

# पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 15.01.2013  
Date of Reporting : 16.01.2013

### 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
34087	3514	37601	50.04	27707	1230	28937	50.19	731.3	81.73

\* 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)	UI [OD:(+ve), UD: (-ve)]	
	Thermal	Hydro	Renewable/others \$	Total				Consumption (Net MU)	Shortages * (MU)
Punjab	46.91	11.75		58.66	34.90	35.23	0.32	93.88	3.88
Haryana	70.19	0.40		70.59	39.02	36.80	-2.22	107.40	0.33
Rajasthan	80.96	5.27	2.39	88.61	88.03	87.98	-0.04	176.59	0.13
Delhi	30.27			30.27	35.57	30.26	-5.32	60.53	0.05
UP	94.41	4.90	18.00	117.31	73.77	78.11	4.34	195.42	71.26
Uttarakhand		8.73		8.73	21.19	21.81	0.62	30.53	3.33
HP		4.24		4.24	19.49	19.99	0.51	24.24	1.05
J & K		7.02	0.00	7.02	28.26	31.94	3.67	38.96	1.70
Chandigarh				0.00	3.53	3.75	0.22	3.75	0.00
<b>Total</b>	<b>322.74</b>	<b>42.30</b>	<b>20.39</b>	<b>385.43</b>	<b>343.76</b>	<b>345.86</b>	<b>2.11</b>	<b>731.29</b>	<b>81.73</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	
Punjab	4720	600	12	-421	3960	0	-12	153	-5.86
Haryana	5488	0	-227	-163	3605	0	-222	-596	-8.44
Rajasthan	7397	0	58	1376	7047	0	-10	1780	47.25
Delhi	3201	40	-70	-714	1415	0	-75	-1640	-24.53
UP	8573	2643	56	266	8000	1230	309	-178	-2.46
Uttarakhand	1562	115	7	437	1182	0	65	508	11.60
HP	1189	16	11	345	818	0	28	441	8.75
J&K	1751	100	-109	423	1583	0	126	527	9.14
Chandigarh	206	0	-23	15	97	0	13	-31	-0.09
<b>Total</b>	<b>34087</b>	<b>3514</b>	<b>-285</b>	<b>1563</b>	<b>27707</b>	<b>1230</b>	<b>222</b>	<b>965</b>	<b>35.35</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)	UI [OG:(+ve), UG: (-ve)]	
								Schedule Net MU	UI Net MU
A. NTPC	Singrauli STPS	2000	1955	2095	2074	47.25	1969	46.90	0.35
	Rihand I STPS	1000	916	998	996	21.97	916	21.98	-0.01
	Rihand II STPS	1000	975	1041	1035	23.42	976	23.30	0.12
	Rihand III STPS	500	-6	0	0	0.00	0	-0.14	0.14
	Dadri I STPS	840	810	848	631	17.45	727	17.83	-0.38
	Dadri II STPS	980	975	1019	680	21.13	880	22.11	-0.97
	Unchahar I TPS	420	406	443	437	9.67	403	9.69	-0.02
	Unchahar II TPS	420	405	438	429	9.54	397	9.57	-0.04
	Unchahar III TPS	210	202	219	216	4.76	198	4.79	-0.03
	ISTPP (Jhajihar)	1500	980	629	608	15.62	651	15.80	-0.18
	Dadri GPS	830	848	406	332	8.80	366	9.64	-0.85
	Anta GPS	419	425	264	245	5.76	240	5.77	-0.01
	Auraiya GPS	663	668	325	305	7.28	303	7.10	0.18
	<b>Sub Total (A)</b>		<b>10782</b>	<b>9558</b>	<b>8725</b>	<b>7988</b>	<b>192.64</b>	<b>8027</b>	<b>194.33</b>
B. NPC	NAPS	440	142	165	164	3.42	142	3.41	0.01
	RAPS- B	440	416	459	466	10.06	419	9.98	0.07
	RAPS- C	440	407	473	450	9.96	415	9.77	0.19
	<b>Sub Total (B)</b>		<b>1320</b>	<b>965</b>	<b>1097</b>	<b>1080</b>	<b>23.43</b>	<b>976</b>	<b>23.16</b>
C. NHPC	Chamera I HPS	540	550	360	0	1.65	69	1.60	0.05
	Chamera II HPS	300	303	101	0	1.16	48	1.09	0.06
	Chamera III HPS	231	231	77	0	0.60	25	0.59	0.01
	Bairasuil HPS	180	182	120	0	0.46	19	0.56	-0.11
	Salal-HPS	690	116	229	85	2.81	117	2.77	0.03
	Tanakpur-HPS	94	26	32	19	0.59	25	0.63	-0.04
	Uri-HPS	480	114	228	19	2.99	125	2.56	0.43
	Dhauliganga-HPS	280	210	129	0	0.76	32	0.77	-0.01
	Dulhasti-HPS	390	0	0	0	0.00	0	0.00	0.00
	Sewa-II HPS	120	120	122	0	0.27	11	0.27	0.00
<b>Sub Total (C)</b>		<b>3305</b>	<b>1851</b>	<b>1398</b>	<b>123</b>	<b>11.27</b>	<b>470</b>	<b>10.85</b>	<b>0.42</b>
D.NJPC	Nathpa Jhakri	1500	1350	1353	0	6.08	253	6.00	0.08
	<b>Sub Total (D)</b>		<b>1500</b>	<b>1350</b>	<b>1353</b>	<b>0</b>	<b>6.08</b>	<b>253</b>	<b>6.00</b>
E. THDC	Tehri HPS	1000	1020	1002	0	9.74	406	9.80	-0.06
	Koteshwar HPS	400	400	400	86	3.41	142	3.40	0.01
<b>Sub Total (E)</b>		<b>1400</b>	<b>1420</b>	<b>1402</b>	<b>86</b>	<b>13.15</b>	<b>548</b>	<b>13.20</b>	<b>-0.05</b>
F. BBMB	Bhakra HPS	1480	660	1105	419	16.26	678	15.85	0.41
	Dehar HPS	990	99	495	0	2.47	103	2.38	0.09
	Pong HPS	396	224	306	60	5.58	233	5.01	0.57
	<b>Sub Total (F)</b>		<b>2866</b>	<b>983</b>	<b>1906</b>	<b>479</b>	<b>24.31</b>	<b>1013</b>	<b>23.23</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.39	16	0.37	0.01
	KWHEP HPS(IPP)	1000	0	0	0	0.00	0	0.00	0.00
	Malana Stg-II HPS	100	0	18	0	0.14	6	0.12	0.02
	Shree Cement TPS	300	0	138	217	3.74	156	4.58	-0.84
	Budhil HPS(IPP)	70	0	0	0	0.03	1	0.02	0.01
	<b>Sub Total (G)</b>		<b>1662</b>	<b>0</b>	<b>156</b>	<b>217</b>	<b>4.30</b>	<b>179</b>	<b>5.10</b>
<b>H. Total Regional Entities (A-G)</b>		<b>22836</b>	<b>16128</b>	<b>16037</b>	<b>9973</b>	<b>275.18</b>	<b>11466</b>	<b>275.87</b>	<b>-0.69</b>

I. State Entities	Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sent out MW)	
<b>Punjab</b>	Guru Gobind Singh TPS (Ropar)	1260	1054	1050	23.68	987	
	Guru Nanak Dev TPS(Bhatinda)	440	108	108	2.21	92	
	Guru Hargobind Singh TPS(L.mbt)	920	970	964	21.03	876	
	Thermal (Total)	2620	2132	2122	46.91	1955	
	Total Hydro	1148	606	254	11.75	489	
	<b>Total Punjab</b>	<b>3768</b>	<b>2738</b>	<b>2376</b>	<b>58.66</b>	<b>2444</b>	
<b>Haryana</b>	Panipat TPS	1367	1134	904	24.15	1006	
	DCRTPP (Yamuna nagar)	600	281	280	6.82	284	
	Faridabad GPS (NTPC)	432	408	282	8.10	338	
	RGTPP (khedar) (IPP)	1200	930	849	20.64	860	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	570	356	10.48	437	
	Thermal (Total)	4944	196	2671	70.19	2925	
	Total Hydro	62	19	18	0.40	17	
	<b>Total Haryana</b>	<b>5006</b>	<b>215</b>	<b>2689</b>	<b>70.59</b>	<b>2941</b>	
	<b>Rajasthan</b>	kota TPS	1240	966	1061	25.64	1068
		suratgarh TPS	1500	975	935	25.33	1055
Chabra TPS		500	428	228	6.97	290	
Dholpur GPS		330	0	139	2.51	105	
Ramgarh GPS		111	53	45	1.23	51	
RAPS A (NPC)		300	204	204	4.80	200	
Barsingsar (NLC)		250	110	110	2.49	104	
Giral LTPS		250	97	145	1.91	80	
Rajwest LTPS (IPP)		675	483	354	10.08	420	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5291	3316	3221	80.96	3373	
Total Hydro		550	119	165	5.27	219	
Wind power		2191	25	152	1.65	69	
Biomass		91	25	25	0.59	25	
Solar		201	4	0	0.15	6	
Renewable/Others (Total)		2483	50	177	2.39	100	
<b>Total Rajasthan</b>		<b>8324</b>	<b>3485</b>	<b>3563</b>	<b>88.61</b>	<b>3692</b>	
<b>UP</b>	Anpara TPS	1630	782	751	17.40	725	
	Obra TPS	1382	467	383	10.90	454	
	Paricha TPS	890	446	455	10.60	442	
	Panki TPS	210	113	113	2.10	88	
	Harduaganj TPS	665	219	243	4.80	200	
	Tanda TPS (NTPC)	440	299	298	7.37	307	
	Roza TPS (IPP)	1200	819	793	19.80	825	
	Anpara-C (IPP)	1200	319	614	11.79	491	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	405	402	9.65	402	
	Thermal (Total)	8067	3869	4052	94.41	3934	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	218	220	4.90	204	
	Cogeneration	981	750	750	18.00	750	
	<b>Total UP</b>	<b>9975</b>	<b>4837</b>	<b>5022</b>	<b>117.31</b>	<b>4888</b>	
<b>Uttarakhand</b>	Total Hydro	1303	494	308	8.73	364	
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>494</b>	<b>308</b>	<b>8.73</b>	<b>364</b>	
<b>Delhi</b>	Raighat TPS	135	106	100	2.32	97	
	Delhi Gas Turbine	282	162	121	3.00	125	
	Pragati Gas Turbine	330	306	269	6.82	284	
	Rithala GPS	108	0	0	0.00	0	
	Bawana GPS	677	210	207	5.08	212	
	Badarpur TPS (NTPC)	705	595	565	13.05	544	
	Thermal (Total)	2237	1379	1262	30.27	1261	
<b>Total Delhi</b>	<b>2237</b>	<b>1379</b>	<b>1262</b>	<b>30.27</b>	<b>1261</b>		
<b>HP</b>	Baspa HPS (IPP)	330	30	0	1.19	49	
	Malana HPS (IPP)	86	37	0	0.19	8	
	Other Hydro	589	138	92	2.87	120	
	<b>Total HP</b>	<b>1005</b>	<b>205</b>	<b>92</b>	<b>4</b>	<b>177</b>	
<b>J &amp; K</b>	Baglihar HPS (IPP)	450	152	150	3.62	151	
	Other Hydro	323	120	170	3.40	142	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>272</b>	<b>320</b>	<b>7.02</b>	<b>293</b>	
<b>Total State Control Area Generation</b>		<b>32574</b>	<b>13625</b>	<b>15632</b>	<b>385.43</b>	<b>16059</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>3598</b>	<b>3919</b>	<b>95.89</b>	<b>3995</b>	
<b>Total Regional Availability(Gross)</b>		<b>55410</b>	<b>33260</b>	<b>29524</b>	<b>756.49</b>	<b>31520</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	6077	688	55.34	2306
State Control Area Hydro	5368	1933	1377	42.30	1763
<b>Total Regional Hydro</b>	<b>15731</b>	<b>8010</b>	<b>2065</b>	<b>97.64</b>	<b>4068</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	50	200	300	0	3.18	0.00	3.18
Gwalior-Agra (D/C)	650	688	975	0	15.53	0.00	15.53
Zerda-Kankroli	165	102	238	27	2.91	0.00	2.91
Zerda-Bhinmal	246	195	351	0	5.21	0.00	5.21
Malanpur-Auraiya	-113	-76	0	113	0.00	1.95	-1.95
Badod-Kota/Morak	48	44	93	35	0.76	0.00	0.76
Mundra-Mohindergarh(HVDC)	1116	1118	1118	0	27.04	0.00	27.04
<b>Sub Total WR</b>	<b>2162</b>	<b>2271</b>			<b>54.63</b>	<b>1.95</b>	<b>52.68</b>
Pusauli Bypass	300	300	300	0	7.26	0.00	7.26
MZP- GKP (D/C)	248	338	418	0	8.80	0.00	8.80
Patna-Balia(D/C)	669	682	892	0	18.22	0.00	18.22
B'Sharif-Balia (D/C)	170	217	294	0	5.39	0.00	5.39
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	-151	-131	0	193	0.00	1.64	-1.64
Gaya-Fatehpur (765 Kv)	98	160	230	0	3.90	0.00	3.90
Pusauli-Sahupuri	134	119	158	0	2.27	0.00	2.27
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-37	0	48	0.00	0.99	-0.99
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1436</b>	<b>1648</b>			<b>45.84</b>	<b>2.63</b>	<b>43.21</b>
<b>Total IR Exch</b>	<b>3598</b>	<b>3919</b>			<b>100.46</b>	<b>4.58</b>	<b>95.89</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
35.92	0.17	36.09	-0.03	9.94	2.55	21.26	-2.95	3.08

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Incld Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
35.66	58.61	94.26	43.21	52.68	95.89	7.55	-5.93	1.62

**VI. Frequency Profile** <----- % of Time Frequency ----->

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	0.00	7.44	93.57	86.13	59.97	6.43

<----- 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)
50.51	18.02	49.55	6.53	50.04	0.29	0.13	50.25	0.00

**VII. Voltage profile**

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	405	20:33	0	11:54	27.9	27.9	0.0	0.0
Gorakhpur	400	435	20:58	410	9:58	0.0	0.0	69.0	4.4
Bareilly	400	426	20:55	400	11:07	0.0	0.0	3.6	0.0
Kanpur	400	420	20:57	399	10:08	0.0	0.0	0.0	0.0
Dadri	400	416	20:56	400	10:33	0.0	0.0	0.0	0.0
Ballabgarh	400	423	20:55	404	10:52	0.0	0.0	4.0	0.0
Bawana	400	420	20:52	403	10:42	0.0	0.0	0.0	0.0
Bassi	400	428	4:04	56	9:55	4.4	4.4	15.7	0.0
Hissar	400	408	20:53	390	11:09	0.0	0.0	0.0	0.0
Moga	400	412	13:02	395	9:52	0.0	0.0	0.0	0.0
Abdullapur	400	419	20:29	287	16:31	0.1	0.1	0.0	0.0
Nalagarh	400	422	20:44	402	11:09	0.0	0.0	1.0	0.0
Kishenpur	400	419	13:02	388	10:08	0.0	0.2	0.0	0.0
Wagooa	400	410	13:02	366	10:08	26.5	60.5	0.0	0.0

**VIII. 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	492.53	817.99	500.11	1101.35	157.27	447.66
Pong	426.72	384.05	409.55	484.26	412.62	588.94	63.17	303.22
Tehri	829.79	740.04	806.80	715.00	818.65	982.26	34.69	235.00
Koteswar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	NA	NA
Rihand	268.22	252.98	261.18	500.10	263.38	617.70	NA	NA
RPS	352.80	343.81	348.44	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.82	NA	NA	NA	NA	NA
RSD	527.91	487.91	513.40	NA	508.48	NA	64.93	217.53

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 15.01.2013 :**

1. Light Fog in some parts of eastern UP , Haryana.

**XII. Synchronisation of new generating units :**

**XIII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**

**XIV. Tripping of lines in pooling stations :**

**XV. Complete generation loss in a generating station :**

Report for : 15.01.2013

पारी प्रभाती अभियंता / SHIFT CHARGE ENGINEER