

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 11.08.2013  
Date of Reporting : 12.08.2013

### 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
37742	1910	39652	50.11	35275	660	35935	50.29	857.8	22.19

\* 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	41.61	12.95		54.56	126.13	127.00	0.87	181.56	0.00
Haryana	53.60	0.47		54.08	85.68	87.30	1.62	141.37	0.00
Rajasthan	63.26	6.92	11.53	81.71	58.81	56.69	-2.12	138.39	0.00
Delhi	23.99			23.99	59.15	58.44	-0.71	82.42	0.00
UP	112.35	3.36	1.20	116.91	117.80	112.39	-5.41	229.30	20.00
Uttarakhand		19.88		19.88	11.81	11.30	-0.51	31.18	0.49
HP		21.70		21.70	2.91	1.36	-1.54	23.06	0.00
J & K		13.59	0.00	13.59	16.04	12.11	-3.93	25.70	1.70
Chandigarh				0.00	5.24	4.76	-0.47	4.76	0.00
<b>Total</b>	<b>294.80</b>	<b>78.87</b>	<b>12.73</b>	<b>386.40</b>	<b>483.57</b>	<b>471.35</b>	<b>-12.22</b>	<b>857.75</b>	<b>22.19</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	7933	0	-16	1874	7454	0	-90	1881	44.80	
Haryana	6432	0	-137	451	5992	0	358	635	13.37	
Rajasthan	5691	0	-77	-6	5342	0	-62	35	0.91	
Delhi	3870	0	323	185	3224	0	-17	58	5.01	
UP	9590	1810	-216	1210	10098	660	-472	1091	23.21	
Uttarakhand	1592	0	78	26	1276	0	-19	-78	-1.52	
HP	987	0	-5	-1184	927	0	42	-1080	-24.03	
J&K	1417	100	-77	-226	768	0	-196	-603	-8.84	
Chandigarh	230	0	5	0	194	0	-11	-20	-0.08	
<b>Total</b>	<b>37742</b>	<b>1910</b>	<b>-122</b>	<b>2329</b>	<b>35275</b>	<b>660</b>	<b>-467</b>	<b>1919</b>	<b>52.84</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
A. NTPC	Singrauli STPS	2000	1883	2052	1956	41.53	1730	41.40	0.13
	Rihand I STPS	1000	856	865	929	16.44	685	17.16	-0.71
	Rihand II STPS	1000	470	448	393	8.67	361	9.12	-0.45
	Rihand III STPS	500	485	509	382	9.53	397	9.94	-0.41
	Dadri I STPS	840	600	522	459	10.39	433	10.95	-0.56
	Dadri II STPS	980	485	459	352	8.67	361	8.93	-0.27
	Unchahar I TPS	420	391	379	312	6.96	290	6.97	0.00
	Unchahar II TPS	420	403	371	305	7.22	301	7.28	-0.05
	Unchahar III TPS	210	201	197	153	3.48	145	3.56	-0.07
	ISTPP (Jhajjar)	1500	1087	627	408	9.13	380	9.43	-0.30
	Dadri GPS	830	523	377	381	8.71	363	8.83	-0.12
	Anta GPS	419	404	395	381	9.10	379	9.38	-0.28
	Auraiya GPS	663	616	302	304	7.01	292	7.02	-0.01
	<b>Sub Total (A)</b>	<b>10782</b>	<b>8403</b>	<b>7503</b>	<b>6715</b>	<b>146.85</b>	<b>6119</b>	<b>149.97</b>	<b>-3.12</b>
B. NPC	NAPS	440	237	323	288	6.43	268	5.69	0.74
	RAPS- B	440	399	439	445	9.58	399	9.58	0.01
	RAPS- C	440	210	235	238	4.73	197	5.04	-0.32
	<b>Sub Total (B)</b>	<b>1320</b>	<b>846</b>	<b>997</b>	<b>971</b>	<b>20.73</b>	<b>864</b>	<b>20.30</b>	<b>0.43</b>
C. NHPC	Chamera I HPS	540	536	540	540	12.80	533	12.70	0.10
	Chamera II HPS	300	300	301	288	7.00	292	7.20	-0.20
	Chamera III HPS	231	231	236	232	5.52	230	5.55	-0.04
	Bairasuil HPS	180	179	180	120	3.24	135	3.38	-0.14
	Salal-HPS	690	667	667	667	15.96	665	16.01	-0.05
	Tanakpur-HPS	94	94	93	93	2.23	93	2.18	0.05
	Uri-HPS	480	222	286	236	4.70	196	5.41	-0.71
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	359	406	250	7.99	333	7.97	0.02
	Sewa-II HPS	120	119	126	114	2.86	119	2.93	-0.06
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2707</b>	<b>2835</b>	<b>2540</b>	<b>62.30</b>	<b>2596</b>	<b>63.34</b>	<b>-1.03</b>
D. NJPC	Natpcha Jhakri	1500	1605	1618	1624	38.63	1610	38.51	0.12
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1618</b>	<b>1624</b>	<b>38.63</b>	<b>1610</b>	<b>38.51</b>	<b>0.12</b>
E. THDC	Tehri HPS	1000	1060	1064	1043	24.39	1016	24.36	0.04
	Koteshwar HPS	400	365	367	363	8.48	353	8.56	-0.08
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1425</b>	<b>1431</b>	<b>1406</b>	<b>32.87</b>	<b>1370</b>	<b>32.92</b>	<b>-0.04</b>
F. BBMB	Bhakra HPS	1480	1198	1340	1095	29.13	1214	28.75	0.38
	Dehar HPS	990	621	825	600	15.24	635	14.91	0.34
	Pong HPS	396	366	372	372	8.99	375	8.78	0.21
	<b>Sub Total (F)</b>	<b>2866</b>	<b>2185</b>	<b>2537</b>	<b>2067</b>	<b>53.36</b>	<b>2223</b>	<b>52.44</b>	<b>0.92</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	229	121	4.14	173	4.03	0.11
	KWHEP HPS(IPP)	1000	0	1198	1197	27.79	1158	28.51	-0.72
	Malana Stg-II HPS	100	0	113	112	2.69	112	2.52	0.17
	Shree Cement TPS	300	0	123	100	2.58	107	3.00	-0.42
	Budhil HPS(IPP)	70	0	75	74	1.76	74	1.68	0.09
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1738</b>	<b>1604</b>	<b>38.96</b>	<b>1624</b>	<b>39.74</b>	<b>-0.78</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>17171</b>	<b>18659</b>	<b>16927</b>	<b>393.71</b>	<b>16405</b>	<b>397.22</b>	<b>-3.52</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	850	20.21	842
	Guru Nanak Dev TPS(Bhatinda)	440	202	200	4.24	177
	Guru Hargobind Singh TPS(L.mbt)	920	909	702	17.15	715
	Goindwal(GVK)		0	0	0.00	0
	Thermal (Total)	2620	2161	1752	41.61	1734
	Total Hydro	1148	555	538	12.95	540
<b>Total Punjab</b>		<b>3768</b>	<b>2716</b>	<b>2290</b>	<b>54.56</b>	<b>2273</b>
Haryana	Panipat TPS	1367	774	772	18.59	775
	DCRTPP (Yamuna nagar)	600	272	250	9.61	401
	Faridabad GPS (NTPC)	432	374	293	7.63	318
	RGTPP (khedar) (IPP)	1200	403	393	6.11	254
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	543	557	11.67	486
	Thermal (Total)	4944	2366	2265	53.60	2234
	Total Hydro	62	6	25	0.47	20
	<b>Total Haryana</b>	<b>5006</b>	<b>2372</b>	<b>2290</b>	<b>54.08</b>	<b>2253</b>
	Rajasthan	kota TPS	1240	685	452	14.11
suratgarh TPS		1500	642	564	13.83	576
Chabra TPS		500	293	191	4.77	199
Dholpur GPS		330	85	78	1.89	79
Ramgarh GPS		111	80	63	1.59	66
RAPS A (NPC)		300	176	176	4.11	171
Barsingsar (NLC)		250	90	90	2.08	87
Giral LTPS		250	0	0	0.00	0
Rajwest LTPS (IPP)		1080	370	375	9.18	383
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		660	567	583	11.70	488
Thermal (Total)		6956	2988	2572	63.26	2636
Total Hydro		550	259	295	6.92	288
Wind power		2191	110	182	3.31	138
Biomass		91	29	29	0.69	29
Solar		201	0	0	0.61	25
Renewable/Others (Total)		2483	139	211	11.53	480
<b>Total Rajasthan</b>		<b>9989</b>	<b>3386</b>	<b>3078</b>	<b>81.71</b>	<b>3404</b>
UP		Anpara TPS	1630	1194	1083	28.10
	Obra TPS	1288	419	431	10.10	421
	Paricha TPS	1140	640	686	16.40	683
	Panki TPS	210	122	149	3.00	125
	Harduaganj TPS	665	289	368	6.60	275
	Tanda TPS (NTPC)	440	393	395	9.23	385
	Roza TPS (IPP)	1200	990	802	19.67	820
	Anpara-C (IPP)	1200	626	716	15.07	628
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	167	186	4.18	174
	Thermal (Total)	8223	4840	4816	112.35	4681
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	174	120	3.36	140
	Cogeneration	981	50	50	1.20	50
	<b>Total UP</b>	<b>10131</b>	<b>5064</b>	<b>4986</b>	<b>116.91</b>	<b>4871</b>
	Uttarakhand	Total Hydro	1303	887	834	19.88
<b>Total Uttarakhand</b>		<b>1303</b>	<b>887</b>	<b>834</b>	<b>19.88</b>	<b>828</b>
Delhi	Raighat TPS	135	39	42	0.95	40
	Delhi Gas Turbine	282	81	81	1.92	80
	Pragati Gas Turbine	330	261	263	6.44	268
	Riithala GPS	95	0	0	0.00	0
	Bawana GPS	686	212	212	5.45	227
	Badarpur TPS (NTPC)	705	435	420	9.23	384
	Thermal (Total)	2232	1028	1018	23.99	999
	<b>Total Delhi</b>	<b>2232</b>	<b>1028</b>	<b>1018</b>	<b>23.99</b>	<b>999</b>
HP	Baspa HPS (IPP)	330	345	313	7.61	317
	Malana HPS (IPP)	86	68	49	1.33	56
	Other Hydro	589	568	515	12.76	532
	<b>Total HP</b>	<b>1005</b>	<b>981</b>	<b>877</b>	<b>21.70</b>	<b>904</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>17009</b>	<b>15942</b>	<b>386.40</b>	<b>16100</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>4655</b>	<b>3091</b>	<b>86.07</b>	<b>3586</b>
<b>Total Regional Availability(Gross)</b>		<b>57226</b>	<b>40323</b>	<b>35960</b>	<b>866.18</b>	<b>36091</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	9961	9067	221.79	9241
State Control Area Hydro	5368	3437	3258	78.87	3286
<b>Total Regional Hydro</b>	<b>15731</b>	<b>13398</b>	<b>12325</b>	<b>300.66</b>	<b>12527</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	250	-100	100	350	0.45	3.55	-3.10
Gwalior-Agra (D/C)	1531	1043	1531	0	26.93	0.00	26.93
Zerda-Kankroli	33	-60	48	161	0.00	1.72	-1.72
Zerda-Bhinmal	70	8	102	148	0.00	0.30	-0.30
Malanpur-Auraiya	-71	-65	0	88	0.00	1.41	-1.41
Badod-Kota/Morak	15	-11	22	44	0.00	0.22	-0.22
Mundra-Mohindergarh(HVDC)	1433	1039	1435	0	28.13	0.00	28.13
<b>Sub Total WR</b>	<b>3261</b>	<b>1854</b>			<b>55.51</b>	<b>7.20</b>	<b>48.31</b>
Pusauli Bypass	-250	-245	0	291	0.00	4.26	-4.26
MZP- GKP (D/C)	590	643	824	0	16.48	0.00	16.48
Patna-Balia(D/C)	403	349	548	0	9.93	0.00	9.93
B'Sharif-Balia (D/C)	252	221	337	0	6.28	0.00	6.28
Pusauli-Balia	-12	-1	3	27	0.00	0.21	-0.21
Gaya-Fatehpur (765 Kv)	66	-7	150	7	1.54	0.00	1.54
Pusauli-Sahupuri	131	144	148	0	3.21	0.00	3.21
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)	252	173	320	0	5.68	0.00	5.68
<b>Sub Total ER</b>	<b>1394</b>	<b>1237</b>			<b>43.12</b>	<b>5.37</b>	<b>37.76</b>
<b>Total IR Exch</b>	<b>4655</b>	<b>3091</b>			<b>98.63</b>	<b>12.57</b>	<b>86.07</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
32.82	3.81	36.63	-4.03	40.85	-1.07	-17.37	3.10	-3.10

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
34.64	69.24	103.88	37.76	48.31	86.07	3.12	-20.93	-17.81

**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	56.50	0.40	56.50	89.50	43.50

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz	(Hz)	(Hz)		
50.56	6.10	49.77	10.15	50.17	0.49	0.14	50.58	49.99

**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	416	16:10	408	00:02	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	420	06:08	403	22:27	0.0	0.0	0.0	0.0
Kanpur	400	424	17:07	405	19:37	0.0	0.0	3.8	0.0
Dadri	400	420	06:08	404	22:28	0.0	0.0	0.0	0.0
Ballabgarh	400	427	06:08	411	19:38	0.0	0.0	50.1	0.0
Bawana	400	422	06:08	407	22:27	0.0	0.0	3.4	0.0
Bassi	400	428	17:03	407	19:36	0.0	0.0	34.3	0.0
Hissar	400	412	16:11	397	19:35	0.0	0.0	0.0	0.0
Moga	400	411	17:04	399	20:03	0.0	0.0	0.0	0.0
Abdullapur	400	421	16:11	407	19:33	0.0	0.0	0.1	0.0
Nalagarh	400	411	06:06	400	20:03	0.0	0.0	0.0	0.0
Kishenpur	400	420	23:20	407	20:00	0.0	0.0	0.0	0.0
Wagoora	400	421	23:26	396	20:19	0.0	0.0	1.1	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	780	17:07	743	19:37	0.0	0.0	0.0	0.0
Balia	765	762	17:04	729	22:26	0.0	32.2	0.0	0.0
Moga	765	779	17:04	754	20:03	0.0	0.0	0.0	0.0
Agra	765	810	06:08	769	19:38	0.0	0.0	15.4	0.0
Bhiwani	765	799	17:05	770	19:37	0.0	0.0	0.0	0.0
Unnao	765	761	00:00	761	00:00	0.0	0.0	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	505.37	1325.82	485.71	610.73	1337.18	881.67
Pong	426.72	384.05	420.28	902.94	404.11	320.26	1267.89	514.18
Tehri	829.79	740.04	818.50	972.00	818.65	982.26	832.84	544.00
Koteshwar	612.50	598.50	610.45	4.69	NA	NA	NA	597.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	335.27	344.07
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 11.08.2013 :**

1. Rains in UP , NCR , Punjab , Raj , HP , Uttranchal , Haryana.

**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 : 11.08.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER