

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 07.12.2013  
Date of Reporting : 08.12.2013

### I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 Hrs) MW			Off Peak (03:00 Hrs) MW			Day Energy (Net MU)		
	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
34639	2504	37143	50.10	28677	0	28677	50.11	758.2	46.36

\* 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	43.63	10.62		54.26	44.76	47.55	2.79	101.81	0.00
Haryana	62.54	0.45		62.99	41.98	43.16	1.18	106.14	0.12
Rajasthan	103.60	4.65	3.41	111.65	77.71	73.48	-4.24	185.13	0.00
Delhi	17.10			17.10	39.11	39.20	0.09	56.30	0.26
UP	124.30	3.42	1.20	128.92	84.26	84.31	0.05	213.22	41.25
Uttarakhand		8.91		8.91	19.35	20.05	0.70	28.96	3.02
HP		5.18		5.18	18.77	19.68	0.90	24.86	0.01
J & K		5.99	0.00	5.99	29.62	32.58	2.96	38.56	1.70
Chandigarh				0.00	3.22	3.27	0.05	3.27	0.00
<b>Total</b>	<b>351.17</b>	<b>39.22</b>	<b>4.61</b>	<b>394.99</b>	<b>358.77</b>	<b>363.26</b>	<b>4.48</b>	<b>758.25</b>	<b>46.36</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 (19:00 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	STOA/PX transaction
Punjab	5041	0	33	-227	3419	0	61	-445	-3.38	
Haryana	5456	116	59	-871	3675	0	44	-755	-23.57	
Rajasthan	7976	0	-326	1276	6904	0	-40	613	33.21	
Delhi	2782	148	-111	-846	1369	0	-22	-1339	-25.93	
UP	8753	2065	-176	-265	9689	0	24	1245	6.02	
Uttarakhand	1466	75	-4	419	1123	0	81	348	8.62	
HP	1200	0	6	202	811	0	80	295	6.49	
J&K	1788	100	110	553	1601	0	151	462	9.08	
Chandigarh	178	0	8	0	86	0	-3	-15	-0.15	
<b>Total</b>	<b>34639</b>	<b>2504</b>	<b>-401</b>	<b>240</b>	<b>28677</b>	<b>0</b>	<b>376</b>	<b>409</b>	<b>10.39</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)	Schedule Net MU	UI Net MU
<b>A. NTPC</b>								
Singrauli STPS	2000	1707	1582	2089	41.22	1718	40.97	0.25
Rihand I STPS	1000	831	1007	907	20.02	834	19.77	0.25
Rihand II STPS	1000	895	1097	969	21.46	894	21.09	0.37
Rihand III STPS	1000	442	516	464	10.70	446	10.61	0.09
Dadri I STPS	840	815	661	481	13.10	546	13.30	-0.20
Dadri II STPS	980	985	998	725	21.16	882	21.32	-0.15
Unchahar I TPS	420	405	418	372	9.13	381	9.21	-0.07
Unchahar II TPS	420	404	407	355	8.84	368	8.84	0.00
Unchahar III TPS	210	201	184	153	4.22	176	4.22	0.00
ISTPP (Jhajjar)	1500	1480	705	623	14.46	603	14.63	-0.17
Dadri GPS	830	826	399	354	8.97	374	9.10	-0.13
Anta GPS	419	416	196	239	6.01	250	6.20	-0.19
Auraiya GPS	663	664	159	165	3.75	156	3.65	0.10
<b>Sub Total (A)</b>	<b>11282</b>	<b>10071</b>	<b>8329</b>	<b>7896</b>	<b>183.04</b>	<b>7626</b>	<b>182.89</b>	<b>0.14</b>
<b>B. NPC</b>								
NAPS	440	359	360	359	7.69	320	8.62	-0.93
RAPS- B	440	418	461	462	10.10	421	10.03	0.07
RAPS- C	440	430	474	474	10.23	426	10.32	-0.09
<b>Sub Total (B)</b>	<b>1320</b>	<b>1207</b>	<b>1295</b>	<b>1295</b>	<b>28.02</b>	<b>1167</b>	<b>28.97</b>	<b>-0.95</b>
<b>C. NHPC</b>								
Chamera I HPS	540	360	180	0	1.90	79	1.80	0.10
Chamera II HPS	300	300	140	0	1.21	50	1.28	-0.07
Chamera III HPS	231	231	69	0	0.69	29	0.65	0.04
Bairasuil HPS	180	182	10	0	0.50	21	0.46	0.04
Salal-HPS	690	128	230	147	2.69	112	3.03	-0.34
Tanakpur-HPS	94	31	29	34	0.78	33	0.75	0.04
Uri-HPS	480	105	102	40	1.54	64	2.47	-0.93
Uri-II HPS	120	61	146	107	2.54	106	1.46	1.09
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	258	275	0	2.98	124	2.94	0.04
Sewa-II HPS	120	0	159	0	0.00	0	0.00	0.00
<b>Sub Total (C)</b>	<b>3425</b>	<b>1655</b>	<b>1340</b>	<b>328</b>	<b>14.82</b>	<b>618</b>	<b>14.83</b>	<b>0.00</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1350	1086	0	8.67	361	8.69	-0.02
<b>Sub Total (D)</b>	<b>1500</b>	<b>1350</b>	<b>1086</b>	<b>0</b>	<b>8.67</b>	<b>361</b>	<b>8.69</b>	<b>-0.02</b>
<b>E. THDC</b>								
Tehri HPS	1000	973	1002	0	6.49	270	6.40	0.08
Koteshwar HPS	400	92	101	90	2.22	93	2.20	0.02
<b>Sub Total (E)</b>	<b>1400</b>	<b>1064</b>	<b>1103</b>	<b>90</b>	<b>8.71</b>	<b>363</b>	<b>8.60</b>	<b>0.11</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	742	1015	511	18.08	753	17.81	0.27
Dehar HPS	990	141	330	0	3.55	148	3.40	0.16
Pong HPS	396	302	372	180	7.56	315	7.24	0.32
<b>Sub Total (F)</b>	<b>2883</b>	<b>1185</b>	<b>1717</b>	<b>691</b>	<b>29.19</b>	<b>1216</b>	<b>28.44</b>	<b>0.75</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	38	0	0.53	22	0.44	0.09
KWHEP HPS(IPP)	1000	0	347	0	4.57	190	4.55	0.01
Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
Shree Cement TPS	300	0	279	156	5.48	228	5.42	0.06
Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>664</b>	<b>156</b>	<b>10.58</b>	<b>441</b>	<b>10.41</b>	<b>0.17</b>
<b>H. Total Regional Entities (A-G)</b>	<b>23472</b>	<b>16532</b>	<b>15534</b>	<b>10456</b>	<b>283.02</b>	<b>11793</b>	<b>282.83</b>	<b>0.19</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	1000	750	19.23	801	
	Guru Nanak Dev TPS(Bhatinda)	440	220	160	4.11	171	
	Guru Hargobind Singh TPS(L.mbt)	920	964	827	20.30	846	
	Goindwal(GVK)		0	0	0.00	0	
	Thermal (Total)	2620	2184	1737	43.63	1818	
	Total Hydro	1148	457	455	10.62	443	
	<b>Total Punjab</b>	<b>3768</b>	<b>2641</b>	<b>2192</b>	<b>54.26</b>	<b>2261</b>	
Haryana	Panipat TPS	1367	635	787	16.58	691	
	DCRTPP (Yamuna nagar)	600	280	249	6.04	251	
	Faridabad GPS (NTPC)	432	203	163	4.14	172	
	RGTPP (khedar) (IPP)	1200	592	516	11.79	491	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	1164	701	23.99	999	
	Thermal (Total)	4944	2874	2416	62.54	2606	
	Total Hydro	62	17	21	0.45	19	
		<b>Total Haryana</b>	<b>5006</b>	<b>2891</b>	<b>2437</b>	<b>62.99</b>	<b>2624</b>
	Rajasthan	kota TPS	1240	1160	1092	28.94	1206
suratgarh TPS		1500	1129	1005	24.77	1032	
Chabra TPS		500	509	393	11.94	498	
Dholpur GPS		330	105	105	2.67	111	
Ramgarh GPS		111	175	125	3.44	143	
RAPS A (NPC)		300	175	175	4.05	169	
Barsingsar (NLC)		250	219	220	5.17	215	
Giral LTPS		250	58	56	1.24	52	
Rajwest LTPS (IPP)		1080	377	284	8.14	339	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Kalisindh Thermal		600	0	0	0.00	0	
Kawai(Adani)		660	483	640	13.24	552	
Thermal (Total)		6956	4390	4095	103.60	4317	
Total Hydro		550	314	89	4.65	194	
Wind power		2191	45	110	2.25	94	
Biomass		91	15	15	0.37	15	
Solar		201	8	0	0.79	33	
Renewable/Others (Total)		2483	60	125	3.41	142	
		<b>Total Rajasthan</b>	<b>9989</b>	<b>4764</b>	<b>4309</b>	<b>111.65</b>	<b>4652</b>
UP		Anpara TPS	1630	1372	1369	29.30	1221
	Obra TPS	1288	344	341	7.40	308	
	Paricha TPS	1140	787	761	18.50	771	
	Panki TPS	210	50	70	1.40	58	
	Harduaganj TPS	665	493	500	10.70	446	
	Tanda TPS (NTPC)	440	391	390	9.51	396	
	Roza TPS (IPP)	1200	1134	860	25.53	1064	
	Anpara-C (IPP)	1200	533	524	12.83	535	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	404	284	9.12	380	
	Thermal (Total)	8223	5508	5099	124.30	5179	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	121	168	3.42	142	
	Cogeneration	981	50	50	1.20	50	
		<b>Total UP</b>	<b>10131</b>	<b>5679</b>	<b>5317</b>	<b>128.92</b>	<b>5372</b>
	Uttarakhand	Total Hydro	1303	514	256	8.91	371
<b>Total Uttarakhand</b>		<b>1303</b>	<b>514</b>	<b>256</b>	<b>8.91</b>	<b>371</b>	
Delhi	Rajghat TPS	135	0	0	0.00	0	
	Delhi Gas Turbine	282	82	82	1.91	80	
	Pragati Gas Turbine	330	315	267	7.21	301	
	Riithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	355	370	7.97	332	
	Thermal (Total)	2232	752	719	17.10	712	
		<b>Total Delhi</b>	<b>2232</b>	<b>752</b>	<b>719</b>	<b>17.10</b>	<b>712</b>
HP	Baspa HPS (IPP)	330	59	0	1.40	58	
	Malana HPS (IPP)	86	0	0	0.22	9	
	Other Hydro	589	203	115	3.57	149	
		<b>Total HP</b>	<b>1005</b>	<b>262</b>	<b>115</b>	<b>5.18</b>	<b>216</b>
J & K	Baglihar HPS (IPP)	450	250	120	3.55	148	
	Other Hydro	323	90	116	2.44	102	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>340</b>	<b>236</b>	<b>5.99</b>	<b>249</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>17843</b>	<b>15581</b>	<b>394.99</b>	<b>16458</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>2878</b>	<b>3783</b>	<b>89.90</b>	<b>3746</b>	
<b>Total Regional Availability(Gross)</b>		<b>57862</b>	<b>36255</b>	<b>29820</b>	<b>767.92</b>	<b>31996</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10500	5631	1109	66.49	2770
State Control Area Hydro	5368	2025	1340	39.22	1634
<b>Total Regional Hydro</b>	<b>15868</b>	<b>7656</b>	<b>2449</b>	<b>105.71</b>	<b>4404</b>

**V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(19:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal B/B	-100	-500	50	500	0.21	4.46	-4.25
Gwalior-Agra (D/C)	657	1179	1372	0	22.79	0.00	22.79
Zerda-Kankroli	-124	-148	0	239	0.00	2.11	-2.11
Zerda-Bhinmal	-16	-27	136	171	0.65	0.00	0.65
Malanpur-Auraiya	-119	-71	0	151	0.00	2.79	-2.79
Badod-Kota/Morak	-148	-141	0	194	0.00	3.46	-3.46
Mundra-Mohindergarh(HVDC)	1701	1702	1704	0	41.03	0.00	41.03
<b>Sub Total WR</b>	<b>1851</b>	<b>1994</b>			<b>64.69</b>	<b>12.82</b>	<b>51.87</b>
Pusauli Bypass	200	400	200	0	7.00	0.00	7.00
MZP- GKP (D/C)	178	431	632	0	8.77	0.00	8.77
Patna-Balia(D/C)	453	607	695	0	13.30	0.00	13.30
B'Sharif-Balia (D/C)	111	232	311	0	4.63	0.00	4.63
Pusauli-Balia	-91	-75	0	110	0.00	1.48	-1.48
Gaya-Fatehpur (765 Kv)	81	107	332	0	4.09	0.00	4.09
Pusauli-Sahupuri	127	117	184	0	2.56	0.00	2.56
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-30	0	37	0.00	0.84	-0.84
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1027</b>	<b>1789</b>			<b>40.35</b>	<b>2.32</b>	<b>38.03</b>
<b>Total IR Exch</b>	<b>2878</b>	<b>3783</b>			<b>105.04</b>	<b>15.14</b>	<b>89.90</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
34.44	0.63	35.08	17.40	-16.49	4.41	-0.97	4.08	-4.08

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
60.96	34.69	95.65	38.03	51.87	89.90	-22.93	17.18	-5.75

**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	1.30	94.00	7.60	92.70	47.00	6.00

<----- 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				
50.50	6.05	49.60	18.12	49.99	0.18	0.14	50.38	49.82

**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	21:40	404	07:57	0.0	0.0	0.0	0.0
Gorakhpur	400	431	20:27	411	10:32	0.0	0.0	39.6	0.5
Barailly	400	424	21:55	402	12:21	0.0	0.0	4.6	0.0
Kanpur	400	424	20:03	402	09:34	0.0	0.0	12.1	0.0
Dadri	400	423	23:58	400	12:16	0.0	0.0	6.0	0.0
Ballabgarh	400	430	04:04	406	12:15	0.0	0.0	45.8	0.0
Bawana	400	424	04:05	402	12:15	0.0	0.0	18.0	0.0
Bassi	400	420	04:03	390	10:40	0.0	0.0	0.0	0.0
Hissar	400	412	04:04	388	12:16	0.0	1.1	0.0	0.0
Moga	400	418	23:55	392	10:11	0.0	0.0	0.0	0.0
Abdullapur	400	423	21:40	401	12:10	0.0	0.0	1.6	0.0
Nalagarh	400	425	21:48	396	12:16	0.0	0.0	20.7	0.0
Kishenpur	400	421	13:02	392	10:19	0.0	0.0	0.1	0.0
Wagoora	400	416	13:02	371	18:05	12.5	44.2	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	786	20:30	740	10:00	0.0	0.0	0.0	0.0
Balia	765	771	20:03	725	09:36	0.8	22.1	0.0	0.0
Moga	765	782	23:23	735	12:15	0.0	7.2	0.0	0.0
Agra	765	809	21:56	761	12:20	0.0	0.0	16.4	0.0
Bhiwani	765	791	21:20	759	15:45	0.0	0.0	0.0	0.0
Unnao	765	771	20:03	734	09:36	0.0	10.4	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	507.14	1411.35	499.33	1064.89	172.73	519.90
Pong	426.72	384.05	416.19	718.14	414.64	656.23	55.67	445.54
Tehri	829.79	740.04	819.30	986.00	818.65	982.26	48.96	144.00
Koteshwar	612.50	598.50	609.05	4.56	NA	NA	144.00	148.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	55.46	48.42
Rihand	268.22	252.98	261.52	390.50	262.65	457.50	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	514.28	144.00	520.13	144.00	63.74	122.36

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 07.12.2013 :**

1. Normal weather in Northern Region.

**XIII. Synchronisation of new generating units :**  
0.00

**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 :**

Vishnuprayag (400MW) and Dhauliganga (280MW) are out of operation since 16.06.2013.  
Civil construction is in progress for rectification of the major damages in Plants/Dam caused due to flood  
Vishnuprayag and Dhauliganga expected by Mar, 2014 .

Report for : 07.12.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER