

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 27.11.2013  
Date of Reporting : 28.11.2013

### I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 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
34209	2302	36510	50.16	27607	780	28387	50.20	730.5	60.39

\* 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	46.20	10.68		56.88	33.13	35.51	2.38	92.39	2.87
Haryana	59.81	0.59		60.40	36.87	40.38	3.51	100.77	2.09
Rajasthan	100.46	5.45	2.33	108.23	71.92	69.07	-2.85	177.30	0.00
Delhi	16.53			16.53	41.02	40.76	-0.26	57.29	0.00
UP	123.17	2.91	1.20	127.28	80.33	79.43	-0.90	206.71	52.21
Uttarakhand		8.51		8.51	20.76	20.45	-0.32	28.95	1.53
HP		6.45		6.45	16.54	17.65	1.11	24.10	0.00
J & K		7.12	0.00	7.12	29.39	32.53	3.14	39.64	1.70
Chandigarh				0.00	3.17	3.37	0.20	3.37	0.00
<b>Total</b>	<b>346.16</b>	<b>41.70</b>	<b>3.53</b>	<b>391.39</b>	<b>333.14</b>	<b>339.13</b>	<b>5.99</b>	<b>730.52</b>	<b>60.39</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	4583	0	-47	-888	3242	0	196	-650	-14.65	
Haryana	4801	302	167	-969	3804	0	76	-1002	-24.96	
Rajasthan	7906	0	-147	720	6716	0	3	657	29.52	
Delhi	3095	0	-142	-513	1406	0	-39	-1066	-19.29	
UP	8965	1825	-331	376	9061	780	121	599	1.33	
Uttarakhand	1519	75	-147	538	1018	0	-1	412	10.16	
HP	1221	0	108	39	752	0	62	246	4.39	
J&K	1934	100	76	511	1523	0	135	381	8.52	
Chandigarh	185	0	6	0	85	0	-6	-7	-0.03	
<b>Total</b>	<b>34209</b>	<b>2302</b>	<b>-457</b>	<b>-187</b>	<b>27607</b>	<b>780</b>	<b>547</b>	<b>-429</b>	<b>-5.02</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
A. NTPC	Singrauli STPS	2000	1876	2080	1870	45.57	1899	44.95	0.63
	Rihand I STPS	1000	817	995	851	19.54	814	19.35	0.19
	Rihand II STPS	1000	911	1048	955	21.75	906	21.65	0.10
	Rihand III STPS	1000	413	519	425	9.97	415	9.92	0.06
	Dadri I STPS	840	814	648	472	13.02	542	13.34	-0.33
	Dadri II STPS	980	985	960	712	21.34	889	21.56	-0.22
	Unchahar I TPS	420	405	429	372	9.31	388	9.44	-0.13
	Unchahar II TPS	420	403	439	338	9.09	379	9.10	-0.01
	Unchahar III TPS	210	201	518	156	4.49	187	4.51	-0.02
	ISTPP (Jhajjar)	1500	1480	1022	631	20.42	851	20.65	-0.23
	Dadri GPS	830	823	394	202	6.66	278	7.02	-0.36
	Anta GPS	419	414	345	257	6.53	272	6.68	-0.15
	Auraiya GPS	663	658	155	162	3.70	154	3.86	-0.15
	<b>Sub Total (A)</b>	<b>11282</b>	<b>10200</b>	<b>9552</b>	<b>7403</b>	<b>191.39</b>	<b>7975</b>	<b>192.02</b>	<b>-0.63</b>
B. NPC	NAPS	440	317	352	356	7.62	317	7.61	0.01
	RAPS- B	440	417	460	467	10.06	419	10.01	0.05
	RAPS- C	440	430	475	475	10.19	425	10.32	-0.13
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1164</b>	<b>1287</b>	<b>1298</b>	<b>27.86</b>	<b>1161</b>	<b>27.94</b>	<b>-0.07</b>
C. NHPC	Chamera I HPS	540	541	360	0	2.26	94	2.20	0.06
	Chamera II HPS	300	300	140	0	1.53	64	1.40	0.12
	Chamera III HPS	231	231	46	0	0.78	33	0.80	-0.01
	Bairasuil HPS	180	182	60	0	0.60	25	0.56	0.05
	Salal-HPS	690	136	302	124	3.29	137	3.27	0.02
	Tanakpur-HPS	94	34	44	38	0.89	37	0.83	0.06
	Uri-HPS	480	96	226	104	2.57	107	2.86	-0.28
	Uri-II HPS	120	71	100	46	1.68	70	1.71	-0.02
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	387	380	0	3.29	137	3.23	0.06
	Sewa-II HPS	120	119	105	0	0.26	11	0.28	-0.02
	<b>Sub Total (C)</b>	<b>3425</b>	<b>2098</b>	<b>1763</b>	<b>312</b>	<b>17.15</b>	<b>715</b>	<b>17.12</b>	<b>0.04</b>
	D. NJPC	Nathpa Jhakri	1500	1605	1597	0	9.96	415	9.89
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1597</b>	<b>0</b>	<b>9.96</b>	<b>415</b>	<b>9.89</b>	<b>0.07</b>
E. THDC	Tehri HPS	1000	1060	922	0	6.56	273	6.40	0.16
	Koteshwar HPS	400	94	101	101	2.29	96	2.26	0.03
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1154</b>	<b>1023</b>	<b>101</b>	<b>8.85</b>	<b>369</b>	<b>8.66</b>	<b>0.19</b>
F. BBMB	Bhakra HPS	1497	570	1058	349	13.96	582	13.68	0.28
	Dehar HPS	990	140	330	0	3.44	143	3.36	0.08
	Pong HPS	396	246	372	126	6.31	263	5.90	0.41
	<b>Sub Total (F)</b>	<b>2883</b>	<b>956</b>	<b>1760</b>	<b>475</b>	<b>23.71</b>	<b>988</b>	<b>22.94</b>	<b>0.77</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.62	26	0.52	0.10
	KWHEP HPS(IPP)	1000	0	220	0	5.40	225	5.27	0.13
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	123	85	2.72	113	2.76	-0.05
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>343</b>	<b>85</b>	<b>8.74</b>	<b>364</b>	<b>8.56</b>	<b>0.18</b>
<b>H. Total Regional Entities (A-G)</b>	<b>23472</b>	<b>17176</b>	<b>17325</b>	<b>9674</b>	<b>287.67</b>	<b>11986</b>	<b>287.12</b>	<b>0.55</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	840	790	18.43	768
	Guru Nanak Dev TPS(Bhatinda)	440	345	280	6.92	288
	Guru Hargobind Singh TPS(L.mbt)	920	965	920	20.85	869
	Goindwal(GVK)		0	0	0.00	0
	Thermal (Total)	2620	2150	1990	46.20	1925
	Total Hydro	1148	406	369	10.68	445
	<b>Total Punjab</b>	<b>3768</b>	<b>2556</b>	<b>2359</b>	<b>56.88</b>	<b>2370</b>
Haryana	Panipat TPS	1367	851	766	19.71	821
	DCRTPP (Yamuna nagar)	600	236	497	6.63	276
	Faridabad GPS (NTPC)	432	205	166	4.41	184
	RGTPP (khedar) (IPP)	1200	590	511	13.60	567
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	557	900	15.47	644
	Thermal (Total)	4944	2439	2840	59.81	2492
	Total Hydro	62	25	27	0.59	24
	<b>Total Haryana</b>	<b>5006</b>	<b>2464</b>	<b>2867</b>	<b>60.40</b>	<b>2517</b>
	Rajasthan	kota TPS	1240	1156	1107	27.24
suratgarh TPS		1500	1155	1043	26.14	1089
Chabra TPS		500	455	387	10.34	431
Dholpur GPS		330	108	109	2.62	109
Ramgarh GPS		111	59	61	1.60	66
RAPS A (NPC)		300	175	175	4.01	167
Barsingsar (NLC)		250	218	218	5.17	216
Giral LTPS		250	0	0	0.00	0
Rajwest LTPS (IPP)		1080	491	492	11.68	487
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		660	594	549	11.68	487
Thermal (Total)		6956	4411	4141	100.46	4186
Total Hydro		550	170	212	5.45	227
Wind power		2191	42	40	1.08	45
Biomass		91	23	23	0.58	24
Solar		201	8	0	0.66	27
Renewable/Others (Total)		2483	65	63	2.33	97
<b>Total Rajasthan</b>		<b>9989</b>	<b>4646</b>	<b>4416</b>	<b>108.23</b>	<b>4510</b>
UP		Anpara TPS	1630	1260	1240	29.50
	Obra TPS	1288	318	304	7.40	308
	Paricha TPS	1140	647	661	15.80	658
	Panki TPS	210	72	72	1.70	71
	Harduaganj TPS	665	452	458	10.80	450
	Tanda TPS (NTPC)	440	404	402	9.78	408
	Roza TPS (IPP)	1200	1080	1080	26.05	1085
	Anpara-C (IPP)	1200	532	544	12.67	528
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	404	403	9.47	394
	Thermal (Total)	8223	5169	5164	123.17	5132
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	133	116	2.91	121
	Cogeneration	981	50	50	1.20	50
	<b>Total UP</b>	<b>10131</b>	<b>5352</b>	<b>5330</b>	<b>127.28</b>	<b>5303</b>
	Uttarakhand	Total Hydro	1303	500	231	8.51
<b>Total Uttarakhand</b>		<b>1303</b>	<b>500</b>	<b>231</b>	<b>8.51</b>	<b>354</b>
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	80	80	1.21	50
	Pragati Gas Turbine	330	313	270	7.22	301
	Riithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	400	340	8.10	338
	Thermal (Total)	2232	793	690	16.53	689
	<b>Total Delhi</b>	<b>2232</b>	<b>793</b>	<b>690</b>	<b>16.53</b>	<b>689</b>
HP	Baspa HPS (IPP)	330	28	28	1.43	59
	Malana HPS (IPP)	86	13	0	0.35	15
	Other Hydro	589	199	170	4.67	195
	<b>Total HP</b>	<b>1005</b>	<b>240</b>	<b>198</b>	<b>6.45</b>	<b>269</b>
J & K	Baglihar HPS (IPP)	450	293	148	4.54	189
	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>383</b>	<b>263</b>	<b>7.12</b>	<b>297</b>
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>16934</b>	<b>16354</b>	<b>391.39</b>	<b>16308</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>1983</b>	<b>2784</b>	<b>67.53</b>	<b>2814</b>
<b>Total Regional Availability(Gross)</b>		<b>57862</b>	<b>36242</b>	<b>28812</b>	<b>746.59</b>	<b>31108</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10500	6363	888	65.71	2738
State Control Area Hydro	5368	1857	1416	41.70	1738
<b>Total Regional Hydro</b>	<b>15868</b>	<b>8220</b>	<b>2304</b>	<b>107.41</b>	<b>4475</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	-200	-400	50	500	0.24	5.68	-5.44
Gwalior-Agra (D/C)	370	664	1179	0	11.14	0.00	11.14
Zerda-Kankroli	-147	-186	6	216	0.00	3.42	-3.42
Zerda-Bhinmal	-47	-71	157	157	0.00	0.63	-0.63
Malanpur-Auraiya	-138	-114	0	167	0.00	3.04	-3.04
Badod-Kota/Morak	-138	-160	0	224	0.00	3.75	-3.75
Mundra-Mohindergarh(HVDC)	1101	1101	1109	0	26.59	0.00	26.59
<b>Sub Total WR</b>	<b>801</b>	<b>834</b>			<b>37.96</b>	<b>16.51</b>	<b>21.45</b>
Pusauli Bypass	-200	-200	0	200	0.00	4.84	-4.84
MZP- GKP (D/C)	321	629	713	0	13.20	0.00	13.20
Patna-Balia(D/C)	499	670	821	0	16.55	0.00	16.55
B'Sharif-Balia (D/C)	266	401	607	0	10.11	0.00	10.11
Pusauli-Balia	30	95	159	0	2.05	0.00	2.05
Gaya-Fatehpur (765 Kv)	178	268	400	0	7.09	0.00	7.09
Pusauli-Sahupuri	122	116	149	0	2.88	0.00	2.88
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-34	-29	0	38	0.00	0.95	-0.95
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>1182</b>	<b>1950</b>			<b>51.87</b>	<b>5.79</b>	<b>46.08</b>
<b>Total IR Exch</b>	<b>1983</b>	<b>2784</b>			<b>89.83</b>	<b>22.30</b>	<b>67.53</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
38.94	0.86	39.81	7.53	-28.65	15.51	-4.90	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
65.79	-3.19	62.59	46.08	21.45	67.53	-19.71	24.64	4.94

**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	0.20	96.20	3.20	96.00	46.60	3.80

<----- 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)		
50.30	13.04	49.67	19.30	50.00	0.14	0.12	50.24	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	00:00	402	07:16	0.0	0.0	0.0	0.0
Gorakhpur	400	425	20:30	408	07:47	0.0	0.0	26.3	0.0
Bareilly	400	421	20:26	400	07:35	0.0	0.0	0.1	0.0
Kanpur	400	422	20:24	403	06:42	0.0	0.0	4.0	0.0
Dadri	400	426	03:59	403	10:21	0.0	0.0	22.1	0.0
Ballabgarh	400	433	04:00	408	09:23	0.0	0.0	48.8	3.5
Bawana	400	428	04:01	406	10:15	0.0	0.0	35.7	0.0
Bassi	400	424	04:02	393	08:53	0.0	0.0	5.0	0.0
Hissar	400	414	20:24	394	11:13	0.0	0.0	0.0	0.0
Moga	400	425	04:02	397	10:12	0.0	0.0	10.5	0.0
Abdullapur	400	423	04:02	404	09:16	0.0	0.0	5.3	0.0
Nalagarh	400	421	23:35	415	22:17	0.0	0.0	5.8	0.0
Kishenpur	400	420	02:55	394	18:16	0.0	0.0	0.0	0.0
Wagoora	400	417	11:56	360	12:31	14.8	39.6	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	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Balia	765	760	19:12	729	07:34	0.0	22.5	0.0	0.0
Moga	765	796	04:02	744	10:14	0.0	0.0	0.0	0.0
Agra	765	813	20:24	764	06:43	0.0	0.0	17.3	0.0
Bhiwani	765	803	04:03	757	10:13	0.0	0.0	0.9	0.0
Unnao	765	764	20:25	734	07:36	0.0	8.0	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	508.44	1470.42	500.99	1140.31	190.86	400.26
Pong	426.72	384.05	417.49	781.19	416.14	718.14	62.50	350.59
Tehri	829.79	740.04	820.85	1023.38	818.65	982.26	67.80	168.00
Koteshwar	612.50	598.50	610.85	4.60	NA	NA	168.00	160.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	50.80	52.55
Rihand	268.22	252.98	261.64	397.40	262.80	466.80	NA	NA
RPS	352.80	343.81	350.57	NA	NA	NA	253.12	NA
Jawahar Sagar	298.70	295.78	297.45	NA	NA	NA	241.12	NA
RSD	527.91	487.91	515.25	144.00	520.57	144.00	48.76	129.69

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 27.11.2013 :**

1. Normal weather in Northern Region.

**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 : 27.11.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER