

# पावर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 11.01.2013  
Date of Reporting : 12.01.2013

### 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
34608	3490	38098	50.10	28238	2685	30923	50.11	757.4	81.30

\* 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	48.79	12.12		60.90	33.82	34.36	0.53	95.26	3.02
Haryana	83.94	0.45		84.39	39.88	38.16	-1.72	122.54	0.46
Rajasthan	87.41	4.57	3.92	95.90	81.73	81.20	-0.52	177.10	1.55
Delhi	32.12			32.12	40.30	33.76	-6.54	65.88	0.43
UP	109.53	4.89	18.00	132.41	70.82	72.25	1.43	204.67	68.04
Uttarakhand		8.56		8.56	20.51	21.48	0.98	30.05	4.43
HP		4.44		4.44	19.11	18.71	-0.40	23.15	1.69
J & K		3.18	0.00	3.18	27.47	31.36	3.89	34.54	1.70
Chandigarh				0.00	3.71	4.18	0.47	4.18	0.00
<b>Total</b>	<b>361.78</b>	<b>38.21</b>	<b>21.92</b>	<b>421.90</b>	<b>337.34</b>	<b>335.47</b>	<b>-1.88</b>	<b>757.37</b>	<b>81.30</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	4835	600	-19	-421	3424	0	103	151	-5.73
Haryana	5452	0	-156	-309	4074	0	4	-264	-7.30
Rajasthan	7582	0	-152	1498	7092	0	47	1421	42.35
Delhi	3464	0	-105	-363	1583	0	-279	-1349	-18.93
UP	8514	2608	-207	-27	8619	2655	186	-179	-4.11
Uttarakhand	1561	155	30	413	1122	30	87	416	10.85
HP	1215	27	42	370	792	0	9	430	8.44
J&K	1770	100	-164	350	1430	0	91	432	8.30
Chandigarh	216	0	-7	0	102	0	14	-31	0.01
<b>Total</b>	<b>34608</b>	<b>3490</b>	<b>-737</b>	<b>1512</b>	<b>28238</b>	<b>2685</b>	<b>262</b>	<b>1027</b>	<b>33.89</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	2096	2093	47.42	1976	46.92	0.50
	Rihand I STPS	1000	920	978	985	22.03	918	22.08	-0.05
	Rihand II STPS	1000	975	1027	1045	23.44	977	23.35	0.09
	Rihand III STPS	500	41	0	322	0.78	32	0.97	-0.20
	Dadri I STPS	840	654	797	615	15.61	650	15.68	-0.07
	Dadri II STPS	980	852	940	744	20.23	843	20.44	-0.21
	Unchahar I TPS	420	403	434	437	9.57	399	9.65	-0.08
	Unchahar II TPS	420	405	430	433	9.63	401	9.68	-0.05
	Unchahar III TPS	210	202	213	217	4.79	200	4.83	-0.04
	ISTPP (Jhajihar)	1500	980	880	633	17.22	718	16.69	0.53
	Dadri GPS	830	846	611	394	12.16	507	12.53	-0.38
	Anta GPS	419	436	274	282	7.07	295	7.71	-0.63
	Auraiya GPS	663	676	474	305	9.49	395	9.73	-0.24
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9345</b>	<b>9154</b>	<b>8505</b>	<b>199.42</b>	<b>8309</b>	<b>200.25</b>	<b>-0.83</b>
B. NPC	NAPS	440	142	164	166	3.39	141	3.41	-0.02
	RAPS- B	440	253	234	233	4.86	202	6.08	-1.23
	RAPS- C	440	220	237	237	5.11	213	5.28	-0.17
	<b>Sub Total (B)</b>	<b>1320</b>	<b>615</b>	<b>635</b>	<b>636</b>	<b>13.35</b>	<b>556</b>	<b>14.77</b>	<b>-1.42</b>
C. NHPC	Chamera I HPS	540	550	540	0	2.13	89	2.22	-0.08
	Chamera II HPS	300	303	90	0	0.95	39	1.01	-0.06
	Chamera III HPS	231	231	73	0	0.52	22	0.58	-0.06
	Bairasuil HPS	180	182	60	0	0.43	18	0.40	0.04
	Salal-HPS	690	100	225	34	2.48	103	2.49	-0.01
	Tanakpur-HPS	94	27	21	30	0.59	25	0.64	-0.05
	Uri-HPS	480	107	202	33	2.58	108	2.59	-0.01
	Dhauliganga-HPS	280	210	80	0	0.89	37	0.90	-0.01
	Dulhasti-HPS	390	250	268	0	3.49	145	3.54	-0.06
	Sewa-II HPS	120	120	100	0	0.32	13	0.36	-0.05
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2079</b>	<b>1659</b>	<b>97</b>	<b>14.38</b>	<b>599</b>	<b>14.72</b>	<b>-0.35</b>
D.NJPC	Nathpa Jhakri	1500	1350	1040	0	5.93	247	6.01	-0.08
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1350</b>	<b>1040</b>	<b>0</b>	<b>5.93</b>	<b>247</b>	<b>6.01</b>	<b>-0.08</b>
E. THDC	Tehri HPS	1000	1020	1010	0	9.92	413	10.00	-0.08
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1420</b>	<b>1408</b>	<b>85</b>	<b>13.29</b>	<b>554</b>	<b>13.40</b>	<b>-0.11</b>
F. BBMB	Bhakra HPS	1480	652	1106	419	15.97	665	15.65	0.32
	Dehar HPS	990	114	495	0	2.78	116	2.73	0.05
	Pong HPS	396	187	306	66	4.70	196	5.01	-0.31
	<b>Sub Total (F)</b>	<b>2866</b>	<b>953</b>	<b>1907</b>	<b>485</b>	<b>23.45</b>	<b>977</b>	<b>23.39</b>	<b>0.06</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.00	0	0.37	-0.37
	KWHEP HPS(IPP)	1000	0	0	0	0.00	0	0.00	0.00
	Malana Stg-II HPS	100	0	20	0	0.02	1	0.13	-0.11
	Shree Cement TPS	300	0	278	155	6.37	266	6.36	0.02
	Budhil HPS(IPP)	70	0	0	0	0.03	1	0.03	0.00
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>298</b>	<b>155</b>	<b>6.42</b>	<b>267</b>	<b>6.88</b>	<b>-0.46</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>15763</b>	<b>16101</b>	<b>9963</b>	<b>276.24</b>	<b>11510</b>	<b>279.42</b>	<b>-3.18</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	1050	850	22.95	956
	Guru Nanak Dev TPS(Bhatinda)	440	218	190	4.42	184
	Guru Hargobind Singh TPS(L.mbt)	920	972	907	21.42	893
	Thermal (Total)	2620	2240	1947	48.79	2033
	Total Hydro	1148	572	288	12.12	505
	<b>Total Punjab</b>	<b>3768</b>	<b>2812</b>	<b>2235</b>	<b>60.90</b>	<b>2538</b>
Haryana	Panipat TPS	1367	1133	901	25.77	1074
	DCRTPP (Yamuna nagar)	600	281	283	6.65	277
	Faridabad GPS (NTPC)	432	427	269	8.44	351
	RGTPP (khedar) (IPP)	1200	953	965	22.13	922
	Magnum Diesel (IPP)	25	587	348	10.46	436
	Jhajjar(CLP)	1320	579	356	10.49	437
	Thermal (Total)	4944	196	3122	83.94	3497
	Total Hydro	62	18	19	0.45	19
	<b>Total Haryana</b>	<b>5006</b>	<b>214</b>	<b>3141</b>	<b>84.39</b>	<b>3516</b>
	Rajasthan	kota TPS	1240	1168	1180	27.55
suratgarh TPS		1500	1016	1111	25.63	1068
Chabra TPS		500	419	419	8.96	373
Dholpur GPS		330	128	128	2.94	122
Ramgarh GPS		111	42	82	1.53	64
RAPS A (NPC)		300	217	217	4.74	198
Barsingsar (NLC)		250	185	212	4.80	200
Giral LTPS		250	128	85	2.80	117
Rajwest LTPS (IPP)		675	362	362	8.47	353
VSLP LTPS (IPP)		135	0	0	0.00	0
Thermal (Total)		5291	3665	3796	87.41	3642
Total Hydro		550	206	82	4.57	191
Wind power		2191	58	3	3.30	137
Biomass		91	20	20	0.47	20
Solar		201	4	0	0.15	6
Renewable/Others (Total)		2483	78	23	3.92	163
<b>Total Rajasthan</b>		<b>8324</b>	<b>3949</b>	<b>3901</b>	<b>95.90</b>	<b>3996</b>
UP	Anpara TPS	1630	1289	1265	28.30	1179
	Obra TPS	1382	417	537	10.40	433
	Paricha TPS	890	651	651	14.00	583
	Panki TPS	210	65	95	1.50	63
	Harduaganj TPS	665	46	40	1.30	54
	Tanda TPS (NTPC)	440	400	405	9.85	410
	Roza TPS (IPP)	1200	802	792	19.50	812
	Anpara-C (IPP)	1200	614	611	15.28	637
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	363	403	9.40	392
	Thermal (Total)	8067	4647	4799	109.53	4564
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	220	203	4.89	204
	Cogeneration	981	750	750	18.00	750
	<b>Total UP</b>	<b>9975</b>	<b>5617</b>	<b>5752</b>	<b>132.41</b>	<b>5517</b>
Uttarakhand	Total Hydro	1303	496	313	8.56	357
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>496</b>	<b>313</b>	<b>8.56</b>	<b>357</b>
Delhi	Raighat TPS	135	54	97	2.54	106
	Delhi Gas Turbine	282	162	118	3.32	138
	Pragati Gas Turbine	330	315	308	7.72	322
	Rithala GPS	108	20	22	0.36	15
	Bawana GPS	677	189	188	4.10	171
	Badarpur TPS (NTPC)	705	670	540	14.10	587
	Thermal (Total)	2237	1410	1273	32.12	1338
<b>Total Delhi</b>	<b>2237</b>	<b>1410</b>	<b>1273</b>	<b>32.12</b>	<b>1338</b>	
HP	Baspa HPS (IPP)	330	55	0	1.21	50
	Malana HPS (IPP)	86	41	0	0.20	8
	Other Hydro	589	164	82	3.03	126
	<b>Total HP</b>	<b>1005</b>	<b>260</b>	<b>82</b>	<b>4</b>	<b>185</b>
J & K	Baglihar HPS (IPP)	450	134	132	3.18	132
	Other Hydro	323	0	0	0.00	0
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>134</b>	<b>132</b>	<b>3.18</b>	<b>132</b>
<b>Total State Control Area Generation</b>		<b>32574</b>	<b>14892</b>	<b>16829</b>	<b>421.90</b>	<b>17579</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2735</b>	<b>3600</b>	<b>83.38</b>	<b>3474</b>
<b>Total Regional Availability(Gross)</b>		<b>55410</b>	<b>33728</b>	<b>30392</b>	<b>781.51</b>	<b>32563</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	6034	667	57.06	2377
State Control Area Hydro	5368	1906	1119	38.21	1592
<b>Total Regional Hydro</b>	<b>15731</b>	<b>7940</b>	<b>1786</b>	<b>95.26</b>	<b>3969</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	200	400	0	5.79	0.00	5.79
Gwalior-Agra (D/C)	365	744	885	0	14.48	0.00	14.48
Zerda-Kankroli	126	149	239	0	3.19	0.00	3.19
Zerda-Bhinmal	212	236	331	0	5.18	0.00	5.18
Malanpur-Auraiya	-149	-74	0	198	0.00	2.78	-2.78
Badod-Kota/Morak	14	82	52	57	0.58	0.00	0.58
Mundra-Mohindergarh(HVDC)	781	779	785	0	18.83	0.00	18.83
<b>Sub Total WR</b>	<b>1449</b>	<b>2116</b>			<b>48.05</b>	<b>2.78</b>	<b>45.28</b>
Pusauli Bypass	300	300	300	0	7.28	0.00	7.28
MZP- GKP (D/C)	220	380	500	0	7.40	0.00	7.40
Patna-Balia(D/C)	596	537	739	0	14.56	0.00	14.56
B'Sharif-Balia (D/C)	217	137	345	0	5.85	0.00	5.85
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	-137	-152	137	154	0.00	1.23	-1.23
Gaya-Fatehpur (765 Kv)	-5	182	129	19	2.44	0.00	2.44
Pusauli-Sahupuri	127	137	139	0	2.78	0.00	2.78
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>1286</b>	<b>1484</b>			<b>40.31</b>	<b>2.22</b>	<b>38.10</b>
<b>Total IR Exch</b>	<b>2735</b>	<b>3600</b>			<b>88.37</b>	<b>4.99</b>	<b>83.38</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
33.46	0.13	33.58	-0.13	7.26	1.53	19.23	1.74	-1.74

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
36.72	48.32	85.04	38.10	45.28	83.38	1.38	-3.04	-1.66

**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	0.24	10.14	93.57	83.67	60.86	6.19

<----- 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				
50.62	18.03	49.41	7.14	50.04	0.32	0.15	50.36	49.64

**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	402	22:04	0	0:00	49.4	49.4	0.0	0.0
Gorakhpur	400	432	20:30	14	19:56	0.2	0.2	79.2	4.9
Bareilly	400	423	20:43	399	8:52	0.0	0.0	2.3	0.0
Kanpur	400	418	20:43	394	9:12	0.0	0.0	0.0	0.0
Dadri	400	416	20:40	398	9:42	0.0	0.0	0.0	0.0
Ballabgarh	400	422	20:40	400	8:42	0.0	0.0	2.1	0.0
Bawana	400	420	20:40	402	8:41	0.0	0.0	0.0	0.0
Bassi	400	428	20:45	390	8:43	0.0	0.0	14.9	0.0
Hissar	400	410	20:43	390	8:39	0.0	0.0	0.0	0.0
Moga	400	412	13:03	394	8:39	0.0	0.0	0.0	0.0
Abdullapur	400	422	20:43	404	16:23	0.0	0.0	1.6	0.0
Nalagarh	400	420	20:30	403	11:32	0.0	0.0	0.0	0.0
Kishenpur	400	420	13:03	387	18:25	0.0	0.7	0.0	0.0
Wagooa	400	413	13:01	365	18:25	33.0	73.9	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	492.75	827.99	500.30	1101.35	144.10	446.53
Pong	426.72	384.05	409.66	484.26	412.69	588.94	62.75	321.74
Tehri	829.79	740.04	806.30	721.19	818.65	982.26	NA	227.00
Koteswar	612.50	598.50	609.10	4.21	NA	NA	227.00	226.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	NA	NA
Rihand	268.22	252.98	261.24	500.10	263.41	617.70	NA	NA
RPS	352.80	343.81	348.42	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.09	NA	NA	NA	NA	NA
RSD	527.91	487.91	513.57	NA	513.80	NA	42.02	215.86

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 11.01.2013 :**

1. Fog in some parts of eastern UP .

**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 : 11.01.2013

पारी प्रभाती अभियंता / SHIFT CHARGE ENGINEER