

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 28.09.2012

Date of Reporting : 29.09.2012

### 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
36481	5712	42193	50.08	33314	3058	36372	50.07	816.3	114.76

\* 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)	UI [OD:(+ve), UD: (-ve)]	
	Thermal	Hydro	Renewable/others \$	Total				Consumption (Net MU)	Shortages * (MU)
Punjab	49.36	12.49		61.84	93.70	94.00	0.30	155.84	5.97
Haryana	56.15	0.30		56.46	64.53	62.59	-1.95	119.04	20.22
Rajasthan	70.55	3.25	5.57	79.37	63.55	65.22	1.68	144.59	24.66
Delhi	28.59			28.59	62.91	57.77	-5.13	86.36	0.14
UP	104.50	15.63	0.00	120.14	94.06	101.35	7.29	221.49	58.53
Uttarakhand		18.73		18.73	8.09	9.50	1.41	28.23	3.12
HP		16.05		16.05	8.14	8.68	0.54	24.73	0.42
J & K		15.32	0.00	15.32	16.50	16.12	-0.38	31.43	1.70
Chandigarh				0.00	4.92	4.60	-0.32	4.60	0.00
<b>Total</b>	<b>309.15</b>	<b>81.77</b>	<b>5.57</b>	<b>396.49</b>	<b>416.40</b>	<b>419.83</b>	<b>3.43</b>	<b>816.32</b>	<b>114.76</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	7207	850	-27	1460	6300	0	24	1450	35.21	
Haryana	5429	780	-82	296	4848	873	45	263	6.47	
Rajasthan	6549	1206	0	1038	5074	760	84	169	19.46	
Delhi	3865	6	-449	-47	3200	0	-23	-244	-1.29	
UP	9146	2633	124	499	10761	1345	472	1613	15.98	
Uttarakhand	1346	70	78	-53	1074	80	5	-74	-1.61	
HP	1152	66	25	-650	894	0	123	-338	-9.73	
J&K	1564	100	-10	-195	1014	0	-149	-195	-4.72	
Chandigarh	224	0	-22	-32	150	0	-21	0	0.15	
<b>Total</b>	<b>36481</b>	<b>5712</b>	<b>-364</b>	<b>2315</b>	<b>33314</b>	<b>3058</b>	<b>559</b>	<b>2645</b>	<b>59.91</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)	UI [OG:(+ve), UG: (-ve)]	
							Schedule Net MU	UI Net MU
<b>A. NTPC</b>								
Singrauli STPS	2000	1430	1551	1556	34.58	1441	34.32	0.26
Rihand I STPS	1000	741	932	700	17.90	746	17.76	0.14
Rihand II STPS	1000	865	1033	917	20.90	871	20.77	0.13
Rihand III STPS	500	0	0	0	0.00	0		0.00
Dadri I STPS	840	800	819	643	14.96	623	15.06	-0.10
Dadri II STPS	980	970	1012	858	22.38	932	22.84	-0.46
Unchahar I TPS	420	404	442	404	9.27	386	9.68	-0.41
Unchahar II TPS	420	400	436	439	9.24	385	9.57	-0.33
Unchahar III TPS	210	200	214	218	4.77	199	4.79	-0.02
ISTPP (Jhajhar)	1000	950	789	791	17.60	733	17.68	-0.08
Dadri GPS	830	802	518	567	12.34	514	12.46	-0.11
Anta GPS	419	393	258	262	6.01	250	6.14	-0.13
Auraiya GPS	663	423	253	307	6.46	269	6.40	0.06
<b>Sub Total (A)</b>	<b>10282</b>	<b>8378</b>	<b>8257</b>	<b>7662</b>	<b>176.40</b>	<b>7350</b>	<b>177.48</b>	<b>-1.08</b>
<b>B. NPC</b>								
NAPS	440	266	300	292	6.14	256	6.38	-0.25
RAPS- B	440	411	452	455	9.78	408	9.86	-0.08
RAPS- C	440	455	458	468	9.89	412	10.92	-1.03
<b>Sub Total (B)</b>	<b>1320</b>	<b>1132</b>	<b>1210</b>	<b>1215</b>	<b>25.81</b>	<b>1075</b>	<b>27.17</b>	<b>-1.36</b>
<b>C. NHPC</b>								
Chamera I HPS	540	445	540	180	7.21	300	7.13	0.08
Chamera II HPS	300	300	299	99	4.64	193	4.30	0.33
Chamera III HPS	231	231	226	78	2.90	121	2.83	0.06
Bairasuil HPS	180	182	182	10	1.74	73	1.66	0.08
Salai-HPS	690	388	481	378	9.29	387	9.39	-0.10
Tanakpur-HPS	94	39	92	85	0.93	39	0.95	-0.02
Uri-HPS	480	475	480	479	11.62	484	11.55	0.07
Dhauliganga-HPS	280	280	276	139	4.49	187	4.69	-0.20
Dulhasti-HPS	390	387	401	399	9.28	386	9.25	0.02
Sewa-II HPS	120	80	85	67	1.93	80	1.88	0.04
<b>Sub Total (C)</b>	<b>3305</b>	<b>2807</b>	<b>3062</b>	<b>1914</b>	<b>54.01</b>	<b>2250</b>	<b>53.64</b>	<b>0.37</b>
<b>D.NJPC</b>								
Nathpa Jhakri	1500	1605	1461	728	19.95	831	20.00	-0.05
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1461</b>	<b>728</b>	<b>19.95</b>	<b>831</b>	<b>20.00</b>	<b>-0.05</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	1057	0	6.24	260	6.00	0.24
Koteshwar HPS	400	342	284	0	1.85	77	1.80	0.05
<b>Sub Total (E)</b>	<b>1400</b>	<b>1392</b>	<b>1341</b>	<b>0</b>	<b>8.10</b>	<b>337</b>	<b>7.80</b>	<b>0.30</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	783	1257	570	19.27	803	18.78	0.49
Dehar HPS	990	575	660	660	14.79	616	13.80	0.99
Pong HPS	396	210	366	126	5.42	226	5.01	0.41
<b>Sub Total (F)</b>	<b>2866</b>	<b>1568</b>	<b>2283</b>	<b>1356</b>	<b>39.48</b>	<b>1645</b>	<b>37.59</b>	<b>1.89</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	74	61	1.56	65	2.17	-0.61
KWHEP HPS(IPP)	1000	0	755	442	10.18	424	11.43	-1.25
Malana Stg-II HPS	100	0	30	41	0.86	36	0.80	0.05
Shree Cement TPS	300	0	122	125	2.92	122	3.01	-0.10
Budhil HPS(IPP)	70	0	59	30	0.88	37	0.83	0.05
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1040</b>	<b>699</b>	<b>16.39</b>	<b>683</b>	<b>18.25</b>	<b>-1.86</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22336</b>	<b>16881</b>	<b>18654</b>	<b>13574</b>	<b>340.13</b>	<b>14172</b>	<b>341.92</b>	<b>-1.79</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	1254	1262	27.91	1163	
	Guru Nanak Dev TPS(Bhatinda)	440	268	256	5.15	215	
	Guru Hargobind Singh TPS(L.mbt)	920	882	691	16.29	679	
	Thermal (Total)	2620	2404	2209	49.36	2056	
	Total Hydro	1148	344	494	12.49	520	
	<b>Total Punjab</b>	<b>3768</b>	<b>2748</b>	<b>2703</b>	<b>61.84</b>	<b>2577</b>	
Haryana	Panipat TPS	1367	1044	1049	25.25	1052	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	400	407	9.81	409	
	RGTPP (kheadar) (IPP)	1200	488	471	11.82	493	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	465	335	9.27	386	
	Thermal (Total)	4944	2397	2262	56.15	2340	
	Total Hydro	62	10	15	0.30	13	
	<b>Total Haryana</b>	<b>5006</b>	<b>2407</b>	<b>2277</b>	<b>56.46</b>	<b>2352</b>	
Rajasthan	kota TPS	1240	692	881	19.96	832	
	suratgarh TPS	1500	909	915	21.35	889	
	Chabra TPS	500	404	457	10.09	420	
	Dholpur GPS	330	65	96	2.18	91	
	Ramgarh GPS	111	56	57	1.49	62	
	RAPS A (NPC)	300	179	179	4.17	174	
	Barsingar (NLC)	250	84	109	2.17	90	
	Giral LTPS	250	53	21	0.99	41	
	Rajwest LTPS (IPP)	540	348	347	8.17	340	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	2790	3062	70.55	2940	
	Total Hydro	550	164	81	3.25	136	
	Wind power	1843	208	155	1.57	65	
	Biomass	91	31	31	0.75	31	
	Solar	128	0	0	0.00	0	
	Renewable/Others (Total)	2062	239	186	5.57	232	
	<b>Total Rajasthan</b>	<b>7767</b>	<b>3193</b>	<b>3329</b>	<b>79.37</b>	<b>3307</b>	
	UP	Anpara TPS	1630	1184	1252	25.20	1050
		Obra TPS	1382	371	335	8.40	350
Paricha TPS		890	530	637	11.40	475	
Panki TPS		210	65	65	1.50	63	
Harduaganj TPS		665	420	357	8.50	354	
Tanda TPS (NTPC)		440	287	400	9.35	390	
Roza TPS (IPP)		1200	1067	1013	25.32	1055	
Anpara-C (IPP)		1200	0	500	8.35	348	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	234	307	6.48	270	
Thermal (Total)		8067	4158	4866	104.50	4354	
Vishnuparyag HPS (IPP)		400	417	396	9.42	392	
Other Hydro		527	285	0	6.22	259	
Cogeneration		981	0	0	0.00	0	
<b>Total UP</b>		<b>9975</b>	<b>4860</b>	<b>5262</b>	<b>120.14</b>	<b>4613</b>	
Uttarakhand		Total Hydro	1303	738	804	18.73	780
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>738</b>	<b>804</b>	<b>18.73</b>	<b>780</b>	
Delhi	Raighat TPS	135	104	103	2.84	118	
	Delhi Gas Turbine	282	104	73	2.03	85	
	Pragati Gas Turbine	330	296	266	7.01	292	
	Rithala GPS	108	21	21	0.51	21	
	Bawana GPS	677	210	0	3.32	138	
	Badarpur TPS (NTPC)	705	605	595	12.87	536	
	Thermal (Total)	2237	1340	1058	28.59	1191	
	<b>Total Delhi</b>	<b>2237</b>	<b>1340</b>	<b>1058</b>	<b>28.59</b>	<b>1191</b>	
HP	Baspa HPS (IPP)	330	153	92	3.37	140	
	Malana HPS (IPP)	86	58	23	0.87	36	
	Other Hydro	589	503	458	11.81	492	
	<b>Total HP</b>	<b>1005</b>	<b>714</b>	<b>573</b>	<b>16</b>	<b>669</b>	
J & K	Baglihar HPS (IPP)	450	440	440	10.59	441	
	Other Hydro	323	185	210	4.73	197	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>625</b>	<b>650</b>	<b>15.32</b>	<b>638</b>	
<b>Total State Control Area Generation</b>		<b>32017</b>	<b>16625</b>	<b>16656</b>	<b>396.49</b>	<b>16128</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2505</b>	<b>3706</b>	<b>85.66</b>	<b>3569</b>	
<b>Total Regional Availability(Gross)</b>		<b>54353</b>	<b>37784</b>	<b>33936</b>	<b>822.27</b>	<b>33869</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9006	4542	134.13	5589
State Control Area Hydro	5368	2880	2617	81.77	3015
<b>Total Regional Hydro</b>	<b>15731</b>	<b>11886</b>	<b>7159</b>	<b>215.89</b>	<b>8603</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	200	500	200	7.13	0.55	6.59
Gwalior-Agra (D/C)	316	734	972	0	15.17	0.00	15.17
Zerda-Kankroli	31	88	155	25	1.99	0.00	1.99
Zerda-Bhinmal	95	16	241	0	3.28	0.00	3.28
Malanpur-Auraiya	-98	-35	0	131	0.00	1.26	-1.26
Badod-Kota/Morak	32	39	50	14	1.40	0.00	1.40
Mundra-Mohindergarh(HVDC)	603	604	606	0	14.75	0.00	14.75
<b>Sub Total WR</b>	<b>879</b>	<b>1646</b>			<b>43.72</b>	<b>1.80</b>	<b>41.92</b>
Pusauli Bypass	-50	-200	0	200	0.00	2.55	-2.55
MZP- GKP (D/C)	638	1008	1060	0	20.06	0.00	20.06
Patna-Balia(D/C)	392	433	466	0	9.18	0.00	9.18
B'Sharif-Balia (D/C)	206	263	304	0	5.67	0.00	5.67
Barh - Balia(D/C)	271	297	315	0	6.43	0.00	6.43
Pusauli-Balia	43	123	169	0	1.89	0.00	1.89
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	173	178	188	0	4.09	0.00	4.09
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-47	-42	0	48	0.00	1.03	-1.03
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1626</b>	<b>2060</b>			<b>47.31</b>	<b>3.57</b>	<b>43.74</b>
<b>Total IR Exch</b>	<b>2505</b>	<b>3706</b>			<b>91.03</b>	<b>5.37</b>	<b>85.66</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
26.39	5.12	31.51	12.42	17.59	3.86	7.98	-0.10	0.14
<b>Total IR Schedule (MU)</b>			<b>Total IR Actual (MU)</b>			<b>Net IR UI (MU)</b>		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
47.68	41.26	88.94	43.74	41.92	85.66	-3.95	0.66	-3.29

**VI. Frequency Profile** <----- % of Time Frequency ----->

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	0.20	4.50	96.40	92.10	29.40	3.40
Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum		Hz			MAX (Hz)	MIN (Hz)
50.41	16.46	49.39	11.06	49.93	0.25	0.14	50.40	49.85

**VII. Voltage profile**

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	413	20:51	398	11:06	0.0	0.0	0.0	0.0
Gorakhpur	400	429	7:44	406	10:14	0.0	0.0	38.4	0.0
Bareilly	400	418	20:50	402	0:06	0.0	0.0	0.0	0.0
Kanpur	400	424	16:56	397	11:05	0.0	0.0	1.6	0.0
Dadri	400	415	21:39	397	11:04	0.0	0.0	0.0	0.0
Ballabhgarh	400	422	20:50	399	11:06	0.0	0.0	3.0	0.0
Bawana	400	418	6:24	402	11:05	0.0	0.0	0.0	0.0
Bassi	400	433	16:56	408	5:32	0.0	0.0	43.5	0.8
Hissar	400	413	16:59	392	11:06	0.0	0.0	0.0	0.0
Moga	400	414	16:49	393	11:06	0.0	0.0	0.0	0.0
Abdullapur	400	415	6:23	400	11:56	0.1	0.1	0.0	0.0
Nalagarh	400	413	6:22	394	11:06	0.0	0.0	0.0	0.0
Kishenpur	400	416	16:49	397	19:08	0.0	0.0	0.0	0.0
Wagoora	400	416	3:12	389	19:06	0.0	0.4	0.0	0.0

**VIII. 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 (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	505.18	1312.37	511.89	1635.65	566.76	546.51
Pong	426.72	384.05	422.61	1020.81	423.52	1066.19	285.63	302.45
Tehri	829.79	740.04	823.60	1076.00	818.65	982.26	193.72	136.00
Koteshwar	612.50	598.50	607.40	3.54	NA	NA	138.09	123.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	169.75	195.26
Rihand	268.22	252.98	264.17	556.30	265.51	650.20	NA	NA
RPS	352.80	343.81	352.76	NA	349.92	NA	NA	83.99
Jawahar Sagar	298.70	295.78	297.68	NA	297.66	NA	NA	106.75
RSD	527.91	487.91	521.07	NA	523.98	NA	225.57	199.97

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 28.09.2012 :**

1: Normal weather in NR.

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

**XIII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**

**XIV. Tripping of lines in pooling stations :**

**XV. Complete generation loss in a generating station :**

Report for : 28.09.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER