

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 09.11.2013  
Date of Reporting : 10.11.2013

### 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
33062	2205	35267	50.23	24695	750	25445	50.12	681.5	37.68

\* 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	24.69	10.43		35.12	45.31	47.11	1.80	82.23	0.00
Haryana	47.21	0.69		47.90	40.66	42.34	1.68	90.24	0.47
Rajasthan	81.35	4.56	10.72	96.63	71.97	68.19	-3.78	164.82	0.00
Delhi	16.02			16.02	41.18	40.12	-1.06	56.14	0.00
UP	118.48	3.15	1.20	122.83	77.09	73.02	-4.06	195.85	34.41
Uttarakhand		8.62		8.62	19.20	20.87	1.67	29.49	1.20
HP		7.89		7.89	14.06	14.94	0.88	22.83	0.00
J & K		7.09	0.00	7.09	28.52	29.67	1.15	36.76	1.60
Chandigarh				0.00	3.08	3.17	0.09	3.17	0.00
<b>Total</b>	<b>287.75</b>	<b>42.42</b>	<b>11.92</b>	<b>342.10</b>	<b>341.06</b>	<b>339.43</b>	<b>-1.63</b>	<b>681.53</b>	<b>37.68</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	STOA/PX transaction	
Punjab	4103	0	158	-354	2723	0	174	-389	-1.96	
Haryana	4918	0	-391	-969	3099	0	111	-1132	-28.35	
Rajasthan	7247	0	-680	934	6307	0	230	1108	29.57	
Delhi	3007	0	-152	-660	1521	0	-88	-1269	-21.25	
UP	9053	2030	-25	-222	7870	750	-332	-222	-6.42	
Uttarakhand	1538	75	158	338	1038	0	15	323	8.27	
HP	1190	0	5	-256	697	0	81	63	0.25	
J&K	1827	100	5	268	1351	0	102	301	7.01	
Chandigarh	179	0	-1	-8	89	0	10	-15	-0.10	
<b>Total</b>	<b>33062</b>	<b>2205</b>	<b>-923</b>	<b>-928</b>	<b>24695</b>	<b>750</b>	<b>303</b>	<b>-1233</b>	<b>-12.98</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	1612	2042	1513	37.98	1582	37.72	0.26
	Rihand I STPS	1000	744	1004	826	17.49	729	17.57	-0.09
	Rihand II STPS	1000	782	937	814	18.46	769	18.36	0.10
	Rihand III STPS	1000	412	506	429	9.65	402	9.65	0.00
	Dadri I STPS	840	812	646	469	12.65	527	12.72	-0.07
	Dadri II STPS	980	980	992	723	20.81	867	21.00	-0.19
	Unchahar I TPS	420	405	341	388	8.82	367	8.85	-0.04
	Unchahar II TPS	420	404	351	320	8.63	360	8.57	0.06
	Unchahar III TPS	210	201	177	156	4.21	175	4.18	0.03
	ISTPP (Jhajjar)	1500	1480	832	646	15.26	636	15.32	-0.06
	Dadri GPS	830	812	591	498	12.60	525	12.77	-0.17
	Anta GPS	419	413	270	252	6.21	259	6.38	-0.17
	Auraiya GPS	663	649	322	316	7.40	308	7.38	0.01
	<b>Sub Total (A)</b>	<b>11282</b>	<b>9707</b>	<b>9011</b>	<b>7350</b>	<b>180.15</b>	<b>7506</b>	<b>180.49</b>	<b>-0.34</b>
B. NPC	NAPS	440	313	350	358	7.61	317	7.51	0.09
	RAPS- B	440	413	459	460	9.98	416	9.91	0.07
	RAPS- C	440	425	478	476	10.22	426	10.20	0.02
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1151</b>	<b>1287</b>	<b>1294</b>	<b>27.81</b>	<b>1159</b>	<b>27.63</b>	<b>0.18</b>
C. NHPC	Chamera I HPS	540	540	360	0	2.38	99	2.50	-0.12
	Chamera II HPS	300	300	301	0	1.94	81	1.92	0.02
	Chamera III HPS	231	154	142	0	1.12	47	1.14	-0.02
	Bairasuil HPS	180	182	30	0	0.78	33	0.72	0.06
	Salal-HPS	690	121	103	125	3.04	127	2.90	0.14
	Tanakpur-HPS	94	45	52	42	1.14	48	1.07	0.07
	Uri-HPS	480	137	144	45	3.35	140	3.20	0.15
	Uri-II HPS	120	79	63	61	1.92	80	1.89	0.03
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	387	404	0	4.04	168	3.98	0.07
	Sewa-II HPS	120	119	46	0	0.33	14	0.36	-0.03
	<b>Sub Total (C)</b>	<b>3425</b>	<b>2063</b>	<b>1645</b>	<b>273</b>	<b>20.05</b>	<b>836</b>	<b>19.68</b>	<b>0.37</b>
	D. NJPC	Nathpa Jhakri	1500	1605	1625	0	11.49	479	11.00
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1625</b>	<b>0</b>	<b>11.49</b>	<b>479</b>	<b>11.00</b>	<b>0.49</b>
E. THDC	Tehri HPS	1000	1060	1061	0	6.58	274	6.40	0.18
	Koteshwar HPS	400	92	100	92	2.21	92	2.20	0.01
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1152</b>	<b>1161</b>	<b>92</b>	<b>8.79</b>	<b>366</b>	<b>8.60</b>	<b>0.19</b>
F. BBMB	Bhakra HPS	1497	607	1020	390	14.76	615	14.58	0.18
	Dehar HPS	990	181	495	0	4.84	202	4.35	0.50
	Pong HPS	396	265	306	180	6.53	272	6.37	0.16
	<b>Sub Total (F)</b>	<b>2883</b>	<b>1054</b>	<b>1821</b>	<b>570</b>	<b>26.13</b>	<b>1089</b>	<b>25.29</b>	<b>0.84</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	104	0	0.70	29	0.65	0.05
	KWHEP HPS(IPP)	1000	0	700	0	6.19	258	6.00	0.19
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	82	98	2.44	102	2.65	-0.21
	Budhil HPS(IPP)	70	0	10	7	0.11	5	0.09	0.02
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>896</b>	<b>105</b>	<b>9.44</b>	<b>393</b>	<b>9.38</b>	<b>0.06</b>
<b>H. Total Regional Entities (A-G)</b>	<b>23472</b>	<b>16732</b>	<b>17446</b>	<b>9684</b>	<b>283.86</b>	<b>11828</b>	<b>282.06</b>	<b>1.80</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	630	530	11.95	498	
	Guru Nanak Dev TPS(Bhatinda)	440	82	90	2.01	84	
	Guru Hargobind Singh TPS(L.mbt)	920	504	501	10.73	447	
	Goindwal(GVK)		0	0	0.00	0	
	Thermal (Total)	2620	1216	1121	24.69	1029	
	Total Hydro	1148	549	420	10.43	434	
	<b>Total Punjab</b>	<b>3768</b>	<b>1765</b>	<b>1541</b>	<b>35.12</b>	<b>1463</b>	
Haryana	Panipat TPS	1367	704	417	10.28	429	
	DCRTPP (Yamuna nagar)	600	554	496	12.06	502	
	Faridabad GPS (NTPC)	432	187	159	4.10	171	
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	1054	704	20.77	866	
	Thermal (Total)	4944	2499	1776	47.21	1967	
	Total Hydro	62	30	29	0.69	29	
		<b>Total Haryana</b>	<b>5006</b>	<b>2529</b>	<b>1805</b>	<b>47.90</b>	<b>1996</b>
	Rajasthan	kota TPS	1240	1081	950	24.00	1000
suratgarh TPS		1500	971	778	22.60	942	
Chabra TPS		500	384	452	9.62	401	
Dholpur GPS		330	106	105	2.62	109	
Ramgarh GPS		111	146	159	3.41	142	
RAPS A (NPC)		300	180	180	4.00	167	
Barsingsar (NLC)		250	112	113	2.60	109	
Giral LTPS		250	48	0	0.69	29	
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	435	11.80	492	
Thermal (Total)		6956	3472	3172	81.35	3390	
Total Hydro		550	207	141	4.56	190	
Wind power		2191	319	553	9.48	395	
Biomass		91	19	19	0.47	19	
Solar		201	0	0	0.78	32	
Renewable/Others (Total)		2483	338	572	10.72	447	
		<b>Total Rajasthan</b>	<b>9989</b>	<b>4017</b>	<b>3885</b>	<b>96.63</b>	<b>4026</b>
UP		Anpara TPS	1630	728	797	18.30	763
	Obra TPS	1288	471	423	11.30	471	
	Paricha TPS	1140	797	671	17.00	708	
	Panki TPS	210	45	0	0.40	17	
	Harduaganj TPS	665	453	455	11.00	458	
	Tanda TPS (NTPC)	440	396	401	9.74	406	
	Roza TPS (IPP)	1200	797	756	21.11	879	
	Anpara-C (IPP)	1200	884	935	23.32	972	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	278	279	6.31	263	
	Thermal (Total)	8223	4849	4717	118.48	4937	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	163	131	3.15	131	
	Cogeneration	981	50	50	1.20	50	
		<b>Total UP</b>	<b>10131</b>	<b>5062</b>	<b>4898</b>	<b>122.83</b>	<b>5118</b>
	Uttarakhand	Total Hydro	1303	400	330	8.62	359
<b>Total Uttarakhand</b>		<b>1303</b>	<b>400</b>	<b>330</b>	<b>8.62</b>	<b>359</b>	
Delhi	Raighat TPS	135	0	0	0.00	0	
	Delhi Gas Turbine	282	83	82	1.99	83	
	Pragati Gas Turbine	330	263	263	6.56	274	
	Riithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	380	325	7.47	311	
	Thermal (Total)	2232	726	670	16.02	668	
	<b>Total Delhi</b>	<b>2232</b>	<b>726</b>	<b>670</b>	<b>16.02</b>	<b>668</b>	
HP	Baspa HPS (IPP)	330	31	62	2.01	84	
	Malana HPS (IPP)	86	35	0	0.40	16	
	Other Hydro	589	215	224	5.48	228	
		<b>Total HP</b>	<b>1005</b>	<b>281</b>	<b>286</b>	<b>7.89</b>	<b>329</b>
J & K	Baglihar HPS (IPP)	450	294	144	4.52	188	
	Other Hydro	323	90	115	2.58	107	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>384</b>	<b>259</b>	<b>7.09</b>	<b>296</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>15164</b>	<b>13674</b>	<b>342.10</b>	<b>14254</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>2007</b>	<b>2466</b>	<b>80.29</b>	<b>3345</b>	
<b>Total Regional Availability(Gross)</b>		<b>57862</b>	<b>34617</b>	<b>25824</b>	<b>706.25</b>	<b>29427</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10500	7056	935	73.35	3056
State Control Area Hydro	5368	2014	1596	42.42	1768
<b>Total Regional Hydro</b>	<b>15868</b>	<b>9070</b>	<b>2531</b>	<b>115.77</b>	<b>4824</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	-500	-450	0	500	0.00	9.34	-9.34
Gwalior-Agra (D/C)	330	524	1195	0	16.55	0.00	16.55
Zerda-Kankroli	-159	-231	7	271	0.00	3.13	-3.13
Zerda-Bhinmal	-89	-111	158	227	0.00	0.57	-0.57
Malanpur-Auraiya	-183	-135	0	199	0.00	3.25	-3.25
Badod-Kota/Morak	131	-153	0	204	0.00	3.23	-3.23
Mundra-Mohindergarh(HVDC)	1501	1500	1504	0	36.25	0.00	36.25
<b>Sub Total WR</b>	<b>1031</b>	<b>944</b>			<b>52.80</b>	<b>19.52</b>	<b>33.28</b>
Pusauli Bypass	300	100	300	0	5.48	0.00	5.48
MZP- GKP (D/C)	218	510	870	0	13.26	0.00	13.26
Patna-Balia(D/C)	253	411	736	0	12.57	0.00	12.57
B'Sharif-Balia (D/C)	90	263	503	0	7.63	0.00	7.63
Pusauli-Balia	-85	39	115	98	0.33	0.00	0.33
Gaya-Fatehpur (765 Kv)	79	84	424	0	5.14	0.00	5.14
Pusauli-Sahupuri	121	115	131	0	2.60	0.00	2.60
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	0	0	0	0	0.00	0.00	0.00
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>976</b>	<b>1522</b>			<b>47.01</b>	<b>0.00</b>	<b>47.01</b>
<b>Total IR Exch</b>	<b>2007</b>	<b>2466</b>			<b>99.81</b>	<b>19.52</b>	<b>80.29</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
35.36	1.35	36.71	1.39	-28.56	11.69	-4.04	2.95	-2.95

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
52.75	23.32	76.06	47.01	33.28	80.29	-5.74	9.96	4.22

**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	1.30	94.50	4.30	93.20	48.60	5.50

<----- 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				
50.39	16.03	49.54	7.51	50.00	0.16	0.13	50.29	49.87

**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	415	21:28	408	19:03	0.0	0.0	0.0	0.0
Gorakhpur	400	425	05:01	410	10:10	0.0	0.0	21.8	0.0
Barilly	400	424	04:02	384	23:49	0.0	0.0	14.6	0.0
Kanpur	400	424	04:04	402	10:22	0.0	0.0	14.1	0.0
Dadri	400	425	03:05	409	09:15	37.5	37.5	33.8	0.0
Ballabgarh	400	436	03:02	411	12:16	0.0	0.0	58.6	15.8
Bawana	400	429	03:11	414	06:52	0.0	0.0	72.4	0.0
Bassi	400	428	20:51	398	07:17	0.0	0.0	18.4	0.0
Hissar	400	418	00:09	414	00:27	0.0	0.0	0.0	0.0
Moga	400	426	01:35	163	06:40	12.6	12.6	29.3	0.0
Abdullapur	400	421	00:08	417	00:27	0.0	0.0	4.5	0.0
Nalagarh	400	432	00:10	407	12:16	0.0	0.0	37.3	0.7
Kishenpur	400	429	01:44	399	18:14	0.0	0.0	19.0	0.0
Wagoora	400	418	13:06	378	18:48	1.3	12.2	0.0	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	04:03	725	11:17	0.2	20.7	0.0	0.0
Balia	765	762	05:04	733	09:17	0.0	8.7	0.0	0.0
Moga	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Agra	765	818	20:57	768	10:39	0.0	0.0	33.8	0.0
Bhiwani	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Unnao	765	768	04:03	733	10:33	0.0	14.9	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	510.20	1560.04	503.47	1245.57	240.10	410.91
Pong	426.72	384.05	419.18	848.35	418.71	834.82	127.40	378.11
Tehri	829.79	740.04	823.15	1065.64	818.65	982.26	64.92	143.00
Koteshwar	612.50	598.50	811.75	NA	NA	NA	143.00	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	73.51	64.71
Rihand	268.22	252.98	261.88	411.80	263.13	488.00	NA	217.56
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	517.08	144.00	520.88	144.00	75.46	136.23

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 09.11.2013 :**

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 .