

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 12.08.2013

Date of Reporting : 13.08.2013

### 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
38704	1875	40579	50.12	35621	560	36181	50.39	894.5	37.85

\* 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	48.78	13.43		62.21	125.74	126.26	0.52	188.47	0.00
Haryana	55.78	0.66		56.43	94.63	94.91	0.29	151.34	0.00
Rajasthan	68.05	6.56	14.98	89.60	53.75	48.02	-5.73	137.61	0.00
Delhi	25.00			25.00	69.74	68.73	-1.01	93.74	0.00
UP	115.14	3.31	1.20	119.65	118.77	116.43	-2.34	236.08	34.62
Uttarakhand		19.15		19.15	12.87	12.98	0.12	32.13	1.53
HP		21.31		21.31	2.24	1.27	-0.97	22.58	0.00
J & K		13.59	0.00	13.59	15.09	13.34	-1.75	26.93	1.70
Chandigarh				0.00	5.85	5.58	-0.27	5.58	0.00
<b>Total</b>	<b>312.75</b>	<b>78.01</b>	<b>16.18</b>	<b>406.94</b>	<b>498.67</b>	<b>487.53</b>	<b>-11.15</b>	<b>894.47</b>	<b>37.85</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	8258	0	65	1875	7794	0	47	1883	44.83	
Haryana	6643	0	-507	694	6119	0	212	643	15.65	
Rajasthan	5815	0	18	21	5233	0	-277	70	1.45	
Delhi	4312	0	180	436	3418	0	-98	251	6.23	
UP	9595	1580	-99	645	10080	560	-172	1092	19.20	
Uttarakhand	1385	195	93	44	1227	0	-86	-84	-1.35	
HP	1002	0	107	-1185	781	0	-114	-1071	-24.43	
J&K	1431	100	87	-225	782	0	-96	-628	-9.29	
Chandigarh	264	0	-4	0	187	0	-3	-35	-0.05	
<b>Total</b>	<b>38704</b>	<b>1875</b>	<b>-59</b>	<b>2305</b>	<b>35621</b>	<b>560</b>	<b>-588</b>	<b>2120</b>	<b>52.25</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	1935	2012	1803	44.09	1837	43.61	0.48	
	Rihand I STPS	1000	915	944	623	17.58	732	18.73	-1.15	
	Rihand II STPS	1000	470	468	365	8.98	374	9.52	-0.54	
	Rihand III STPS	500	485	505	350	9.81	409	10.26	-0.45	
	Dadri I STPS	840	600	350	456	12.05	502	12.53	-0.49	
	Dadri II STPS	980	485	446	665	9.41	392	9.67	-0.26	
	Unchahar I TPS	420	391	355	303	7.34	306	7.40	-0.06	
	Unchahar II TPS	420	403	315	310	7.00	292	7.07	-0.07	
	Unchahar III TPS	210	201	157	154	3.46	144	3.49	-0.04	
	ISTPP (Jhajjar)	1500	1470	656	663	13.88	578	14.10	-0.22	
	Dadri GPS	830	523	377	382	8.88	370	9.00	-0.12	
	Anta GPS	419	404	359	388	8.94	373	9.20	-0.26	
	Auraiya GPS	663	616	305	306	7.15	298	7.18	-0.03	
	<b>Sub Total (A)</b>	<b>10782</b>	<b>8897</b>	<b>7249</b>	<b>6768</b>	<b>158.55</b>	<b>6606</b>	<b>161.75</b>	<b>-3.20</b>	
	B. NPC	NAPS	440	280	328	328	6.94	289	6.72	0.22
		RAPS- B	440	399	439	445	9.53	397	9.58	-0.05
RAPS- C		440	210	237	236	4.78	199	5.04	-0.26	
<b>Sub Total (B)</b>		<b>1320</b>	<b>889</b>	<b>1004</b>	<b>1009</b>	<b>21.25</b>	<b>885</b>	<b>21.34</b>	<b>-0.09</b>	
C. NHPC	Chamera I HPS	540	534	540	540	12.87	536	12.82	0.05	
	Chamera II HPS	300	300	301	288	7.00	292	7.14	-0.14	
	Chamera III HPS	231	231	233	231	5.51	230	5.50	0.01	
	Bairasuil HPS	180	179	120	160	3.21	134	3.55	-0.34	
	Salal-HPS	690	667	667	667	15.85	660	16.01	-0.16	
	Tanakpur-HPS	94	94	93	93	2.21	92	2.19	0.02	
	Uri-HPS	480	222	256	148	4.87	203	5.41	-0.54	
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00	
	Dulhasti-HPS	390	245	267	0	5.78	241	5.85	-0.08	
	Sewa-II HPS	120	119	125	118	2.84	118	2.85	-0.02	
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2591</b>	<b>2602</b>	<b>2245</b>	<b>60.14</b>	<b>2506</b>	<b>61.33</b>	<b>-1.19</b>	
	D. NJPC	Nathpa Jhakri	1500	1605	1611	1622	38.38	1599	38.51	-0.14
		<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1611</b>	<b>1622</b>	<b>38.38</b>	<b>1599</b>	<b>38.51</b>	<b>-0.14</b>
E. THDC	Tehri HPS	1000	1060	1064	1043	25.28	1053	25.25	0.03	
	Koteshwar HPS	400	365	369	353	8.75	364	8.76	-0.01	
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1425</b>	<b>1433</b>	<b>1396</b>	<b>34.02</b>	<b>1418</b>	<b>34.01</b>	<b>0.01</b>	
F. BBMB	Bhakra HPS	1480	1188	1340	1095	29.02	1209	28.50	0.52	
	Dehar HPS	990	619	825	610	15.36	640	14.85	0.51	
	Pong HPS	396	366	372	372	8.89	370	8.78	0.11	
	<b>Sub Total (F)</b>	<b>2866</b>	<b>2172</b>	<b>2537</b>	<b>2077</b>	<b>53.27</b>	<b>2220</b>	<b>52.14</b>	<b>1.13</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	229	121	4.14	173	4.32	-0.18	
	KWHEP HPS(IPP)	1000	0	1196	1199	28.04	1168	28.51	-0.47	
	Malana Stg-II HPS	100	0	113	113	2.68	112	2.52	0.16	
	Shree Cement TPS	300	0	129	119	2.87	120	2.98	-0.12	
	Budhil HPS(IPP)	70	0	75	74	1.76	73	1.68	0.08	
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1742</b>	<b>1626</b>	<b>39.50</b>	<b>1646</b>	<b>40.02</b>	<b>-0.52</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>17579</b>	<b>18178</b>	<b>16743</b>	<b>405.11</b>	<b>16880</b>	<b>409.10</b>	<b>-3.99</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	1260	890	24.52	1022	
	Guru Nanak Dev TPS(Bhatinda)	440	202	205	4.03	168	
	Guru Hargobind Singh TPS(L.mbt)	920	923	934	20.23	843	
	Goindwal(GVK)		0	0	0.00	0	
	Thermal (Total)	2620	2385	2029	48.78	2033	
	Total Hydro	1148	567	559	13.43	559	
	<b>Total Punjab</b>	<b>3768</b>	<b>2952</b>	<b>2588</b>	<b>62.21</b>	<b>2592</b>	
Haryana	Panipat TPS	1367	820	753	18.57	774	
	DCRTPP (Yamuna nagar)	600	279	257	6.19	258	
	Faridabad GPS (NTPC)	432	341	302	7.56	315	
	RGTPP (khedar) (IPP)	1200	540	457	10.98	457	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	759	347	12.48	520	
	Thermal (Total)	4944	2739	2116	55.78	2324	
	Total Hydro	62	26	27	0.66	27	
	<b>Total Haryana</b>	<b>5006</b>	<b>2765</b>	<b>2143</b>	<b>56.43</b>	<b>2351</b>	
	Rajasthan	kota TPS	1240	688	624	14.74	614
		suratgarh TPS	1500	654	551	13.79	575
Chabra TPS		500	393	364	8.79	366	
Dholpur GPS		330	43	89	1.37	57	
Ramgarh GPS		111	113	98	2.51	105	
RAPS A (NPC)		300	176	176	4.10	171	
Barsingsar (NLC)		250	90	90	2.02	84	
Giral LTPS		250	0	0	0.00	0	
Rajwest LTPS (IPP)		1080	324	391	9.20	383	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Kalisindh Thermal		600	0	0	0.00	0	
Kawai(Adani)		660	537	467	11.53	481	
Thermal (Total)		6956	3018	2850	68.05	2835	
Total Hydro		550	295	267	6.56	273	
Wind power		2191	360	284	6.48	270	
Biomass		91	29	29	0.69	29	
Solar		201	0	0	1.25	52	
Renewable/Others (Total)		2483	389	313	14.98	624	
<b>Total Rajasthan</b>		<b>9989</b>	<b>3702</b>	<b>3430</b>	<b>89.60</b>	<b>3733</b>	
UP		Anpara TPS	1630	1126	1152	26.90	1121
		Obra TPS	1288	344	392	9.10	379
	Paricha TPS	1140	842	703	17.30	721	
	Panki TPS	210	131	108	2.60	108	
	Harduaganj TPS	665	336	316	8.00	333	
	Tanda TPS (NTPC)	440	360	393	9.47	394	
	Roza TPS (IPP)	1200	999	802	21.34	889	
	Anpara-C (IPP)	1200	498	709	15.92	663	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	187	185	4.51	188	
	Thermal (Total)	8223	4823	4760	115.14	4797	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	149	173	3.31	138	
	Cogeneration	981	50	50	1.20	50	
	<b>Total UP</b>	<b>10131</b>	<b>5022</b>	<b>4983</b>	<b>119.65</b>	<b>4985</b>	
	Uttarakhand	Total Hydro	1303	658	881	19.15	798
<b>Total Uttarakhand</b>		<b>1303</b>	<b>658</b>	<b>881</b>	<b>19.15</b>	<b>798</b>	
Delhi	Rajghat TPS	135	45	41	0.94	39	
	Delhi Gas Turbine	282	81	83	1.89	79	
	Pragati Gas Turbine	330	264	264	6.63	276	
	Riithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	281	181	5.94	247	
	Badarpur TPS (NTPC)	705	430	430	9.60	400	
	Thermal (Total)	2232	1101	999	25.00	1042	
	<b>Total Delhi</b>	<b>2232</b>	<b>1101</b>	<b>999</b>	<b>25.00</b>	<b>1042</b>	
HP	Baspa HPS (IPP)	330	313	313	7.52	313	
	Malana HPS (IPP)	86	55	49	1.33	55	
	Other Hydro	589	518	527	12.46	519	
	<b>Total HP</b>	<b>1005</b>	<b>886</b>	<b>889</b>	<b>21.31</b>	<b>888</b>	
J & K	Baglihar HPS (IPP)	450	440	434	10.45	436	
	Other Hydro	323	135	135	3.14	131	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>575</b>	<b>569</b>	<b>13.59</b>	<b>566</b>	
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>17661</b>	<b>16482</b>	<b>406.94</b>	<b>16956</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>4487</b>	<b>3584</b>	<b>81.62</b>	<b>3401</b>	
<b>Total Regional Availability(Gross)</b>		<b>57226</b>	<b>40326</b>	<b>36809</b>	<b>893.67</b>	<b>37236</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9721	8773	220.68	9195
State Control Area Hydro	5368	3156	3365	78.01	3250
<b>Total Regional Hydro</b>	<b>15731</b>	<b>12877</b>	<b>12138</b>	<b>298.69</b>	<b>12445</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	450	0	450	200	1.80	1.92	-0.11
Gwalior-Agra (D/C)	1212	1117	1456	0	25.63	0.00	25.63
Zerda-Kankroli	31	-173	31	233	0.00	3.60	-3.60
Zerda-Bhinmal	45	-149	59	270	0.00	2.68	-2.68
Malanpur-Auraiya	-67	-58	0	99	0.00	1.62	-1.62
Badod-Kota/Morak	-29	-52	0	101	0.00	0.13	-0.13
Mundra-Mohindergarh(HVDC)	1446	1235	1449	0	30.99	0.00	30.99
<b>Sub Total WR</b>	<b>3088</b>	<b>1920</b>			<b>58.42</b>	<b>9.95</b>	<b>48.47</b>
Pusauli Bypass	-265	-190	0	323	0.00	5.42	-5.42
MZP- GKP (D/C)	531	710	747	0	14.76	0.00	14.76
Patna-Balia(D/C)	465	487	487	0	9.29	0.00	9.29
B'Sharif-Balia (D/C)	213	319	319	0	5.65	0.00	5.65
Pusauli-Balia	-34	5	15	37	0.00	0.28	-0.28
Gaya-Fatehpur (765 Kv)	88	35	109	4	1.25	0.00	1.25
Pusauli-Sahupuri	136	158	158	0	3.43	0.00	3.43
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-38	-40	0	45	0.00	0.90	-0.90
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	303	180	303	0	5.37	0.00	5.37
<b>Sub Total ER</b>	<b>1399</b>	<b>1664</b>			<b>39.74</b>	<b>6.60</b>	<b>33.14</b>
<b>Total IR Exch</b>	<b>4487</b>	<b>3584</b>			<b>98.16</b>	<b>16.54</b>	<b>81.62</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
37.19	3.77	40.97	-3.77	40.96	1.70	-21.57	3.18	-3.18

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
42.08	64.68	106.76	33.14	48.47	81.62	-8.94	-16.21	-25.14

**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	0.00	0.00	66.20	0.60	66.20	86.10	33.80

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time					
50.46	17.03	49.70	19.29	50.14	0.37	0.13	50.43	49.97

**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	415	02:25	402	19:44	0.0	0.0	0.0	0.0
Gorakhpur	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Barailly	400	419	07:39	402	14:09	0.0	0.0	0.0	0.0
Kanpur	400	421	07:39	400	19:48	0.0	0.0	0.6	0.0
Dadri	400	417	06:06	398	14:18	0.0	0.0	0.0	0.0
Ballabgarh	400	425	06:06	403	14:22	0.0	0.0	26.6	0.0
Bawana	400	419	06:05	397	18:26	0.0	0.0	0.0	0.0
Bassi	400	424	01:41	400	19:47	0.0	0.0	22.3	0.0
Hissar	400	408	02:58	391	19:33	0.0	0.0	0.0	0.0
Moga	400	410	02:04	394	19:47	0.0	0.0	0.0	0.0
Abdullapur	400	417	06:14	403	19:30	0.0	0.0	0.0	0.0
Nalagarh	400	409	03:16	396	14:15	0.0	0.0	0.0	0.0
Kishenpur	400	423	02:04	407	19:27	0.0	0.0	11.9	0.0
Wagoora	400	422	02:00	400	20:34	0.0	0.0	8.1	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	776	08:02	751	09:33	0.0	0.0	0.0	0.0
Balia	765	762	06:38	737	14:16	0.0	14.0	0.0	0.0
Moga	765	777	03:21	744	19:47	0.0	0.0	0.0	0.0
Agra	765	805	05:03	765	19:28	0.0	0.0	5.6	0.0
Bhiwani	765	794	03:23	758	19:48	0.0	0.0	0.0	0.0
Unnao	765	761	00:00	733	14:21	0.0	10.5	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	505.72	1339.30	486.06	619.14	1451.78	882.92
Pong	426.72	384.05	420.17	902.94	404.29	320.26	1106.65	507.72
Tehri	829.79	740.04	818.40	970.00	818.65	982.26	566.67	564.00
Koteshwar	612.50	598.50	601.00	4.69	NA	NA	864.00	580.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	378.38	349.35
Rihand	268.22	252.98	257.07	159.40	258.04	242.70	NA	NA
RPS	352.80	343.81	352.22	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.39	NA	NA	NA	NA	NA
RSD	527.91	487.91	517.15	145.00	501.51	144.00	525.96	NA

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 12.08.2013 :**

1. Normal weather.

**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 : 12.08.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER