

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 15.09.2013  
Date of Reporting : 16.09.2013

### 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
32861	2419	35281	50.45	41311	2960	44271	50.02	912.4	58.15

\* 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	45.62	16.53		62.14	102.81	91.25	-11.57	153.39	0.00
Haryana	88.08	0.67		88.75	63.90	63.03	-0.87	151.78	0.02
Rajasthan	101.56	0.68	11.81	114.06	84.48	78.25	-6.23	192.31	0.00
Delhi	27.71			27.71	66.63	66.69	0.06	94.40	0.06
UP	119.40	4.14	1.00	124.54	109.11	111.32	2.21	235.86	54.47
Uttarakhand		18.56		18.56	9.65	11.83	2.17	30.39	1.71
HP		19.31		19.31	0.86	2.28	1.42	21.59	0.19
J & K		13.69	0.00	13.69	14.65	15.23	0.58	28.92	1.70
Chandigarh				0.00	4.75	3.80	-0.95	3.80	0.00
<b>Total</b>	<b>382.37</b>	<b>73.58</b>	<b>12.81</b>	<b>468.76</b>	<b>456.85</b>	<b>443.67</b>	<b>-13.17</b>	<b>912.44</b>	<b>58.15</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	1241	0	-3451	1670	7694	0	-18	1815	41.85	
Haryana	6722	0	94	286	6797	0	81	-264	-2.39	
Rajasthan	7689	0	-272	956	8486	0	-362	1405	23.34	
Delhi	4311	0	164	-132	3905	0	-1	-229	-5.65	
UP	9531	2050	635	717	11005	2960	361	1905	27.28	
Uttarakhand	1345	225	140	-84	1336	0	124	25	-0.36	
HP	640	44	-1	-1014	939	0	85	-924	-21.08	
J&K	1376	100	-29	-142	969	0	10	-426	-6.02	
Chandigarh	7	0	-223	-12	180	0	-14	-8	-0.25	
<b>Total</b>	<b>32861</b>	<b>2419</b>	<b>-2944</b>	<b>2246</b>	<b>41311</b>	<b>2960</b>	<b>266</b>	<b>3299</b>	<b>56.72</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	1740	1620	184	40.84	1702	41.03	-0.19
Rihand I STPS	1000	933	843	1024	21.82	909	21.96	-0.14
Rihand II STPS	1000	478	423	520	11.16	465	11.22	-0.06
Rihand III STPS	500	482	432	515	11.00	458	11.24	-0.25
Dadri I STPS	840	486	436	657	11.52	480	11.67	-0.16
Dadri II STPS	980	975	970	1024	22.79	949	23.05	-0.26
Unchahar I TPS	420	392	366	414	8.86	369	9.09	-0.23
Unchahar II TPS	420	403	346	443	8.93	372	9.08	-0.15
Unchahar III TPS	210	199	188	217	4.47	186	4.52	-0.05
ISTPP (Jhajjar)	1500	1480	924	764	22.53	939	21.56	0.97
Dadri GPS	830	795	156	385	7.14	298	7.36	-0.22
Anta GPS	419	393	0	0	0.00	0	0.00	0.00
Auraiya GPS	663	621	154	155	3.58	149	3.57	0.01
<b>Sub Total (A)</b>	<b>10782</b>	<b>9377</b>	<b>6858</b>	<b>6302</b>	<b>174.62</b>	<b>7276</b>	<b>175.34</b>	<b>-0.72</b>
<b>B. NPC</b>								
NAPS	440	290	339	333	7.01	292	6.96	0.05
RAPS- B	440	194	218	218	4.63	193	4.66	-0.02
RAPS- C	440	410	461	460	9.76	407	9.84	-0.08
<b>Sub Total (B)</b>	<b>1320</b>	<b>894</b>	<b>1018</b>	<b>1011</b>	<b>21.41</b>	<b>892</b>	<b>21.46</b>	<b>-0.05</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	180	360	5.60	234	5.80	-0.19
Chamera II HPS	300	300	247	226	4.84	202	4.56	0.28
Chamera III HPS	231	231	148	123	2.75	115	3.25	-0.50
Bairasuil HPS	180	182	30	60	1.55	64	1.66	-0.12
Salal-HPS	690	550	507	523	13.17	549	13.20	-0.03
Tanakpur-HPS	94	94	94	93	2.26	94	2.19	0.07
Uri-HPS	480	333	332	353	8.08	337	8.27	-0.19
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	380	406	9.32	388	9.39	-0.08
Sewa-II HPS	120	119	61	0	0.79	33	1.05	-0.26
<b>Sub Total (C)</b>	<b>3305</b>	<b>2730</b>	<b>1979</b>	<b>2144</b>	<b>48.36</b>	<b>2015</b>	<b>49.37</b>	<b>-1.01</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	1357	1257	28.42	1184	29.43	-1.01
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1357</b>	<b>1257</b>	<b>28.42</b>	<b>1184</b>	<b>29.43</b>	<b>-1.01</b>
<b>E. THDC</b>								
Tehri HPS	1000	1060	460	234	6.19	258	6.29	-0.10
Koteshwar HPS	400	400	186	91	1.97	82	1.95	0.02
<b>Sub Total (E)</b>	<b>1400</b>	<b>1460</b>	<b>646</b>	<b>325</b>	<b>8.16</b>	<b>340</b>	<b>8.24</b>	<b>-0.08</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	942	1130	829	22.64	943	22.60	0.04
Dehar HPS	990	573	825	560	13.84	577	13.76	0.08
Pong HPS	396	263	372	192	6.32	263	6.31	0.01
<b>Sub Total (F)</b>	<b>2883</b>	<b>1778</b>	<b>2327</b>	<b>1581</b>	<b>42.80</b>	<b>1783</b>	<b>42.66</b>	<b>0.14</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	78	76	1.88	78	1.90	-0.01
KWHEP HPS(IPP)	1000	0	750	589	16.84	702	17.76	-0.91
Malana Stg-II HPS	100	0	63	50	1.12	47	1.14	-0.02
Shree Cement TPS	300	0	122	125	2.93	122	2.99	-0.06
Budhil HPS(IPP)	70	0	35	32	0.78	32	0.99	-0.22
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1048</b>	<b>872</b>	<b>23.55</b>	<b>981</b>	<b>24.78</b>	<b>-1.23</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22852</b>	<b>17843</b>	<b>15233</b>	<b>13492</b>	<b>347.32</b>	<b>14472</b>	<b>351.29</b>	<b>-3.97</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	360	950	21.96	915
	Guru Nanak Dev TPS(Bhatinda)	440	110	338	6.03	251
	Guru Hargobind Singh TPS(L.mbt)	920	457	931	17.63	734
	Goindwal(GVK)		0	0 0 0	0.00	0
	Thermal (Total)	2620	927	2219	45.62	1901
	Total Hydro	1148	29	915	16.53	689
<b>Total Punjab</b>	<b>3768</b>	<b>956</b>	<b>3134</b>	<b>62.14</b>	<b>2589</b>	
Haryana	Panipat TPS	1367	980	966	22.72	947
	DCRTPP (Yamuna nagar)	600	566	579	12.90	538
	Faridabad GPS (NTPC)	432	193	199	4.45	186
	RGTPP (khedar) (IPP)	1200	542	1040	14.97	624
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	1114	1114	26.10	1088
	Thermal (Total)	4944	3	3898	88.08	3670
	Total Hydro	62	27	27	0.67	28
	<b>Total Haryana</b>	<b>5006</b>	<b>30</b>	<b>3925</b>	<b>88.75</b>	<b>3698</b>
	Rajasthan	kota TPS	1240	1067	1075	26.57
suratgarh TPS		1500	930	955	23.81	992
Chabra TPS		500	374	455	10.53	439
Dholpur GPS		330	112	112	2.67	111
Ramgarh GPS		111	60	64	1.60	67
RAPS A (NPC)		300	180	180	4.07	170
Barsingsar (NLC)		250	84	82	1.88	78
Giral LTPS		250	0	0	0.00	0
Rajwest LTPS (IPP)		1080	574	711	17.89	745
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		660	469	452	12.54	523
Thermal (Total)		6956	3850	4086	101.56	4232
Total Hydro		550	24	24	0.68	28
Wind power		2191	260	606	9.62	401
Biomass		91	26	26	0.62	26
Solar		201	0	0	1.57	65
Renewable/Others (Total)		2483	286	632	11.81	492
<b>Total Rajasthan</b>		<b>9989</b>	<b>4160</b>	<b>4742</b>	<b>114.06</b>	<b>4752</b>
UP		Anpara TPS	1630	1184	1206	28.70
	Obra TPS	1288	388	454	10.20	425
	Paricha TPS	1140	714	690	16.10	671
	Panki TPS	210	72	72	1.70	71
	Harduaganj TPS	665	392	356	8.90	371
	Tanda TPS (NTPC)	440	291	298	7.29	304
	Roza TPS (IPP)	1200	792	806	19.23	801
	Anpara-C (IPP)	1200	779	848	19.67	820
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	323	324	7.60	317
	Thermal (Total)	8223	4935	5054	119.40	4975
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	197	197	4.14	173
	Cogeneration	981	40	40	1.00	42
	<b>Total UP</b>	<b>10131</b>	<b>5172</b>	<b>5291</b>	<b>124.54</b>	<b>5189</b>
	Uttarakhand	Total Hydro	1303	787	793	18.56
<b>Total Uttarakhand</b>		<b>1303</b>	<b>787</b>	<b>793</b>	<b>18.56</b>	<b>773</b>
Delhi	Rajghat TPS	135	83	92	2.04	85
	Delhi Gas Turbine	282	126	159	3.34	139
	Pragati Gas Turbine	330	292	294	7.07	295
	Riithala GPS	95	0	0	0.00	0
	Bawana GPS	686	276	276	6.64	277
	Badarpur TPS (NTPC)	705	415	370	8.62	359
	Thermal (Total)	2232	1192	1191	27.71	1154
	<b>Total Delhi</b>	<b>2232</b>	<b>1192</b>	<b>1191</b>	<b>27.71</b>	<b>1154</b>
HP	Baspa HPS (IPP)	330	93	249	5.20	216
	Malana HPS (IPP)	86	67	44	1.14	47
	Other Hydro	589	454	567	12.98	541
	<b>Total HP</b>	<b>1005</b>	<b>614</b>	<b>860</b>	<b>19.31</b>	<b>805</b>
J & K	Baglihar HPS (IPP)	450	438	436	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>564</b>	<b>13.69</b>	<b>571</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>13481</b>	<b>20500</b>	<b>468.76</b>	<b>19532</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>1394</b>	<b>6989</b>	<b>115.41</b>	<b>4809</b>
<b>Total Regional Availability(Gross)</b>		<b>57242</b>	<b>30108</b>	<b>40981</b>	<b>931.49</b>	<b>38812</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10380	7200	6022	147.59	6150
State Control Area Hydro	5368	2248	3380	73.58	3066
<b>Total Regional Hydro</b>	<b>15748</b>	<b>9448</b>	<b>9402</b>	<b>221.17</b>	<b>9215</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	500	500	150	8.82	0.44	8.38
Gwalior-Agra (D/C)	70	1786	1886	0	24.88	0.00	24.88
Zerda-Kankroli	-86	98	117	209	0.00	0.33	-0.33
Zerda-Bhinmal	-38	137	201	201	1.04	0.00	1.04
Malanpur-Auraiya	-125	-43	0	133	0.00	1.88	-1.88
Badod-Kota/Morak	-45	64	87	99	0.00	0.12	-0.12
Mundra-Mohindergarh(HVDC)	965	1435	1450	0	31.63	0.00	31.63
<b>Sub Total WR</b>	<b>841</b>	<b>3977</b>			<b>66.37</b>	<b>2.77</b>	<b>63.61</b>
Pusauli Bypass	50	50	50	0	1.27	0.00	1.27
MZP- GKP (D/C)	234	893	893	0	16.77	0.00	16.77
Patna-Balia(D/C)	179	969	996	0	15.29	0.00	15.29
B'Sharif-Balia (D/C)	75	731	731	0	10.87	0.00	10.87
Pusauli-Balia	-90	134	158	90	1.00	0.00	1.00
Gaya-Fatehpur (765 Kv)	7	219	271	14	4.03	0.00	4.03
Pusauli-Sahupuri	135	52	174	0	3.45	0.00	3.45
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>553</b>	<b>3012</b>			<b>52.67</b>	<b>0.87</b>	<b>51.80</b>
<b>Total IR Exch</b>	<b>1394</b>	<b>6989</b>			<b>119.05</b>	<b>3.64</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
34.83	2.78	37.61	-3.40	20.85	11.44	6.44	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
49.74	70.06	119.80	51.80	63.61	115.41	2.07	-6.45	-4.39

**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	85.30	1.20	85.30	63.70	14.70

<----- 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				
50.56	20.00	49.72	13.47	50.06	0.23	0.14	50.51	49.90

**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	415	20:00	402	12:09	0.0	0.0	0.0	0.0
Gorakhpur	400	428	06:29	400	00:05	0.0	0.0	11.2	0.0
Barailly	400	424	20:26	396	00:04	0.0	0.0	4.4	0.0
Kanpur	400	422	20:22	406	13:45	0.0	0.0	4.6	0.0
Dadri	400	420	04:00	403	13:00	0.0	0.0	0.0	0.0
Ballabgarh	400	425	18:04	409	13:42	0.0	0.0	28.8	0.0
Bawana	400	420	06:33	403	00:02	0.0	0.0	0.0	0.0
Bassi	400	424	18:04	395	00:05	0.0	0.0	1.0	0.0
Hissar	400	416	20:41	395	00:06	0.0	0.0	0.0	0.0
Moga	400	420	18:04	401	11:33	0.0	0.0	0.0	0.0
Abdullapur	400	419	20:28	401	00:05	0.0	0.0	0.0	0.0
Nalagarh	400	424	20:18	403	12:42	0.0	0.0	4.4	0.0
Kishenpur	400	421	17:52	405	11:33	0.0	0.0	0.2	0.0
Wagoora	400	416	17:51	396	19:39	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	787	20:23	746	00:05	0.0	0.0	0.0	0.0
Balia	765	781	06:39	728	12:52	0.0	37.2	0.0	0.0
Moga	765	804	18:04	765	19:11	0.0	0.0	1.4	0.0
Agra	765	815	18:05	766	00:07	0.0	0.0	20.7	0.0
Bhiwani	765	810	18:04	773	00:06	0.0	0.0	12.0	0.0
Unnao	765	775	20:05	743	00:05	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	511.59	1620.46	502.71	1205.87	712.90	635.74
Pong	426.72	384.05	423.80	1066.19	419.89	889.22	338.87	347.82
Tehri	829.79	740.04	821.85	1040.00	818.65	982.26	235.79	136.00
Koteshwar	612.50	598.50	610.65	4.96	NA	NA	136.00	134.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	154.43	151.79
Rihand	268.22	252.98	NA	NA	263.29	498.00	NA	NA
RPS	352.80	343.81	352.74	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.61	NA	NA	NA	NA	NA
RSD	527.91	487.91	520.88	144.00	516.50	144.00	203.23	332.92

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 15.09.2013 :**

1. Dust storm in Punjab, Haryana and Rajasthan.

**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 : 15.09.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER