

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

**Power Supply Position in Northern Region for 16.09.2012**

Date of Reporting : 17.09.2012

### 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
33694	2975	36669	50.12	30754	850	31604	50.39	745.5	53.72

\* 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 *
Punjab	40.42	11.00		51.42	93.88	93.80	-0.08	145.22	1.80
Haryana	53.36	0.78		54.14	63.49	61.30	-2.19	115.44	0.38
Rajasthan	71.92	1.71	8.35	81.98	46.36	43.50	-2.86	125.48	0.00
Delhi	17.11			17.11	66.32	61.83	-4.48	78.95	0.04
UP	81.00	14.90	0.48	96.38	97.45	95.01	-2.44	191.39	49.80
Uttarakhand		20.22		20.22	12.74	9.32	-3.41	29.54	0.00
HP		22.14		22.14	3.46	1.56	-1.90	23.70	0.00
J & K		15.31	0.00	15.31	17.88	16.16	-1.72	31.47	1.70
Chandigarh				0.00	5.50	4.37	-1.13	4.37	0.00
<b>Total</b>	<b>263.81</b>	<b>86.05</b>	<b>8.83</b>	<b>358.69</b>	<b>407.07</b>	<b>386.86</b>	<b>-20.21</b>	<b>745.55</b>	<b>53.72</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	
Punjab	6353	600	-8	1628	6300	0	88	2006	46.14
Haryana	5181	150	-36	558	4487	0	-224	618	14.43
Rajasthan	5770	0	-60	188	5341	0	1	182	4.10
Delhi	3756	5	-229	430	2936	0	35	254	7.49
UP	8204	2120	-92	356	8403	850	-114	519	9.55
Uttarakhand	1461	0	48	-28	1222	0	-158	-43	-0.97
HP	1084	0	-75	-915	881	0	-85	-902	-20.60
J&K	1660	100	47	-250	1020	0	-193	-404	-7.90
Chandigarh	225	0	-15	2	164	0	-31	-35	0.40
<b>Total</b>	<b>33694</b>	<b>2975</b>	<b>-420</b>	<b>1968</b>	<b>30754</b>	<b>850</b>	<b>-681</b>	<b>2196</b>	<b>52.63</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 [OG:(+ve), UG: (-ve)]
								UI Net MU
<b>A. NTPC</b>								
Singrauli STPS	2000	1425	1544	1244	28.22	1176	28.75	-0.53
Rihand I STPS	1000	764	934	736	15.08	628	15.14	-0.06
Rihand II STPS	1000	848	1032	742	16.56	690	17.17	-0.62
Rihand III STPS	500	0	0	0	0.00	0	0.00	0.00
Dadri I STPS	840	600	387	354	9.26	386	8.35	0.91
Dadri II STPS	980	970	744	716	15.84	660	17.73	-1.89
Unchahar I TPS	420	197	195	182	3.48	145	3.58	-0.10
Unchahar II TPS	420	400	353	313	6.75	281	6.87	-0.12
Unchahar III TPS	210	0	0	0	0.00	0	0.00	0.00
ISTPP (Jhajjar)	1000	940	418	346	8.00	333	8.45	-0.45
Dadri GPS	830	793	445	449	10.16	423	10.27	-0.11
Anta GPS	419	393	204	174	4.58	191	4.69	-0.11
Auraiya GPS	663	624	293	229	5.87	245	5.87	0.01
<b>Sub Total (A)</b>	<b>10282</b>	<b>7954</b>	<b>6549</b>	<b>5485</b>	<b>123.78</b>	<b>5157</b>	<b>126.86</b>	<b>-3.09</b>
<b>B. NPC</b>								
NAPS	440	258	296	310	6.37	266	6.19	0.18
RAPS- B	440	407	450	456	9.81	409	9.77	0.04
RAPS- C	440	410	467	461	9.94	414	9.84	0.10
<b>Sub Total (B)</b>	<b>1320</b>	<b>1075</b>	<b>1213</b>	<b>1227</b>	<b>26.12</b>	<b>1088</b>	<b>25.80</b>	<b>0.32</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	540	540	10.99	458	11.35	-0.37
Chamera II HPS	300	296	302	265	6.38	266	6.64	-0.26
Chamera III HPS	231	196	229	205	4.50	188	4.72	-0.22
Bairasuil HPS	180	182	160	80	2.19	91	2.33	-0.14
Salai-HPS	690	665	661	661	15.86	661	15.96	-0.10
Tanakpur-HPS	94	94	94	94	2.18	91	2.24	-0.06
Uri-HPS	480	451	477	440	10.35	431	11.12	-0.77
Dhauliganga-HPS	280	277	278	277	6.82	284	6.70	0.12
Dihasti-HPS	390	387	410	276	9.08	379	9.16	-0.07
Sewa-II HPS	120	80	81	55	1.08	45	1.08	0.00
<b>Sub Total (C)</b>	<b>3305</b>	<b>3161</b>	<b>3232</b>	<b>2893</b>	<b>69.43</b>	<b>2893</b>	<b>71.29</b>	<b>-1.86</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	1516	1518	36.21	1509	36.00	0.21
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1516</b>	<b>1518</b>	<b>36.21</b>	<b>1509</b>	<b>36.00</b>	<b>0.21</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	1056	1047	23.93	997	24.68	-0.74
Koteshwar HPS	400	362	295	255	7.31	305	7.50	-0.19
<b>Sub Total (E)</b>	<b>1400</b>	<b>1412</b>	<b>1351</b>	<b>1302</b>	<b>31.24</b>	<b>1302</b>	<b>32.18</b>	<b>-0.93</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	774	1235	551	18.70	779	18.59	0.11
Dehar HPS	990	616	660	560	14.92	622	14.78	0.14
Pong HPS	396	259	366	246	6.49	270	5.01	1.48
<b>Sub Total (F)</b>	<b>2866</b>	<b>1650</b>	<b>2261</b>	<b>1357</b>	<b>40.11</b>	<b>1671</b>	<b>38.37</b>	<b>1.74</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	170	133	2.73	114	2.64	0.08
KWHEP HPS(IPP)	1000	0	1000	902	23.60	983	23.80	-0.19
Malana Stg-II HPS	100	0	101	52	1.72	72	1.81	-0.09
Shree Cement TPS	300	0	117	28	1.59	66	1.32	0.27
Budhil HPS(IPP)	70	0	10	9	0.23	9	0.20	0.03
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1398</b>	<b>1124</b>	<b>29.87</b>	<b>1244</b>	<b>29.77</b>	<b>0.09</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22336</b>	<b>16858</b>	<b>17520</b>	<b>14906</b>	<b>356.76</b>	<b>14865</b>	<b>360.27</b>	<b>-3.51</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	890	850	20.13	839	
	Guru Nanak Dev TPS(Bhatinda)	440	193	193	4.13	172	
	Guru Hargobind Singh TPS(L.mbt)	920	731	730	16.16	673	
	Thermal (Total)	2620	1814	1773	40.42	1684	
	Total Hydro	1148	529	475	11.00	458	
	<b>Total Punjab</b>	<b>3768</b>	<b>2343</b>	<b>2248</b>	<b>51.42</b>	<b>2142</b>	
Haryana	Panipat TPS	1367	881	983	22.07	920	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	179	142	3.65	152	
	RGTPP (khedar) (IPP)	1200	703	680	16.72	697	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	488	342	10.92	455	
	Thermal (Total)	4944	2251	2147	53.36	2223	
	Total Hydro	62	29	32	0.78	33	
	<b>Total Haryana</b>	<b>5006</b>	<b>2280</b>	<b>2179</b>	<b>54.14</b>	<b>2256</b>	
Rajasthan	kota TPS	1240	835	770	19.08	795	
	suratgarh TPS	1500	1073	973	23.21	967	
	Chabra TPS	500	440	386	9.62	401	
	Dholpur GPS	330	210	137	3.43	143	
	Ramgarh GPS	111	74	75	1.89	79	
	RAPS A (NPC)	300	179	179	4.19	175	
	Barsingsar (NLC)	250	0	0	0.00	0	
	Giral LTPS	250	0	0	0.00	0	
	Rajwest LTPS (IPP)	540	473	464	10.51	438	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	3284	2984	71.92	2997	
	Total Hydro	550	48	50	1.71	71	
	Wind power	1843	173	372	6.05	252	
	Biomass	91	19	19	0.45	19	
	Solar	128	0	0	0.15	6	
	Renewable/Others (Total)	2062	192	391	8.35	348	
	<b>Total Rajasthan</b>	<b>7767</b>	<b>3524</b>	<b>3425</b>	<b>81.98</b>	<b>3416</b>	
	UP	Anpara TPS	1630	971	1009	23.40	975
		Obra TPS	1382	410	422	9.90	413
		Paricha TPS	890	371	333	8.40	350
Panki TPS		210	50	86	1.40	58	
Harduaganj TPS		665	256	248	5.80	242	
Tanda TPS (NTPC)		440	396	397	9.85	410	
Roza TPS (IPP)		1200	423	432	10.73	447	
Anpara-C (IPP)		1200	495	319	8.24	344	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	140	137	3.28	137	
Thermal (Total)		8067	3512	3383	81.00	3375	
Vishnuparyag HPS (IPP)		400	436	436	10.49	437	
Other Hydro		527	255	0	4.42	184	
Cogeneration		981	20	20	0.48	20	
<b>Total UP</b>		<b>9975</b>	<b>4223</b>	<b>3839</b>	<b>96.38</b>	<b>3579</b>	
Uttarakhand		Total Hydro	1303	855	829	20.22	842
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>855</b>	<b>829</b>	<b>20.22</b>	<b>842</b>	
Delhi	Raighat TPS	135	93	96	2.24	93	
	Delhi Gas Turbine	282	72	71	1.86	78	
	Pragati Gas Turbine	330	269	268	6.60	275	
	Rithala GPS	108	0	0	0.00	0	
	Bawana GPS	677	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	330	280	6.41	267	
	Thermal (Total)	2237	764	715	17.11	713	
	<b>Total Delhi</b>	<b>2237</b>	<b>764</b>	<b>715</b>	<b>17.11</b>	<b>713</b>	
HP	Baspa HPS (IPP)	330	304	294	7.25	302	
	Malana HPS (IPP)	86	91	51	1.83	76	
	Other Hydro	589	597	487	13.05	544	
	<b>Total HP</b>	<b>1005</b>	<b>992</b>	<b>832</b>	<b>22</b>	<b>922</b>	
J & K	Baglihar HPS (IPP)	450	442	438	10.58	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>627</b>	<b>648</b>	<b>15.31</b>	<b>638</b>	
<b>Total State Control Area Generation</b>		<b>32017</b>	<b>15608</b>	<b>14715</b>	<b>358.69</b>	<b>14509</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2123</b>	<b>2646</b>	<b>54.24</b>	<b>2260</b>	
<b>Total Regional Availability(Gross)</b>		<b>54353</b>	<b>35251</b>	<b>32267</b>	<b>769.69</b>	<b>31634</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9631	8157	205.04	8543
State Control Area Hydro	5368	3335	2866	86.05	3148
<b>Total Regional Hydro</b>	<b>15731</b>	<b>12966</b>	<b>11023</b>	<b>291.09</b>	<b>11692</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	Import	Export	
Vindhychal B/B	50	400	400	0	2.76	0.00	2.76	0.00	2.76
Gwalior-Agra (D/C)	375	264	627	0	8.89	0.00	8.89	0.00	8.89
Zerda-Kankroli	-58	-72	0	137	0.00	2.14	0.00	2.14	-2.14
Zerda-Bhinmal	-41	-79	12	211	0.00	2.34	0.00	2.34	-2.34
Malanpur-Auraiya	-51	-62	0	112	0.00	1.40	0.00	1.40	-1.40
Badod-Kota/Morak	31	-43	31	93	0.00	1.87	0.00	1.87	-1.87
Mundra-Mohindergarh(HVDC)	527	528	601	0	13.15	0.00	13.15	0.00	13.15
<b>Sub Total WR</b>	<b>833</b>	<b>936</b>			<b>24.80</b>	<b>7.75</b>	<b>17.05</b>		<b>17.05</b>
Pusauli Bypass	150	250	150	0	3.63	0.00	3.63	0.00	3.63
MZP- GKP (D/C)	498	794	940	0	17.41	0.00	17.41	0.00	17.41
Patna-Balia(D/C)	326	356	457	0	8.12	0.00	8.12	0.00	8.12
B'Sharif-Balia (D/C)	141	223	163	0	3.33	0.00	3.33	0.00	3.33
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Pusauli-Balia	-38	-79	0	83	0.00	0.36	0.00	0.36	-0.36
Gaya-Fatehpur (765 Kv)	117	47	218	0	2.71	0.00	2.71	0.00	2.71
Pusauli-Sahupuri	141	144	163	0	3.33	0.00	3.33	0.00	3.33
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00	0.00	0.00
Son Ngr-Rihand	-45	-25	0	48	0.00	0.98	0.00	0.98	-0.98
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1290</b>	<b>1710</b>			<b>38.53</b>	<b>1.34</b>	<b>37.19</b>		<b>37.19</b>
<b>Total IR Exch</b>	<b>2123</b>	<b>2646</b>			<b>63.33</b>	<b>9.09</b>	<b>54.24</b>		<b>54.24</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
24.86	3.51	28.38	11.13	18.25	4.20	-10.49	1.45	-1.41
<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
45.16	14.18	59.34	37.19	17.05	54.24	-7.97	2.87	-5.10

**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	0.00	0.10	56.20	56.10	86.80	43.80
Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum		Hz			MAX (Hz)	MIN (Hz)
50.54	3.36	49.68	18.48	50.17	0.49	0.14	50.61	50.00

**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	421	15:02	409	19:29	0.0	0.0	0.7	0.0
Gorakhpur	400	433	11:55	417	0:00	0.0	0.0	90.0	7.3
Bareilly	400	424	3:35	404	18:46	0.0	0.0	9.1	0.0
Kanpur	400	428	4:02	409	18:48	0.0	0.0	57.5	0.0
Dadri	400	422	4:01	406	19:25	0.0	0.0	5.9	0.0
Ballabhgarh	400	430	4:02	410	19:08	0.0	0.0	55.2	0.0
Bawana	400	424	4:02	407	19:23	0.0	0.0	14.5	0.0
Bassi	400	436	2:42	413	19:10	0.0	0.0	92.1	13.4
Hissar	400	418	4:01	402	19:25	0.0	0.0	0.0	0.0
Moga	400	418	4:01	400	19:23	0.0	0.0	0.0	0.0
Abdullapur	400	419	4:02	291	9:52	0.1	0.1	0.0	0.0
Nalagarh	400	416	4:01	405	11:28	0.0	0.0	0.0	0.0
Kishenpur	400	416	2:43	401	19:26	0.0	0.0	0.0	0.0
Wagoora	400	413	3:39	388	19:28	0.0	1.1	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	502.94	1219.07	512.38	1667.20	903.00	533.57
Pong	426.72	384.05	420.00	889.22	670.23	372.51	423.51	1051.02
Tehri	829.79	740.04	822.80	1055.00	818.65	982.26	495.29	523.00
Koteswar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	301.68	347.42
Rihand	268.22	252.98	262.80	466.80	265.61	650.20	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	515.42	NA	524.44	NA	544.62	233.10

\* NA: Not Available

**IX. System Constraints:**

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

1. Due to Widespread Rains in Punjab , UP , HP , J & K Load crash of 3000 MW.

**XI. Weather Conditions For 16.09.2012 :**

1: Widespread rains in , UP, Punjab , J & K , HP,Uttranchal.

**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 : 16.09.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER