

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.09.2013  
Date of Reporting : 22.09.2013

### 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
37210	2320	39530	50.29	37553	1461	39014	50.18	867.9	47.30

\* 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	53.96	17.52		71.48	104.74	105.28	0.54	176.76	0.00
Haryana	59.26	0.69		59.94	64.85	59.13	-5.72	119.07	0.05
Rajasthan	88.07	1.73	11.73	101.53	77.65	65.72	-11.93	167.25	0.00
Delhi	30.04			30.04	59.57	53.63	-5.94	83.67	0.02
UP	120.29	4.20	1.70	126.19	104.92	102.95	-1.97	229.13	45.20
Uttarakhand		18.01		18.01	13.68	14.62	0.94	32.63	0.07
HP		21.19		21.19	5.23	2.65	-2.58	23.84	0.27
J & K		13.60	0.00	13.60	16.54	17.55	1.02	31.15	1.70
Chandigarh				0.00	4.56	4.40	-0.16	4.40	0.00
<b>Total</b>	<b>351.61</b>	<b>76.95</b>	<b>13.43</b>	<b>441.99</b>	<b>451.72</b>	<b>425.92</b>	<b>-25.79</b>	<b>867.91</b>	<b>47.30</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	7701	0	-109	1521	7563	0	19	1932	39.79	
Haryana	4899	0	-409	425	5434	46	-48	0	5.83	
Rajasthan	7046	0	-557	1860	7443	0	-428	1713	44.59	
Delhi	3589	0	-301	-216	3381	0	-212	-386	-5.75	
UP	9528	2220	-56	908	10462	1415	-56	1893	21.27	
Uttarakhand	1585	0	130	-19	1184	0	18	108	2.37	
HP	1110	0	-95	-386	841	0	-90	-668	-7.14	
J&K	1529	100	85	-82	1077	0	-7	-275	-2.54	
Chandigarh	223	0	-21	0	169	0	-3	-30	-0.12	
<b>Total</b>	<b>37210</b>	<b>2320</b>	<b>-1333</b>	<b>4011</b>	<b>37553</b>	<b>1461</b>	<b>-808</b>	<b>4288</b>	<b>98.30</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	1740	1550	1873	39.54	1647	39.62	-0.08
	Rihand I STPS	1000	910	873	973	19.30	804	19.83	-0.53
	Rihand II STPS	1000	478	468	516	10.13	422	10.15	-0.02
	Rihand III STPS	500	485	246	511	9.67	403	10.53	-0.86
	Dadri I STPS	840	600	445	449	11.50	479	10.90	0.60
	Dadri II STPS	980	975	756	712	18.16	756	18.48	-0.33
	Unchahar I TPS	420	394	388	412	8.68	362	8.87	-0.19
	Unchahar II TPS	420	403	362	368	8.05	335	8.22	-0.18
	Unchahar III TPS	210	199	175	174	3.83	160	3.90	-0.07
	ISTPP (Jhajjar)	1500	1480	663	672	14.78	616	15.27	-0.49
	Dadri GPS	830	798	554	546	12.78	533	12.83	-0.05
	Anta GPS	419	264	0	0	0.00	0	0.00	0.00
	Auraiya GPS	663	622	294	311	7.05	294	7.05	0.00
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9347</b>	<b>6774</b>	<b>7517</b>	<b>163.46</b>	<b>6811</b>	<b>165.64</b>	<b>-2.18</b>
B. NPC	NAPS	440	296	331	337	7.03	293	7.10	-0.07
	RAPS- B	440	192	220	219	4.68	195	4.61	0.07
	RAPS- C	440	410	469	462	9.86	411	9.84	0.02
	<b>Sub Total (B)</b>	<b>1320</b>	<b>898</b>	<b>1020</b>	<b>1018</b>	<b>21.57</b>	<b>899</b>	<b>21.55</b>	<b>0.02</b>
C. NHPC	Chamera I HPS	540	535	540	360	4.19	175	4.29	-0.10
	Chamera II HPS	300	300	300	201	4.09	170	3.73	0.36
	Chamera III HPS	231	231	218	70	2.88	120	3.03	-0.15
	Bairasuil HPS	180	182	20	50	1.35	56	1.40	-0.05
	Salal-HPS	690	428	443	375	10.71	446	10.31	0.40
	Tanakpur-HPS	94	94	93	94	2.24	94	2.18	0.06
	Uri-HPS	480	323	251	338	7.60	316	7.89	-0.30
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	387	381	403	9.22	384	9.24	-0.02
	Sewa-II HPS	120	119	115	0	0.64	27	0.66	-0.02
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2599</b>	<b>2361</b>	<b>1891</b>	<b>42.91</b>	<b>1788</b>	<b>42.73</b>	<b>0.18</b>
	D. NJPC	Nathpa Jhakri	1500	401	0	1019	5.98	249	5.63
<b>Sub Total (D)</b>		<b>1500</b>	<b>401</b>	<b>0</b>	<b>1019</b>	<b>5.98</b>	<b>249</b>	<b>5.63</b>	<b>0.35</b>
E. THDC	Tehri HPS	1000	1060	1060	231	7.71	321	7.56	0.15
	Koteshwar HPS	400	138	190	102	2.62	109	2.65	-0.03
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1198</b>	<b>1250</b>	<b>333</b>	<b>10.33</b>	<b>431</b>	<b>10.21</b>	<b>0.12</b>
F. BBMB	Bhakra HPS	1497	880	1325	639	21.40	892	21.12	0.28
	Dehar HPS	990	472	660	450	12.15	506	11.34	0.81
	Pong HPS	396	296	372	186	7.22	301	7.10	0.13
	<b>Sub Total (F)</b>	<b>2883</b>	<b>1648</b>	<b>2357</b>	<b>1275</b>	<b>40.77</b>	<b>1699</b>	<b>39.56</b>	<b>1.21</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	113	63	1.73	72	1.67	0.06
	KWHEP HPS(IPP)	1000	0	0	401	3.52	147	3.13	0.39
	Malana Stg-II HPS	100	0	107	56	1.24	52	1.13	0.11
	Shree Cement TPS	300	0	264	261	6.28	262	6.36	-0.08
	Budhil HPS(IPP)	70	0	35	32	0.83	35	0.81	0.02
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>519</b>	<b>813</b>	<b>13.60</b>	<b>567</b>	<b>13.11</b>	<b>0.49</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22852</b>	<b>16091</b>	<b>14281</b>	<b>13866</b>	<b>298.62</b>	<b>12443</b>	<b>298.43</b>	<b>0.19</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	1260	1020	27.05	1127
	Guru Nanak Dev TPS(Bhatinda)	440	315	275	5.96	248
	Guru Hargobind Singh TPS(L.mbt)	920	953	947	20.95	873
	Goindwal(GVK)		0	0 0 0	0.00	0
	Thermal (Total)	2620	2528	2242	53.96	2248
	Total Hydro	1148	691	683	17.52	730
	<b>Total Punjab</b>	<b>3768</b>	<b>3219</b>	<b>2925</b>	<b>71.48</b>	<b>2978</b>
Haryana	Panipat TPS	1367	421	945	15.56	648
	DCRTPP (Yamuna nagar)	600	251	252	5.93	247
	Faridabad GPS (NTPC)	432	283	283	6.96	290
	RGTPP (khedar) (IPP)	1200	703	913	18.91	788
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	605	331	11.90	496
	Thermal (Total)	4944	2263	2724	59.26	2469
	Total Hydro	62	18	18	0.69	29
	<b>Total Haryana</b>	<b>5006</b>	<b>2281</b>	<b>2742</b>	<b>59.94</b>	<b>2498</b>
	Rajasthan	kota TPS	1240	883	702	19.70
suratgarh TPS		1500	755	950	21.29	887
Chabra TPS		500	390	383	9.72	405
Dholpur GPS		330	80	79	1.92	80
Ramgarh GPS		111	23	26	0.75	31
RAPS A (NPC)		300	180	180	4.20	175
Barsingsar (NLC)		250	136	151	3.31	138
Giral LTPS		250	69	34	1.37	57
Rajwest LTPS (IPP)		1080	582	701	14.87	620
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		660	444	464	10.94	456
Thermal (Total)		6956	3542	3670	88.07	3669
Total Hydro		550	69	96	1.73	72
Wind power		2191	464	466	8.92	372
Biomass		91	33	33	0.80	33
Solar		201	0	0	2.01	84
Renewable/Others (Total)		2483	497	499	11.73	489
<b>Total Rajasthan</b>		<b>9989</b>	<b>4108</b>	<b>4265</b>	<b>101.53</b>	<b>4230</b>
UP		Anpara TPS	1630	1144	1148	27.80
	Obra TPS	1288	442	401	10.30	429
	Paricha TPS	1140	798	792	19.00	792
	Panki TPS	210	153	135	3.40	142
	Harduaganj TPS	665	373	371	7.90	329
	Tanda TPS (NTPC)	440	295	298	7.33	306
	Roza TPS (IPP)	1200	797	797	19.07	795
	Anpara-C (IPP)	1200	667	737	17.09	712
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	365	364	8.40	350
	Thermal (Total)	8223	5034	5043	120.29	5012
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	204	196	4.20	175
	Cogeneration	981	70	70	1.70	71
	<b>Total UP</b>	<b>10131</b>	<b>5308</b>	<b>5309</b>	<b>126.19</b>	<b>5258</b>
	Uttarakhand	Total Hydro	1303	795	629	18.01
<b>Total Uttarakhand</b>		<b>1303</b>	<b>795</b>	<b>629</b>	<b>18.01</b>	<b>751</b>
Delhi	Rajghat TPS	135	89	90	1.97	82
	Delhi Gas Turbine	282	84	102	3.08	128
	Pragati Gas Turbine	330	263	266	6.38	266
	Riithala GPS	95	0	0	0.00	0
	Bawana GPS	686	264	221	6.16	257
	Badarpur TPS (NTPC)	705	520	585	12.46	519
	Thermal (Total)	2232	1220	1264	30.04	1252
	<b>Total Delhi</b>	<b>2232</b>	<b>1220</b>	<b>1264</b>	<b>30.04</b>	<b>1252</b>
HP	Baspa HPS (IPP)	330	281	151	5.73	239
	Malana HPS (IPP)	86	75	56	1.23	51
	Other Hydro	589	616	588	14.23	593
	<b>Total HP</b>	<b>1005</b>	<b>972</b>	<b>795</b>	<b>21.19</b>	<b>883</b>
J & K	Baglihar HPS (IPP)	450	436	436	10.47	436
	Other Hydro	323	126	128	3.14	131
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>562</b>	<b>564</b>	<b>13.60</b>	<b>567</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>18465</b>	<b>18493</b>	<b>441.99</b>	<b>18416</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>5589</b>	<b>6513</b>	<b>143.06</b>	<b>5961</b>
<b>Total Regional Availability(Gross)</b>		<b>57242</b>	<b>38335</b>	<b>38872</b>	<b>883.67</b>	<b>36820</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10380	6188	5038	106.49	4437
State Control Area Hydro	5368	3311	2981	76.95	3206
<b>Total Regional Hydro</b>	<b>15748</b>	<b>9499</b>	<b>8019</b>	<b>183.44</b>	<b>7643</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	500	500	500	0	11.43	0.00	11.43
Gwalior-Agra (D/C)	1683	2006	2006	0	40.78	0.00	40.78
Zerda-Kankroli	7	-41	51	261	0.00	2.09	-2.09
Zerda-Bhinmal	46	26	131	224	0.00	0.48	-0.48
Malanpur-Auraiya	-59	-5	0	65	0.00	1.01	-1.01
Badod-Kota/Morak	72	75	97	28	1.10	0.00	1.10
Mundra-Mohindergarh(HVDC)	1137	1137	1436	0	31.08	0.00	31.08
<b>Sub Total WR</b>	<b>3386</b>	<b>3698</b>			<b>84.39</b>	<b>3.58</b>	<b>80.81</b>
Pusauli Bypass	-127	-14	135	204	0.60	1.35	-0.75
MZP- GKP (D/C)	657	837	999	0	18.79	0.00	18.79
Patna-Balia(D/C)	766	929	1006	0	20.05	0.00	20.05
B'Sharif-Balia (D/C)	624	733	785	0	15.04	0.00	15.04
Pusauli-Balia	84	144	144	0	2.29	0.00	2.29
Gaya-Fatehpur (765 Kv)	100	159	315	0	4.17	0.00	4.17
Pusauli-Sahupuri	136	63	157	0	3.30	0.00	3.30
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-37	-36	0	37	0.00	0.64	-0.64
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>2203</b>	<b>2815</b>			<b>64.25</b>	<b>1.99</b>	<b>62.25</b>
<b>Total IR Exch</b>	<b>5589</b>	<b>6513</b>			<b>148.63</b>	<b>5.57</b>	<b>143.06</b>

**V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]**

ISGS/LT Schedule (MU)			Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
ER	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
35.14	2.67	37.81	3.67	40.54	25.42	18.91	4.10	-4.10

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
70.99	96.26	167.25	62.25	80.81	143.06	-8.74	-15.44	-24.18

**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	80.60	0.50	80.60	80.00	19.40

<----- 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				
50.46	10.00	49.77	10.49	50.11	0.25	0.11	50.50	49.96

**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	408	12:57	401	05:53	0.0	0.0	0.0	0.0
Gorakhpur	400	422	16:08	407	01:11	0.0	0.0	1.5	0.0
Bareilly	400	421	16:06	407	01:10	0.0	0.0	0.1	0.0
Kanpur	400	421	16:05	411	19:08	0.0	0.0	0.4	0.0
Dadri	400	419	16:06	409	10:26	0.0	0.0	0.0	0.0
Ballabgarh	400	425	16:05	414	12:17	0.0	0.0	48.0	0.0
Bawana	400	424	16:04	414	00:00	0.0	0.0	11.8	0.0
Bassi	400	433	04:00	413	23:22	0.0	0.0	69.8	0.8
Hissar	400	414	16:03	404	19:07	0.0	0.0	0.0	0.0
Moga	400	410	03:36	400	19:09	0.0	0.0	0.0	0.0
Abdullapur	400	420	06:04	409	00:00	0.0	0.0	0.0	0.0
Nalagarh	400	423	13:02	411	00:43	0.0	0.0	9.6	0.0
Kishenpur	400	416	03:58	404	19:08	0.0	0.0	0.0	0.0
Wagoora	400	415	00:53	397	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	776	03:07	748	17:25	0.0	0.0	0.0	0.0
Balia	765	760	16:07	732	00:50	0.0	34.7	0.0	0.0
Moga	765	783	16:08	762	19:08	0.0	0.0	0.0	0.0
Agra	765	816	16:07	787	05:53	0.0	0.0	21.0	0.0
Bhiwani	765	797	06:05	773	01:37	0.0	0.0	0.0	0.0
Unnao	765	772	16:10	753	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	511.47	1620.46	504.84	1298.95	549.01	625.17
Pong	426.72	384.05	423.52	1061.02	422.39	1005.78	157.27	401.56
Tehri	829.79	740.04	822.95	1064.58	818.65	982.26	188.56	169.00
Koteshwar	612.50	598.50	611.00	5.10	NA	NA	169.00	174.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	150.48	113.54
Rihand	268.22	252.98	NA	NA	263.50	512.00	NA	NA
RPS	352.80	343.81	352.74	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.70	NA	NA	NA	NA	NA
RSD	527.91	487.91	520.90	144.00	516.82	144.00	165.60	185.62

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 21.09.2013 :**

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 : 21.09.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER