

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 30.08.2012

Date of Reporting : 31.08.2012

### 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
33440	3510	36950	49.82	32690	796	33486	50.11	776.3	35.79

\* 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	44.49	13.87		58.36	103.03	104.74	1.71	163.10	1.80
Haryana	45.20	0.82		46.01	60.89	59.57	-1.32	105.58	3.42
Rajasthan	60.94	1.89	3.92	66.75	52.65	55.12	2.46	121.87	0.88
Delhi	23.58			23.58	63.00	59.36	-3.64	82.94	0.09
UP	81.47	15.09	0.48	97.03	117.33	115.68	-1.64	212.71	27.60
Uttarakhand		19.33		19.33	13.92	12.78	-1.15	32.11	0.30
HP		24.63		24.63	1.20	-0.57	-1.77	24.07	0.00
J & K		15.22	0.00	15.22	17.83	13.71	-4.13	28.93	1.70
Chandigarh				0.00	5.66	4.95	-0.71	4.95	0.00
<b>Total</b>	<b>255.67</b>	<b>90.85</b>	<b>4.40</b>	<b>350.92</b>	<b>435.51</b>	<b>425.33</b>	<b>-10.18</b>	<b>776.25</b>	<b>35.79</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	UI
Punjab	7009	450	-76	1487	6576	0	160	2021		43.24
Haryana	4772	480	-114	867	4547	0	194	760		20.12
Rajasthan	5533	245	209	160	4847	0	143	76		3.90
Delhi	3796	0	-102	167	2885	0	-115	333		5.48
UP	8139	2085	118	551	10614	796	-324	1015		18.50
Uttarakhand	1385	150	-78	15	1272	0	-64	-10		-0.02
HP	1071	0	-38	-1063	870	0	-129	-1009		-24.19
J&K	1509	100	114	-330	917	0	-465	17		-3.29
Chandigarh	227	0	-27	-21	163	0	-32	-10		0.37
<b>Total</b>	<b>33440</b>	<b>3510</b>	<b>5</b>	<b>1834</b>	<b>32690</b>	<b>796</b>	<b>-633</b>	<b>3193</b>		<b>64.11</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	1731	1838	1950	41.76	1740	41.54	0.22
Rihand I STPS	1000	450	487	500	10.81	450	10.76	0.05
Rihand II STPS	1000	768	514	1024	18.60	775	18.17	0.43
Rihand III STPS	500	0	0	0	0.00	0		0.00
Dadri I STPS	840	577	595	455	11.64	485	12.32	-0.67
Dadri II STPS	980	922	497	486	10.70	446	10.89	-0.19
Unchahar I TPS	420	198	216	206	4.55	190	4.59	-0.04
Unchahar II TPS	420	397	419	402	9.15	381	9.01	0.14
Unchahar III TPS	210	200	218	216	4.60	192	4.53	0.07
ISTPP (Jhajhar)	1000	619	699	503	10.81	451	11.15	-0.34
Dadri GPS	830	548	371	339	7.69	321	8.16	-0.47
Anta GPS	419	392	257	260	5.64	235	6.01	-0.37
Auraiya GPS	663	620	309	308	7.12	297	8.06	-0.93
<b>Sub Total (A)</b>	<b>10282</b>	<b>7421</b>	<b>6420</b>	<b>6649</b>	<b>143.08</b>	<b>5962</b>	<b>145.18</b>	<b>-2.11</b>
<b>B. NPC</b>								
NAPS	440	260	302	299	6.29	262	6.24	0.05
RAPS- B	440	381	421	421	9.06	377	9.14	-0.09
RAPS- C	440	410	450	446	9.57	399	9.84	-0.27
<b>Sub Total (B)</b>	<b>1320</b>	<b>1051</b>	<b>1173</b>	<b>1166</b>	<b>24.92</b>	<b>1038</b>	<b>25.22</b>	<b>-0.31</b>
<b>C. NHPC</b>								
Chamera I HPS	540	534	540	540	12.83	535	12.82	0.02
Chamera II HPS	300	300	300	299	7.17	299	7.22	-0.05
Chamera III HPS	231	168	223	156	4.07	169	4.05	0.02
Bairasuil HPS	180	182	180	90	3.12	130	3.36	-0.24
Salai-HPS	690	658	660	653	16.77	699	15.79	0.97
Tanakpur-HPS	94	90	95	95	2.28	95	2.25	0.02
Uri-HPS	480	373	332	324	8.62	359	8.61	0.02
Dhauliganga-HPS	280	210	211	212	5.03	210	5.05	-0.02
Dulhasti-HPS	390	387	408	395	9.28	387	9.18	0.10
Sewa-II HPS	120	80	85	79	1.92	80	1.78	0.13
<b>Sub Total (C)</b>	<b>3305</b>	<b>2981</b>	<b>3034</b>	<b>2843</b>	<b>71.08</b>	<b>2962</b>	<b>70.10</b>	<b>0.97</b>
<b>D.NJPC</b>								
Natpha Jhakri	1500	1605	1521	1518	36.25	1510	35.96	0.29
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1521</b>	<b>1518</b>	<b>36.25</b>	<b>1510</b>	<b>35.96</b>	<b>0.29</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	1071	1058	25.14	1048	25.00	0.14
Koteshwar HPS	400	373	385	385	8.96	373	8.95	0.01
<b>Sub Total (E)</b>	<b>1400</b>	<b>1423</b>	<b>1456</b>	<b>1443</b>	<b>34.10</b>	<b>1421</b>	<b>33.95</b>	<b>0.15</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	698	1259	572	17.17	715	16.75	0.42
Dehar HPS	990	613	825	630	15.31	638	14.71	0.60
Pong HPS	396	285	315	240	6.76	282	5.01	1.75
<b>Sub Total (F)</b>	<b>2866</b>	<b>1596</b>	<b>2399</b>	<b>1442</b>	<b>39.24</b>	<b>1635</b>	<b>36.47</b>	<b>2.77</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	210	133	3.72	155	3.83	-0.11
KWHEP HPS(IPP)	1000	0	1000	1000	23.92	997	23.47	0.45
Malana Stg-II HPS	100	0	109	81	2.32	97	2.13	0.19
Shree Cement TPS	300	0	0	118	2.10	87	2.05	0.04
Budhil HPS(IPP)	70	0	70	70	1.66	69		1.66
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1389</b>	<b>1402</b>	<b>33.71</b>	<b>1405</b>	<b>31.48</b>	<b>2.23</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22336</b>	<b>16077</b>	<b>17392</b>	<b>16463</b>	<b>382.37</b>	<b>15932</b>	<b>378.37</b>	<b>4.00</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	1202	724	21.76	907	
	Guru Nanak Dev TPS(Bhatinda)	440	165	85	2.19	91	
	Guru Hargobind Singh TPS(L.mbt)	920	940	934	20.54	856	
	Thermal (Total)	2620	2307	1743	44.49	1854	
	Total Hydro	1148	525	480	13.87	578	
	<b>Total Punjab</b>	<b>3768</b>	<b>2832</b>	<b>2223</b>	<b>58.36</b>	<b>2432</b>	
Haryana	Panipat TPS	1367	435	444	9.97	415	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	194	137	3.56	148	
	RGTPP (kheadar) (IPP)	1200	880	785	21.00	875	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	479	426	10.67	445	
	Thermal (Total)	4944	1988	1792	45.20	1883	
	Total Hydro	62	21	21	0.82	34	
	<b>Total Haryana</b>	<b>5006</b>	<b>2009</b>	<b>1813</b>	<b>46.01</b>	<b>1917</b>	
Rajasthan	kota TPS	1240	668	670	16.05	669	
	suratgarh TPS	1500	858	811	19.52	813	
	Chabra TPS	500	452	433	10.60	442	
	Dholpur GPS	330	214	143	3.63	151	
	Ramgarh GPS	111	57	57	1.59	66	
	RAPS A (NPC)	300	0	0	0.00	0	
	Barsingar (NLC)	250	0	0	0.00	0	
	Giral LTPS	250	35	0	0.60	25	
	Rajwest LTPS (IPP)	540	351	450	8.95	373	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	2635	2564	60.94	2539	
	Total Hydro	550	94	49	1.89	79	
	Wind power	1843	139	8	1.27	53	
	Biomass	91	26	26	0.63	26	
	Solar	128	0	0	0.13	5	
	Renewable/Others (Total)	2062	165	34	3.92	163	
	<b>Total Rajasthan</b>	<b>7767</b>	<b>2894</b>	<b>2647</b>	<b>66.75</b>	<b>2781</b>	
	UP	Anpara TPS	1630	961	928	21.80	908
		Obra TPS	1382	424	436	10.40	433
		Paricha TPS	890	384	437	9.90	413
Panki TPS		210	59	81	1.60	67	
Harduaganj TPS		665	32	34	0.70	29	
Tanda TPS (NTPC)		440	192	190	4.61	192	
Roza TPS (IPP)		1200	599	829	15.99	666	
Anpara-C (IPP)		1200	453	416	10.73	447	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	194	293	5.74	239	
Thermal (Total)		8067	3298	3644	81.47	3395	
Vishnuparyag HPS (IPP)		400	436	436	10.46	436	
Other Hydro		527	217	0	4.63	193	
Cogeneration		981	20	20	0.48	20	
<b>Total UP</b>		<b>9975</b>	<b>3971</b>	<b>4100</b>	<b>97.03</b>	<b>3607</b>	
Uttarakhand		Total Hydro	1303	869	766	19.33	805
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>869</b>	<b>766</b>	<b>19.33</b>	<b>805</b>	
Delhi	Raighat TPS	135	42	43	0.96	40	
	Delhi Gas Turbine	282	179	182	4.48	187	
	Pragati Gas Turbine	330	295	296	7.16	298	
	Rithala GPS	108	37	24	0.65	27	
	Bawana GPS	677	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	480	460	10.32	430	
	Thermal (Total)	2237	1033	1005	23.58	983	
	<b>Total Delhi</b>	<b>2237</b>	<b>1033</b>	<b>1005</b>	<b>23.58</b>	<b>983</b>	
HP	Baspa HPS (IPP)	330	328	299	7.76	323	
	Malana HPS (IPP)	86	110	88	2.16	90	
	Other Hydro	589	612	604	14.71	613	
	<b>Total HP</b>	<b>1005</b>	<b>1050</b>	<b>991</b>	<b>25</b>	<b>1026</b>	
J & K	Baglihar HPS (IPP)	450	436	436	10.49	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>621</b>	<b>646</b>	<b>15.22</b>	<b>634</b>	
<b>Total State Control Area Generation</b>		<b>32017</b>	<b>15279</b>	<b>14191</b>	<b>350.92</b>	<b>14186</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2305</b>	<b>2912</b>	<b>64.53</b>	<b>2689</b>	
<b>Total Regional Availability(Gross)</b>		<b>54353</b>	<b>34976</b>	<b>33566</b>	<b>797.82</b>	<b>32807</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9729	8460	210.62	8776
State Control Area Hydro	5368	3397	2953	90.85	3350
<b>Total Regional Hydro</b>	<b>15731</b>	<b>13126</b>	<b>11413</b>	<b>301.47</b>	<b>12126</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	50	50	150	0.60	1.28			-0.68
Gwalior-Agra (D/C)	409	498	618	0	12.58	0.00			12.58
Zerda-Kankroli	-62	-45	5	116	0.00	0.60			-0.60
Zerda-Bhinmal	-12	0	85	287	0.00	1.83			-1.83
Malanpur-Auraiya	-58	-60	0	101	0.00	1.34			-1.34
Badod-Kota/Morak	38	65	89	23	0.83	0.00			0.83
Mundra-Mohindergarh(HVDC)	568	572	574	0	13.77	0.00			13.77
<b>Sub Total WR</b>	<b>933</b>	<b>1080</b>			<b>27.77</b>	<b>5.04</b>			<b>22.73</b>
Pusauli Bypass	200	200	200	0	4.76	0.00			4.76
MZP- GKP (D/C)	490	690	876	0	16.12	0.00			16.12
Patna-Balia(D/C)	313	354	594	0	10.03	0.00			10.03
B'Sharif-Balia (D/C)	199	211	366	0	5.83	0.00			5.83
Barh - Balia(D/C)	0	218	260	0	0.61	0.00			0.61
Pusauli-Balia	-74	-66	0	85	0.00	1.28			-1.28
Gaya-Fatehpur (765 Kv)	143	71	143	0	2.74	0.00			2.74
Pusauli-Sahupuri	149	179	182	0	3.77	0.00			3.77
K'nasa-Sahupuri	0	0	0	0	0.00	0.00			0.00
Son Ngr-Rihand	-48	-25	0	48	0.00	0.78			-0.78
Garhwa-Rihand	0	0	0	0	0.00	0.00			0.00
<b>Sub Total ER</b>	<b>1372</b>	<b>1832</b>			<b>43.86</b>	<b>2.06</b>			<b>41.80</b>
<b>Total IR Exch</b>	<b>2305</b>	<b>2912</b>			<b>71.63</b>	<b>7.10</b>			<b>64.53</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
31.84	3.51	35.35	8.82	30.55	-6.36	0.72	2.25	-2.20
<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
40.05	30.31	70.36	41.80	22.73	64.53	1.75	-7.58	-5.83

**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	0.60	6.90	96.70	90.40	30.50	2.70
Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum		Hz			MAX (Hz)	MIN (Hz)
50.34	13.05	49.46	18.59	49.92	0.29	0.15	50.33	49.75

**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	419	16:06	408	1:08	0.0	0.0	0.0	0.0
Gorakhpur	400	427	5:29	408	1:24	0.0	0.0	53.7	0.0
Bareilly	400	420	5:13	405	1:10	0.0	0.0	0.0	0.0
Kanpur	400	422	4:10	411	1:10	0.0	0.0	2.6	0.0
Dadri	400	419	4:10	407	10:52	0.0	0.0	0.0	0.0
Ballabhgarh	400	423	4:07	410	10:52	0.0	0.0	9.6	0.0
Bawana	400	420	4:10	408	12:03	0.0	0.0	0.0	0.0
Bassi	400	436	4:00	412	19:19	0.0	0.0	75.9	9.9
Hissar	400	414	22:49	402	8:42	0.0	0.0	0.0	0.0
Moga	400	417	18:04	399	9:35	0.0	0.0	0.0	0.0
Abdullapur	400	415	4:07	290	13:36	0.0	0.0	0.0	0.0
Nalagarh	400	415	21:42	406	8:45	0.0	0.0	0.0	0.0
Kishenpur	400	414	4:13	399	19:25	0.0	0.0	0.0	0.0
Wagoora	400	413	4:11	388	19:30	0.0	2.3	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	496.43	960.37	510.01	1545.02	1401.00	498.01
Pong	426.72	384.05	417.02	755.83	421.56	975.89	1298.01	402.24
Tehri	829.79	740.04	819.90	1000.00	818.65	982.26	636.21	553.00
Koteswar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	440.66	348.30
Rihand	268.22	252.98	261.79	411.80	263.65	522.00	NA	NA
RPS	352.80	343.81	351.74	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.61	NA	NA	NA	NA	NA
RSD	527.91	487.91	510.48	NA	521.65	NA	592.64	102.05

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 30.08.2012 :**

1: Partial rains 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 : 30.08.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER