

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 23.09.2013  
Date of Reporting : 24.09.2013

### 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
37955	2453	40409	50.03	34686	980	35666	50.15	857.2	57.66

\* 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	50.13	16.69		66.82	103.77	103.52	-0.26	170.34	0.00
Haryana	50.65	0.64		51.29	55.95	55.70	-0.25	106.98	0.28
Rajasthan	87.92	3.39	5.76	97.07	62.60	55.01	-7.59	152.09	0.30
Delhi	25.34			25.34	69.04	66.83	-2.21	92.17	0.12
UP	117.83	5.22	1.70	124.75	119.91	117.78	-2.13	242.54	53.33
Uttarakhand		18.47		18.47	12.28	13.92	1.64	32.39	1.94
HP		18.07		18.07	5.79	5.82	0.03	23.89	0.00
J & K		13.60	0.00	13.60	17.71	18.33	0.62	31.93	1.70
Chandigarh				0.00	4.90	4.84	-0.06	4.84	0.00
<b>Total</b>	<b>331.87</b>	<b>76.09</b>	<b>7.46</b>	<b>415.42</b>	<b>451.95</b>	<b>441.75</b>	<b>-10.20</b>	<b>857.17</b>	<b>57.66</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	7483	0	-124	1620	6963	0	-16	2119	46.62	
Haryana	5099	3	-149	49	4136	0	-83	-79	-3.24	
Rajasthan	6699	0	-502	870	6135	0	-88	852	19.84	
Delhi	4249	0	-89	-154	3259	0	-305	-379	-3.96	
UP	10063	2200	-327	1533	10894	980	-41	2187	34.84	
Uttarakhand	1517	150	205	21	1236	0	-52	58	2.00	
HP	1148	0	22	-820	793	0	-6	-540	-12.40	
J&K	1453	100	-63	-82	1124	0	38	-275	-2.39	
Chandigarh	244	0	2	-15	147	0	-13	0	0.24	
<b>Total</b>	<b>37955</b>	<b>2453</b>	<b>-1025</b>	<b>3022</b>	<b>34686</b>	<b>980</b>	<b>-566</b>	<b>3944</b>	<b>81.54</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	1857	1869	41.05	1710	40.86	0.19
	Rihand I STPS	1000	899	855	725	19.06	794	19.30	-0.24
	Rihand II STPS	1000	478	518	441	10.92	455	10.49	0.43
	Rihand III STPS	500	471	433	372	10.45	436	10.37	0.08
	Dadri I STPS	840	600	647	471	12.34	514	12.40	-0.06
	Dadri II STPS	980	975	922	787	20.05	836	20.35	-0.30
	Unchahar I TPS	420	402	414	333	8.71	363	8.92	-0.22
	Unchahar II TPS	420	403	408	310	8.37	349	8.28	0.09
	Unchahar III TPS	210	199	199	153	3.72	155	3.78	-0.06
	ISTPP (Jhajjar)	1500	1480	639	633	13.70	571	14.21	-0.51
	Dadri GPS	830	780	568	577	12.78	532	13.09	-0.31
	Anta GPS	419	399	0	0	0.00	0	0.00	0.00
	Auraiya GPS	663	624	151	309	5.81	242	5.88	-0.07
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9448</b>	<b>7611</b>	<b>6980</b>	<b>166.96</b>	<b>6957</b>	<b>167.93</b>	<b>-0.97</b>
B. NPC	NAPS	440	296	329	335	7.02	293	7.10	-0.08
	RAPS- B	440	193	0	220	3.63	151	4.63	-1.00
	RAPS- C	440	412	465	466	9.81	409	9.89	-0.08
	<b>Sub Total (B)</b>	<b>1320</b>	<b>901</b>	<b>794</b>	<b>1021</b>	<b>20.47</b>	<b>853</b>	<b>21.62</b>	<b>-1.16</b>
C. NHPC	Chamera I HPS	540	535	540	270	5.53	231	5.45	0.08
	Chamera II HPS	300	300	300	115	4.05	169	4.10	-0.05
	Chamera III HPS	231	231	233	132	2.72	113	2.79	-0.06
	Bairasuil HPS	180	182	120	110	1.54	64	1.40	0.15
	Salal-HPS	690	508	540	540	12.68	528	12.20	0.48
	Tanakpur-HPS	94	94	93	93	2.23	93	2.19	0.04
	Uri-HPS	480	297	316	260	7.05	294	7.15	-0.10
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	387	404	406	9.34	389	9.29	0.05
	Sewa-II HPS	120	119	125	0	0.64	27	0.60	0.03
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2653</b>	<b>2671</b>	<b>1926</b>	<b>45.79</b>	<b>1908</b>	<b>45.17</b>	<b>0.62</b>
D. NJPC	Nathpa Jhakri	1500	1432	1362	859	25.02	1043	23.66	1.36
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1432</b>	<b>1362</b>	<b>859</b>	<b>25.02</b>	<b>1043</b>	<b>23.66</b>	<b>1.36</b>
E. THDC	Tehri HPS	1000	1060	729	460	7.00	292	6.75	0.25
	Koteshwar HPS	400	100	101	101	2.40	100	2.40	0.00
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1160</b>	<b>830</b>	<b>561</b>	<b>9.40</b>	<b>392</b>	<b>9.15</b>	<b>0.25</b>
F. BBMB	Bhakra HPS	1497	845	1325	608	20.95	873	20.29	0.66
	Dehar HPS	990	449	660	435	10.97	457	10.78	0.19
	Pong HPS	396	322	372	252	8.17	340	7.74	0.43
	<b>Sub Total (F)</b>	<b>2883</b>	<b>1617</b>	<b>2357</b>	<b>1295</b>	<b>40.09</b>	<b>1670</b>	<b>38.81</b>	<b>1.28</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	65	63	1.59	66	1.59	0.00
	KWHEP HPS(IPP)	1000	0	698	582	14.03	585	12.89	1.14
	Malana Stg-II HPS	100	0	107	40	1.04	43	0.96	0.07
	Shree Cement TPS	300	0	278	260	6.39	266	6.57	-0.18
	Budhil HPS(IPP)	70	0	35	35	0.83	35	0.83	0.00
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1183</b>	<b>980</b>	<b>23.87</b>	<b>994</b>	<b>22.84</b>	<b>1.03</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22852</b>	<b>17211</b>	<b>16808</b>	<b>13622</b>	<b>331.60</b>	<b>13817</b>	<b>329.18</b>	<b>2.41</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	1110	1060	24.92	1038	
	Guru Nanak Dev TPS(Bhatinda)	440	332	295	6.70	279	
	Guru Hargobind Singh TPS(L.mbt)	920	880	886	18.52	772	
	Goindwal(GVK)		0	0	0.00	0	
	Thermal (Total)	2620	2322	2241	50.13	2089	
	Total Hydro	1148	672	681	16.69	696	
	<b>Total Punjab</b>	<b>3768</b>	<b>2994</b>	<b>2922</b>	<b>66.82</b>	<b>2784</b>	
Haryana	Panipat TPS	1367	406	410	9.84	410	
	DCRTPP (Yamuna nagar)	600	252	251	5.94	248	
	Faridabad GPS (NTPC)	432	282	282	6.75	281	
	RGTPP (kheadar) (IPP)	1200	412	404	10.28	429	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	744	744	17.83	743	
	Thermal (Total)	4944	2096	2091	50.65	2110	
	Total Hydro	62	16	11	0.64	27	
	<b>Total Haryana</b>	<b>5006</b>	<b>2112</b>	<b>2102</b>	<b>51.29</b>	<b>2137</b>	
	Rajasthan	kota TPS	1240	946	922	22.09	921
		suratgarh TPS	1500	1063	751	20.61	859
Chabra TPS		500	195	394	8.00	333	
Dholpur GPS		330	49	80	1.33	55	
Ramgarh GPS		111	54	52	1.13	47	
RAPS A (NPC)		300	168	180	4.39	183	
Barsingsar (NLC)		250	75	75	1.50	62	
Giral LTPS		250	30	18	1.20	50	
Rajwest LTPS (IPP)		1080	821	576	16.00	667	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Kalisindh Thermal		600	0	0	0.00	0	
Kawai(Adani)		660	477	455	11.68	487	
Thermal (Total)		6956	3878	3503	87.92	3663	
Total Hydro		550	229	84	3.39	141	
Wind power		2191	259	49	3.61	150	
Biomass		91	34	34	0.81	34	
Solar		201	0	0	1.35	56	
Renewable/Others (Total)		2483	293	83	5.76	240	
<b>Total Rajasthan</b>		<b>9989</b>	<b>4400</b>	<b>3670</b>	<b>97.07</b>	<b>4045</b>	
UP		Anpara TPS	1630	1194	1212	28.60	1192
	Obra TPS	1288	441	411	10.50	438	
	Paricha TPS	1140	629	635	14.90	621	
	Panki TPS	210	59	113	1.80	75	
	Harduaganj TPS	665	329	382	8.60	358	
	Tanda TPS (NTPC)	440	297	295	7.33	305	
	Roza TPS (IPP)	1200	797	797	19.39	808	
	Anpara-C (IPP)	1200	821	672	18.05	752	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	365	364	8.66	361	
	Thermal (Total)	8223	4932	4881	117.83	4910	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	196	247	5.22	218	
	Cogeneration	981	70	70	1.70	71	
	<b>Total UP</b>	<b>10131</b>	<b>5198</b>	<b>5198</b>	<b>124.75</b>	<b>5198</b>	
	Uttarakhand	Total Hydro	1303	763	777	18.47	770
<b>Total Uttarakhand</b>		<b>1303</b>	<b>763</b>	<b>777</b>	<b>18.47</b>	<b>770</b>	
Delhi	Raighat TPS	135	47	47	0.96	40	
	Delhi Gas Turbine	282	79	80	1.87	78	
	Pragati Gas Turbine	330	290	261	6.62	276	
	Riithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	242	244	5.95	248	
	Badarpur TPS (NTPC)	705	525	380	9.95	415	
	Thermal (Total)	2232	1183	1012	25.34	1056	
	<b>Total Delhi</b>	<b>2232</b>	<b>1183</b>	<b>1012</b>	<b>25.34</b>	<b>1056</b>	
HP	Baspa HPS (IPP)	330	328	199	5.00	208	
	Malana HPS (IPP)	86	69	38	1.00	42	
	Other Hydro	589	535	507	12.07	503	
	<b>Total HP</b>	<b>1005</b>	<b>932</b>	<b>744</b>	<b>18.07</b>	<b>753</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>18144</b>	<b>16989</b>	<b>415.42</b>	<b>17309</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>5417</b>	<b>5556</b>	<b>137.67</b>	<b>5736</b>	
<b>Total Regional Availability(Gross)</b>		<b>57242</b>	<b>40369</b>	<b>36167</b>	<b>884.69</b>	<b>36862</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10380	8090	5326	136.96	5707
State Control Area Hydro	5368	3370	3108	76.09	3170
<b>Total Regional Hydro</b>	<b>15748</b>	<b>11460</b>	<b>8434</b>	<b>213.05</b>	<b>8877</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	300	500	0	10.88	0.00	10.88
Gwalior-Agra (D/C)	1490	1734	1959	0	40.61	0.00	40.61
Zerda-Kankroli	-13	-3	34	279	0.00	1.30	-1.30
Zerda-Bhinmal	20	62	153	294	0.11	0.85	-0.75
Malanpur-Auraiya	-40	-32	0	74	0.00	0.71	-0.71
Badod-Kota/Morak	0	56	85	42	0.54	0.00	0.54
Mundra-Mohindergarh(HVDC)	1041	1030	1041	0	27.99	0.00	27.99
<b>Sub Total WR</b>	<b>2998</b>	<b>3147</b>			<b>80.12</b>	<b>2.86</b>	<b>77.26</b>
Pusauli Bypass	41	-14	41	190	0.05	1.08	-1.03
MZP- GKP (D/C)	668	781	851	0	18.39	0.00	18.39
Patna-Balia(D/C)	726	721	919	0	18.83	0.00	18.83
B'Sharif-Balia (D/C)	583	591	769	0	15.17	0.00	15.17
Pusauli-Balia	100	92	166	0	2.42	0.00	2.42
Gaya-Fatehpur (765 Kv)	184	127	244	0	4.05	0.00	4.05
Pusauli-Sahupuri	154	147	160	0	3.23	0.00	3.23
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>2419</b>	<b>2409</b>			<b>62.14</b>	<b>1.72</b>	<b>60.42</b>
<b>Total IR Exch</b>	<b>5417</b>	<b>5556</b>			<b>142.26</b>	<b>4.58</b>	<b>137.67</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
37.05	2.52	39.57	0.14	31.76	12.67	17.62	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
56.47	81.64	138.11	60.42	77.26	137.67	3.95	-4.39	-0.44

**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	0.30	2.00	93.20	3.80	91.50	61.60	6.50

<----- 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				
50.39	0.02	49.43	18.57	50.02	0.18	0.13	50.33	49.76

**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	04:00	401	17:42	0.0	0.0	0.0	0.0
Gorakhpur	400	419	05:08	406	00:26	0.0	0.0	0.0	0.0
Bareilly	400	415	05:04	400	19:11	0.0	0.0	0.0	0.0
Kanpur	400	416	03:54	401	19:12	0.0	0.0	0.0	0.0
Dadri	400	418	03:27	402	12:21	0.0	0.0	0.0	0.0
Ballabgarh	400	426	03:59	406	19:11	0.0	0.0	24.9	0.0
Bawana	400	416	08:46	405	19:12	0.0	0.0	0.0	0.0
Bassi	400	428	04:01	408	19:11	0.0	0.0	30.5	0.0
Hissar	400	412	03:59	391	19:09	0.0	0.0	0.0	0.0
Moga	400	411	04:02	395	19:09	0.0	0.0	0.0	0.0
Abdullapur	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Nalagarh	400	416	04:00	400	19:09	0.0	0.0	0.0	0.0
Kishenpur	400	416	00:02	401	18:57	0.0	0.0	0.0	0.0
Wagoora	400	417	00:01	392	19:08	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	760	04:01	736	05:49	0.0	11.2	0.0	0.0
Balia	765	752	05:06	726	00:16	1.4	68.6	0.0	0.0
Moga	765	780	04:00	749	19:10	0.0	0.0	0.0	0.0
Agra	765	801	03:59	768	19:11	0.0	0.0	0.2	0.0
Bhiwani	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Unnao	765	747	00:00	734	12:25	0.0	39.1	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	505.04	1312.37	595.81	606.83
Pong	426.72	384.05	423.43	1051.02	422.47	1005.78	168.17	429.31
Tehri	829.79	740.04	823.20	1070.00	818.65	982.26	184.93	151.00
Koteshwar	612.50	598.50	611.00	5.10	NA	NA	151.00	158.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	149.56	131.09
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 23.09.2013 :**

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 : 23.09.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER