

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 27.10.2013  
Date of Reporting : 28.10.2013

### I. Regional Availability/Demand:

Evening Peak (20:00 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
32373	1157	33530	50.25	28211	950	29161	50.05	704.7	30.41

\* 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	25.65	9.79		35.44	59.34	60.35	1.01	95.79	0.00
Haryana	51.21	0.71		51.91	53.64	54.10	0.46	106.01	0.00
Rajasthan	73.73	2.50	3.21	79.44	79.33	74.28	-5.05	153.72	0.00
Delhi	18.16			18.16	43.55	42.82	-0.73	60.99	0.02
UP	129.05	3.57	1.20	133.81	73.96	69.79	-4.17	203.60	27.49
Uttarakhand		10.37		10.37	17.08	17.64	0.55	28.01	0.75
HP		8.89		8.89	11.33	13.19	1.86	22.08	0.45
J & K		8.38	0.00	8.38	21.79	22.98	1.19	31.36	1.70
Chandigarh				0.00	3.39	3.15	-0.24	3.15	0.00
<b>Total</b>	<b>297.79</b>	<b>44.20</b>	<b>4.41</b>	<b>346.41</b>	<b>363.41</b>	<b>358.30</b>	<b>-5.11</b>	<b>704.71</b>	<b>30.41</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 (20:00 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	4261	0	-84	150	3637	0	43	255	8.30	
Haryana	4857	0	-241	-712	4462	0	149	-471	-16.91	
Rajasthan	6725	0	-594	1576	5913	0	-280	1522	36.32	
Delhi	2989	2	-84	-443	2040	0	26	-1115	-17.06	
UP	9380	980	-354	-154	9033	950	161	327	-2.04	
Uttarakhand	1331	75	-130	230	1067	0	47	333	7.46	
HP	1032	0	3	-390	758	0	85	37	-1.54	
J&K	1630	100	-1	143	1198	0	86	150	3.17	
Chandigarh	168	0	-18	-46	103	0	-3	-15	-0.44	
<b>Total</b>	<b>32373</b>	<b>1157</b>	<b>-1503</b>	<b>355</b>	<b>28211</b>	<b>950</b>	<b>314</b>	<b>1022</b>	<b>17.26</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	1940	2071	2086	45.76	1907	45.73	0.03	
	Rihand I STPS	1000	675	921	720	16.06	669	15.82	0.24	
	Rihand II STPS	1000	701	991	707	16.27	678	16.07	0.20	
	Rihand III STPS	1000	350	508	360	8.25	344	8.23	0.02	
	Dadri I STPS	840	810	626	622	13.77	574	13.70	0.08	
	Dadri II STPS	980	980	713	735	17.50	729	17.84	-0.35	
	Unchahar I TPS	420	201	180	210	4.34	181	4.35	0.00	
	Unchahar II TPS	420	404	312	380	8.28	345	8.34	-0.06	
	Unchahar III TPS	210	201	158	184	4.10	171	4.19	-0.09	
	ISTPP (Jhajjar)	1500	1480	633	640	14.14	589	14.21	-0.07	
	Dadri GPS	830	803	761	595	16.29	679	16.82	-0.53	
	Anta GPS	419	408	385	392	9.53	397	9.71	-0.18	
	Auraiya GPS	663	643	155	158	3.65	152	3.67	-0.02	
	<b>Sub Total (A)</b>	<b>11282</b>	<b>9596</b>	<b>8414</b>	<b>7789</b>	<b>177.94</b>	<b>7414</b>	<b>178.68</b>	<b>-0.74</b>	
	B. NPC	NAPS	440	300	345	343	7.33	305	7.20	0.13
		RAPS- B	440	410	454	457	9.83	410	9.84	-0.01
RAPS- C		440	425	478	477	10.19	424	10.20	-0.02	
<b>Sub Total (B)</b>		<b>1320</b>	<b>1135</b>	<b>1277</b>	<b>1277</b>	<b>27.35</b>	<b>1139</b>	<b>27.24</b>	<b>0.11</b>	
C. NHPC	Chamera I HPS	540	540	360	0	2.73	114	2.70	0.03	
	Chamera II HPS	300	300	237	0	2.08	87	2.28	-0.20	
	Chamera III HPS	231	231	144	0	1.26	52	1.27	-0.02	
	Bairasuil HPS	180	182	60	0	0.71	30	0.83	-0.12	
	Salal-HPS	690	188	260	208	4.27	178	4.50	-0.23	
	Tanakpur-HPS	94	60	70	62	1.45	60	1.43	0.02	
	Uri-HPS	480	137	232	101	3.15	131	3.18	-0.03	
	Uri-II HPS	120	78	80	60	1.88	78	1.91	-0.02	
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00	
	Dulhasti-HPS	390	387	371	0	5.07	211	5.22	-0.15	
	Sewa-II HPS	120	119	62	0	0.56	23	0.59	-0.04	
	<b>Sub Total (C)</b>	<b>3425</b>	<b>2221</b>	<b>1876</b>	<b>431</b>	<b>23.15</b>	<b>964</b>	<b>23.92</b>	<b>-0.77</b>	
	D. NJPC	Nathpa Jhakri	1500	1605	1279	172	12.72	530	13.00	-0.28
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1279</b>	<b>172</b>	<b>12.72</b>	<b>530</b>	<b>13.00</b>	<b>-0.28</b>	
E. THDC	Tehri HPS	1000	1060	1004	0	6.55	273	6.50	0.04	
	Koteshwar HPS	400	92	99	91	2.21	92	2.20	0.01	
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1152</b>	<b>1103</b>	<b>91</b>	<b>8.76</b>	<b>365</b>	<b>8.70</b>	<b>0.06</b>	
F. BBMB	Bhakra HPS	1497	494	1030	371	12.56	523	11.86	0.70	
	Dehar HPS	990	204	470	140	4.95	206	4.89	0.07	
	Pong HPS	396	275	312	192	6.67	278	6.60	0.07	
	<b>Sub Total (F)</b>	<b>2883</b>	<b>973</b>	<b>1812</b>	<b>703</b>	<b>24.18</b>	<b>1008</b>	<b>23.35</b>	<b>0.83</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	62	27	0.70	29	0.68	0.02	
	KWHEP HPS(IPP)	1000	0	897	149	6.51	271	6.47	0.04	
	Malana Stg-II HPS	100	0	107	0	0.40	17	0.40	0.00	
	Shree Cement TPS	300	0	232	173	4.61	192	4.47	0.15	
	Budhil HPS(IPP)	70	0	10	12	0.23	10	0.26	-0.03	
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1308</b>	<b>361</b>	<b>12.46</b>	<b>519</b>	<b>12.28</b>	<b>0.17</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>23472</b>	<b>16681</b>	<b>17069</b>	<b>10824</b>	<b>286.54</b>	<b>11939</b>	<b>287.17</b>	<b>-0.63</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	670	600	14.51	605
	Guru Nanak Dev TPS(Bhatinda)	440	80	80	1.67	70
	Guru Hargobind Singh TPS(L.mbt)	920	350	422	9.47	395
	Goindwal(GVK)		0	0	0.00	0
	Thermal (Total)	2620	1100	1102	25.65	1069
	Total Hydro	1148	301	422	9.79	408
	<b>Total Punjab</b>	<b>3768</b>	<b>1401</b>	<b>1524</b>	<b>35.44</b>	<b>1477</b>
Haryana	Panipat TPS	1367	84	86	2.15	90
	DCRTPP (Yamuna nagar)	600	279	504	10.24	427
	Faridabad GPS (NTPC)	432	191	160	4.13	172
	RGTPP (khedar) (IPP)	1200	573	438	11.49	479
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	1114	744	23.20	967
	Thermal (Total)	4944	2241	1932	51.21	2134
	Total Hydro	62	14	15	0.71	29
	<b>Total Haryana</b>	<b>5006</b>	<b>2255</b>	<b>1947</b>	<b>51.91</b>	<b>2163</b>
	Rajasthan	kota TPS	1240	1094	1101	26.85
suratgarh TPS		1500	962	962	23.59	983
Chabra TPS		500	399	390	9.81	409
Dholpur GPS		330	100	101	2.49	104
Ramgarh GPS		111	152	139	3.23	135
RAPS A (NPC)		300	179	179	3.99	166
Barsingsar (NLC)		250	112	112	2.60	108
Giral LTPS		250	54	54	1.17	49
Rajwest LTPS (IPP)		1080	0	0	0.00	0
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		660	0	0	0.00	0
Thermal (Total)		6956	3052	3038	73.73	3072
Total Hydro		550	190	76	2.50	104
Wind power		2191	440	317	1.86	77
Biomass		91	21	21	0.51	21
Solar		201	0	0	0.85	35
Renewable/Others (Total)		2483	461	338	3.21	134
<b>Total Rajasthan</b>		<b>9989</b>	<b>3703</b>	<b>3452</b>	<b>79.44</b>	<b>3310</b>
UP		Anpara TPS	1630	1515	1531	32.50
	Obra TPS	1288	530	500	11.00	458
	Paricha TPS	1140	862	784	17.90	746
	Panki TPS	210	80	85	1.70	71
	Harduaganj TPS	665	236	248	5.30	221
	Tanda TPS (NTPC)	440	396	391	9.54	397
	Roza TPS (IPP)	1200	1080	1080	24.46	1019
	Anpara-C (IPP)	1200	804	832	18.94	789
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	363	364	7.72	322
	Thermal (Total)	8223	5866	5815	129.05	5377
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	160	167	3.57	149
	Cogeneration	981	50	50	1.20	50
	<b>Total UP</b>	<b>10131</b>	<b>6076</b>	<b>6032</b>	<b>133.81</b>	<b>5576</b>
	Uttarakhand	Total Hydro	1303	545	372	10.37
<b>Total Uttarakhand</b>		<b>1303</b>	<b>545</b>	<b>372</b>	<b>10.37</b>	<b>432</b>
Delhi	Raighat TPS	135	50	48	1.09	46
	Delhi Gas Turbine	282	81	83	1.88	78
	Pragati Gas Turbine	330	258	261	6.38	266
	Riithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	420	415	8.81	367
	Thermal (Total)	2232	809	807	18.16	757
	<b>Total Delhi</b>	<b>2232</b>	<b>809</b>	<b>807</b>	<b>18.16</b>	<b>757</b>
HP	Baspa HPS (IPP)	330	49	59	1.91	80
	Malana HPS (IPP)	86	95	0	0.46	19
	Other Hydro	589	286	254	6.52	272
	<b>Total HP</b>	<b>1005</b>	<b>430</b>	<b>313</b>	<b>8.89</b>	<b>370</b>
J & K	Baglihar HPS (IPP)	450	244	240	5.81	242
	Other Hydro	323	100	128	2.57	107
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>344</b>	<b>368</b>	<b>8.38</b>	<b>349</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>15563</b>	<b>14815</b>	<b>346.41</b>	<b>14434</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>2211</b>	<b>4352</b>	<b>90.78</b>	<b>3782</b>
<b>Total Regional Availability(Gross)</b>		<b>57862</b>	<b>34843</b>	<b>29991</b>	<b>723.73</b>	<b>30155</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10500	7136	1573	76.41	3184
State Control Area Hydro	5368	1984	1733	44.20	1842
<b>Total Regional Hydro</b>	<b>15868</b>	<b>9120</b>	<b>3306</b>	<b>120.62</b>	<b>5026</b>

**V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(20:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal B/B	-250	-250	200	350	4.44	0.88	3.56
Gwalior-Agra (D/C)	603	1098	1167	0	18.93	0.00	18.93
Zerda-Kankroli	-102	-64	40	212	0.00	2.00	-2.00
Zerda-Bhinmal	33	50	194	102	1.12	0.00	1.12
Malanpur-Auraiya	-114	-65	0	114	0.00	2.05	-2.05
Badod-Kota/Morak	-97	-66	0	187	0.00	2.47	-2.47
Mundra-Mohindergarh(HVDC)	1501	1499	1509	0	36.26	0.00	36.26
<b>Sub Total WR</b>	<b>1574</b>	<b>2202</b>			<b>60.76</b>	<b>7.40</b>	<b>53.36</b>
Pusaui Bypass	-100	-100	0	100	0.00	2.47	-2.47
MZP- GKP (D/C)	278	782	867	0	13.67	0.00	13.67
Patna-Balia(D/C)	254	548	577	0	10.39	0.00	10.39
B'Sharif-Balia (D/C)	155	412	477	0	7.32	0.00	7.32
Pusaui-Balia	-37	72	72	150	0.77	0.00	0.77
Gaya-Fatehpur (765 Kv)	9	349	393	0	5.51	0.00	5.51
Pusaui-Sahupuri	113	120	153	0	3.16	0.00	3.16
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-35	-33	0	37	0.00	0.92	-0.92
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>637</b>	<b>2150</b>			<b>40.81</b>	<b>3.39</b>	<b>37.42</b>
<b>Total IR Exch</b>	<b>2211</b>	<b>4352</b>			<b>101.57</b>	<b>10.79</b>	<b>90.78</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
29.08	2.10	31.18	8.57	-8.78	4.74	3.09	0.94	-0.94

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
45.43	47.46	92.89	37.42	53.36	90.78	-8.01	5.90	-2.11

**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	92.20	0.90	92.20	62.50	7.80

<----- 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				
50.37	6.04	49.74	3.48	50.04	0.13	0.11	50.29	49.96

**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	413	22:32	405	18:31	0.0	0.0	0.0	0.0
Gorakhpur	400	416	21:20	403	08:42	0.0	0.0	0.0	0.0
Barailly	400	422	21:43	404	08:22	0.0	0.0	0.7	0.0
Kanpur	400	418	21:50	402	18:25	0.0	0.0	0.0	0.0
Dadri	400	423	04:36	408	18:38	0.0	0.0	12.3	0.0
Ballabgarh	400	430	23:26	413	18:25	0.0	0.0	62.5	0.0
Bawana	400	427	04:36	411	18:25	0.0	0.0	38.1	0.0
Bassi	400	427	04:00	396	08:17	0.0	0.0	27.1	0.0
Hissar	400	418	21:50	400	18:06	0.0	0.0	0.0	0.0
Moga	400	421	23:14	401	08:07	0.0	0.0	0.7	0.0
Abdullapur	400	423	03:50	406	18:04	0.0	0.0	0.0	0.0
Nalagarh	400	427	04:00	409	18:25	0.0	0.0	40.0	0.0
Kishenpur	400	429	16:33	403	18:17	0.0	0.0	20.6	0.0
Wagoora	400	428	16:32	387	19:15	0.0	1.3	4.9	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	772	23:14	757	22:10	0.0	0.0	0.0	0.0
Balia	765	760	23:43	730	18:31	0.0	14.1	0.0	0.0
Moga	765	797	23:25	761	08:17	0.0	0.0	0.0	0.0
Agra	765	806	04:36	759	08:26	0.0	0.0	11.5	0.0
Bhiwani	765	784	04:44	756	08:19	0.0	0.0	0.0	0.0
Unnao	765	761	21:50	737	08:39	0.0	6.3	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	511.04	1605.30	504.06	1272.20	296.25	307.27
Pong	426.72	384.05	420.76	916.71	420.39	902.94	74.42	369.25
Tehri	829.79	740.04	NA	NA	818.65	982.26	NA	NA
Koteshwar	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	261.82	407.50	263.56	516.00	NA	196.65
RPS	352.80	343.81	NA	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	NA	NA	NA	NA	NA	NA
RSD	527.91	487.91	518.14	144.00	520.80	144.00	76.88	122.13

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 27.10.2013 :**

1. Normal weather in NR.

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

0.00

**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 .

Report for : 27.10.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER