

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 10.09.2012

Date of Reporting : 11.09.2012

### 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
34431	4984	39415	50.04	33266	2259	35525	50.28	816.0	67.70

\* 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	47.85	14.54		62.39	105.85	105.68	-0.17	168.07	1.80
Haryana	60.43	0.79		61.21	57.55	57.10	-0.45	118.31	14.26
Rajasthan	54.05	2.07	9.23	65.35	53.52	55.98	2.45	121.33	3.06
Delhi	23.58			23.58	74.04	70.60	-3.43	94.18	0.02
UP	89.66	16.57	0.48	106.71	116.62	116.98	0.36	223.69	45.61
Uttarakhand		19.66		19.66	12.45	12.62	0.17	32.28	1.25
HP		23.83		23.83	1.13	-0.18	-1.31	23.65	0.00
J & K		15.21	0.00	15.21	18.19	13.64	-4.56	28.85	1.70
Chandigarh				0.00	5.86	5.68	-0.18	5.68	0.00
<b>Total</b>	<b>275.57</b>	<b>92.68</b>	<b>9.71</b>	<b>377.95</b>	<b>445.22</b>	<b>438.10</b>	<b>-7.12</b>	<b>816.05</b>	<b>67.70</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	7222	600	-129	1468	6639	0	-76	2135	47.86	
Haryana	4596	1222	-77	561	4668	739	34	568	14.18	
Rajasthan	5011	597	28	249	4841	0	43	128	3.23	
Delhi	4352	0	-200	489	3330	0	-282	232	8.08	
UP	9035	2235	140	595	10618	1520	204	904	21.77	
Uttarakhand	1230	230	-93	-36	1323	0	-51	-115	-1.75	
HP	1083	0	-41	-1018	808	0	-61	-1040	-24.51	
J&K	1630	100	-33	-174	851	0	-380	-270	-4.95	
Chandigarh	272	0	-4	-15	187	0	-4	0	0.44	
<b>Total</b>	<b>34431</b>	<b>4984</b>	<b>-409</b>	<b>2119</b>	<b>33266</b>	<b>2259</b>	<b>-574</b>	<b>2542</b>	<b>64.35</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	1308	1545	1319	31.75	1323	31.39	0.36
Rihand I STPS	1000	840	585	465	11.96	498	19.36	-7.41
Rihand II STPS	1000	965	964	802	16.28	679	22.34	-6.06
Rihand III STPS	500	0	0	0	0.00	0		0.00
Dadri I STPS	840	595	585	465	11.96	498	12.38	-0.42
Dadri II STPS	980	792	964	802	16.28	679	17.42	-1.14
Unchahar I TPS	420	197	205	176	4.39	183	4.42	-0.04
Unchahar II TPS	420	400	420	310	8.47	353	8.37	0.10
Unchahar III TPS	210	199	212	160	4.33	180	4.29	0.04
ISTPP (Jhajhar)	1000	960	484	371	8.92	372	9.62	-0.70
Dadri GPS	830	599	382	328	8.27	345	8.60	-0.32
Anta GPS	419	393	169	213	5.22	217	5.34	-0.13
Auraiya GPS	663	624	308	304	7.05	294	7.26	-0.21
<b>Sub Total (A)</b>	<b>10282</b>	<b>7873</b>	<b>6823</b>	<b>5715</b>	<b>134.87</b>	<b>5619</b>	<b>150.80</b>	<b>-15.93</b>
<b>B. NPC</b>								
NAPS	440	261	297	301	6.19	258	6.26	-0.08
RAPS- B	440	402	440	443	9.52	397	9.65	-0.13
RAPS- C	440	410	462	450	9.76	407	9.84	-0.08
<b>Sub Total (B)</b>	<b>1320</b>	<b>1073</b>	<b>1199</b>	<b>1194</b>	<b>25.47</b>	<b>1061</b>	<b>25.75</b>	<b>-0.28</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	540	540	12.80	533	12.81	-0.01
Chamera II HPS	300	300	300	300	7.17	299	7.25	-0.08
Chamera III HPS	231	231	234	233	5.56	232	5.58	-0.02
Bairasuil HPS	180	120	120	120	2.80	117	2.82	-0.01
Salai-HPS	690	665	667	667	15.96	665	15.96	0.00
Tanakpur-HPS	94	92	94	94	2.25	94	2.24	0.01
Uri-HPS	480	463	479	474	11.25	469	11.06	0.19
Dhauliganga-HPS	280	277	277	279	6.69	279	6.73	-0.04
Dulhasti-HPS	390	387	396	405	9.22	384	9.35	-0.13
Sewa-II HPS	120	80	85	40	1.82	76	1.80	0.02
<b>Sub Total (C)</b>	<b>3305</b>	<b>3148</b>	<b>3192</b>	<b>3152</b>	<b>75.53</b>	<b>3147</b>	<b>75.60</b>	<b>-0.07</b>
<b>D.NJPC</b>								
Natpna Jhakri	1500	1605	1514	1514	36.31	1513	36.00	0.31
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1514</b>	<b>1514</b>	<b>36.31</b>	<b>1513</b>	<b>36.00</b>	<b>0.31</b>
<b>E. THDC</b>								
Tehri HPS	1000	1006	1057	1056	22.60	942	25.00	-2.40
Koteshwar HPS	400	312	201	379	6.43	268	6.93	-0.49
<b>Sub Total (E)</b>	<b>1400</b>	<b>1318</b>	<b>1258</b>	<b>1435</b>	<b>29.03</b>	<b>1210</b>	<b>31.93</b>	<b>-2.89</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	767	1233	570	18.95	790	18.41	0.54
Dehar HPS	990	623	660	660	14.91	621	14.96	-0.04
Pong HPS	396	227	366	60	5.80	242	5.01	0.79
<b>Sub Total (F)</b>	<b>2866</b>	<b>1617</b>	<b>2259</b>	<b>1290</b>	<b>39.66</b>	<b>1653</b>	<b>38.37</b>	<b>1.29</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	191	109	3.30	138	3.12	0.18
KWHEP HPS(IPP)	1000	0	1004	1012	24.00	1000	23.09	0.91
Malana Stg-II HPS	100	0	104	102	2.15	90	1.81	0.35
Shree Cement TPS	300	0	107	75	2.36	98	2.30	0.05
Budhil HPS(IPP)	70	0	72	69	1.57	66	0.17	1.40
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1478</b>	<b>1367</b>	<b>33.39</b>	<b>1391</b>	<b>30.49</b>	<b>2.89</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22336</b>	<b>16634</b>	<b>17723</b>	<b>15667</b>	<b>374.25</b>	<b>15594</b>	<b>388.94</b>	<b>-14.70</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	1243	1072	26.71	1113	
	Guru Nanak Dev TPS(Bhatinda)	440	95	95	2.01	84	
	Guru Hargobind Singh TPS(L.mbt)	920	935	780	19.13	797	
	Thermal (Total)	2620	2273	1947	47.85	1994	
	Total Hydro	1148	775	474	14.54	606	
	<b>Total Punjab</b>	<b>3768</b>	<b>3048</b>	<b>2421</b>	<b>62.39</b>	<b>2600</b>	
Haryana	Panipat TPS	1367	1078	1084	25.82	1076	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	212	142	4.94	206	
	RGTPP (kheadar) (IPP)	1200	783	899	20.46	852	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	0	430	9.21	384	
	Thermal (Total)	4944	2073	2555	60.43	2518	
	Total Hydro	62	31	30	0.79	33	
	<b>Total Haryana</b>	<b>5006</b>	<b>2104</b>	<b>2585</b>	<b>61.21</b>	<b>2551</b>	
Rajasthan	kota TPS	1240	681	599	15.48	645	
	suratgarh TPS	1500	816	676	16.55	689	
	Chabra TPS	500	215	212	5.28	220	
	Dholpur GPS	330	205	140	3.54	147	
	Ramgarh GPS	111	41	37	1.03	43	
	RAPS A (NPC)	300	186	175	4.15	173	
	Barsingar (NLC)	250	0	0	0.00	0	
	Giral LTPS	250	0	0	0.00	0	
	Rajwest LTPS (IPP)	540	351	351	8.03	334	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	2495	2190	54.05	2252	
	Total Hydro	550	130	98	2.07	86	
	Wind power	1843	45	417	6.53	272	
	Biomass	91	20	20	0.48	20	
	Solar	128	0	0	0.15	6	
	Renewable/Others (Total)	2062	65	437	9.23	385	
	<b>Total Rajasthan</b>	<b>7767</b>	<b>2690</b>	<b>2725</b>	<b>65.35</b>	<b>2723</b>	
	UP	Anpara TPS	1630	1061	1026	24.40	1017
		Obra TPS	1382	436	431	10.20	425
		Paricha TPS	890	401	376	9.40	392
Panki TPS		210	63	54	1.80	75	
Harduaganj TPS		665	29	31	0.70	29	
Tanda TPS (NTPC)		440	287	283	7.10	296	
Roza TPS (IPP)		1200	824	815	19.10	796	
Anpara-C (IPP)		1200	449	431	10.74	447	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	243	275	6.22	259	
Thermal (Total)		8067	3793	3722	89.66	3736	
Vishnuparyag HPS (IPP)		400	436	436	10.46	436	
Other Hydro		527	285	0	6.12	255	
Cogeneration		981	20	20	0.48	20	
<b>Total UP</b>		<b>9975</b>	<b>4534</b>	<b>4178</b>	<b>106.71</b>	<b>4011</b>	
Uttarakhand		Total Hydro	1303	812	899	19.66	819
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>812</b>	<b>899</b>	<b>19.66</b>	<b>819</b>	
Delhi	Raighat TPS	135	74	96	1.81	75	
	Delhi Gas Turbine	282	182	78	3.20	133	
	Pragati Gas Turbine	330	290	272	7.06	294	
	Rithala GPS	108	19	0	0.19	8	
	Bawana GPS	677	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	530	485	11.31	471	
	Thermal (Total)	2237	1095	931	23.58	983	
	<b>Total Delhi</b>	<b>2237</b>	<b>1095</b>	<b>931</b>	<b>23.58</b>	<b>983</b>	
HP	Baspa HPS (IPP)	330	334	304	7.50	313	
	Malana HPS (IPP)	86	103	64	1.89	79	
	Other Hydro	589	620	561	14.44	602	
	<b>Total HP</b>	<b>1005</b>	<b>1057</b>	<b>929</b>	<b>24</b>	<b>993</b>	
J & K	Baglihar HPS (IPP)	450	438	434	10.48	437	
	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>623</b>	<b>644</b>	<b>15.21</b>	<b>634</b>	
<b>Total State Control Area Generation</b>		<b>32017</b>	<b>15963</b>	<b>15312</b>	<b>377.95</b>	<b>15312</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1625</b>	<b>2875</b>	<b>68.39</b>	<b>2850</b>	
<b>Total Regional Availability(Gross)</b>		<b>54353</b>	<b>35311</b>	<b>33854</b>	<b>820.59</b>	<b>33756</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9522	8614	209.99	8750
State Control Area Hydro	5368	3713	3074	92.68	3426
<b>Total Regional Hydro</b>	<b>15731</b>	<b>13235</b>	<b>11688</b>	<b>302.67</b>	<b>12176</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	300	200	350	0	6.29	0.00	6.29
Gwalior-Agra (D/C)	100	534	804	0	12.73	0.00	12.73
Zerda-Kankroli	-38	69	86	41	0.55	0.00	0.55
Zerda-Bhinmal	7	75	186	57	0.00	1.10	-1.10
Malanpur-Auraiya	-148	-59	0	148	0.00	1.27	-1.27
Badod-Kota/Morak	-8	75	103	8	2.45	0.00	2.45
Mundra-Mohindergarh(HVDC)	283	284	286	0	6.86	0.00	6.86
<b>Sub Total WR</b>	<b>496</b>	<b>1178</b>			<b>28.87</b>	<b>2.37</b>	<b>26.50</b>
Pusauli Bypass	200	100	200	0	3.87	0.00	3.87
MZP- GKP (D/C)	350	754	806	0	15.37	0.00	15.37
Patna-Balia(D/C)	185	351	413	0	7.58	0.00	7.58
B'Sharif-Balia (D/C)	145	321	410	0	7.15	0.00	7.15
Barh - Balia(D/C)	183	0	313	0	3.31	0.00	3.31
Pusauli-Balia	-85	-9	10	85	0.00	0.55	-0.55
Gaya-Fatehpur (765 Kv)	37	55	198	0	2.72	0.00	2.72
Pusauli-Sahupuri	159	150	159	0	3.23	0.00	3.23
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-45	-25	0	48	0.00	0.79	-0.79
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1129</b>	<b>1697</b>			<b>43.24</b>	<b>1.34</b>	<b>41.89</b>
<b>Total IR Exch</b>	<b>1625</b>	<b>2875</b>			<b>72.11</b>	<b>3.71</b>	<b>68.39</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
27.89	2.98	30.87	13.02	19.02	-1.04	3.33	5.97	-5.90
<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
48.82	21.48	70.29	41.89	26.50	68.39	-6.92	5.02	-1.90

**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	0.17	0.34	9.99	91.87	82.22	57.24	7.79
Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum		Hz			MAX	MIN
Freq	Time	Freq	Time				(Hz)	(Hz)
50.47	6.04	49.04	14.18	50.04	0.38	0.16	50.33	49.71

**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	6:07	401	23:09	0.0	0.0	0.0	0.0
Gorakhpur	400	431	7:06	409	23:38	0.0	0.0	38.4	0.7
Bareilly	400	420	19:51	391	14:19	0.0	0.0	0.0	0.0
Kanpur	400	424	3:50	401	14:17	0.0	0.0	3.5	0.0
Dadri	400	412	3:09	390	14:17	0.0	0.0	0.0	0.0
Ballabhgarh	400	420	3:15	394	14:17	0.0	0.0	0.0	0.0
Bawana	400	413	3:18	391	14:17	0.0	0.0	0.0	0.0
Bassi	400	433	3:16	403	14:17	0.0	0.0	59.7	3.6
Hissar	400	409	3:16	388	14:17	0.0	0.3	0.0	0.0
Moga	400	408	19:42	388	14:17	0.0	0.1	0.0	0.0
Abdullapur	400	410	6:01	284	1:00	0.1	0.1	0.0	0.0
Nalagarh	400	410	20:32	387	14:17	0.0	1.1	0.0	0.0
Kishenpur	400	412	0:53	399	20:20	0.0	0.0	0.0	0.0
Wagoora	400	412	0:53	389	19:29	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	500.88	1127.29	511.45	1620.46	1260.13	541.47
Pong	426.72	384.05	418.60	821.34	422.53	1005.78	1103.19	382.39
Tehri	829.79	740.04	821.55	1044.51	818.65	982.26	676.13	552.00
Koteswar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	326.52	347.63
Rihand	268.22	252.98	262.28	435.50	264.05	548.10	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	512.92	NA	523.98	NA	388.51	166.90

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 10.09.2012 :**

1: Normal weather.

**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 : 10.09.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER