

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 17.01.2014  
Date of Reporting : 18.01.2014

### 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
36750	591	37340	50.17	29177	370	29547	50.16	800.2	39.93

\* 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	46.69	9.88		56.57	33.12	33.23	0.11	89.79	0.33
Haryana	56.51	0.37		56.89	52.73	53.73	1.00	110.62	0.44
Rajasthan	114.10	3.71	5.75	123.56	74.02	70.83	-3.20	194.39	0.00
Delhi	22.97			22.97	47.59	46.44	-1.15	69.41	0.23
UP	129.50	2.41	15.60	147.51	89.10	82.38	-6.71	229.89	36.59
Uttarakhand		8.05		8.05	24.46	26.11	1.65	34.16	0.23
HP		4.42		4.42	20.67	21.85	1.18	26.27	0.42
J & K		5.74	0.00	5.74	33.12	35.98	2.87	41.72	1.70
Chandigarh				0.00	3.14	3.99	0.84	3.99	0.00
<b>Total</b>	<b>369.76</b>	<b>34.58</b>	<b>21.35</b>	<b>425.70</b>	<b>377.95</b>	<b>374.54</b>	<b>-3.41</b>	<b>800.24</b>	<b>39.93</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	4743	0	-115	-505	2891	0	160	-35	-8.22	
Haryana	5770	292	85	-324	4079	0	306	-338	-12.88	
Rajasthan	8292	0	-336	458	7180	0	-127	172	25.66	
Delhi	3633	0	-44	-644	1562	0	10	-1475	-22.45	
UP	9330	150	-606	1136	9762	370	-96	582	14.47	
Uttarakhand	1732	40	66	662	1205	0	127	531	13.45	
HP	1262	9	2	346	804	0	39	412	9.27	
J&K	1790	100	41	657	1598	0	101	634	13.09	
Chandigarh	198	0	7	0	96	0	28	-20	-0.13	
<b>Total</b>	<b>36750</b>	<b>591</b>	<b>-900</b>	<b>1786</b>	<b>29177</b>	<b>370</b>	<b>548</b>	<b>461</b>	<b>32.28</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	1947	2036	2088	46.41	1934	46.46	-0.04
	Rihand I STPS	1000	884	987	832	20.41	850	20.34	0.07
	Rihand II STPS	1000	933	1032	870	21.71	905	21.55	0.16
	Rihand III STPS	1000	10	0	0	0.11	5	0.25	-0.15
	Dadri I STPS	840	815	830	627	17.34	723	17.59	-0.24
	Dadri II STPS	980	985	910	730	21.19	883	21.67	-0.47
	Unchahar I TPS	420	408	369	313	8.40	350	8.49	-0.09
	Unchahar II TPS	420	405	394	307	8.47	353	8.47	0.01
	Unchahar III TPS	210	202	193	153	4.24	177	4.25	-0.01
	ISTPP (Jhajjar)	1500	1500	1031	633	16.99	708	17.17	-0.18
	Dadri GPS	830	849	408	420	9.47	394	9.67	-0.21
	Anta GPS	419	292	246	199	5.86	244	5.70	0.16
	Auraiya GPS	663	675	310	319	7.47	311	7.47	0.00
	<b>Sub Total (A)</b>	<b>11282</b>	<b>9904</b>	<b>8746.25</b>	<b>7491</b>	<b>188.08</b>	<b>7836</b>	<b>189.07</b>	<b>-1.00</b>
B. NPC	NAPS	440	317	354	349	7.52	313	7.60	-0.08
	RAPS- B	440	420	462	465	10.12	422	10.08	0.04
	RAPS- C	440	430	476	425	10.28	428	10.32	-0.04
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1167</b>	<b>1292</b>	<b>1239</b>	<b>27.92</b>	<b>1163</b>	<b>28.00</b>	<b>-0.08</b>
C. NHPC	Chamera I HPS	540	541	360	0	1.65	69	1.61	0.05
	Chamera II HPS	300	200	140	0	1.04	43	0.96	0.07
	Chamera III HPS	231	231	112	0	0.47	20	0.60	-0.13
	Bairasuil HPS	180	18	0	0	0.06	3	0.09	-0.03
	Salal-HPS	690	110	190	35	2.70	112	2.58	0.12
	Tanakpur-HPS	94	0	0	0	0.00	0	0.00	0.00
	Uri-HPS	480	97	149	41	2.33	97	2.48	-0.15
	Uri-II HPS	180	61	73	37	1.47	61	1.47	0.00
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	258	250	0	2.50	104	2.58	-0.08
	Sewa-II HPS	120	119	63	0	0.47	20	0.41	0.05
	<b>Sub Total (C)</b>	<b>3485</b>	<b>1635</b>	<b>1337</b>	<b>113</b>	<b>12.68</b>	<b>528</b>	<b>12.78</b>	<b>-0.10</b>
D. NJPC	Nathpa Jhakri	1500	1605	977	0	7.00	292	6.85	0.15
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>977</b>	<b>0</b>	<b>7.00</b>	<b>292</b>	<b>6.85</b>	<b>0.15</b>
E. THDC	Tehri HPS	1000	1000	704	0	9.71	405	9.70	0.01
	Koteshwar HPS	400	138	400	91	3.34	139	3.30	0.04
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1138</b>	<b>1104</b>	<b>91</b>	<b>13.05</b>	<b>544</b>	<b>13.00</b>	<b>0.05</b>
F. BBMB	Bhakra HPS	1497	703	1174	386	17.00	708	16.88	0.12
	Dehar HPS	990	114	330	0	2.85	119	2.73	0.12
	Pong HPS	396	228	306	60	5.65	235	5.46	0.19
	<b>Sub Total (F)</b>	<b>2883</b>	<b>1045</b>	<b>1810</b>	<b>446</b>	<b>25.50</b>	<b>1063</b>	<b>25.07</b>	<b>0.43</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.38	16	0.37	0.01
	KWHEP HPS(IPP)	1000	0	360	0	3.72	155	3.84	-0.12
	Malana Stg-II HPS	100	0	0	0	0.12	5	0.12	0.01
	Shree Cement TPS	300	0	267	261	6.50	271	6.66	-0.16
	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>627</b>	<b>261</b>	<b>10.74</b>	<b>447</b>	<b>10.99</b>	<b>-0.26</b>
<b>H. Total Regional Entities (A-G)</b>	<b>23532</b>	<b>16494</b>	<b>15893</b>	<b>9641</b>	<b>284.96</b>	<b>11873</b>	<b>285.76</b>	<b>-0.80</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	1030	810	20.75	865
	Guru Nanak Dev TPS(Bhatinda)	440	342	250	6.44	268
	Guru Hargobind Singh TPS(L.mbt)	920	973	653	19.50	812
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	0	0	0.00	0
	Talwandi Saboo	660	0		0.00	0
	Thermal (Total)	3980	2345	1713	46.69	1945
	<b>Total Punjab</b>	<b>5128</b>	<b>2771</b>	<b>2136</b>	<b>56.57</b>	<b>2357</b>
Haryana	Panipat TPS	1367	470	426	10.74	448
	DCRTPP (Yamuna nagar)	600	556	503	12.64	527
	Faridabad GPS (NTPC)	432	206	165	4.73	197
	RGTPP (khedar) (IPP)	1200	588	522	13.13	547
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	841	572	15.27	636
	Thermal (Total)	4944	2661	2188	56.51	2355
	Total Hydro	62	14	10	0.37	16
	<b>Total Haryana</b>	<b>5006</b>	<b>2675</b>	<b>2198</b>	<b>56.89</b>	<b>2370</b>
Rajasthan	kota TPS	1240	1088	1129	26.56	1107
	suratgarh TPS	1500	1090	1085	25.71	1071
	Chabra TPS	750	441	457	10.54	439
	Dholpur GPS	330	107	107	2.54	106
	Ramgarh GPS	221	122	133	3.38	141
	RAPS A (NPC)	300	175	175	4.15	173
	Barsingsar (NLC)	250	105	107	2.38	99
	Giral LTPS	250	0	42	0.04	2
	Rajwest LTPS (IPP)	1080	475	478	11.03	460
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	1320	1189	1189	27.77	1157
	Thermal (Total)	7976	4792	4902	114.10	4754
	Total Hydro	550	67	146	3.71	155
	Wind power	2191	302	243	5.22	218
	Biomass	91	17	17	0.42	17
	Solar	201	4	0	0.12	5
	Renewable/Others (Total)	2483	319	260	5.75	240
<b>Total Rajasthan</b>	<b>11009</b>	<b>5178</b>	<b>5308</b>	<b>123.56</b>	<b>5148</b>	
UP	Anpara TPS	1630	1455	1538	31.70	1321
	Obra TPS	1288	559	558	12.20	508
	Paricha TPS	1140	952	950	20.30	846
	Panki TPS	210	0	0	0.00	0
	Harduaganj TPS	665	490	478	10.30	429
	Tanda TPS (NTPC)	440	335	400	9.40	392
	Roza TPS (IPP)	1200	581	653	16.91	705
	Anpara-C (IPP)	1200	770	1062	23.77	990
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	168	196	4.91	205
	Thermal (Total)	8223	5310	5835	129.50	5396
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	97	83	2.41	100
	Cogeneration	981	650	650	15.60	650
	<b>Total UP</b>	<b>10131</b>	<b>6057</b>	<b>6568</b>	<b>147.51</b>	<b>6146</b>
	Uttarakhand	Total Hydro	1303	501	172	8.05
<b>Total Uttarakhand</b>		<b>1303</b>	<b>501</b>	<b>172</b>	<b>8.05</b>	<b>335</b>
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	163	160	3.12	130
	Pragati Gas Turbine	330	323	266	7.20	300
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	542	457	12.65	527
	Thermal (Total)	2232	1028	883	22.97	957
	<b>Total Delhi</b>	<b>2232</b>	<b>1028</b>	<b>883</b>	<b>22.97</b>	<b>957</b>
HP	Baspa HPS (IPP)	330	0	0	1.22	51
	Malana HPS (IPP)	86	0	0	0.20	9
	Other Hydro	589	151	66	2.99	125
	<b>Total HP</b>	<b>1005</b>	<b>151</b>	<b>66</b>	<b>4.42</b>	<b>184</b>
J & K	Baglihar HPS (IPP)	450	152	120	3.17	132
	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>256</b>	<b>247</b>	<b>5.74</b>	<b>239</b>
<b>Total State Control Area Generation</b>		<b>36770</b>	<b>18617</b>	<b>17578</b>	<b>425.70</b>	<b>17737</b>
<b>J. Net Inter Regional Exchange</b> [[import (+ve)]/Export (-ve)]			<b>4610</b>	<b>3192</b>	<b>108.72</b>	<b>4530</b>
<b>Total Regional Availability(Gross)</b>		<b>60303</b>	<b>39120</b>	<b>30411</b>	<b>819.38</b>	<b>34141</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10560	5588	650	62.46	2602
State Control Area Hydro	5368	1512	1147	34.58	1441
<b>Total Regional Hydro</b>	<b>15928</b>	<b>7100</b>	<b>1797</b>	<b>97.04</b>	<b>4043</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	0	500	250	4.54	1.12	3.42
Gwalior-Agra (D/C)	1390	954	1758	0	30.02	0.00	30.02
Zerda-Kankroli	-93	-276	90	201	0.00	2.45	-2.45
Zerda-Bhinmal	4	-272	214	282	0.00	0.37	-0.37
Malanpur-Auraiya	-99	-78	0	106	0.00	3.15	-3.15
Badod-Kota/Morak	-29	-198	12	226	0.00	2.14	-2.14
Mundra-Mohindergarh(HVDC)	1913	1917	1919	0	45.51	0.00	45.51
<b>Sub Total WR</b>	<b>3286</b>	<b>2047</b>			<b>80.07</b>	<b>9.23</b>	<b>70.84</b>
Pusaui Bypass	400	400	400	0	9.76	0.00	9.76
MZP- GKP (D/C)	183	225	448	0	6.45	0.00	6.45
Patna-Balia(D/C)	394	314	619	0	9.54	0.00	9.54
B'Sharif-Balia (D/C)	275	126	416	0	5.41	0.00	5.41
Pusaui-Balia	-49	-90	0	107	0.00	1.82	-1.82
Gaya-Fatehpur (765 Kv)	-66	-7	224	173	0.99	0.00	0.99
Pusaui-Sahupuri	195	166	212	0	4.53	0.00	4.53
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)	24	41	361	162	3.60	0.00	3.60
<b>Sub Total ER</b>	<b>1324</b>	<b>1145</b>			<b>40.28</b>	<b>2.40</b>	<b>37.88</b>
<b>Total IR Exch</b>	<b>4610</b>	<b>3192</b>			<b>120.35</b>	<b>11.63</b>	<b>108.72</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
34.46	0.31	34.77	23.84	3.23	0.69	-1.08	-1.10	1.10

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
58.20	57.58	115.78	37.88	70.84	108.72	-20.32	13.26	-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	0.10	1.60	88.40	5.60	86.90	53.70	11.50

<----- 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	Hz				
50.53	23.59	49.47	7.45	50.02	0.24	0.15	50.49	49.74

**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	23:36	400	09:50	0.0	0.0	0.0	0.0
Gorakhpur	400	423	23:41	409	18:58	0.0	0.0	11.7	0.0
Barilly	400	433	23:36	395	01:20	0.0	0.0	16.5	1.2
Kanpur	400	424	23:49	395	09:57	0.0	0.0	3.2	0.0
Dadri	400	428	23:51	399	09:48	0.0	0.0	22.2	0.0
Ballabgarh	400	432	23:59	401	09:47	0.0	0.0	54.3	0.9
Bawana	400	431	23:35	401	09:49	0.0	0.0	41.9	1.1
Bassi	400	426	19:45	385	09:43	0.0	4.4	19.6	0.0
Hissar	400	415	04:00	390	09:46	0.0	0.0	0.0	0.0
Moga	400	414	00:00	390	09:46	0.0	0.0	0.0	0.0
Abdullapur	400	422	23:35	403	18:20	0.0	0.0	3.1	0.0
Nalagarh	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Kishenpur	400	421	15:30	385	14:06	0.0	7.5	0.1	0.0
Wagoora	400	394	16:13	358	18:14	75.9	88.0	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	773	16:05	726	09:50	0.6	11.5	0.0	0.0
Balia	765	774	23:36	725	07:44	1.0	27.6	0.0	0.0
Moga	765	801	15:30	738	16:30	0.0	2.9	0.2	0.0
Agra	765	821	23:57	711	16:33	0.1	0.1	37.8	0.0
Bhiwani	765	797	00:00	749	09:58	0.0	0.0	0.0	0.0
Unnao	765	776	23:06	730	09:55	0.0	15.3	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	499.09	1053.16	491.85	798.09	178.26	525.14
Pong	426.72	384.05	410.33	504.32	409.17	464.36	56.07	352.97
Tehri	829.79	740.04	806.80	740.00	818.65	982.26	44.51	219.00
Koteshwar	612.50	598.50	610.22	4.95	609.40	4.21	219.00	221.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	NA	NA
Rihand	268.22	252.98	260.42	328.10	261.00	360.60	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	510.34	14.40	512.95	14.40	50.74	115.53

\* NA: Not Available

**X. System Constraints:**

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

1. Rains in UP, Haryana , Uttaranchal , NCR region, due that load crash of about 7500 MW.

**XII. Weather Conditions For 17.01.2014 :**

1. Rains in ,Haryana,Delhi , U.P & Uttaranchal.

**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 .