

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 18.10.2013  
Date of Reporting : 19.10.2013

### I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 Hrs) MW			Off Peak (03:00 Hrs) MW			Day Energy (Net MU)		
	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
35991	2275	38266	50.23	30709	750	31459	50.17	770.3	34.18

\* 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	34.86	9.38		44.23	67.51	68.73	1.22	112.96	0.00
Haryana	60.80	0.70		61.50	52.65	53.41	0.77	114.92	0.02
Rajasthan	69.09	4.34	5.56	78.99	75.01	71.95	-3.05	150.94	0.00
Delhi	19.01			19.01	61.06	60.61	-0.45	79.62	0.00
UP	128.67	4.15	1.70	134.51	86.48	81.58	-4.90	216.09	31.04
Uttarakhand		13.40		13.40	16.73	17.85	1.12	31.25	1.42
HP		11.32		11.32	12.21	13.40	1.19	24.72	0.00
J & K		12.51	0.00	12.51	21.80	23.42	1.62	35.92	1.70
Chandigarh				0.00	3.96	3.84	-0.12	3.84	0.00
<b>Total</b>	<b>312.42</b>	<b>55.80</b>	<b>7.26</b>	<b>375.48</b>	<b>397.40</b>	<b>394.79</b>	<b>-2.61</b>	<b>770.26</b>	<b>34.18</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	5304	0	-32	341	4452	0	93	485	13.43
Haryana	5861	0	-264	-412	4511	0	74	-423	-10.28
Rajasthan	7040	0	-119	1326	6084	0	-18	1368	32.21
Delhi	3792	0	-156	-307	2674	0	-184	-749	-10.72
UP	9317	2100	-262	310	9596	750	-341	-123	3.92
Uttarakhand	1513	75	93	238	1144	0	47	325	6.72
HP	1157	0	-143	-492	827	0	135	60	-1.91
J&K	1810	100	22	134	1307	0	142	-54	1.43
Chandigarh	198	0	-22	-41	115	0	-5	0	-0.05
<b>Total</b>	<b>35991</b>	<b>2275</b>	<b>-883</b>	<b>1098</b>	<b>30709</b>	<b>750</b>	<b>-57</b>	<b>888</b>	<b>34.75</b>

\* STOA figures are at sellers boundary & PX figures are at regional boundary.

### III. Regional Entities :

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
<b>A. NTPC</b>								
Singrauli STPS	2000	1940	2089	2087	47.00	1958	46.56	0.44
Rihand I STPS	1000	885	968	785	20.96	874	20.57	0.40
Rihand II STPS	1000	964	1035	928	21.97	915	21.80	0.17
Rihand III STPS	1000	485	507	519	11.56	481	11.64	-0.09
Dadri I STPS	840	810	830	710	18.50	771	18.93	-0.43
Dadri II STPS	980	975	945	955	21.68	903	21.89	-0.21
Unchahar I TPS	420	201	212	196	4.53	189	4.54	-0.01
Unchahar II TPS	420	403	423	395	8.49	354	8.48	0.01
Unchahar III TPS	210	201	208	170	4.13	172	4.15	-0.03
ISTPP (Jhajjar)	1500	1480	631	634	14.42	601	14.59	-0.17
Dadri GPS	830	804	580	397	11.72	488	12.29	-0.58
Anta GPS	419	401	381	0	4.07	169	4.49	-0.42
Auraiya GPS	663	636	156	158	3.65	152	3.71	-0.06
<b>Sub Total (A)</b>	<b>11282</b>	<b>10183</b>	<b>8965</b>	<b>7934</b>	<b>192.65</b>	<b>8027</b>	<b>193.63</b>	<b>-0.99</b>
<b>B. NPC</b>								
NAPS	440	130	156	155	3.10	129	3.12	-0.02
RAPS- B	440	405	454	458	9.84	410	9.72	0.12
RAPS- C	440	410	471	470	10.01	417	9.84	0.16
<b>Sub Total (B)</b>	<b>1320</b>	<b>945</b>	<b>1081</b>	<b>1083</b>	<b>22.94</b>	<b>956</b>	<b>22.68</b>	<b>0.26</b>
<b>C. NHPC</b>								
Chamera I HPS	540	539	540	0	3.24	135	3.20	0.04
Chamera II HPS	300	300	269	0	2.20	92	2.04	0.16
Chamera III HPS	231	231	70	0	1.51	63	1.51	0.00
Bairasuil HPS	180	122	70	0	0.96	40	0.88	0.09
Salal-HPS	690	288	335	320	6.26	261	6.44	-0.18
Tanakpur-HPS	94	76	82	78	1.81	76	1.82	-0.01
Uri-HPS	480	150	240	103	4.18	174	3.81	0.37
Uri-II HPS	120	93	121	62	2.46	102	2.18	0.28
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	379	19	6.88	287	6.89	-0.01
Sewa-II HPS	120	119	65	0	0.40	17	0.44	-0.04
<b>Sub Total (C)</b>	<b>3425</b>	<b>2305</b>	<b>2171</b>	<b>582</b>	<b>29.90</b>	<b>1246</b>	<b>29.21</b>	<b>0.68</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	1586	164	15.13	630	14.96	0.17
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1586</b>	<b>164</b>	<b>15.13</b>	<b>630</b>	<b>14.96</b>	<b>0.17</b>
<b>E. THDC</b>								
Tehri HPS	1000	1060	1004	0	7.08	295	7.00	0.08
Koteshwar HPS	400	100	101	100	2.41	100	2.40	0.01
<b>Sub Total (E)</b>	<b>1400</b>	<b>1160</b>	<b>1105</b>	<b>100</b>	<b>9.48</b>	<b>395</b>	<b>9.40</b>	<b>0.08</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	432	935	387	10.53	439	10.36	0.17
Dehar HPS	990	274	635	165	6.44	268	6.58	-0.14
Pong HPS	396	242	372	186	5.89	245	5.80	0.09
<b>Sub Total (F)</b>	<b>2883</b>	<b>948</b>	<b>1942</b>	<b>738</b>	<b>22.86</b>	<b>953</b>	<b>22.74</b>	<b>0.12</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	93	27	0.97	40	0.92	0.04
KWHEP HPS(IPP)	1000	0	597	156	7.70	321	7.81	-0.11
Malana Stg-II HPS	100	0	107	0	0.43	18	0.39	0.04
Shree Cement TPS	300	0	203	265	4.65	194	4.01	0.63
Budhil HPS(IPP)	70	0	30	10	0.33	14	0.38	-0.05
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1030</b>	<b>458</b>	<b>14.07</b>	<b>586</b>	<b>13.51</b>	<b>0.55</b>
<b>H. Total Regional Entities (A-G)</b>	<b>23472</b>	<b>17146</b>	<b>17880</b>	<b>11059</b>	<b>307.03</b>	<b>12793</b>	<b>306.14</b>	<b>0.89</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	1040	900	21.64	902
	Guru Nanak Dev TPS(Bhatinda)	440	232	200	4.69	196
	Guru Hargobind Singh TPS(L.mbt)	920	503	505	8.52	355
	Goindwal(GVK)		0	0	0.00	0
	Thermal (Total)	2620	1775	1605	34.86	1452
	Total Hydro	1148	282	431	9.38	391
<b>Total Punjab</b>	<b>3768</b>	<b>2057</b>	<b>2036</b>	<b>44.23</b>	<b>1843</b>	
Haryana	Panipat TPS	1367	513	770	13.49	562
	DCRTPP (Yamuna nagar)	600	574	518	12.15	506
	Faridabad GPS (NTPC)	432	191	186	4.17	174
	RGTPP (khedar) (IPP)	1200	570	439	10.93	455
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	1114	575	20.05	836
	Thermal (Total)	4944	2962	2488	60.80	2533
	Total Hydro	62	15	15	0.70	29
	<b>Total Haryana</b>	<b>5006</b>	<b>2977</b>	<b>2503</b>	<b>61.50</b>	<b>2563</b>
	Rajasthan	kota TPS	1240	755	801	19.38
suratgarh TPS		1500	656	594	14.55	606
Chabra TPS		500	456	386	9.86	411
Dholpur GPS		330	105	106	2.61	109
Ramgarh GPS		111	129	50	2.59	108
RAPS A (NPC)		300	179	179	4.00	167
Barsingsar (NLC)		250	112	112	2.59	108
Giral LTPS		250	0	0	0.00	0
Rajwest LTPS (IPP)		1080	735	444	13.51	563
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	3127	2672	69.09	2879
Total Hydro		550	187	198	4.34	181
Wind power		2191	72	450	4.86	202
Biomass		91	23	23	0.26	11
Solar		201	0	0	0.44	18
Renewable/Others (Total)		2483	95	473	5.56	232
<b>Total Rajasthan</b>		<b>9989</b>	<b>3409</b>	<b>3343</b>	<b>78.99</b>	<b>3291</b>
UP		Anpara TPS	1630	1384	1345	32.80
	Obra TPS	1288	424	375	10.30	429
	Paricha TPS	1140	627	639	15.00	625
	Panki TPS	210	0	0	0.10	4
	Harduaganj TPS	665	463	338	9.40	392
	Tanda TPS (NTPC)	440	261	299	7.14	297
	Roza TPS (IPP)	1200	882	941	23.25	969
	Anpara-C (IPP)	1200	869	1083	23.71	988
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	278	282	6.97	291
	Thermal (Total)	8223	5188	5302	128.67	5361
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	154	187	4.15	173
	Cogeneration	981	70	70	1.70	71
	<b>Total UP</b>	<b>10131</b>	<b>5412</b>	<b>5559</b>	<b>134.51</b>	<b>5605</b>
	Uttarakhand	Total Hydro	1303	615	472	13.40
<b>Total Uttarakhand</b>		<b>1303</b>	<b>615</b>	<b>472</b>	<b>13.40</b>	<b>558</b>
Delhi	Rajghat TPS	135	54	54	1.23	51
	Delhi Gas Turbine	282	115	117	2.71	113
	Pragati Gas Turbine	330	147	151	3.50	146
	Riithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	540	485	11.57	482
	Thermal (Total)	2232	856	807	19.01	792
<b>Total Delhi</b>	<b>2232</b>	<b>856</b>	<b>807</b>	<b>19.01</b>	<b>792</b>	
HP	Baspa HPS (IPP)	330	259	0	2.76	115
	Malana HPS (IPP)	86	86	0	0.46	19
	Other Hydro	589	328	338	8.10	338
	<b>Total HP</b>	<b>1005</b>	<b>673</b>	<b>338</b>	<b>11.32</b>	<b>472</b>
J & K	Baglihar HPS (IPP)	450	436	438	9.37	390
	Other Hydro	323	128	132	3.14	131
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>564</b>	<b>570</b>	<b>12.51</b>	<b>521</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>16563</b>	<b>15628</b>	<b>375.48</b>	<b>15645</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>2995</b>	<b>5101</b>	<b>103.33</b>	<b>4306</b>
<b>Total Regional Availability(Gross)</b>		<b>57862</b>	<b>37438</b>	<b>31788</b>	<b>785.84</b>	<b>32743</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10500	7601	1767	86.47	3603
State Control Area Hydro	5368	2490	2211	55.80	2325
<b>Total Regional Hydro</b>	<b>15868</b>	<b>10091</b>	<b>3978</b>	<b>142.27</b>	<b>5928</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	-300	50	50	300	0.43	4.06	-3.63
Gwalior-Agra (D/C)	680	1380	1568	0	27.80	0.00	27.80
Zerda-Kankroli	-41	-79	33	218	0.00	2.18	-2.18
Zerda-Bhinmal	-11	-33	78	218	0.00	1.21	-1.21
Malanpur-Auraiya	-55	-42	0	127	0.00	1.37	-1.37
Badod-Kota/Morak	-15	45	49	60	0.00	0.18	-0.18
Mundra-Mohindergarh(HVDC)	1500	1501	1504	0	36.26	0.00	36.26
<b>Sub Total WR</b>	<b>1758</b>	<b>2822</b>			<b>64.49</b>	<b>9.00</b>	<b>55.48</b>
Pusauli Bypass	-200	-200	0	200	0.00	4.80	-4.80
MZP- GKP (D/C)	494	978	978	0	18.97	0.00	18.97
Patna-Balia(D/C)	326	565	629	0	11.26	0.00	11.26
B'Sharif-Balia (D/C)	345	512	602	0	10.88	0.00	10.88
Pusauli-Balia	57	127	186	0	2.71	0.00	2.71
Gaya-Fatehpur (765 Kv)	119	237	375	0	7.20	0.00	7.20
Pusauli-Sahupuri	130	95	130	0	2.38	0.00	2.38
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-34	-35	0	36	0.00	0.75	-0.75
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>1237</b>	<b>2279</b>			<b>53.40</b>	<b>5.55</b>	<b>47.85</b>
<b>Total IR Exch</b>	<b>2995</b>	<b>5101</b>			<b>117.89</b>	<b>14.55</b>	<b>103.33</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
33.53	3.70	37.23	4.81	-3.02	10.19	11.17	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
53.17	52.50	105.68	47.85	55.48	103.33	-5.32	2.98	-2.34

**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	0.31	95.79	2.90	95.48	78.47	4.21

<----- 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)		
50.39	3.04	49.69	9.17	50.10	0.23	0.09	50.28	49.92

**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	411	05:03	405	16:07	0.0	0.0	0.0	0.0
Gorakhpur	400	420	05:03	409	00:33	0.0	0.0	0.0	0.0
Barailly	400	417	05:04	401	08:50	0.0	0.0	0.0	0.0
Kanpur	400	416	04:16	400	08:37	0.0	0.0	0.0	0.0
Dadri	400	419	04:04	407	09:16	0.0	0.0	0.0	0.0
Ballabgarh	400	426	04:10	410	08:47	0.0	0.0	23.9	0.0
Bawana	400	423	04:16	408	12:09	0.0	0.0	7.3	0.0
Bassi	400	429	04:04	404	08:42	0.0	0.0	35.8	0.0
Hissar	400	416	04:16	401	08:42	0.0	0.0	0.0	0.0
Moga	400	420	13:02	403	08:48	0.0	0.0	0.0	0.0
Abdullapur	400	421	05:02	408	09:36	0.0	0.0	0.2	0.0
Nalagarh	400	426	04:11	410	10:22	0.0	0.0	24.7	0.0
Kishenpur	400	427	02:58	402	18:27	0.0	0.0	18.1	0.0
Wagoora	400	427	03:00	390	18:15	0.0	0.0	12.6	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	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Balia	765	755	05:02	734	12:33	0.0	56.3	0.0	0.0
Moga	765	798	13:06	762	09:17	0.0	0.0	0.0	0.0
Agra	765	802	04:32	766	08:42	0.0	0.0	0.4	0.0
Bhiwani	765	802	04:04	774	08:48	0.0	0.0	2.5	0.0
Unnao	765	753	05:04	728	08:46	0.0	64.1	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	511.06	1605.30	503.80	1258.87	326.49	254.85
Pong	426.72	384.05	421.77	975.89	421.35	646.20	89.37	325.25
Tehri	829.79	740.04	824.60	1100.00	818.65	982.26	108.49	177.00
Koteswar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	88.90	96.82
Rihand	268.22	252.98	261.70	401.00	263.87	536.00	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	518.62	144.00	520.58	144.00	114.40	142.55

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 18.10.2013 :**

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 : 18.10.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER