

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 10.01.2012  
Date of Reporting : 11.01.2012

### 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
31636	3542	35177	49.93	24648	300	24948	50.17	692.2	43.92

\* 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	45.56	12.07		57.63	28.75	33.45	4.70	91.08	3.00
Haryana	55.79	0.64		56.43	25.90	42.46	16.56	98.88	6.70
Rajasthan	86.36	4.87	11.30	102.53	50.83	57.20	6.37	159.73	2.10
Delhi	30.15			30.15	40.17	34.47	-5.70	64.63	0.04
UP	85.09	5.29	15.60	105.98	84.91	80.23	-4.67	186.22	30.18
Uttarakhand		8.48		8.48	19.89	22.06	2.17	30.54	0.00
HP		4.66		4.66	20.77	19.20	-1.57	23.86	0.00
J & K		4.62	0.00	4.62	24.77	28.88	4.11	33.50	1.90
Chandigarh				0.00	3.49	3.74	0.25	3.74	0.00
<b>Total</b>	<b>302.94</b>	<b>40.62</b>	<b>26.90</b>	<b>370.47</b>	<b>299.48</b>	<b>321.70</b>	<b>22.22</b>	<b>692.17</b>	<b>43.92</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	4539	600	57	-333	3131	0	692	-581	-8.01
Haryana	4411	1006	711	-201	3352	0	87	-201	-4.49
Rajasthan	6762	170	344	201	6110	0	218	276	8.37
Delhi	3361	6	-223	-25	1464	0	76	-340	-3.13
UP	8018	1660	-582	265	7399	300	0	265	6.36
Uttarakhand	1553	0	131	430	1034	0	26	430	10.32
HP	1145	0	-366	124	720	0	-48	405	7.75
J&K	1641	100	59	301	1337	0	90	296	6.59
Chandigarh	206	0	-8	0	100	0	5	-30	-0.24
<b>Total</b>	<b>31636</b>	<b>3542</b>	<b>123</b>	<b>761</b>	<b>24648</b>	<b>300</b>	<b>1147</b>	<b>519</b>	<b>23.52</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	1935	2088	1742	45.69	1904	45.37	0.32
	Rihand I STPS	1000	838	825	781	19.45	810	19.38	0.07
	Rihand II STPS	1000	977	1041	801	22.86	952	22.62	0.23
	Dadri I STPS	840	793	865	619	17.42	726	17.61	-0.20
	Dadri II STPS	980	967	948	870	22.13	922	23.02	-0.89
	Unchahar I TPS	440	377	417	282	8.43	351	8.78	-0.35
	Unchahar II TPS	440	379	442	283	8.64	360	8.60	0.04
	Unchahar III TPS	210	189	220	144	4.36	182	4.34	0.02
	ISTPP (Jhajjar)	1000	475	403	372	9.53	397	9.70	-0.17
	Dadri GPS	830	846	735	510	15.52	647	15.72	-0.20
	Anta GPS	419	431	333	310	8.04	335	7.93	0.11
	Auraiya GPS	663	660	334	283	7.47	311	7.65	-0.18
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8868</b>	<b>8651</b>	<b>6997</b>	<b>189.52</b>	<b>7897</b>	<b>190.72</b>	<b>-1.20</b>
	B. NPC	NAPS	440	241	281	283	5.82	242	5.78
RAPS- B		440	419	469	473	10.30	429	10.06	0.24
RAPS- C		440	420	474	472	10.19	425	10.08	0.11
<b>Sub Total (B)</b>		<b>1320</b>	<b>1080</b>	<b>1224</b>	<b>1228</b>	<b>26.31</b>	<b>1096</b>	<b>25.92</b>	<b>0.39</b>
C. NHPC	Chamera I HPS	540	0	0	0	0.00	0	0.00	0.00
	Chamera II HPS	300	297	178	0	1.15	48	1.13	0.01
	Bairasuil HPS	180	179	60	0	0.49	20	0.45	0.03
	Salal-HPS	690	130	301	90	2.76	115	2.92	-0.16
	Tanakpur-HPS	94	31	36	25	0.75	31	0.72	0.03
	Uri-HPS	480	176	149	45	2.70	113	2.00	0.71
	Dhauliganga-HPS	280	210	209	0	1.18	49	1.21	-0.02
	Dulhasti-HPS	390	388	0	0	1.29	54	1.31	-0.02
	Sewa-II HPS	120	87	70	0	0.46	19	0.47	0.00
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1497</b>	<b>1003</b>	<b>160</b>	<b>10.78</b>	<b>449</b>	<b>10.20</b>	<b>0.58</b>
D. NJPC	Nathpa Jhakri	1500	956	1345	0	7.22	301	7.26	-0.04
	<b>Sub Total (D)</b>	<b>1500</b>	<b>956</b>	<b>1345</b>	<b>0</b>	<b>7.22</b>	<b>301</b>	<b>7.26</b>	<b>-0.04</b>
E. THDC	Tehri HPS	1000	1010	1010	0	8.44	352	8.50	-0.06
	Koteshwar HPS	200	119	203	0	2.76	115	2.70	0.06
	<b>Sub Total (E)</b>	<b>1200</b>	<b>1129</b>	<b>1213</b>	<b>0</b>	<b>11.20</b>	<b>467</b>	<b>11.20</b>	<b>0.00</b>
F. BBMB	Bhakra HPS	1480	646	945	495	15.87	661	15.50	0.37
	Dehar HPS	990	120	495	0	3.17	132	2.87	0.30
	Pong HPS	396	170	306	60	4.36	182	4.07	0.29
	<b>Sub Total (F)</b>	<b>2866</b>	<b>935</b>	<b>1746</b>	<b>555</b>	<b>23.40</b>	<b>975</b>	<b>22.44</b>	<b>0.96</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.34	14	0.33	0.01
	KWHEP HPS(IPP)	1000	0	415	0	4.01	167	3.96	0.05
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	213	195	5.01	209	4.66	0.35
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>628</b>	<b>195</b>	<b>9.36</b>	<b>390</b>	<b>8.95</b>	<b>0.42</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21225</b>	<b>14465</b>	<b>15810</b>	<b>9135</b>	<b>277.78</b>	<b>11574</b>	<b>276.69</b>	<b>1.10</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	900	22.71	946	
	Guru Nanak Dev TPS(Bhatinda)	440	110	110	2.39	100	
	Guru Hargobind Singh TPS(L.mbt)	920	953	783	20.45	852	
	Thermal (Total)	2620	2113	1793	45.56	1898	
	Total Hydro	1148	613	364	12.07	503	
	<b>Total Punjab</b>	<b>3768</b>	<b>2726</b>	<b>2157</b>	<b>57.63</b>	<b>2401</b>	
Haryana	Panipat TPS	1360	1024	1020	25.03	1043	
	DCRTPP (Yamuna nagar)	600	268	270	6.58	274	
	Faridabad GPS (NTPC)	432	439	450	10.68	445	
	RGTPP (kheldar) (IPP)	1200	507	527	13.49	562	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Thermal (Total)	3617	2238	2267	55.79	2324	
	Total Hydro	62	29	23	0.64	27	
	<b>Total Haryana</b>	<b>3679</b>	<b>2267</b>	<b>2290</b>	<b>56.43</b>	<b>2351</b>	
	Rajasthan	kota TPS	1240	1171	1171	27.77	1157
		suratgarh TPS	1500	1159	1128	26.29	1095
Chabra TPS		500	450	431	10.71	446	
Dholpur GPS		330	255	220	4.84	202	
Ramgarh GPS		113	56	66	1.51	63	
RAPS A (NPC)		300	180	183	4.54	189	
Barsingsar (NLC)		250	0	0	0.21	9	
Giral LTPS (IPP)		250	148	105	2.89	120	
Rajwest LTPS (IPP)		540	323	305	7.61	317	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5158	3742	3609	86.36	3598	
Total Hydro		550	116	132	4.87	203	
Wind power		1294	120	299	5.29	220	
Biomass		71	48	48	1.15	48	
Solar		50	0	0	0.00	0	
Renewable/Others (Total)		1365	168	347	11.30	471	
<b>Total Rajasthan</b>		<b>7073</b>	<b>4026</b>	<b>4088</b>	<b>102.53</b>	<b>4272</b>	
UP		Anpara TPS	1630	1297	1409	31.80	1325
		Obra TPS	1442	504	501	12.10	504
		Paricha TPS	640	204	187	4.80	200
	Panki TPS	210	126	108	2.90	121	
	Harduaganj TPS	415	32	36	0.80	33	
	Tanda TPS (NTPC)	440	404	326	10.57	440	
	Roza TPS (IPP)	900	441	378	10.10	421	
	Anpara-C (IPP)	1200	396	330	8.93	372	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	108	143	3.09	129	
	Thermal (Total)	7057	3512	3418	85.09	3546	
	Vishnuparyag HPS (IPP)	400	79	89	2.03	84	
	Other Hydro	527	246	33	3.27	136	
	Cogeneration	951	650	650	15.60	650	
	<b>Total UP</b>	<b>8935</b>	<b>4487</b>	<b>4190</b>	<b>105.98</b>	<b>4332</b>	
	Uttarakhand	Total Hydro	1303	454	249	8.48	353
<b>Total Uttarakhand</b>		<b>1303</b>	<b>454</b>	<b>249</b>	<b>8.48</b>	<b>353</b>	
Delhi	Rajghat TPS	135	48	50	1.28	53	
	Delhi Gas Turbine	282	193	156	4.49	187	
	Pragati Gas Turbine	330	313	265	7.43	310	
	Rithala GPS	108	19	33	0.41	17	
	Bawana GPS	440	182	38	3.82	159	
	Badarpur TPS (NTPC)	705	595	540	12.73	530	
	Thermal (Total)	2000	1350	1084	30.15	1256	
	<b>Total Delhi</b>	<b>2000</b>	<b>1350</b>	<b>1084</b>	<b>30.15</b>	<b>1256</b>	
	HP	Baspa HPS (IPP)	330	0	0	1.20	50
Malana HPS (IPP)		101	45	0	0.23	10	
Other Hydro		571	143	75	3.23	135	
<b>Total HP</b>		<b>1002</b>	<b>188</b>	<b>75</b>	<b>5</b>	<b>194</b>	
J & K	Baglihar HPS (IPP)	450	143	142	3.39	141	
	Other Hydro	323	25	120	1.24	51	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>168</b>	<b>262</b>	<b>4.62</b>	<b>193</b>	
<b>Total State Control Area Generation</b>		<b>28716</b>	<b>15666</b>	<b>14395</b>	<b>370.47</b>	<b>15352</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1542</b>	<b>1898.16</b>	<b>58.15</b>	<b>2423</b>	
<b>Total Regional Availability(Gross)</b>		<b>49941</b>	<b>33018</b>	<b>25428</b>	<b>706.40</b>	<b>29349</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	5935	910	61.96	2582
State Control Area Hydro	5365	1814	1138	38.60	1608
<b>Total Regional Hydro</b>	<b>15447</b>	<b>7749</b>	<b>2048</b>	<b>100.56</b>	<b>4190</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	0	-300	100	300	0.18	3.67	-3.50
Gwalior-Agra (D/C)	337	945	1198	0	21.66	0.00	21.66
Zerda-Kankroli	-40	-41	208	107	0.44	0.00	0.44
Zerda-Bhinmal	44	18	346	92	2.46	0.00	2.46
Malanpur-Auraiya	-126	0	0	126	0.00	0.38	-0.38
Badod-Kota/Morak	-45	13	115	48	0.13	0.00	0.13
<b>Sub Total WR</b>	<b>170</b>	<b>635</b>			<b>24.87</b>	<b>4.05</b>	<b>20.82</b>
Pusauli Bypass	-207	-118	40	319	0.42	3.55	-3.13
MZP- GKP (D/C)	568	588	874	0	15.48	0.00	15.48
Patna-Balia(D/C)	282	418	448	0	9.32	0.00	9.32
B'Sharif-Balia (D/C)	301	292	487	0	8.87	0.00	8.87
Barh - balia(D/C)	311	0	463	0	4.96	0.00	4.96
Pusauli-Sahupuri	147	115	171	0	2.76	0.00	2.76
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	0.93	-0.93
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1372</b>	<b>1263</b>			<b>41.81</b>	<b>4.48</b>	<b>37.33</b>
<b>Total IR Exch</b>	<b>1542</b>	<b>1898</b>			<b>66.68</b>	<b>8.53</b>	<b>58.15</b>

**(V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]**

ISGS/LT Schedule (MU)			Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
ER	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
21.62	0.32	21.94	10.96	14.81	0.88	4.35	2.77	-2.77

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
36.54	9.11	45.65	37.33	20.82	58.15	0.79	11.71	12.50

**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	4.00	22.50	93.30	79.80	24.90	2.70

<----- 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					
50.43	5.02	49.24	7.27	49.87	0.53	0.19	50.38	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	411	02:53	399	06:45	0.0	0.0	0.0	0.0
Gorakhpur	400	432	01:02	408	06:40	0.0	0.0	60.0	8.3
Bareilly	400	427	04:02	399	11:20	0.0	0.0	20.2	0.0
Kanpur	400	423	03:00	397	06:43	0.0	0.0	8.9	0.0
Dadri	400	421	03:00	398	11:17	0.0	0.0	1.2	0.0
Ballabgarh	400	425	03:00	401	06:40	0.0	0.0	13.0	0.0
Bawana	400	425	03:59	400	11:19	0.0	0.0	14.6	0.0
Bassi	400	424	19:26	391	06:40	0.0	0.0	0.8	0.0
Hissar	400	416	04:02	394	11:17	0.0	0.0	0.0	0.0
Moga	400	424	04:02	401	11:18	0.0	0.0	11.6	0.0
Abdullapur	400	425	04:00	403	11:17	0.0	0.0	21.2	0.0
Nalagarh	400	428	03:09	407	11:15	0.0	0.0	33.9	0.0
Kishenpur	400	413	04:02	389	11:17	0.0	0.1	0.0	0.0
Wagoora	400	0	00:00	9999	00:00	0.0	0.0	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 (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	500.30	1101.35	502.56	1219.87	173.10	461.56
Pong	426.72	384.05	412.69	588.94	416.25	730.65	65.27	269.49
Tehri	829.79	740.04	806.50	724.19	818.65	982.26	54.04	200.00
Koteshwar	612.50	598.50	608.50	3.76	NA	NA	170.00	162.00
Chamera-I	760.00	748.75	751.07	NA	750.49	NA	53.66	NA
Rihand	268.22	252.98	263.44	508.00	257.04	159.40	NA	NA
RPS	352.80	343.81	349.83	NA	348.47	NA	NA	157.92
Jawahar Sagar	298.70	295.78	297.55	NA	297.85	NA	NA	200.14
RSD	527.91	487.91	509.29	NA	511.64	NA	43.64	114.20

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 10.01.2012 :**

1. Normal & Cold weather

**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 : 10.01.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER