

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 22.10.2013  
Date of Reporting : 23.10.2013

### 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
33721	1995	35716	0.00	28566	750	29316	50.28	737.9	41.72

\* 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	35.26	10.31		45.57	58.29	59.82	1.53	105.39	0.00
Haryana	56.88	0.71		57.59	53.83	53.08	-0.76	110.66	0.00
Rajasthan	75.10	1.38	5.69	82.17	77.85	72.13	-5.72	154.30	0.00
Delhi	22.91			22.91	49.91	47.19	-2.72	70.11	0.03
UP	125.73	3.87	1.20	130.80	78.17	77.27	-0.90	208.07	39.11
Uttarakhand		12.25		12.25	17.25	18.14	0.89	30.39	0.89
HP		9.59		9.59	12.38	14.12	1.74	23.71	0.00
J & K		7.57	0.00	7.57	22.57	24.09	1.52	31.66	1.70
Chandigarh				0.00	3.87	3.67	-0.20	3.67	0.00
<b>Total</b>	<b>315.88</b>	<b>45.68</b>	<b>6.89</b>	<b>368.44</b>	<b>374.12</b>	<b>369.50</b>	<b>-4.62</b>	<b>737.95</b>	<b>41.72</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	4891	0	7	170	3894	0	-16	173	4.67
Haryana	5066	0	-381	-417	4156	0	-472	-658	-14.18
Rajasthan	7156	0	-281	1636	6036	0	-220	1420	37.55
Delhi	3309	0	-485	-345	2259	0	-12	-1137	-14.58
UP	9075	1800	-170	-87	9032	750	234	268	-1.41
Uttarakhand	1444	95	67	254	1097	0	52	312	7.59
HP	1125	0	82	-317	760	0	2	94	-1.12
J&K	1475	100	-138	139	1220	0	41	148	2.74
Chandigarh	180	0	-23	-41	112	0	-7	-15	-0.17
<b>Total</b>	<b>33721</b>	<b>1995</b>	<b>-1323</b>	<b>991</b>	<b>28566</b>	<b>750</b>	<b>-397</b>	<b>605</b>	<b>21.08</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	1940	2016	1919	45.15	1881	45.02	0.13
	Rihand I STPS	1000	660	650	699	14.35	598	14.53	-0.18
	Rihand II STPS	1000	823	857	710	17.64	735	17.89	-0.26
	Rihand III STPS	1000	459	477	397	10.57	441	10.55	0.03
	Dadri I STPS	840	810	614	305	14.25	594	14.35	-0.11
	Dadri II STPS	980	975	964	714	19.47	811	19.73	-0.26
	Unchahar I TPS	420	201	214	176	4.41	184	4.44	-0.03
	Unchahar II TPS	420	403	397	310	8.10	337	8.14	-0.05
	Unchahar III TPS	210	201	200	153	3.99	166	4.05	-0.06
	ISTPP (Jhajjar)	1500	1480	642	644	14.43	601	14.56	-0.13
	Dadri GPS	830	808	550	588	13.08	545	13.15	-0.07
	Anta GPS	419	404	368	394	9.11	380	9.16	-0.05
	Auraiya GPS	663	637	150	160	3.66	153	3.68	-0.02
	<b>Sub Total (A)</b>	<b>11282</b>	<b>9801</b>	<b>8099</b>	<b>7169</b>	<b>178.21</b>	<b>7425</b>	<b>179.25</b>	<b>-1.04</b>
B. NPC	NAPS	440	295	336	340	7.22	301	7.08	0.14
	RAPS- B	440	409	454	458	9.85	411	9.82	0.04
	RAPS- C	440	410	476	474	10.10	421	9.84	0.26
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1114</b>	<b>1266</b>	<b>1272</b>	<b>27.17</b>	<b>1132</b>	<b>26.74</b>	<b>0.43</b>
C. NHPC	Chamera I HPS	540	539	450	0	3.07	128	3.05	0.02
	Chamera II HPS	300	300	150	0	2.01	84	2.07	-0.06
	Chamera III HPS	231	231	58	0	1.31	55	1.26	0.04
	Bairasuil HPS	180	122	10	0	0.72	30	0.85	-0.13
	Salal-HPS	690	193	183	150	4.41	184	4.62	-0.22
	Tanakpur-HPS	94	68	55	66	1.61	67	1.61	-0.01
	Uri-HPS	480	150	81	142	3.65	152	3.85	-0.20
	Uri-II HPS	120	96	122	96	2.28	95	2.30	-0.02
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	387	174	0	5.48	228	5.49	-0.01
	Sewa-II HPS	120	119	70	0	0.39	16	0.38	0.01
<b>Sub Total (C)</b>	<b>3425</b>	<b>2204</b>	<b>1353</b>	<b>454</b>	<b>24.92</b>	<b>1038</b>	<b>25.49</b>	<b>-0.58</b>	
D. NJPC	Nathpa Jhakri	1500	1605	1493	159	14.40	600	14.36	0.04
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1493</b>	<b>159</b>	<b>14.40</b>	<b>600</b>	<b>14.36</b>	<b>0.04</b>
E. THDC	Tehri HPS	1000	1060	966	0	6.64	277	6.50	0.14
	Koteshwar HPS	400	92	100	90	2.19	91	2.20	-0.01
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1152</b>	<b>1066</b>	<b>90</b>	<b>8.83</b>	<b>368</b>	<b>8.70</b>	<b>0.13</b>
F. BBMB	Bhakra HPS	1497	487	1058	371	12.29	512	11.70	0.59
	Dehar HPS	990	233	470	140	5.69	237	5.60	0.09
	Pong HPS	396	306	312	312	7.57	315	7.34	0.23
	<b>Sub Total (F)</b>	<b>2883</b>	<b>1027</b>	<b>1840</b>	<b>823</b>	<b>25.55</b>	<b>1065</b>	<b>24.64</b>	<b>0.91</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	85	26	0.91	38	0.90	0.01
	KWHEP HPS(IPP)	1000	0	855	153	7.27	303	7.26	0.01
	Malana Stg-II HPS	100	0	86	0	0.33	14	0.31	0.01
	Shree Cement TPS	300	0	261	140	4.92	205	4.98	-0.06
	Budhil HPS(IPP)	70	0	10	10	0.28	12	0.33	-0.06
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1297</b>	<b>329</b>	<b>13.71</b>	<b>571</b>	<b>13.79</b>	<b>-0.08</b>
<b>H. Total Regional Entities (A-G)</b>	<b>23472</b>	<b>16903</b>	<b>16414</b>	<b>10296</b>	<b>292.78</b>	<b>12199</b>	<b>292.96</b>	<b>-0.18</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	900	880	20.84	868
	Guru Nanak Dev TPS(Bhatinda)	440	190	200	4.46	186
	Guru Hargobind Singh TPS(L.mbt)	920	505	345	9.96	415
	Goindwal(GVK)		0	0	0.00	0
	Thermal (Total)	2620	1595	1425	35.26	1469
	Total Hydro	1148	428	421	10.31	430
<b>Total Punjab</b>	<b>3768</b>	<b>2023</b>	<b>1846</b>	<b>45.57</b>	<b>1899</b>	
Haryana	Panipat TPS	1367	285	292	7.10	296
	DCRTPP (Yamuna nagar)	600	501	503	11.88	495
	Faridabad GPS (NTPC)	432	174	159	4.00	167
	RGTPP (khedar) (IPP)	1200	431	419	10.80	450
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	1021	1033	23.11	963
	Thermal (Total)	4944	2412	2406	56.88	2370
	Total Hydro	62	29	29	0.71	29
	<b>Total Haryana</b>	<b>5006</b>	<b>2441</b>	<b>2435</b>	<b>57.59</b>	<b>2399</b>
	Rajasthan	kota TPS	1240	896	893	21.88
suratgarh TPS		1500	752	758	18.46	769
Chabra TPS		500	480	407	11.32	472
Dholpur GPS		330	100	101	2.48	103
Ramgarh GPS		111	103	94	2.65	110
RAPS A (NPC)		300	179	179	3.97	165
Barsingsar (NLC)		250	112	113	2.61	109
Giral LTPS		250	62	0	1.09	45
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	444	441	10.64	443
Thermal (Total)		6956	3128	2986	75.10	3129
Total Hydro		550	112	61	1.38	58
Wind power		2191	120	297	4.12	172
Biomass		91	31	31	0.75	31
Solar		201	0	0	0.82	34
Renewable/Others (Total)		2483	151	328	5.69	237
<b>Total Rajasthan</b>		<b>9989</b>	<b>3391</b>	<b>3375</b>	<b>82.17</b>	<b>3424</b>
UP		Anpara TPS	1630	1368	1391	33.00
	Obra TPS	1288	471	460	11.30	471
	Paricha TPS	1140	657	669	15.80	658
	Panki TPS	210	63	85	1.80	75
	Harduaganj TPS	665	429	436	10.00	417
	Tanda TPS (NTPC)	440	293	298	7.36	307
	Roza TPS (IPP)	1200	1080	1072	25.80	1075
	Anpara-C (IPP)	1200	515	482	12.47	519
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	279	390	8.20	342
	Thermal (Total)	8223	5155	5283	125.73	5239
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	137	162	3.87	161
	Cogeneration	981	50	50	1.20	50
	<b>Total UP</b>	<b>10131</b>	<b>5342</b>	<b>5495</b>	<b>130.80</b>	<b>5450</b>
Uttarakhand	Total Hydro	1303	567	408	12.25	510
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>567</b>	<b>408</b>	<b>12.25</b>	<b>510</b>
Delhi	Rajghat TPS	135	98	97	2.33	97
	Delhi Gas Turbine	282	117	120	2.68	112
	Pragati Gas Turbine	330	260	262	6.51	271
	Riithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	510	495	11.39	474
	Thermal (Total)	2232	985	974	22.91	955
<b>Total Delhi</b>	<b>2232</b>	<b>985</b>	<b>974</b>	<b>22.91</b>	<b>955</b>	
HP	Baspa HPS (IPP)	330	61	61	2.05	85
	Malana HPS (IPP)	86	86	0	0.45	19
	Other Hydro	589	279	279	7.10	296
	<b>Total HP</b>	<b>1005</b>	<b>426</b>	<b>340</b>	<b>9.59</b>	<b>400</b>
J & K	Baglihar HPS (IPP)	450	242	138	5.00	208
	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>342</b>	<b>266</b>	<b>7.57</b>	<b>315</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>15517</b>	<b>15139</b>	<b>368.44</b>	<b>15352</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>3070</b>	<b>3765</b>	<b>89.95</b>	<b>3748</b>
<b>Total Regional Availability(Gross)</b>		<b>57862</b>	<b>35001</b>	<b>29200</b>	<b>751.17</b>	<b>31299</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10500	6778	1705	82.21	3425
State Control Area Hydro	5368	2041	1687	45.68	1903
<b>Total Regional Hydro</b>	<b>15868</b>	<b>8819</b>	<b>3392</b>	<b>127.89</b>	<b>5329</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	100	-200	100	300	0.46	4.57	-4.11
Gwalior-Agra (D/C)	586	858	1461	0	22.68	0.00	22.68
Zerda-Kankroli	-4	-189	68	246	0.00	2.80	-2.80
Zerda-Bhinmal	92	-93	177	168	0.00	0.14	-0.14
Malanpur-Auraiya	-87	-82	0	94	0.00	1.86	-1.86
Badod-Kota/Morak	-63	-111	0	161	0.00	2.15	-2.15
Mundra-Mohindergarh(HVDC)	1502	1499	1503	0	35.84	0.00	35.84
<b>Sub Total WR</b>	<b>2126</b>	<b>1682</b>			<b>58.98</b>	<b>11.51</b>	<b>47.47</b>
Pusauli Bypass	-200	-200	0	-200	0.00	4.79	-4.79
MZP- GKP (D/C)	371	841	857	0	16.58	0.00	16.58
Patna-Balia(D/C)	308	508	591	0	10.90	0.00	10.90
B'Sharif-Balia (D/C)	272	441	555	0	9.80	0.00	9.80
Pusauli-Balia	27	99	149	0	1.96	0.00	1.96
Gaya-Fatehpur (765 Kv)	71	303	363	0	6.18	0.00	6.18
Pusauli-Sahupuri	131	126	131	0	2.70	0.00	2.70
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-36	-35	0	36	0.00	0.85	-0.85
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>944</b>	<b>2083</b>			<b>48.12</b>	<b>5.64</b>	<b>42.48</b>
<b>Total IR Exch</b>	<b>3070</b>	<b>3765</b>			<b>107.10</b>	<b>17.15</b>	<b>89.95</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
34.41	2.84	37.25	8.26	-8.99	1.29	9.31	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
47.75	50.50	98.26	42.48	47.47	89.95	-5.27	-3.04	-8.31

**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	0.10	88.50	0.80	88.40	67.20	11.50

<----- 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)		
50.42	17.05	49.65	20.47	50.05	0.17	0.12	50.34	0.00

**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	03:05	404	12:12	0.0	0.0	0.0	0.0
Gorakhpur	400	421	05:04	411	13:47	0.0	0.0	1.3	0.0
Barailly	400	420	04:03	403	13:42	0.0	0.0	0.0	0.0
Kanpur	400	420	03:12	404	13:44	0.0	0.0	0.0	0.0
Dadri	400	424	04:02	406	13:46	0.0	0.0	13.6	0.0
Ballabgarh	400	431	04:02	411	10:14	0.0	0.0	48.2	0.3
Bawana	400	427	03:13	408	11:00	0.0	0.0	40.9	0.0
Bassi	400	431	04:02	409	06:40	0.0	0.0	24.7	0.3
Hissar	400	418	04:02	398	13:47	0.0	0.0	0.0	0.0
Moga	400	421	02:58	401	09:40	0.0	0.0	1.3	0.0
Abdullapur	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Nalagarh	400	427	01:10	406	10:56	0.0	0.0	38.8	0.0
Kishenpur	400	426	02:58	404	10:29	0.0	0.0	19.2	0.0
Wagoora	400	422	02:58	400	10:33	0.0	0.0	3.2	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	767	03:13	738	10:12	0.0	6.7	0.0	0.0
Balia	765	755	03:16	737	13:44	0.0	27.4	0.0	0.0
Moga	765	797	03:13	760	11:00	0.0	0.0	0.0	0.0
Agra	765	814	04:02	767	13:46	0.0	0.0	23.4	0.0
Bhiwani	765	810	04:01	773	10:59	0.0	0.0	20.7	0.0
Unnao	765	761	04:02	740	13:44	0.0	1.0	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	511.09	1605.30	503.94	1258.87	288.29	310.32
Pong	426.72	384.05	421.36	946.20	420.91	931.43	78.58	407.11
Tehri	829.79	740.04	824.65	1107.95	818.65	982.26	100.30	143.00
Koteshwar	612.50	598.50	610.10	4.88	NA	NA	163.00	140.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	84.10	87.62
Rihand	268.22	252.98	NA	NA	NA	NA	NA	NA
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	518.47	150.00	520.64	152.00	100.24	121.20

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 22.10.2013 :**

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 .