

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 18.08.2012

Date of Reporting : 19.08.2012

### 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
36458	5062	41520	49.92	34418	3363	37781	49.96	834.4	102.92

\* 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	47.82	18.92		66.74	116.67	116.95	0.28	183.69	23.67
Haryana	65.88	0.83		66.71	60.30	59.57	-0.73	126.28	22.15
Rajasthan	69.02	2.14	11.84	83.00	34.79	37.52	2.73	120.51	4.51
Delhi	25.26			25.26	69.14	68.95	-0.19	94.22	0.58
UP	77.67	15.77	1.20	94.64	126.36	125.73	-0.64	220.37	46.38
Uttarakhand		16.15		16.15	12.33	11.53	-0.80	27.68	3.90
HP		25.20		25.20	0.40	-1.06	-1.46	24.14	0.04
J & K		15.28	0.00	15.28	17.98	16.60	-1.38	31.89	1.70
Chandigarh				0.00	5.84	5.66	-0.18	5.66	0.00
<b>Total</b>	<b>285.64</b>	<b>94.30</b>	<b>13.04</b>	<b>392.98</b>	<b>443.80</b>	<b>441.44</b>	<b>-2.36</b>	<b>834.42</b>	<b>102.92</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	7949	1217	82	2046	7752	1050	52	2575	59.30	
Haryana	5537	917	-27	898	5157	1313	-49	727	22.44	
Rajasthan	5227	616	241	-132	4650	0	-218	-428	-7.08	
Delhi	4317	7	129	222	3625	0	-91	70	4.75	
UP	9264	2055	216	849	10064	850	-313	1988	35.27	
Uttarakhand	1231	150	16	-1	962	150	-116	10	0.98	
HP	1025	0	-77	-1077	915	0	-40	-1169	-25.61	
J&K	1634	100	132	-156	1096	0	-180	-143	-4.14	
Chandigarh	274	0	4	39	196	0	-18	-5	0.56	
<b>Total</b>	<b>36458</b>	<b>5062</b>	<b>715</b>	<b>2689</b>	<b>34418</b>	<b>3363</b>	<b>-972</b>	<b>3625</b>	<b>84.47</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	1410	1539	1548	34.17	1424	33.84	0.32
Rihand I STPS	1000	352	466	390	8.54	356	8.45	0.09
Rihand II STPS	1000	779	998	817	18.90	787	18.69	0.21
Rihand III STPS	500		0	0	0.00	0		0.00
Dadri I STPS	840	614	843	602	14.76	615	14.74	0.01
Dadri II STPS	980	729	972	685	17.39	724	17.30	0.09
Unchahar I TPS	420	382	422	416	9.19	383	9.17	0.02
Unchahar II TPS	420	383	432	414	9.29	387	9.18	0.11
Unchahar III TPS	210	192	217	201	4.69	195	4.60	0.08
ISTPP (Jhajhar)	1000	470	468	491	10.32	430	10.56	-0.23
Dadri GPS	830	754	754	760	17.11	713	17.25	-0.14
Anta GPS	419	233	258	257	5.04	210	5.32	-0.28
Auraiya GPS	663	610	486	476	12.17	507	12.79	-0.62
<b>Sub Total (A)</b>	<b>10282</b>	<b>6909</b>	<b>7855</b>	<b>7057</b>	<b>161.56</b>	<b>6731</b>	<b>161.88</b>	<b>-0.33</b>
<b>B. NPC</b>								
NAPS	440	261	291	293	6.09	254	6.26	-0.18
RAPS- B	440	384	421	427	9.14	381	9.22	-0.08
RAPS- C	440	410	457	453	9.71	404	9.84	-0.14
<b>Sub Total (B)</b>	<b>1320</b>	<b>1055</b>	<b>1169</b>	<b>1173</b>	<b>24.93</b>	<b>1039</b>	<b>25.32</b>	<b>-0.39</b>
<b>C. NHPC</b>								
Chamera I HPS	540	535	540	540	12.88	537	12.28	0.59
Chamera II HPS	300	200	200	200	5.12	213	4.95	0.17
Chamera III HPS	231	231	234	234	5.56	232	5.56	0.00
Bairasuil HPS	180	182	100	120	2.52	105	2.36	0.16
Salai-HPS	690	651	659	659	15.65	652	15.57	0.08
Tanakpur-HPS	94	94	95	94	2.29	95	2.24	0.05
Uri-HPS	480	387	315	297	8.89	370	8.71	0.17
Dhauliganga-HPS	280	277	279	278	6.73	281	6.69	0.05
Dulhasi-HPS	390	78	407	0	1.78	74	1.32	0.46
Sewa-II HPS	120	80	85	36	0.69	29	0.63	0.06
<b>Sub Total (C)</b>	<b>3305</b>	<b>2714</b>	<b>2914</b>	<b>2458</b>	<b>62.11</b>	<b>2588</b>	<b>60.32</b>	<b>1.79</b>
<b>D.NJPC</b>								
Natpha Jhakri	1500	1605	1625	1621	38.69	1612	38.52	0.17
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1625</b>	<b>1621</b>	<b>38.69</b>	<b>1612</b>	<b>38.52</b>	<b>0.17</b>
<b>E. THDC</b>								
Tehri HPS	1000	650	782	884	9.90	413	10.00	-0.10
Koteshwar HPS	400	300	170	239	2.90	121	2.90	0.00
<b>Sub Total (E)</b>	<b>1400</b>	<b>950</b>	<b>952</b>	<b>1123</b>	<b>12.80</b>	<b>534</b>	<b>12.90</b>	<b>-0.10</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	815	257	678	20.00	833	19.56	0.44
Dehar HPS	990	619	825	620	14.97	624	14.86	0.11
Pong HPS	396	191	306	180	4.52	188	5.01	-0.49
<b>Sub Total (F)</b>	<b>2866</b>	<b>1625</b>	<b>1388</b>	<b>1478</b>	<b>39.49</b>	<b>1645</b>	<b>39.43</b>	<b>0.06</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	217	208	4.64	193	4.29	0.34
KWHEP HPS(IPP)	1000	0	1200	1200	28.58	1191	26.78	1.80
Malana Stg-II HPS	100	0	52	106	2.09	87	2.08	0.01
Shree Cement TPS	300	0	141	130	3.22	134	3.14	0.08
Budhil HPS(IPP)	70	0	35	44	0.92	38		0.92
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1645</b>	<b>1688</b>	<b>39.45</b>	<b>1644</b>	<b>36.29</b>	<b>3.15</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22336</b>	<b>14858</b>	<b>17548</b>	<b>16598</b>	<b>379.02</b>	<b>15793</b>	<b>374.66</b>	<b>4.36</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	1050	1021	23.01	959	
	Guru Nanak Dev TPS(Bhatinda)	440	203	203	4.36	182	
	Guru Hargobind Singh TPS(L.mbt)	920	921	937	20.45	852	
	Thermal (Total)	2620	2174	2161	47.82	1992	
	Total Hydro	1148	838	618	18.92	789	
	<b>Total Punjab</b>	<b>3768</b>	<b>3012</b>	<b>2779</b>	<b>66.74</b>	<b>2781</b>	
Haryana	Panipat TPS	1367	1050	1035	25.13	1047	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	356	193	5.68	237	
	RGTPP (khedar) (IPP)	1200	1095	1085	25.75	1073	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	371	373	9.31	388	
	Thermal (Total)	4944	2872	2686	65.88	2745	
	Total Hydro	62	33	34	0.83	35	
	<b>Total Haryana</b>	<b>5006</b>	<b>2905</b>	<b>2720</b>	<b>66.71</b>	<b>2780</b>	
Rajasthan	kota TPS	1240	868	848	20.54	856	
	suratgarh TPS	1500	857	821	20.13	839	
	Chabra TPS	500	426	431	10.27	428	
	Dholpur GPS	330	201	130	3.58	149	
	Ramgarh GPS	111	65	66	1.65	69	
	RAPS A (NPC)	300	0	0	0.00	0	
	Barsingar (NLC)	250	113	9	2.05	85	
	Giral LTPS	250	0	0	0.00	0	
	Rajwest LTPS (IPP)	540	452	448	10.79	450	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	2982	2753	69.02	2876	
	Total Hydro	550	95	49	2.14	89	
	Wind power	1843	147	661	8.99	375	
	Biomass	91	23	23	0.55	23	
	Solar	128	0	0	0.16	7	
	Renewable/Others (Total)	2062	170	684	11.84	493	
	<b>Total Rajasthan</b>	<b>7767</b>	<b>3247</b>	<b>3486</b>	<b>83.00</b>	<b>3458</b>	
	UP	Anpara TPS	1630	835	693	16.50	688
		Obra TPS	1382	356	379	8.00	333
		Paricha TPS	890	519	619	13.00	542
Panki TPS		210	50	60	1.20	50	
Harduaganj TPS		665	0	0	0.00	0	
Tanda TPS (NTPC)		440	193	194	4.80	200	
Roza TPS (IPP)		1200	824	819	18.42	768	
Anpara-C (IPP)		1200	452	457	10.54	439	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	168	248	5.21	217	
Thermal (Total)		8067	3397	3469	77.67	3236	
Vishnuparyag HPS (IPP)		400	436	436	10.35	431	
Other Hydro		527	260	0	5.42	226	
Cogeneration		981	50	50	1.20	50	
<b>Total UP</b>		<b>9975</b>	<b>4143</b>	<b>3955</b>	<b>94.64</b>	<b>3512</b>	
Uttarakhand		Total Hydro	1303	686	543	16.15	673
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>686</b>	<b>543</b>	<b>16.15</b>	<b>673</b>	
Delhi	Raighat TPS	135	51	51	1.06	44	
	Delhi Gas Turbine	282	169	142	3.11	129	
	Pragati Gas Turbine	330	95	98	2.25	94	
	Rithala GPS	108	19	21	0.54	23	
	Bawana GPS	677	256	232	6.04	252	
	Badarpur TPS (NTPC)	705	575	565	12.26	511	
	Thermal (Total)	2237	1165	1109	25.26	1053	
	<b>Total Delhi</b>	<b>2237</b>	<b>1165</b>	<b>1109</b>	<b>25.26</b>	<b>1053</b>	
HP	Baspa HPS (IPP)	330	330	330	7.92	330	
	Malana HPS (IPP)	86	108	108	2.53	106	
	Other Hydro	589	622	613	14.74	614	
	<b>Total HP</b>	<b>1005</b>	<b>1060</b>	<b>1051</b>	<b>25</b>	<b>1050</b>	
J & K	Baglihar HPS (IPP)	450	442	440	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>627</b>	<b>650</b>	<b>15.28</b>	<b>637</b>	
<b>Total State Control Area Generation</b>		<b>32017</b>	<b>16845</b>	<b>16293</b>	<b>392.98</b>	<b>15943</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2853</b>	<b>3264</b>	<b>83.95</b>	<b>3498</b>	
<b>Total Regional Availability(Gross)</b>		<b>54353</b>	<b>37246</b>	<b>36155</b>	<b>855.95</b>	<b>35234</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	8348	8194	188.40	7850
State Control Area Hydro	5368	3599	2945	94.30	3498
<b>Total Regional Hydro</b>	<b>15731</b>	<b>11947</b>	<b>11139</b>	<b>282.70</b>	<b>11348</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	500	300	500	0	8.37	0.00	8.37
Gwalior-Agra (D/C)	303	656	953	0	15.80	0.00	15.80
Zerda-Kankroli	-185	-165	0	328	0.00	4.19	-4.19
Zerda-Bhinmal	-54	-180	60	249	0.00	2.34	-2.34
Malanpur-Auraiya	-102	-73	0	145	0.00	1.82	-1.82
Badod-Kota/Morak	-41	-14	79	64	0.00	0.13	-0.13
Mundra-Mohindergarh(HVDC)	583	536	586	0	14.19	0.00	14.19
<b>Sub Total WR</b>	<b>1004</b>	<b>1060</b>			<b>38.36</b>	<b>8.48</b>	<b>29.88</b>
Pusauli Bypass	300	200	300	0	6.17	0.00	6.17
MZP- GKP (D/C)	564	746	930	0	17.88	0.00	17.88
Patna-Balia(D/C)	357	551	634	0	11.94	0.00	11.94
B'Sharif-Balia (D/C)	167	356	450	0	7.93	0.00	7.93
Barh - Balia(D/C)	219	0	291	0	2.92	0.00	2.92
Pusauli-Balia	0	0	0	149	0.00	0.05	-0.05
Gaya-Fatehpur (765 Kv)	145	196	329	0	5.07	0.00	5.07
Pusauli-Sahupuri	143	180	180	0	3.25	0.00	3.25
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>1849</b>	<b>2204</b>			<b>55.16</b>	<b>1.09</b>	<b>54.07</b>
<b>Total IR Exch</b>	<b>2853</b>	<b>3264</b>			<b>93.52</b>	<b>9.57</b>	<b>83.95</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
34.29	3.72	38.00	10.77	28.69	4.30	7.28	2.50	-2.45
<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
55.57	31.78	87.34	54.07	29.88	83.95	-1.50	-1.90	-3.40

**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	2.00	22.00	96.80	76.80	10.80	1.20
Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum		Hz			MAX (Hz)	MIN (Hz)
50.30	6.03	49.33	20.21	49.81	0.58	0.15	50.21	49.61

**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	415	8:59	399	22:22	0.0	0.0	0.0	0.0
Gorakhpur	400	428	6:35	408	23:11	0.0	0.0	30.3	0.0
Bareilly	400	419	7:02	374	11:46	0.0	0.0	0.0	0.0
Kanpur	400	421	7:02	402	22:28	0.0	0.0	1.2	0.0
Dadri	400	412	6:02	395	22:34	0.0	0.0	0.0	0.0
Ballabgarh	400	418	7:02	398	23:04	0.0	0.0	0.0	0.0
Bawana	400	415	8:58	397	23:04	0.0	0.0	0.0	0.0
Bassi	400	431	17:36	411	11:20	0.0	0.0	56.6	0.2
Hissar	400	411	8:03	394	12:05	0.0	0.0	0.0	0.0
Moga	400	415	8:02	393	12:36	0.0	0.0	0.0	0.0
Abdullapur	400	414	6:27	281	12:35	0.1	0.1	0.0	0.0
Nalagarh	400	411	6:00	391	12:39	0.0	0.0	0.0	0.0
Kishenpur	400	416	8:02	398	12:36	0.0	0.0	0.0	0.0
Wagoora	400	415	8:02	380	20:27	0.0	10.9	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	488.49	690.35	507.00	1426.07	1389.87	623.56
Pong	426.72	384.05	406.30	379.44	423.02	1035.80	2060.44	304.83
Tehri	829.79	740.04	812.95	862.27	818.65	982.26	455.09	227.00
Koteshwar	612.50	598.50	500.30	0.30	NA	NA	227.00	192.00
Chamera-I	760.00	748.75	755.87	12.84	NA	NA	337.76	349.19
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	502.30	NA	517.00	NA	333.46	398.28

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 18.08.2012 :**

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 : 18.08.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER