

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 20.01.2014  
Date of Reporting : 21.01.2014

### 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
36273	2303	38576	50.01	26715	0	26715	0.00	768.4	38.02

\* 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	43.56	9.66		53.22	31.82	33.21	1.39	86.43	0.00
Haryana	56.75	0.43		57.18	50.10	48.06	-2.04	105.25	0.38
Rajasthan	112.10	4.04	9.51	125.65	72.81	67.07	-5.75	192.72	0.00
Delhi	21.18			21.18	46.10	44.98	-1.12	66.16	0.03
UP	116.60	3.14	15.60	135.34	84.41	80.92	-3.49	216.27	35.47
Uttarakhand		7.40		7.40	22.86	25.29	2.43	32.69	0.23
HP		4.31		4.31	19.43	19.52	0.09	23.83	0.22
J & K		5.79	0.00	5.79	32.09	35.53	3.44	41.32	1.70
Chandigarh				0.00	3.13	3.78	0.66	3.78	0.00
<b>Total</b>	<b>350.19</b>	<b>34.78</b>	<b>25.11</b>	<b>410.08</b>	<b>362.75</b>	<b>358.36</b>	<b>-4.39</b>	<b>768.44</b>	<b>38.02</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	4610	0	62	-614	2729	0	115	-40	-8.17	
Haryana	5853	0	-166	-437	3276	0	155	-383	-11.15	
Rajasthan	8453	0	-490	956	6674	0	-132	589	32.87	
Delhi	3455	0	-4	-597	1457	0	-74	-1236	-20.47	
UP	9078	2155	-490	1138	8930	0	14	583	14.38	
Uttarakhand	1647	40	74	564	1074	0	56	493	12.97	
HP	1174	8	-37	396	748	0	-13	432	9.41	
J&K	1805	100	74	658	1733	0	163	635	13.12	
Chandigarh	198	0	9	0	93	0	1	-20	-0.07	
<b>Total</b>	<b>36273</b>	<b>2303</b>	<b>-968</b>	<b>2063</b>	<b>26715</b>	<b>0</b>	<b>286</b>	<b>1052</b>	<b>42.90</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	1702	1538	1932	39.71	1655	39.82	-0.10	
	Rihand I STPS	1000	935	1020	799	21.30	887	21.07	0.23	
	Rihand II STPS	1000	985	1044	769	21.84	910	22.12	-0.29	
	Rihand III STPS	1000	0	0	0	0.00	0	0.00	0.00	
	Dadri I STPS	840	815	860	605	17.16	715	17.64	-0.48	
	Dadri II STPS	980	985	934	683	20.87	870	21.41	-0.54	
	Unchahar I TPS	420	408	365	344	8.46	353	8.50	-0.04	
	Unchahar II TPS	420	367	378	159	7.52	313	7.54	-0.03	
	Unchahar III TPS	210	202	188	155	4.09	171	4.12	-0.03	
	ISTPP (Jhajjar)	1500	1500	643	350	14.29	596	14.80	-0.51	
	Dadri GPS	830	850	400	422	9.56	398	9.74	-0.18	
	Anta GPS	419	431	264	264	6.44	268	6.47	-0.03	
	Auraiya GPS	663	677	163	169	3.44	143	3.91	-0.47	
	<b>Sub Total (A)</b>	<b>11282</b>	<b>9856</b>	<b>7797</b>	<b>6651</b>	<b>174.68</b>	<b>7278</b>	<b>177.15</b>	<b>-2.47</b>	
	B. NPC	NAPS	440	310	347	354	7.46	311	7.44	0.02
		RAPS- B	440	421	462	464	10.09	420	10.10	-0.02
RAPS- C		440	430	474	478	10.22	426	10.32	-0.10	
<b>Sub Total (B)</b>		<b>1320</b>	<b>1161</b>	<b>1283</b>	<b>1296</b>	<b>27.77</b>	<b>1157</b>	<b>27.86</b>	<b>-0.10</b>	
C. NHPC	Chamera I HPS	540	541	360	0	1.66	69	1.62	0.04	
	Chamera II HPS	300	300	200	0	1.53	64	1.55	-0.02	
	Chamera III HPS	231	96	0	0	0.39	16	0.30	0.08	
	Bairasuil HPS	180	62	60	10	0.63	26	0.43	0.20	
	Salal-HPS	690	110	180	70	2.64	110	2.64	0.00	
	Tanakpur-HPS	94	0	0	0	0.00	0	0.00	0.00	
	Uri-HPS	480	95	221	34	2.38	99	2.26	0.11	
	Uri-II HPS	180	62	122	37	1.46	61	1.35	0.11	
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00	
	Dulhasti-HPS	390	258	266	0	2.87	120	2.70	0.17	
	Sewa-II HPS	120	119	119	0	0.43	18	0.42	0.01	
	<b>Sub Total (C)</b>	<b>3485</b>	<b>1643</b>	<b>1528</b>	<b>151</b>	<b>13.98</b>	<b>582</b>	<b>13.27</b>	<b>0.71</b>	
	D. NJPC	Nathpa Jhakri	1500	1350	1011	0	6.84	285	6.85	-0.01
Sub Total (D)		1500	1350	1011	0	6.84	285	6.85	-0.01	
E. THDC	Tehri HPS	1000	1000	924	0	6.69	279	6.60	0.09	
	Koteshwar HPS	400	106	201	90	2.56	107	2.50	0.06	
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1106</b>	<b>1125</b>	<b>90</b>	<b>9.25</b>	<b>386</b>	<b>9.10</b>	<b>0.15</b>	
F. BBMB	Bhakra HPS	1497	643	999	387	15.43	643	15.42	0.01	
	Dehar HPS	990	99	330	0	2.34	98	2.38	-0.04	
	Pong HPS	396	224	312	0	5.45	227	5.38	0.07	
	<b>Sub Total (F)</b>	<b>2883</b>	<b>966</b>	<b>1641</b>	<b>387</b>	<b>23.22</b>	<b>968</b>	<b>23.18</b>	<b>0.04</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.34	14	0.32	0.01	
	KWHEP HPS(IPP)	1000	0	360	0	3.75	156	3.72	0.03	
	Malana Stg-II HPS	100	0	0	0	0.12	5	0.11	0.01	
	Shree Cement TPS	300	0	269	264	6.45	269	7.06	-0.61	
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00	
	Sub Total (G)	1662	0	629	264	10.65	444	11.21	-0.56	
<b>H. Total Regional Entities (A-G)</b>	<b>23532</b>	<b>16082</b>	<b>15014</b>	<b>8839</b>	<b>266.39</b>	<b>11100</b>	<b>268.63</b>	<b>-2.23</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	835	670	17.69	737
	Guru Nanak Dev TPS(Bhatinda)	440	340	250	6.26	261
	Guru Hargobind Singh TPS(L.mbt)	920	966	673	19.61	817
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	0	0	0.00	0
	Talwandi Saboo	660	0		0.00	0
	Thermal (Total)	3980	2141	1593	43.56	1815
	Total Hydro	1148	456	247	9.66	403
<b>Total Punjab</b>	<b>5128</b>	<b>2597</b>	<b>1840</b>	<b>53.22</b>	<b>2217</b>	
Haryana	Panipat TPS	1367	643	216	11.27	469
	DCRTPP (Yamuna nagar)	600	553	503	12.54	523
	Faridabad GPS (NTPC)	432	202	159	4.63	193
	RGTPP (khedar) (IPP)	1200	589	0	4.66	194
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	1201	744	23.66	986
	Thermal (Total)	4944	3188	1622	56.75	2365
	Total Hydro	62	19	16	0.43	18
<b>Total Haryana</b>	<b>5006</b>	<b>3207</b>	<b>1638</b>	<b>57.18</b>	<b>2383</b>	
Rajasthan	kota TPS	1240	1114	1076	26.79	1116
	suratgarh TPS	1500	1037	1012	24.58	1024
	Chabra TPS	750	409	379	9.86	411
	Dholpur GPS	330	103	106	2.27	94
	Ramgarh GPS	221	70	137	2.70	113
	RAPS A (NPC)	300	175	175	4.11	171
	Barsingsar (NLC)	250	211	203	4.61	192
	Giral LTPS	250	0	0	0.00	0
	Rajwest LTPS (IPP)	1080	446	351	10.46	436
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	1320	1186	1001	26.72	1113
	Thermal (Total)	7976	4751	4440	112.10	4671
	Total Hydro	550	264	99	4.04	168
	Wind power	2191	290	344	8.44	352
	Biomass	91	32	32	0.77	32
	Solar	201	0	0	0.29	12
	Renewable/Others (Total)	2483	322	376	9.51	396
<b>Total Rajasthan</b>	<b>11009</b>	<b>5337</b>	<b>4915</b>	<b>125.65</b>	<b>5236</b>	
UP	Anpara TPS	1630	1336	1412	32.10	1338
	Obra TPS	1288	506	495	11.70	488
	Paricha TPS	1140	793	869	19.70	821
	Panki TPS	210	0	0	0.00	0
	Harduaganj TPS	665	445	445	10.70	446
	Tanda TPS (NTPC)	440	336	406	9.56	398
	Roza TPS (IPP)	1200	608	194	10.87	453
	Anpara-C (IPP)	1200	896	986	21.97	915
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	0	0	0.00	0
	Thermal (Total)	8223	4920	4807	116.60	4858
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	137	152	3.14	131
	Cogeneration	981	650	650	15.60	650
	<b>Total UP</b>	<b>10131</b>	<b>5707</b>	<b>5609</b>	<b>135.34</b>	<b>5639</b>
	Uttarakhand	Total Hydro	1303	459	166	7.40
<b>Total Uttarakhand</b>		<b>1303</b>	<b>459</b>	<b>166</b>	<b>7.40</b>	<b>308</b>
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	160	162	3.64	152
	Pragati Gas Turbine	330	157	160	3.74	156
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	719	520	13.81	575
	Thermal (Total)	2232	1036	842	21.18	883
<b>Total Delhi</b>	<b>2232</b>	<b>1036</b>	<b>842</b>	<b>21.18</b>	<b>883</b>	
HP	Baspa HPS (IPP)	330	28	0	0.98	41
	Malana HPS (IPP)	86	2	0	0.21	9
	Other Hydro	589	189	91	3.13	130
	<b>Total HP</b>	<b>1005</b>	<b>219</b>	<b>91</b>	<b>4.31</b>	<b>180</b>
J & K	Baglihar HPS (IPP)	450	148	118	3.21	134
	Other Hydro	323	104	127	2.57	107
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>252</b>	<b>245</b>	<b>5.79</b>	<b>241</b>
<b>Total State Control Area Generation</b>		<b>36770</b>	<b>18814</b>	<b>15346</b>	<b>410.08</b>	<b>17087</b>
<b>J. Net Inter Regional Exchange</b> [[import (+ve)]/Export (-ve)]			<b>4406</b>	<b>3578</b>	<b>118.01</b>	<b>4917</b>
<b>Total Regional Availability(Gross)</b>		<b>60303</b>	<b>38234</b>	<b>27763</b>	<b>794.47</b>	<b>33103</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10560	5665	628	57.50	2396
State Control Area Hydro	5368	1806	1016	34.78	1449
<b>Total Regional Hydro</b>	<b>15928</b>	<b>7471</b>	<b>1644</b>	<b>92.27</b>	<b>3845</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	500	-100	500	100	7.38	0.36	7.02
Gwalior-Agra (D/C)	1146	1294	1798	0	35.21	0.00	35.21
Zerda-Kankroli	-98	-223	19	258	0.00	2.28	-2.28
Zerda-Bhinmal	1	-109	187	176	0.40	0.00	0.40
Malanpur-Auraiya	-98	-48	0	98	0.00	1.44	-1.44
Badod-Kota/Morak	-44	-148	0	171	0.00	2.03	-2.03
Mundra-Mohindergarh(HVDC)	1696	1638	1918	0	44.09	0.00	44.09
<b>Sub Total WR</b>	<b>3103</b>	<b>2304</b>			<b>87.09</b>	<b>6.12</b>	<b>80.97</b>
Pusauli Bypass	400	400	400	0	9.64	0.00	9.64
MZP- GKP (D/C)	141	306	396	0	6.75	0.00	6.75
Patna-Balia(D/C)	360	331	578	0	9.53	0.00	9.53
B'Sharif-Balia (D/C)	273	185	424	0	6.44	0.00	6.44
Pusauli-Balia	-49	-71	0	105	0.00	1.39	-1.39
Gaya-Fatehpur (765 Kv)	46	-18	122	105	0.71	0.00	0.71
Pusauli-Sahupuri	146	121	177	0	3.31	0.00	3.31
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-30	0	37	0.00	0.58	-0.58
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	18	50	218	58	2.63	0.00	2.63
<b>Sub Total ER</b>	<b>1303</b>	<b>1274</b>			<b>39.00</b>	<b>1.97</b>	<b>37.04</b>
<b>Total IR Exch</b>	<b>4406</b>	<b>3578</b>			<b>126.09</b>	<b>8.08</b>	<b>118.01</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
25.12	0.28	25.39	19.91	3.10	2.84	10.79	0.07	-0.07

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
48.21	67.07	115.29	37.04	80.97	118.01	-11.18	13.90	2.72

**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	93.90	0.80	93.90	55.60	6.10

<----- 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)	
50.31	13.03	49.73	6.43	50.02	0.11	0.10	50.33	0.00

**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	23:29	400	09:11	0.0	0.0	0.0	0.0
Gorakhpur	400	430	15:35	408	10:42	0.0	0.0	77.4	0.0
Barilly	400	429	23:02	406	09:11	0.0	0.0	40.6	0.0
Kanpur	400	421	23:06	401	10:17	0.0	0.0	1.9	0.0
Dadri	400	425	23:29	404	10:21	0.0	0.0	9.5	0.0
Ballabgarh	400	431	23:35	407	10:23	0.0	0.0	55.9	0.4
Bawana	400	430	23:41	408	10:21	0.0	0.0	36.4	0.0
Bassi	400	425	19:41	394	10:16	0.0	0.0	11.5	0.0
Hissar	400	419	23:41	391	10:24	0.0	0.0	0.0	0.0
Moga	400	416	23:03	389	10:21	0.0	0.5	0.0	0.0
Abdullapur	400	426	21:48	411	10:21	0.0	0.0	36.0	0.0
Nalagarh	400	428	23:03	404	17:10	0.0	0.0	24.9	0.0
Kishenpur	400	413	13:03	387	10:12	0.0	3.0	0.0	0.0
Wagoora	400	392	17:00	364	10:13	57.8	98.7	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	778	23:01	735	09:32	0.0	6.0	0.0	0.0
Balia	765	781	15:12	725	09:23	2.5	3.1	0.0	0.0
Moga	765	796	21:12	737	10:25	0.0	0.6	0.0	0.0
Agra	765	814	23:03	765	10:32	0.0	0.0	46.1	0.0
Bhiwani	765	798	20:00	779	09:11	0.0	0.0	0.0	0.0
Unnao	765	778	23:56	746	09:59	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	497.99	1018.16	490.84	758.57	168.43	478.81
Pong	426.72	384.05	409.54	484.26	408.41	444.61	56.29	340.54
Tehri	829.79	740.04	804.90	702.00	818.65	982.26	65.30	158.00
Koteshwar	612.50	598.50	610.09	4.69	609.75	4.44	158.00	169.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	44.43	45.31
Rihand	268.22	252.98	260.33	323.20	260.73	323.20	NA	NA
RPS	352.80	343.81	348.92	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.58	NA	NA	NA	NA	NA
RSD	527.91	487.91	509.71	14.40	512.18	14.40	56.97	113.83

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 20.01.2014 :**

1. Foggy weather in part of Region.

**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 .