

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.10.2013  
Date of Reporting : 22.10.2013

### 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
34203	2405	36608	50.21	27886	750	28636	50.26	730.6	28.02

\* 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	36.17	10.30		46.47	58.53	59.48	0.95	105.95	0.00
Haryana	54.50	0.71		55.21	46.84	48.41	1.57	103.62	0.00
Rajasthan	72.71	2.56	3.42	78.69	79.19	73.12	-6.07	151.81	0.00
Delhi	21.87			21.87	50.52	48.74	-1.78	70.61	0.04
UP	125.68	4.12	1.70	131.50	79.10	76.88	-2.22	208.38	26.06
Uttarakhand		12.88		12.88	16.97	17.39	0.43	30.27	0.38
HP		9.82		9.82	11.35	13.54	2.19	23.36	0.00
J & K		8.66	0.00	8.66	22.49	24.27	1.78	32.93	1.55
Chandigarh				0.00	3.85	3.67	-0.18	3.67	0.00
<b>Total</b>	<b>310.93</b>	<b>49.04</b>	<b>5.12</b>	<b>365.09</b>	<b>368.83</b>	<b>365.51</b>	<b>-3.32</b>	<b>730.60</b>	<b>28.02</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	4904	0	-7	95	4002	0	48	115	3.15	
Haryana	5307	0	-243	-429	3730	0	61	-469	-16.73	
Rajasthan	6941	0	-452	1593	5837	0	-324	1334	36.85	
Delhi	3400	0	-395	-334	2266	0	34	-1035	-14.19	
UP	9206	2230	-239	-84	8907	750	-89	268	-1.43	
Uttarakhand	1471	75	29	262	1044	0	-16	314	7.74	
HP	1138	0	101	-504	724	0	6	69	-2.57	
J&K	1650	100	40	139	1270	0	100	148	2.78	
Chandigarh	187	0	-17	-30	106	0	-24	-10	-0.21	
<b>Total</b>	<b>34203</b>	<b>2405</b>	<b>-1183</b>	<b>706</b>	<b>27886</b>	<b>750</b>	<b>-203</b>	<b>734</b>	<b>15.39</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	2067	1927	46.21	1926	45.11	1.10	
	Rihand I STPS	1000	725	756	865	16.46	686	16.90	-0.44	
	Rihand II STPS	1000	768	848	823	17.81	742	17.81	0.00	
	Rihand III STPS	1000	388	453	327	8.86	369	8.83	0.03	
	Dadri I STPS	840	810	628	615	14.54	606	15.14	-0.60	
	Dadri II STPS	980	975	979	711	20.12	838	20.15	-0.03	
	Unchahar I TPS	420	201	210	155	4.34	181	4.33	0.01	
	Unchahar II TPS	420	403	430	309	8.36	348	8.27	0.08	
	Unchahar III TPS	210	201	216	153	4.16	174	4.14	0.02	
	ISTPP (Jhajjar)	1500	1416	634	598	13.34	556	13.44	-0.10	
	Dadri GPS	830	803	585	598	13.73	572	13.98	-0.25	
	Anta GPS	419	402	486	389	9.58	399	9.63	-0.05	
	Auraiya GPS	663	637	158	161	3.67	153	3.67	0.00	
	<b>Sub Total (A)</b>	<b>11282</b>	<b>9669</b>	<b>8450</b>	<b>7631</b>	<b>181.17</b>	<b>7549</b>	<b>181.39</b>	<b>-0.22</b>	
	B. NPC	NAPS	440	300	336	345	7.24	302	7.20	0.04
		RAPS- B	440	409	453	460	9.85	410	9.82	0.03
RAPS- C		440	410	475	475	10.09	420	9.84	0.25	
<b>Sub Total (B)</b>		<b>1320</b>	<b>1119</b>	<b>1264</b>	<b>1280</b>	<b>27.18</b>	<b>1133</b>	<b>26.86</b>	<b>0.33</b>	
C. NHPC	Chamera I HPS	540	539	450	0	3.17	132	3.10	0.07	
	Chamera II HPS	300	300	303	0	2.11	88	2.05	0.06	
	Chamera III HPS	231	231	108	0	1.33	55	1.31	0.02	
	Bairasuil HPS	180	122	120	0	0.83	35	0.85	-0.02	
	Salal-HPS	690	203	251	150	4.48	186	4.72	-0.24	
	Tanakpur-HPS	94	68	69	67	1.68	70	1.62	0.06	
	Uri-HPS	480	160	239	146	3.96	165	4.40	-0.44	
	Uri-II HPS	120	82	122	66	2.28	95	1.97	0.31	
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00	
	Dulhasti-HPS	390	387	379	0	5.81	242	5.68	0.14	
	Sewa-II HPS	120	119	74	0	0.41	17	0.40	0.01	
	<b>Sub Total (C)</b>	<b>3425</b>	<b>2210</b>	<b>2115</b>	<b>429</b>	<b>26.07</b>	<b>1086</b>	<b>26.11</b>	<b>-0.03</b>	
	D. NJPC	Nathpa Jhakri	1500	1605	1522	0	14.15	590	13.73	0.42
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1522</b>	<b>0</b>	<b>14.15</b>	<b>590</b>	<b>13.73</b>	<b>0.42</b>	
E. THDC	Tehri HPS	1000	1060	1003	0	6.61	276	6.50	0.11	
	Koteshwar HPS	400	92	100	90	2.25	94	2.20	0.05	
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1152</b>	<b>1103</b>	<b>90</b>	<b>8.86</b>	<b>369</b>	<b>8.70</b>	<b>0.16</b>	
F. BBMB	Bhakra HPS	1497	476	1056	400	12.24	510	11.42	0.82	
	Dehar HPS	990	235	470	140	5.65	235	5.64	0.01	
	Pong HPS	396	293	312	252	7.18	299	7.03	0.15	
	<b>Sub Total (F)</b>	<b>2883</b>	<b>1003</b>	<b>1838</b>	<b>792</b>	<b>25.07</b>	<b>1045</b>	<b>24.08</b>	<b>0.99</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	86	26	0.93	39	0.90	0.03	
	KWHEP HPS(IPP)	1000	0	900	159	7.46	311	7.56	-0.10	
	Malana Stg-II HPS	100	0	106	0	0.40	17	0.37	0.03	
	Shree Cement TPS	300	0	251	116	3.82	159	4.26	-0.44	
	Budhil HPS(IPP)	70	0	25	10	0.30	12	0.33	-0.03	
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1368</b>	<b>311</b>	<b>12.90</b>	<b>538</b>	<b>13.41</b>	<b>-0.51</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>23472</b>	<b>16758</b>	<b>17660</b>	<b>10533</b>	<b>295.41</b>	<b>12309</b>	<b>294.28</b>	<b>1.13</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	880	880	21.62	901	
	Guru Nanak Dev TPS(Bhatinda)	440	200	190	4.68	195	
	Guru Hargobind Singh TPS(L.mbt)	920	423	364	9.87	411	
	Goindwal(GVK)		0	0	0.00	0	
	Thermal (Total)	2620	1503	1434	36.17	1507	
	Total Hydro	1148	430	425	10.30	429	
	<b>Total Punjab</b>	<b>3768</b>	<b>1933</b>	<b>1859</b>	<b>46.47</b>	<b>1936</b>	
Haryana	Panipat TPS	1367	279	414	8.20	342	
	DCRTPP (Yamuna nagar)	600	546	506	12.07	503	
	Faridabad GPS (NTPC)	432	195	161	4.10	171	
	RGTPP (khedar) (IPP)	1200	481	465	10.87	453	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	1114	744	19.26	803	
	Thermal (Total)	4944	2615	2290	54.50	2271	
	Total Hydro	62	14	15	0.71	29	
	<b>Total Haryana</b>	<b>5006</b>	<b>2629</b>	<b>2305</b>	<b>55.21</b>	<b>2300</b>	
	Rajasthan	kota TPS	1240	907	891	20.51	855
suratgarh TPS		1500	780	965	20.70	863	
Chabra TPS		500	403	388	9.78	408	
Dholpur GPS		330	103	99	2.03	85	
Ramgarh GPS		111	88	83	2.11	88	
RAPS A (NPC)		300	179	179	4.00	167	
Barsingsar (NLC)		250	110	112	2.59	108	
Giral LTPS		250	27	0	0.11	5	
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	495	436	10.88	453	
Thermal (Total)		6956	3092	3153	72.71	3030	
Total Hydro		550	169	49	2.56	107	
Wind power		2191	60	159	2.33	97	
Biomass		91	30	30	0.71	30	
Solar		201	0	0	0.38	16	
Renewable/Others (Total)		2483	90	189	3.42	142	
<b>Total Rajasthan</b>		<b>9989</b>	<b>3351</b>	<b>3391</b>	<b>78.69</b>	<b>3279</b>	
UP		Anpara TPS	1630	1374	1358	32.80	1367
		Obra TPS	1288	470	476	11.30	471
	Paricha TPS	1140	659	611	15.40	642	
	Panki TPS	210	72	72	1.80	75	
	Harduaganj TPS	665	427	501	11.10	463	
	Tanda TPS (NTPC)	440	295	296	7.35	306	
	Roza TPS (IPP)	1200	1062	1072	25.29	1054	
	Anpara-C (IPP)	1200	486	512	12.02	501	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	403	282	8.61	359	
	Thermal (Total)	8223	5248	5180	125.68	5237	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	169	190	4.12	172	
	Cogeneration	981	70	70	1.70	71	
	<b>Total UP</b>	<b>10131</b>	<b>5487</b>	<b>5440</b>	<b>131.50</b>	<b>5479</b>	
	Uttarakhand	Total Hydro	1303	623	516	12.88	537
<b>Total Uttarakhand</b>		<b>1303</b>	<b>623</b>	<b>516</b>	<b>12.88</b>	<b>537</b>	
Delhi	Raighat TPS	135	96	48	1.60	67	
	Delhi Gas Turbine	282	118	118	2.77	115	
	Pragati Gas Turbine	330	257	265	6.39	266	
	Riithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	500	500	11.11	463	
	Thermal (Total)	2232	971	931	21.87	911	
	<b>Total Delhi</b>	<b>2232</b>	<b>971</b>	<b>931</b>	<b>21.87</b>	<b>911</b>	
HP	Baspa HPS (IPP)	330	63	84	2.57	107	
	Malana HPS (IPP)	86	87	0	0.44	18	
	Other Hydro	589	297	284	6.81	284	
	<b>Total HP</b>	<b>1005</b>	<b>447</b>	<b>368</b>	<b>9.82</b>	<b>409</b>	
J & K	Baglihar HPS (IPP)	450	242	240	5.79	241	
	Other Hydro	323	115	128	2.87	120	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>357</b>	<b>368</b>	<b>8.66</b>	<b>361</b>	
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>15798</b>	<b>15178</b>	<b>365.09</b>	<b>15212</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>2349</b>	<b>4082</b>	<b>83.33</b>	<b>3472</b>	
<b>Total Regional Availability(Gross)</b>		<b>57862</b>	<b>35807</b>	<b>29793</b>	<b>743.83</b>	<b>30993</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10500	7670	1496	82.94	3456
State Control Area Hydro	5368	2209	1931	49.04	2043
<b>Total Regional Hydro</b>	<b>15868</b>	<b>9879</b>	<b>3427</b>	<b>131.98</b>	<b>5499</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	-200	-100	0	200	0.00	1.85	-1.85
Gwalior-Agra (D/C)	637	1244	1246	0	17.64	0.00	17.64
Zerda-Kankroli	-118	-254	0	271	0.00	3.81	-3.81
Zerda-Bhinmal	-6	-147	65	192	0.00	0.76	-0.76
Malanpur-Auraiya	-128	-104	0	147	0.00	2.48	-2.48
Badod-Kota/Morak	-122	-126	0	156	0.00	2.44	-2.44
Mundra-Mohindergarh(HVDC)	1500	1502	1504	0	36.26	0.00	36.26
<b>Sub Total WR</b>	<b>1563</b>	<b>2015</b>			<b>53.90</b>	<b>11.33</b>	<b>42.57</b>
Pusauli Bypass	-200	-200	0	-200	0.00	4.85	-4.85
MZP- GKP (D/C)	391	846	900	0	17.54	0.00	17.54
Patna-Balia(D/C)	217	534	585	0	10.15	0.00	10.15
B'Sharif-Balia (D/C)	233	428	529	0	9.04	0.00	9.04
Pusauli-Balia	19	93	138	0	1.84	0.00	1.84
Gaya-Fatehpur (765 Kv)	45	279	377	0	5.18	0.00	5.18
Pusauli-Sahupuri	117	122	129	0	2.71	0.00	2.71
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>786</b>	<b>2067</b>			<b>46.46</b>	<b>5.70</b>	<b>40.76</b>
<b>Total IR Exch</b>	<b>2349</b>	<b>4082</b>			<b>100.36</b>	<b>17.03</b>	<b>83.33</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
38.25	3.22	41.47	8.72	-8.91	1.04	3.74	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
52.17	39.50	91.68	40.76	42.57	83.33	-11.41	3.06	-8.35

**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	1.50	94.90	5.90	93.40	52.60	5.10

<----- 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				
50.34	10.04	49.59	5.53	50.00	0.17	0.13	50.29	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	412	06:43	405	18:04	0.0	0.0	0.0	0.0
Gorakhpur	400	426	04:07	411	12:22	0.0	0.0	20.3	0.0
Barilly	400	424	04:04	405	12:21	0.0	0.0	5.9	0.0
Kanpur	400	424	04:03	403	18:26	0.0	0.0	9.1	0.0
Dadri	400	426	04:04	404	18:24	0.0	0.0	19.3	0.0
Ballabgarh	400	434	04:03	411	12:21	0.0	0.0	51.6	8.2
Bawana	400	429	04:02	408	18:24	0.0	0.0	29.3	0.0
Bassi	400	430	04:03	398	07:08	0.0	0.0	25.5	0.0
Hissar	400	421	04:03	399	18:26	0.0	0.0	0.3	0.0
Moga	400	417	23:47	403	12:20	0.0	0.0	0.0	0.0
Abdullapur	400	429	04:03	411	09:22	0.0	0.0	36.0	0.0
Nalagarh	400	432	03:01	409	12:19	0.0	0.0	37.1	1.6
Kishenpur	400	430	03:02	400	18:22	0.0	0.0	23.1	0.0
Wagoora	400	424	02:47	387	18:26	0.0	1.9	11.5	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	774	04:05	729	09:23	0.0	19.9	0.0	0.0
Balia	765	763	04:04	736	12:21	0.0	10.5	0.0	0.0
Moga	765	801	04:04	765	12:21	0.0	0.0	0.2	0.0
Agra	765	818	04:04	779	09:22	0.0	0.0	32.0	0.0
Bhiwani	765	815	04:04	776	18:28	0.0	0.0	25.9	0.0
Unnao	765	782	12:18	742	18:25	0.0	0.0	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 21.10.2013 :**

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 : 21.10.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER