

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 23.08.2013  
Date of Reporting : 24.08.2013

### 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
36320	2925	39245	49.95	34128	2140	36268	50.25	852.6	45.37

\* 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)	Consumption (Net MU)	Shortages* (MU)
	Thermal	Hydro	Renewable/others \$	Total					
Punjab	29.34	20.48		49.81	119.79	119.88	0.09	169.69	0.00
Haryana	57.37	0.67		58.04	73.03	73.96	0.93	131.99	0.00
Rajasthan	72.76	5.39	7.94	86.09	56.59	54.91	-1.68	141.01	0.33
Delhi	18.31			18.31	74.22	74.47	0.26	92.79	0.43
UP	98.83	5.13	0.96	104.92	122.09	122.03	-0.06	226.95	42.48
Uttarakhand		21.68		21.68	12.69	11.60	-1.09	33.28	0.42
HP		21.08		21.08	0.58	0.72	0.13	21.80	0.01
J & K		13.68	0.00	13.68	18.10	15.96	-2.14	29.64	1.70
Chandigarh				0.00	5.65	5.44	-0.20	5.44	0.00
<b>Total</b>	<b>276.61</b>	<b>88.10</b>	<b>8.90</b>	<b>373.62</b>	<b>482.73</b>	<b>478.97</b>	<b>-3.77</b>	<b>852.58</b>	<b>45.37</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	7341	0	42	1779	6768	0	47	1998	45.76	
Haryana	6303	0	-37	609	5168	0	37	486	7.85	
Rajasthan	5942	281	-38	-4	5774	0	-171	21	1.00	
Delhi	4107	205	-62	270	3163	0	-98	-132	3.88	
UP	8892	2220	-216	627	10237	2140	303	957	16.85	
Uttarakhand	1109	105	-98	20	1044	0	19	-124	-2.15	
HP	1041	14	2	-1165	819	0	-30	-1255	-27.78	
J&K	1332	100	-160	-240	974	0	-122	-518	-7.61	
Chandigarh	253	0	-21	0	182	0	-10	-30	-0.10	
<b>Total</b>	<b>36320</b>	<b>2925</b>	<b>-588</b>	<b>1895</b>	<b>34128</b>	<b>2140</b>	<b>-25</b>	<b>1403</b>	<b>37.70</b>	

\* STOA figures are at sellers boundary & PX figures are at regional boundary.

### III. Regional Entities :

Entity	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 Net MU	
										UI (OG:(+ve), UG: (-ve))
A. NTPC	Singrauli STPS	2000	1939	2078	2076	46.44	1935	46.49	-0.05	
	Rihand I STPS	1000	920	968	886	20.95	873	21.15	-0.20	
	Rihand II STPS	1000	470	496	472	10.64	443	10.59	0.05	
	Rihand III STPS	500	436	400	448	9.95	415	10.01	-0.06	
	Dadri I STPS	840	600	680	455	12.35	515	12.29	0.06	
	Dadri II STPS	980	880	505	708	17.66	736	18.20	-0.54	
	Unchahar I TPS	420	395	434	315	8.31	346	8.43	-0.13	
	Unchahar II TPS	420	404	436	310	8.33	347	8.41	-0.07	
	Unchahar III TPS	210	201	218	153	4.02	167	4.05	-0.03	
	ISTPP (Jhajjar)	1500	1470	519	314	7.93	330	8.14	-0.21	
	Dadri GPS	830	523	376	388	8.84	368	9.09	-0.25	
	Anta GPS	419	405	260	254	6.19	258	6.24	-0.05	
	Auraiya GPS	663	625	302	311	7.38	307	7.34	0.03	
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9267</b>	<b>7672</b>	<b>7090</b>	<b>168.99</b>	<b>7041</b>	<b>170.44</b>	<b>-1.45</b>	
	B. NPC	NAPS	440	292	320	331	6.89	287	7.01	-0.12
		RAPS- B	440	399	442	441	9.45	394	9.58	-0.12
RAPS- C		440	410	460	454	9.79	408	9.84	-0.05	
<b>Sub Total (B)</b>		<b>1320</b>	<b>1101</b>	<b>1222</b>	<b>1226</b>	<b>26.14</b>	<b>1089</b>	<b>26.42</b>	<b>-0.29</b>	
C. NHPC	Chamera I HPS	540	535	540	540	12.87	536	12.84	0.03	
	Chamera II HPS	300	300	304	301	7.22	301	7.09	0.13	
	Chamera III HPS	231	231	239	224	5.56	232	5.55	0.01	
	Bairasuil HPS	180	179	160	150	3.50	146	3.47	0.03	
	Salal-HPS	690	662	668	665	15.91	663	15.89	0.02	
	Tanakpur-HPS	94	93	91	92	2.20	92	2.18	0.03	
	Uri-HPS	480	339	351	346	7.75	323	7.46	0.28	
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00	
	Dulhasti-HPS	390	387	408	342	9.15	381	8.87	0.28	
	Sewa-II HPS	120	119	126	120	2.94	122	2.92	0.02	
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2845</b>	<b>2887</b>	<b>2780</b>	<b>67.09</b>	<b>2796</b>	<b>66.27</b>	<b>0.82</b>	
	D. NJPC	Nathpa Jhakri	1500	1605	1622	1623	38.68	1612	38.52	0.16
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1622</b>	<b>1623</b>	<b>38.68</b>	<b>1612</b>	<b>38.52</b>	<b>0.16</b>	
E. THDC	Tehri HPS	1000	1060	1060	1066	25.16	1048	25.25	-0.09	
	Koteshwar HPS	400	383	387	260	8.14	339	8.10	0.04	
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1443</b>	<b>1447</b>	<b>1326</b>	<b>33.30</b>	<b>1388</b>	<b>33.35</b>	<b>-0.05</b>	
F. BBMB	Bhakra HPS	1480	1187	1346	1097	29.34	1223	28.50	0.84	
	Dehar HPS	990	593	635	610	14.30	596	14.24	0.07	
	Pong HPS	396	366	372	372	9.05	377	8.78	0.27	
	<b>Sub Total (F)</b>	<b>2866</b>	<b>2146</b>	<b>2353</b>	<b>2079</b>	<b>52.69</b>	<b>2195</b>	<b>51.51</b>	<b>1.18</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	230	231	5.20	217	4.90	0.30	
	KWHEP HPS(IPP)	1000	0	1199	1199	28.52	1188	28.51	0.01	
	Malana Stg-II HPS	100	0	105	112	2.56	107	2.52	0.04	
	Shree Cement TPS	300	0	134	125	3.09	129	3.06	0.03	
	Budhil HPS(IPP)	70	0	69	70	1.66	69	1.65	0.00	
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1737</b>	<b>1737</b>	<b>41.03</b>	<b>1710</b>	<b>40.65</b>	<b>0.39</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>18407</b>	<b>18940</b>	<b>17861</b>	<b>427.92</b>	<b>17830</b>	<b>427.17</b>	<b>0.76</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	620	720	11.67	486	
	Guru Nanak Dev TPS(Bhatinda)	440	100	95	2.05	86	
	Guru Hargobind Singh TPS(L.mbt)	920	717	722	15.62	651	
	Goindwal(GVK)		0	0	0.00	0	
	Thermal (Total)	2620	1437	1537	29.34	1222	
	Total Hydro	1148	824	875	20.48	853	
	<b>Total Punjab</b>	<b>3768</b>	<b>2261</b>	<b>2412</b>	<b>49.81</b>	<b>2076</b>	
Haryana	Panipat TPS	1367	378	379	9.07	378	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	186	163	4.13	172	
	RGTPP (khedar) (IPP)	1200	1072	760	21.73	905	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	1060	667	22.44	935	
	Thermal (Total)	4944	2696	1969	57.37	2390	
	Total Hydro	62	26	26	0.67	28	
	<b>Total Haryana</b>	<b>5006</b>	<b>2722</b>	<b>1995</b>	<b>58.04</b>	<b>2418</b>	
	Rajasthan	kota TPS	1240	665	648	15.49	645
suratgarh TPS		1500	860	767	19.45	810	
Chabra TPS		500	407	398	9.41	392	
Dholpur GPS		330	51	68	1.84	77	
Ramgarh GPS		111	134	122	3.30	138	
RAPS A (NPC)		300	176	176	3.98	166	
Barsingsar (NLC)		250	92	91	1.66	69	
Giral LTPS		250	0	0	0.00	0	
Rajwest LTPS (IPP)		1080	334	353	7.92	330	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Kalisindh Thermal		600	0	0	0.00	0	
Kawai(Adani)		660	407	0	9.71	404	
Thermal (Total)		6956	3126	2623	72.76	3032	
Total Hydro		550	240	386	5.39	225	
Wind power		2191	113	597	6.70	279	
Biomass		91	23	23	0.54	23	
Solar		201	0	0	0.70	29	
Renewable/Others (Total)		2483	136	620	7.94	331	
<b>Total Rajasthan</b>		<b>9989</b>	<b>3502</b>	<b>3629</b>	<b>86.09</b>	<b>3587</b>	
UP		Anpara TPS	1630	1156	1205	27.50	1146
	Obra TPS	1288	278	307	7.90	329	
	Paricha TPS	1140	295	720	12.80	533	
	Panki TPS	210	140	135	3.30	138	
	Harduaganj TPS	665	329	338	7.60	317	
	Tanda TPS (NTPC)	440	376	388	9.49	395	
	Roza TPS (IPP)	1200	567	575	13.78	574	
	Anpara-C (IPP)	1200	788	523	16.46	686	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	0	0	0.00	0	
	Thermal (Total)	8223	3929	4191	98.83	4118	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	215	234	5.13	214	
	Cogeneration	981	40	40	0.96	40	
	<b>Total UP</b>	<b>10131</b>	<b>4184</b>	<b>4465</b>	<b>104.92</b>	<b>4372</b>	
	Uttarakhand	Total Hydro	1303	919	864	21.68	903
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>919</b>	<b>864</b>	<b>21.68</b>	<b>903</b>
Delhi	Raighat TPS	135	0	0	0.00	0	
	Delhi Gas Turbine	282	79	82	1.88	78	
	Pragati Gas Turbine	330	288	265	6.70	279	
	Riithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	455	420	9.74	406	
	Thermal (Total)	2232	822	767	18.31	763	
	<b>Total Delhi</b>	<b>2232</b>	<b>822</b>	<b>767</b>	<b>18.31</b>	<b>763</b>	
HP	Baspa HPS (IPP)	330	335	304	7.66	319	
	Malana HPS (IPP)	86	73	57	1.22	51	
	Other Hydro	589	592	579	12.20	508	
	<b>Total HP</b>	<b>1005</b>	<b>1000</b>	<b>940</b>	<b>21.08</b>	<b>878</b>	
J & K	Baglihar HPS (IPP)	450	436	438	10.47	436	
	Other Hydro	323	132	137	3.21	134	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>568</b>	<b>575</b>	<b>13.68</b>	<b>570</b>	
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>15978</b>	<b>15647</b>	<b>373.62</b>	<b>15567</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>3490</b>	<b>1607</b>	<b>58.07</b>	<b>2420</b>	
<b>Total Regional Availability(Gross)</b>		<b>57226</b>	<b>38408</b>	<b>35115</b>	<b>859.61</b>	<b>35817</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9843	9350	228.05	9502
State Control Area Hydro	5368	3792	3900	88.10	3671
<b>Total Regional Hydro</b>	<b>15731</b>	<b>13635</b>	<b>13250</b>	<b>316.15</b>	<b>13173</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	-200	-300	50	300	0.13	5.68	-5.55
Gwalior-Agra (D/C)	1204	742	1261	0	23.37	0.00	23.37
Zerda-Kankroli	-36	-221	0	309	0.00	4.30	-4.30
Zerda-Bhinmal	45	-185	62	281	0.00	2.62	-2.62
Malanpur-Auraiya	0	-80	0	119	0.00	0.82	-0.82
Badod-Kota/Morak	-5	-24	0	99	0.00	0.79	-0.79
Mundra-Mohindergarh(HVDC)	998	899	1005	0	21.77	0.00	21.77
<b>Sub Total WR</b>	<b>2006</b>	<b>831</b>			<b>45.27</b>	<b>14.20</b>	<b>31.07</b>
Pusauli Bypass	-197	100	100	311	1.00	3.37	-2.37
MZP- GKP (D/C)	557	379	580	0	12.01	0.00	12.01
Patna-Balia(D/C)	436	251	436	0	7.57	0.00	7.57
B'Sharif-Balia (D/C)	224	103	276	0	4.31	0.00	4.31
Pusauli-Balia	-42	-66	20	79	0.00	0.75	-0.75
Gaya-Fatehpur (765 Kv)	99	-86	99	86	0.37	0.00	0.37
Pusauli-Sahupuri	155	141	174	0	3.04	0.00	3.04
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-37	-38	0	45	0.00	0.80	-0.80
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	289	-8	289	8	3.62	0.00	3.62
<b>Sub Total ER</b>	<b>1484</b>	<b>776</b>			<b>31.92</b>	<b>4.92</b>	<b>27.00</b>
<b>Total IR Exch</b>	<b>3490</b>	<b>1607</b>			<b>77.19</b>	<b>19.12</b>	<b>58.07</b>

**V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]**

ER	ISGS/LT Schedule (MU)		Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
34.95	3.72	38.67	-11.63	34.14	-6.58	-14.17	3.16	-3.16

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
23.62	47.25	70.87	27.00	31.07	58.07	3.38	-16.17	-12.80

**VI. Frequency Profile <----- % of Time Frequency ----->**

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7-49.8	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	1.80	5.00	91.30	6.50	88.10	48.80	6.90

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz				
50.40	6.06	49.40	19.31	49.98	0.27	0.16	50.36	49.55

**VII. Voltage profile 400 kV**

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	07:04	401	14:16	0.0	0.0	0.0	0.0
Gorakhpur	400	427	07:13	404	14:39	0.0	0.0	5.0	0.0
Bareilly	400	421	07:07	396	14:15	0.0	0.0	0.0	0.0
Kanpur	400	421	07:06	398	19:29	0.0	0.0	0.1	0.0
Dadri	400	419	04:00	394	19:31	0.0	0.0	0.0	0.0
Ballabgarh	400	426	07:07	400	19:30	0.0	0.0	23.1	0.0
Bawana	400	421	07:07	398	19:13	0.0	0.0	0.1	0.0
Bassi	400	429	02:55	405	19:30	0.0	0.0	26.5	0.0
Hissar	400	411	07:04	390	19:13	0.0	0.0	0.0	0.0
Moga	400	411	17:05	397	19:12	0.0	0.0	0.0	0.0
Abdullapur	400	415	07:04	395	19:13	0.0	0.0	0.0	0.0
Nalagarh	400	411	02:52	393	14:27	0.0	0.0	0.0	0.0
Kishenpur	400	413	00:00	403	13:39	0.0	0.0	0.0	0.0
Wagoora	400	414	23:47	395	06:39	0.0	0.0	0.0	0.0

**VIII. Voltage profile 765 kV**

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)			
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV
Fatehpur	765	777	07:07	730	19:29	0.0	10.6	0.0	0.0
Balia	765	765	07:09	718	14:40	3.8	30.2	0.0	0.0
Moga	765	778	17:09	742	19:14	0.0	0.0	0.0	0.0
Agra	765	807	07:04	750	19:31	0.0	0.0	5.9	0.0
Bhiwani	765	796	04:03	754	19:30	0.0	0.0	0.0	0.0
Unnao	765	752	18:29	731	19:31	0.0	29.2	0.0	0.0

**IX. 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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	508.80	1435.27	491.83	798.00	1406.84	877.82
Pong	426.72	384.05	421.74	965.39	412.35	577.87	1023.68	506.64
Tehri	829.79	740.04	819.10	982.26	818.65	982.26	628.91	567.00
Koteshwar	612.50	598.50	604.40	4.39	NA	NA	742.00	596.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	450.18	349.50
Rihand	268.22	252.98	259.08	255.50	261.37	381.60	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	524.30	144.00	504.64	144.00	365.09	423.76

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 23.08.2013 :**

1. NORMAL

**XIII. Synchronisation of new generating units :**

**XIV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus //substation :**

**XV. Tripping of lines in pooling stations :**

**XVI. Complete generation loss in a generating station :**

1. Dhauliganga (280 MW) closed down till 30.09.2013 due to flooding of power house.
2. Vishnuprayg( UPPCL) ( 400 MW ) Closed due to High Silt level in river water.

Report for : 23.08.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER