

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 12.01.2014  
Date of Reporting : 13.01.2014

### I. Regional Availability/Demand:

Evening Peak (19:00 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
35433	1787	37220	50.12	29062	10	29072	50.25	785.3	34.81

\* 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	49.15	9.48		58.63	35.63	36.87	1.23	95.49	0.00
Haryana	60.76	0.47		61.23	46.68	47.20	0.52	108.43	0.00
Rajasthan	113.29	2.99	6.11	122.38	76.84	73.04	-3.80	195.43	0.00
Delhi	20.37			20.37	43.63	41.35	-2.28	61.72	0.03
UP	113.46	3.03	15.60	132.09	93.35	90.48	-2.87	222.57	32.61
Uttarakhand		7.84		7.84	24.70	24.58	-0.13	32.42	0.23
HP		4.18		4.18	19.85	19.70	-0.15	23.88	0.24
J & K		6.32	0.00	6.32	32.83	35.68	2.85	42.01	1.70
Chandigarh				0.00	3.10	3.36	0.26	3.36	0.00
<b>Total</b>	<b>357.03</b>	<b>34.31</b>	<b>21.71</b>	<b>413.05</b>	<b>376.62</b>	<b>372.26</b>	<b>-4.37</b>	<b>785.30</b>	<b>34.81</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	
Punjab	4751	0	10	-259	3360	0	167	-37	-8.06	
Haryana	5351	0	-17	-370	3896	0	195	-404	-10.95	
Rajasthan	8352	0	-753	1078	7061	0	-85	172	32.25	
Delhi	3155	7	111	-592	1495	0	-21	-1213	-23.15	
UP	9099	1630	-216	1083	9505	0	-27	560	13.70	
Uttarakhand	1592	40	-90	605	1182	0	61	577	14.84	
HP	1136	10	-181	297	773	10	18	430	8.85	
J&K	1824	100	24	641	1697	0	62	632	12.64	
Chandigarh	172	0	-12	0	94	0	15	-15	-0.13	
<b>Total</b>	<b>35433</b>	<b>1787</b>	<b>-1123</b>	<b>2483</b>	<b>29062</b>	<b>10</b>	<b>385</b>	<b>702</b>	<b>39.99</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	1799	1581	1794	41.98	1749	42.27	-0.29	
	Rihand I STPS	1000	881	990	646	19.71	821	19.53	0.18	
	Rihand II STPS	1000	933	1048	730	20.84	868	21.02	-0.18	
	Rihand III STPS	1000	493	498	438	10.90	454	11.24	-0.34	
	Dadri I STPS	840	815	821	616	15.56	648	15.87	-0.31	
	Dadri II STPS	980	985	932	719	20.55	856	21.07	-0.52	
	Unchahar I TPS	420	408	314	326	8.06	336	8.16	-0.11	
	Unchahar II TPS	420	405	358	310	7.86	328	7.95	-0.09	
	Unchahar III TPS	210	202	170	154	3.89	162	3.94	-0.05	
	ISTPP (Jhajjar)	1500	1500	619	638	14.15	590	14.40	-0.25	
	Dadri GPS	830	844	162	172	3.57	149	3.98	-0.41	
	Anta GPS	419	430	275	257	6.08	253	6.16	-0.08	
	Auraiya GPS	663	675	150	150	3.52	146	3.55	-0.03	
	<b>Sub Total (A)</b>	<b>11282</b>	<b>10370</b>	<b>7917.92</b>	<b>6950.31</b>	<b>176.66</b>	<b>7361</b>	<b>179.14</b>	<b>-2.48</b>	
	B. NPC	NAPS	440	324	361	361	7.81	325	7.78	0.03
		RAPS- B	440	419	468	464	10.14	422	10.06	0.08
RAPS- C		440	430	474	477	10.27	428	10.32	-0.05	
<b>Sub Total (B)</b>		<b>1320</b>	<b>1173</b>	<b>1303</b>	<b>1302</b>	<b>28.21</b>	<b>1175</b>	<b>28.15</b>	<b>0.05</b>	
C. NHPC	Chamera I HPS	540	540	400	0	1.63	68	1.64	-0.01	
	Chamera II HPS	300	300	120	0	0.87	36	1.23	-0.37	
	Chamera III HPS	231	231	71	0	0.54	22	0.59	-0.05	
	Bairasuil HPS	180	0	0	0	0.00	0	0.00	0.00	
	Salal-HPS	690	118	200	35	2.64	110	2.82	-0.17	
	Tanakpur-HPS	94	0	0	0	0.00	0	0.00	0.00	
	Uri-HPS	480	82	210	20	2.55	106	2.28	0.27	
	Uri-II HPS	180	65	120	36	1.43	59	1.57	-0.14	
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00	
	Dulhasti-HPS	390	258	271	0	2.47	103	2.47	0.00	
	Sewa-II HPS	120	119	112	41	0.51	21	0.58	-0.07	
	<b>Sub Total (C)</b>	<b>3485</b>	<b>1713</b>	<b>1504</b>	<b>132</b>	<b>12.64</b>	<b>527</b>	<b>13.18</b>	<b>-0.54</b>	
	D. NJPC	Nathpa Jhakri	1500	1605	1036	0	6.91	288	7.58	-0.67
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1036</b>	<b>0</b>	<b>6.91</b>	<b>288</b>	<b>7.58</b>	<b>-0.67</b>	
E. THDC	Tehri HPS	1000	1010	1010	0	9.99	416	10.00	-0.01	
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1148</b>	<b>1401</b>	<b>87</b>	<b>13.32</b>	<b>555</b>	<b>13.30</b>	<b>0.02</b>	
F. BBMB	Bhakra HPS	1497	726	1021	512	17.68	737	17.43	0.25	
	Dehar HPS	990	125	330	0	3.21	134	3.01	0.20	
	Pong HPS	396	213	372	60	5.23	218	5.11	0.12	
	<b>Sub Total (F)</b>	<b>2883</b>	<b>1065</b>	<b>1723</b>	<b>572</b>	<b>26.12</b>	<b>1088</b>	<b>25.55</b>	<b>0.57</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.35	15	0.34	0.01	
	KWHEP HPS(IPP)	1000	0	360	0	3.61	150	3.60	0.01	
	Malana Stg-II HPS	100	0	0	0	0.13	5	0.12	0.01	
	Shree Cement TPS	300	0	252	249	6.42	268	6.38	0.04	
	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>612</b>	<b>249</b>	<b>10.51</b>	<b>438</b>	<b>10.44</b>	<b>0.07</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>23532</b>	<b>17073</b>	<b>15497</b>	<b>9292</b>	<b>274.36</b>	<b>11432</b>	<b>277.34</b>	<b>-2.98</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	1240	860	24.16	1007
	Guru Nanak Dev TPS(Bhatinda)	440	342	250	6.22	259
	Guru Hargobind Singh TPS(L.mbt)	920	695	660	15.18	633
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	0	207	3.59	150
	Talwandi Saboo	660	0		0.00	0
	Thermal (Total)	3980	2277	1977	49.15	2048
	Total Hydro	1148	439	255	9.48	395
<b>Total Punjab</b>	<b>5128</b>	<b>2716</b>	<b>2232</b>	<b>58.63</b>	<b>2443</b>	
Haryana	Panipat TPS	1367	595	599	14.32	597
	DCRTPP (Yamuna nagar)	600	503	509	12.05	502
	Faridabad GPS (NTPC)	432	165	151	3.85	160
	RGTPP (khedar) (IPP)	1200	511	506	12.03	501
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	930	744	18.52	772
	Thermal (Total)	4944	2704	2509	60.76	2532
	Total Hydro	62	16	20	0.47	19
<b>Total Haryana</b>	<b>5006</b>	<b>2720</b>	<b>2529</b>	<b>61.23</b>	<b>2551</b>	
Rajasthan	kota TPS	1240	1107	1081	26.51	1105
	suratgarh TPS	1500	1040	1028	25.01	1042
	Chabra TPS	750	399	391	9.17	382
	Dholpur GPS	330	108	108	2.47	103
	Ramgarh GPS	221	137	145	3.44	143
	RAPS A (NPC)	300	175	175	4.10	171
	Barsingsar (NLC)	250	210	210	4.92	205
	Giral LTPS	250	0	0	0.00	0
	Rajwest LTPS (IPP)	1080	418	322	9.49	395
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	1320	1192	1179	28.17	1174
	Thermal (Total)	7976	4786	4639	113.29	4720
	Total Hydro	550	93	67	2.99	124
	Wind power	2191	231	125	4.92	205
	Biomass	91	20	20	0.49	20
	Solar	201	7	0	0.71	29
	Renewable/Others (Total)	2483	251	145	6.11	255
<b>Total Rajasthan</b>	<b>11009</b>	<b>5130</b>	<b>4851</b>	<b>122.38</b>	<b>5099</b>	
UP	Anpara TPS	1630	1124	1208	24.80	1033
	Obra TPS	1288	526	512	11.80	492
	Paricha TPS	1140	949	932	20.10	838
	Panki TPS	210	95	100	2.10	88
	Harduaganj TPS	665	250	492	7.40	308
	Tanda TPS (NTPC)	440	348	401	9.48	395
	Roza TPS (IPP)	1200	576	810	16.87	703
	Anpara-C (IPP)	1200	662	869	20.92	872
	Bajaj Energy Pvt.Ltd.(IPP) TPS	450	0	0	0.00	0
	Thermal (Total)	8223	4530	5324	113.46	4728
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	149	139	3.03	126
	Cogeneration	981	650	650	15.60	650
	<b>Total UP</b>	<b>10131</b>	<b>5329</b>	<b>6113</b>	<b>132.09</b>	<b>5504</b>
Uttarakhand	Total Hydro	1303	511	168	7.84	327
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>511</b>	<b>168</b>	<b>7.84</b>	<b>327</b>
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	165	121	3.38	141
	Pragati Gas Turbine	330	319	265	7.42	309
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	430	415	9.57	399
	Thermal (Total)	2232	914	801	20.37	849
<b>Total Delhi</b>	<b>2232</b>	<b>914</b>	<b>801</b>	<b>20.37</b>	<b>849</b>	
HP	Baspa HPS (IPP)	330	0	0	1.04	43
	Malana HPS (IPP)	86	0	0	0.19	8
	Other Hydro	589	152	61	2.95	123
	<b>Total HP</b>	<b>1005</b>	<b>152</b>	<b>61</b>	<b>4.18</b>	<b>174</b>
J & K	Baglihar HPS (IPP)	450	150	120	3.37	141
	Other Hydro	323	84	116	2.95	123
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>234</b>	<b>236</b>	<b>6.32</b>	<b>263</b>
<b>Total State Control Area Generation</b>		<b>36770</b>	<b>17706</b>	<b>16991</b>	<b>413.05</b>	<b>17210</b>
<b>J. Net Inter Regional Exchange</b> [[import (+ve)/Export (-ve)]			<b>4786</b>	<b>4181</b>	<b>117.34</b>	<b>4889</b>
<b>Total Regional Availability(Gross)</b>		<b>60303</b>	<b>37989</b>	<b>30464</b>	<b>804.74</b>	<b>33531</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10560	6024	791	63.07	2628
State Control Area Hydro	5368	1594	946	34.31	1429
<b>Total Regional Hydro</b>	<b>15928</b>	<b>7618</b>	<b>1737</b>	<b>97.38</b>	<b>4057</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	200	-100	300	300	2.19	1.68	0.51
Gwalior-Agra (D/C)	1240	1146	1615	0	30.26	0.00	30.26
Zerda-Kankroli	-39	-250	100	291	0.00	1.59	-1.59
Zerda-Bhinmal	55	-131	257	188	1.32	0.00	1.32
Malanpur-Auraiya	-129	-97	0	138	0.00	2.52	-2.52
Badod-Kota/Morak	-22	-133	0	163	0.00	1.52	-1.52
Mundra-Mohindergarh(HVDC)	1915	1921	1922	0	46.14	0.00	46.14
<b>Sub Total WR</b>	<b>3220</b>	<b>2356</b>			<b>79.91</b>	<b>7.31</b>	<b>72.60</b>
Pusauli Bypass	200	400	400	0	7.76	0.00	7.76
MZP- GKP (D/C)	319	358	616	0	9.07	0.00	9.07
Patna-Balia(D/C)	471	502	660	0	12.06	0.00	12.06
B'Sharif-Balia (D/C)	221	255	364	0	6.29	0.00	6.29
Pusauli-Balia	-69	-57	0	84	0.00	1.32	-1.32
Gaya-Fatehpur (765 Kv)	98	77	248	12	2.51	0.00	2.51
Pusauli-Sahupuri	100	125	151	0	2.83	0.00	2.83
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-30	0	37	0.00	0.85	-0.85
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	258	195	494	0	6.40	0.00	6.40
<b>Sub Total ER</b>	<b>1566</b>	<b>1825</b>			<b>46.91</b>	<b>2.17</b>	<b>44.74</b>
<b>Total IR Exch</b>	<b>4786</b>	<b>4181</b>			<b>126.81</b>	<b>9.48</b>	<b>117.34</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
32.21	0.29	32.50	22.85	2.89	6.07	3.48	-0.17	0.17

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
61.25	63.15	124.40	44.74	72.60	117.34	-16.51	9.45	-7.06

**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	83.10	0.40	83.10	72.40	16.90

<----- 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				
50.54	17.03	49.75	7.58	50.08	0.22	0.12	50.45	49.96

**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	412	03:05	401	10:15	0.0	0.0	0.0	0.0
Gorakhpur	400	427	21:51	414	10:35	0.0	0.0	56.1	0.0
Barailly	400	427	17:06	402	12:12	0.0	0.0	20.3	0.0
Kanpur	400	420	20:29	400	10:22	0.0	0.0	0.0	0.0
Dadri	400	426	21:42	403	12:08	0.0	0.0	28.5	0.0
Ballabgarh	400	430	04:01	409	10:45	0.0	0.0	68.2	0.0
Bawana	400	427	21:43	404	12:11	0.0	0.0	21.8	0.0
Bassi	400	427	20:30	392	10:28	0.0	0.0	12.7	0.0
Hissar	400	417	21:45	392	11:54	0.0	0.0	0.0	0.0
Moga	400	415	21:44	392	10:44	0.0	0.0	0.0	0.0
Abdullapur	400	423	21:45	404	11:41	0.0	0.0	3.6	0.0
Nalagarh	400	427	23:05	407	10:44	0.0	0.0	13.2	0.0
Kishenpur	400	416	19:57	387	10:45	0.0	0.1	0.0	0.0
Wagoora	400	388	00:55	387	00:14	0.0	100.0	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	779	20:53	736	10:46	0.0	3.4	0.0	0.0
Balia	765	780	05:08	749	09:49	0.0	0.0	0.0	0.0
Moga	765	792	21:45	750	10:45	0.0	0.0	0.0	0.0
Agra	765	811	20:29	768	10:45	0.0	0.0	22.2	0.0
Bhiwani	765	804	00:53	771	09:49	0.0	0.0	5.6	0.0
Unnao	765	767	20:53	733	10:23	0.0	19.1	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	499.58	1076.64	492.30	808.03	171.91	518.79
Pong	426.72	384.05	410.58	514.41	409.43	474.29	54.06	331.99
Tehri	829.79	740.04	810.20	804.00	818.65	982.26	63.37	227.00
Koteshwar	612.50	598.50	608.86	4.03	NA	NA	227.00	198.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	41.96	43.72
Rihand	268.22	252.98	260.63	340.20	261.43	385.10	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	511.04	14.40	514.74	14.40	60.77	117.91

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 12.01.2014 :**

1. Cloudy weather in Punjab, Haryana & Shallow fog in Eastern Uttar Pradesh.

**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 :**

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 .