2.40	0.00	2.40
Zerda-Bhinmal	195	117	320	0	3.80	0.00	3.80
Malanpur-Auraiya	-142	-52	0	142	0.00	1.71	-1.71
Badod-Kota/Morak	11	77	114	50	0.58	0.00	0.58
Mundra-Mohindergarh(HVDC)	1085	1102	1451	0	29.65	0.00	29.65
<b>Sub Total WR</b>	<b>2263</b>	<b>3326</b>			<b>72.19</b>	<b>1.71</b>	<b>70.48</b>
Pusauli Bypass	-54	-42	109	112	0.62	0.60	0.02
MZP- GKP (D/C)	638	923	990	0	20.73	0.00	20.73
Patna-Balia(D/C)	635	902	902	0	18.02	0.00	18.02
B'Sharif-Balia (D/C)	477	749	749	0	14.10	0.00	14.10
Pusauli-Balia	63	146	146	0	1.96	0.00	1.96
Gaya-Fatehpur (765 Kv)	190	78	255	0	4.14	0.00	4.14
Pusauli-Sahupuri	132	140	151	0	2.97	0.00	2.97
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-37	-36	33	0	0.00	0.87	-0.87
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>2044</b>	<b>2860</b>			<b>62.54</b>	<b>1.47</b>	<b>61.07</b>
<b>Total IR Exch</b>	<b>4307</b>	<b>6186</b>			<b>134.73</b>	<b>3.18</b>	<b>131.55</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
33.59	3.99	37.58	-3.25	18.51	17.84	8.20	4.09	-4.09

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
56.26	78.21	134.46	61.07	70.48	131.55	4.81	-7.72	-2.91

**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	1.10	5.40	97.70	8.30	93.40	35.30	1.20

<----- 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				
50.29	20.01	49.23	19.09	49.94	0.24	0.14	50.22	49.44

**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	410	18:14	402	00:12	0.0	0.0	0.0	0.0
Gorakhpur	400	424	18:33	402	00:36	0.0	0.0	1.9	0.0
Barailly	400	418	08:04	397	19:10	0.0	0.0	0.0	0.0
Kanpur	400	417	08:03	405	00:13	0.0	0.0	0.0	0.0
Dadri	400	413	06:04	398	19:08	0.0	0.0	0.0	0.0
Ballabgarh	400	421	03:18	404	19:06	0.0	0.0	1.7	0.0
Bawana	400	416	03:41	400	19:08	0.0	0.0	0.0	0.0
Bassi	400	412	02:30	391	09:22	0.0	0.0	0.0	0.0
Hissar	400	406	03:02	389	19:09	0.0	0.2	0.0	0.0
Moga	400	409	02:01	396	19:06	0.0	0.0	0.0	0.0
Abdullapur	400	412	03:02	398	19:07	0.0	0.0	0.0	0.0
Nalagarh	400	412	03:06	398	19:10	0.0	0.0	0.0	0.0
Kishenpur	400	416	02:48	401	19:03	0.0	0.0	0.0	0.0
Wagoora	400	411	23:55	391	18:54	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	774	10:02	736	00:39	0.0	2.5	0.0	0.0
Balia	765	761	14:09	723	00:35	4.6	53.3	0.0	0.0
Moga	765	783	08:02	754	19:07	0.0	0.0	0.0	0.0
Agra	765	806	02:30	765	19:10	0.0	0.0	0.7	0.0
Bhiwani	765	784	18:15	760	19:07	0.0	0.0	0.0	0.0
Unnao	765	762	09:08	751	23:40	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	511.42	1620.46	501.46	1153.36	748.81	677.17
Pong	426.72	384.05	423.72	1066.19	418.85	834.82	313.47	250.92
Tehri	829.79	740.04	820.35	1002.27	818.65	982.26	261.49	271.00
Koteshwar	612.50	598.50	610.95	4.96	NA	NA	271.00	269.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	216.90	170.28
Rihand	268.22	252.98	NA	NA	NA	NA	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	522.70	144.00	513.29	144.00	260.46	420.56

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 10.09.2013 :**

1. Normal weather in NR.

**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 :**

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 : 10.09.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER