

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 16.08.2012

Date of Reporting : 17.08.2012

### 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
36004	3928	39932	49.89	33119	2321	35440	50.24	809.6	75.59

\* 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	52.24	18.01		70.25	117.39	119.24	1.84	189.49	15.36
Haryana	59.75	0.76		60.51	71.60	69.97	-1.63	130.48	2.22
Rajasthan	49.60	3.77	10.56	63.93	41.58	39.51	-2.07	103.44	0.80
Delhi	24.53			24.53	72.01	64.05	-7.95	88.58	0.07
UP	84.01	14.70	1.20	99.91	112.11	109.23	-2.88	209.14	50.76
Uttarakhand		17.03		17.03	11.49	11.34	-0.14	28.37	3.43
HP		25.12		25.12	0.26	-1.42	-1.68	23.70	0.00
J & K		15.28	0.00	15.28	19.95	15.34	-4.62	30.62	2.95
Chandigarh				0.00	6.17	5.79	-0.38	5.79	0.00
<b>Total</b>	<b>270.14</b>	<b>94.66</b>	<b>11.76</b>	<b>376.55</b>	<b>452.55</b>	<b>433.05</b>	<b>-19.50</b>	<b>809.60</b>	<b>75.59</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	8197	560	60	2149	7772	1050	101	2339	57.19	
Haryana	5822	220	-22	995	5202	145	-6	749	20.31	
Rajasthan	4824	483	218	3	3858	0	-461	17	-0.62	
Delhi	4138	0	-536	435	3055	0	-601	402	9.45	
UP	8804	2365	175	546	9816	1026	279	1314	23.96	
Uttarakhand	1346	150	96	-17	1178	0	-113	19	0.20	
HP	1031	0	-116	-985	774	0	-140	-1178	-25.72	
J&K	1573	150	-40	-92	1277	100	-49	-34	-1.75	
Chandigarh	269	0	-21	28	187	0	-32	0	0.65	
<b>Total</b>	<b>36004</b>	<b>3928</b>	<b>-187</b>	<b>3063</b>	<b>33119</b>	<b>2321</b>	<b>-1022</b>	<b>3628</b>	<b>83.66</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	1811	2022	1963	43.10	1796	42.77	0.33
Rihand I STPS	1000	331	440	332	7.86	328	7.80	0.06
Rihand II STPS	1000	697	981	639	16.56	690	16.49	0.07
Rihand III STPS	500	0	0	0	0.00	0		0.00
Dadri I STPS	840	614	846	601	13.82	576	13.88	-0.06
Dadri II STPS	980	729	969	675	17.30	721	17.32	-0.02
Unchahar I TPS	420	365	432	368	8.58	358	8.65	-0.07
Unchahar II TPS	420	365	439	372	8.55	356	8.60	-0.05
Unchahar III TPS	210	183	219	183	4.27	178	4.29	-0.02
ISTPP (Jhajhar)	1000	429	352	323	7.62	317	7.79	-0.18
Dadri GPS	830	764	568	545	13.08	545	13.59	-0.52
Anta GPS	419	261	204	56	4.53	189	4.39	0.14
Auraiya GPS	663	544	300	367	7.52	313	8.41	-0.89
<b>Sub Total (A)</b>	<b>10282</b>	<b>7093</b>	<b>7772</b>	<b>6424</b>	<b>152.78</b>	<b>6366</b>	<b>153.98</b>	<b>-1.20</b>
<b>B. NPC</b>								
NAPS	440	258	293	305	6.27	261	6.19	0.08
RAPS- B	440	380	424	460	9.21	384	9.12	0.09
RAPS- C	440	410	468	461	9.96	415	9.84	0.12
<b>Sub Total (B)</b>	<b>1320</b>	<b>1048</b>	<b>1185</b>	<b>1226</b>	<b>25.44</b>	<b>1060</b>	<b>25.15</b>	<b>0.29</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	540	540	12.86	536	12.81	0.04
Chamera II HPS	300	300	302	300	7.10	296	7.05	0.04
Chamera III HPS	231	231	234	233	5.52	230	5.47	0.05
Bairasuil HPS	180	182	182	120	3.19	133	3.05	0.14
Salai-HPS	690	662	660	658	15.73	655	15.89	-0.16
Tanakpur-HPS	94	94	95	94	2.26	94	2.24	0.01
Uri-HPS	480	361	360	360	8.77	366	8.61	0.17
Dhauliganga-HPS	280	277	283	278	6.65	277	6.71	-0.06
Dulhasti-HPS	390	387	405	355	9.18	382	9.00	0.17
Sewa-II HPS	120	80	85	67	1.48	62	1.49	-0.01
<b>Sub Total (C)</b>	<b>3305</b>	<b>3107</b>	<b>3146</b>	<b>3005</b>	<b>72.73</b>	<b>3031</b>	<b>72.32</b>	<b>0.41</b>
<b>D.NJPC</b>								
Natpna Jhakri	1500	1605	1624	1621	38.68	1612	38.52	0.16
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1624</b>	<b>1621</b>	<b>38.68</b>	<b>1612</b>	<b>38.52</b>	<b>0.16</b>
<b>E. THDC</b>								
Tehri HPS	1000	650	970	661	8.61	359	9.00	-0.39
Koteshwar HPS	400	300	300	238	2.36	98	2.45	-0.09
<b>Sub Total (E)</b>	<b>1400</b>	<b>950</b>	<b>1270</b>	<b>899</b>	<b>10.97</b>	<b>457</b>	<b>11.45</b>	<b>-0.48</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	831	1256	787	20.38	849	19.94	0.44
Dehar HPS	990	605	825	620	14.96	623	14.52	0.44
Pong HPS	396	272	366	246	6.73	280	5.01	1.72
<b>Sub Total (F)</b>	<b>2866</b>	<b>1708</b>	<b>2447</b>	<b>1653</b>	<b>42.07</b>	<b>1753</b>	<b>39.46</b>	<b>2.61</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	231	231	5.33	222	4.43	0.89
KWHEP HPS(IPP)	1000	0	1200	1200	28.62	1193	28.63	-0.01
Malana Stg-II HPS	100	0	105	103	2.43	101	2.20	0.23
Shree Cement TPS	300	0	143	141	3.39	141	3.50	-0.11
Budhil HPS(IPP)	70	0	71	70	1.66	69		1.66
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1750</b>	<b>1745</b>	<b>41.44</b>	<b>1726</b>	<b>38.76</b>	<b>2.67</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22336</b>	<b>15511</b>	<b>19194</b>	<b>16573</b>	<b>384.10</b>	<b>16004</b>	<b>379.64</b>	<b>4.46</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	1256	1256	27.76	1157
	Guru Nanak Dev TPS(Bhatinda)	440	203	203	4.28	178
	Guru Hargobind Singh TPS(L.mbt)	920	894	917	20.20	842
	Thermal (Total)	2620	2353	2376	52.24	2177
	Total Hydro	1148	901	579	18.01	750
<b>Total Punjab</b>	<b>3768</b>	<b>3254</b>	<b>2955</b>	<b>70.25</b>	<b>2927</b>	
Haryana	Panipat TPS	1367	1032	1107	25.81	1076
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	200	197	4.53	189
	RGTPP (kheadar) (IPP)	1200	1093	940	24.96	1040
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	358	0	4.45	185
	Thermal (Total)	4944	2683	2244	59.75	2490
	Total Hydro	62	33	30	0.76	32
<b>Total Haryana</b>	<b>5006</b>	<b>2716</b>	<b>2274</b>	<b>60.51</b>	<b>2521</b>	
Rajasthan	kota TPS	1240	566	427	10.99	458
	suratgarh TPS	1500	699	550	15.03	626
	Chabra TPS	500	222	187	4.01	167
	Dholpur GPS	330	165	96	2.69	112
	Ramgarh GPS	111	65	67	1.68	70
	RAPS A (NPC)	300	198	197	4.49	187
	Barsingar (NLC)	250	111	114	2.63	109
	Giral LTPS	250	0	0	0.00	0
	Rajwest LTPS (IPP)	540	351	353	8.09	337
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5156	2377	1991	49.60	2067
	Total Hydro	550	183	138	3.77	157
	Wind power	1843	117	509	6.20	258
	Biomass	91	28	28	0.57	24
	Solar	128	0	0	0.02	1
	Renewable/Others (Total)	2062	145	537	10.56	440
	<b>Total Rajasthan</b>	<b>7767</b>	<b>2705</b>	<b>2666</b>	<b>63.93</b>	<b>2664</b>
	UP	Anpara TPS	1630	642	1069	20.00
Obra TPS		1382	347	481	9.30	388
Paricha TPS		890	572	584	11.80	492
Panki TPS		210	50	120	1.70	71
Harduaganj TPS		665	0	0	0.00	0
Tanda TPS (NTPC)		440	193	192	4.81	200
Roza TPS (IPP)		1200	824	815	19.65	819
Anpara-C (IPP)		1200	453	466	11.05	461
Bajaj Energy Pvt.Ltd(IPP) TPS		450	259	232	5.70	237
Thermal (Total)		8067	3340	3959	84.01	3501
Vishnuparyag HPS (IPP)		400	436	436	10.47	436
Other Hydro		527	273	0	4.23	176
Cogeneration		981	50	50	1.20	50
<b>Total UP</b>		<b>9975</b>	<b>4099</b>	<b>4445</b>	<b>99.91</b>	<b>3727</b>
Uttarakhand	Total Hydro	1303	741	743	17.03	710
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>741</b>	<b>743</b>	<b>17.03</b>	<b>710</b>
Delhi	Raighat TPS	135	49	49	1.15	48
	Delhi Gas Turbine	282	109	110	2.98	124
	Pragati Gas Turbine	330	138	141	3.32	138
	Rithala GPS	108	21	19	0.63	26
	Bawana GPS	677	277	36	4.97	207
	Badarpur TPS (NTPC)	705	640	425	11.49	479
	Thermal (Total)	2237	1234	780	24.53	1022
	<b>Total Delhi</b>	<b>2237</b>	<b>1234</b>	<b>780</b>	<b>24.53</b>	<b>1022</b>
HP	Baspa HPS (IPP)	330	330	330	7.92	330
	Malana HPS (IPP)	86	107	106	2.57	107
	Other Hydro	589	631	617	14.62	609
	<b>Total HP</b>	<b>1005</b>	<b>1068</b>	<b>1053</b>	<b>25</b>	<b>1047</b>
J & K	Baglihar HPS (IPP)	450	440	438	10.55	440
	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>648</b>	<b>15.28</b>	<b>637</b>
<b>Total State Control Area Generation</b>		<b>32017</b>	<b>16442</b>	<b>15564</b>	<b>376.55</b>	<b>15254</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2823</b>	<b>2859</b>	<b>73.86</b>	<b>3078</b>
<b>Total Regional Availability(Gross)</b>		<b>54353</b>	<b>38459</b>	<b>34996</b>	<b>834.52</b>	<b>34335</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	10023	8712	200.84	8368
State Control Area Hydro	5368	3824	3191	94.66	3508
<b>Total Regional Hydro</b>	<b>15731</b>	<b>13847</b>	<b>11903</b>	<b>295.50</b>	<b>11876</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	500	150	500	200	7.70	0.42	7.28		
Gwalior-Agra (D/C)	242	741	990	0	15.49	0.00	15.49		
Zerda-Kankroli	0	0	0	0	0.00	0.00	0.00		
Zerda-Bhinmal	16	-216	113	477	0.00	2.52	-2.52		
Malanpur-Auraiya	-62	-23	0	118	0.00	0.95	-0.95		
Badod-Kota/Morak	-13	36	106	93	0.81	0.00	0.81		
Mundra-Mohindergarh(HVDC)	576	534	605	0	13.86	0.00	13.86		
<b>Sub Total WR</b>	<b>1259</b>	<b>1222</b>			<b>37.85</b>	<b>3.88</b>	<b>33.97</b>		
Pusauli Bypass	-57	-87	164	140	0.84	0.73	0.10		
MZP- GKP (D/C)	518	672	768	0	14.65	0.00	14.65		
Patna-Balia(D/C)	369	240	605	0	8.61	0.00	8.61		
B'Sharif-Balia (D/C)	265	300	468	0	7.53	0.00	7.53		
Barh - Balia(D/C)	226	238	262	0	2.62	0.00	2.62		
Pusauli-Balia	0	0	0	0	0.00	0.00	0.00		
Gaya-Fatehpur (765 Kv)	170	137	287	0	4.36	0.00	4.36		
Pusauli-Sahupuri	119	162	162	0	3.06	0.00	3.06		
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00		
Son Ngr-Rihand	-46	-25	0	47	0.00	1.04	-1.04		
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
<b>Sub Total ER</b>	<b>1564</b>	<b>1637</b>			<b>41.66</b>	<b>1.77</b>	<b>39.89</b>		
<b>Total IR Exch</b>	<b>2823</b>	<b>2859</b>			<b>79.52</b>	<b>5.66</b>	<b>73.86</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
25.99	3.72	29.70	7.41	26.16	7.94	5.40	2.50	-2.48
<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
47.56	41.26	88.82	39.89	33.97	73.86	-7.66	-7.29	-14.95

**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	0.76	26.70	96.36	69.66	36.66	2.88
<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum		Hz			MAX (Hz)	MIN (Hz)
50.45	6.03	49.28	19.28	49.93	0.43	0.18	50.39	49.70

**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	6:22	396	22:06	0.0	0.0	0.0	0.0
Gorakhpur	400	431	6:18	410	14:39	0.0	0.0	37.7	2.0
Bareilly	400	423	6:06	395	22:08	0.0	0.0	0.8	0.0
Kanpur	400	423	4:30	400	22:08	0.0	0.0	8.6	0.0
Dadri	400	416	4:13	394	22:06	0.0	0.0	0.0	0.0
Ballabhgarh	400	422	4:29	399	22:08	0.0	0.0	5.4	0.0
Bawana	400	418	6:02	397	22:08	0.0	0.0	0.0	0.0
Bassi	400	434	4:30	411	19:27	0.0	0.0	45.8	5.5
Hissar	400	410	4:05	394	12:25	0.0	0.0	0.0	0.0
Moga	400	411	4:05	394	16:52	0.0	0.0	0.0	0.0
Abdullapur	400	412	6:02	286	2:01	0.0	0.0	0.0	0.0
Nalagarh	400	407	6:02	388	16:09	0.0	0.8	0.0	0.0
Kishenpur	400	413	6:02	397	20:03	0.0	0.0	0.0	0.0
Wagoora	400	414	6:11	386	20:29	0.0	6.0	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	487.49	652.97	506.45	1382.01	1141.00	646.22
Pong	426.72	384.05	405.25	352.07	422.50	1005.78	886.23	459.64
Tehri	829.79	740.04	811.50	128.85	818.65	982.26	525.00	199.00
Koteshwar	612.50	598.50	599.80	0.45	NA	NA	159.00	133.00
Chamera-I	760.00	748.75	756.61	12.00	NA	NA	383.03	329.41
Rihand	268.22	252.98	254.02	38.60	257.04	160.70	NA	NA
RPS	352.80	343.81	349.95	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.21	NA	NA	NA	NA	NA
RSD	527.91	487.91	501.72	NA	509.17	NA	319.44	309.93

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 16.08.2012 :**

1: Scattered Rain 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 : 16.08.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER