

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 19.12.2013  
Date of Reporting : 20.12.2013

### 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
36510	2663	39172	50.03	27594	1190	28784	50.14	752.8	56.97

\* 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	26.41	10.84		37.25	46.89	51.48	4.59	88.73	4.92
Haryana	63.89	0.45		64.33	38.39	38.68	0.29	103.01	0.00
Rajasthan	99.78	4.81	3.26	107.85	79.89	78.38	-1.52	186.22	0.00
Delhi	17.80			17.80	42.51	42.15	-0.35	59.96	0.00
UP	127.01	3.11	14.40	144.52	72.46	72.83	0.37	217.35	47.37
Uttarakhand		10.03		10.03	19.57	19.76	0.19	29.79	2.99
HP		5.56		5.56	18.85	19.69	0.85	25.26	0.00
J & K		6.26	0.00	6.26	30.51	32.72	2.21	38.97	1.70
Chandigarh				0.00	3.16	3.53	0.38	3.53	0.00
<b>Total</b>	<b>334.89</b>	<b>41.04</b>	<b>17.66</b>	<b>393.59</b>	<b>352.22</b>	<b>359.23</b>	<b>7.01</b>	<b>752.82</b>	<b>56.97</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	4469	325	123	-323	2668	0	127	-366	-6.66	
Haryana	5496	0	-318	-1036	3688	0	114	-1271	-25.25	
Rajasthan	8486	0	58	724	7123	0	-21	1522	33.59	
Delhi	3231	0	68	-619	1373	0	-3	-1393	-21.98	
UP	10096	2075	162	-303	9242	1190	591	-159	-6.79	
Uttarakhand	1461	155	61	425	1074	0	-18	360	8.80	
HP	1345	8	187	259	750	0	48	354	7.49	
J&K	1731	100	-95	631	1592	0	31	540	10.47	
Chandigarh	195	0	8	0	85	0	4	-25	-0.19	
<b>Total</b>	<b>36510</b>	<b>2663</b>	<b>254</b>	<b>-243</b>	<b>27594</b>	<b>1190</b>	<b>872</b>	<b>-439</b>	<b>-0.51</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	1945	2095	2018	47.27	1969	46.37	0.90
Rihand I STPS	1000	860	990	794	20.47	853	20.03	0.44
Rihand II STPS	1000	930	1047	769	21.97	916	21.33	0.64
Rihand III STPS	1000	460	525	403	10.97	457	10.80	0.17
Dadri I STPS	840	815	654	483	13.20	550	13.20	0.00
Dadri II STPS	980	985	1033	737	21.60	900	21.66	-0.06
Unchahar I TPS	420	407	441	373	9.34	389	9.26	0.09
Unchahar II TPS	420	353	412	322	7.28	303	7.72	-0.44
Unchahar III TPS	210	143	0	153	2.88	120	3.02	-0.14
ISTPP (Jhajjar)	1500	1480	658	622	15.81	659	15.88	-0.07
Dadri GPS	830	835	393	344	8.87	369	9.09	-0.22
Anta GPS	419	425	253	243	6.10	254	6.29	-0.19
Auraiya GPS	663	666	102	159	3.76	157	3.83	-0.07
<b>Sub Total (A)</b>	<b>11282</b>	<b>10304</b>	<b>8603</b>	<b>7420</b>	<b>189.51</b>	<b>7896</b>	<b>188.47</b>	<b>1.04</b>
<b>B. NPC</b>								
NAPS	440	322	356	363	7.69	320	7.74	-0.05
RAPS- B	440	420	462	465	10.10	421	10.08	0.02
RAPS- C	440	430	477	477	10.22	426	10.32	-0.10
<b>Sub Total (B)</b>	<b>1320</b>	<b>1172</b>	<b>1295</b>	<b>1305</b>	<b>28.01</b>	<b>1167</b>	<b>28.14</b>	<b>-0.13</b>
<b>C. NHPC</b>								
Chamera I HPS	540	360	360	0	1.68	70	1.65	0.03
Chamera II HPS	300	300	264	0	1.36	57	1.18	0.18
Chamera III HPS	231	231	70	0	0.70	29	0.67	0.03
Bairasuil HPS	180	182	20	0	0.47	20	0.46	0.01
Salal-HPS	690	120	224	125	2.83	118	2.74	0.09
Tanakpur-HPS	94	29	31	30	0.70	29	0.70	0.00
Uri-HPS	480	92	219	43	2.24	93	2.31	-0.07
Uri-II HPS	120	51	103	47	1.36	57	1.23	0.13
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	407	0	2.73	114	2.63	0.10
Sewa-II HPS	120	119	72	0	0.43	18	0.38	0.05
<b>Sub Total (C)</b>	<b>3425</b>	<b>1872</b>	<b>1770</b>	<b>245</b>	<b>14.49</b>	<b>604</b>	<b>13.95</b>	<b>0.54</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1350	1294	0	8.27	345	7.40	0.87
Sub Total (D)	1500	1350	1294	0	8.27	345	7.40	0.87
<b>E. THDC</b>								
Tehri HPS	1000	1060	1065	0	8.27	345	8.20	0.07
Koteshwar HPS	400	116	303	90	2.85	119	2.80	0.05
<b>Sub Total (E)</b>	<b>1400</b>	<b>1176</b>	<b>1368</b>	<b>90</b>	<b>11.12</b>	<b>463</b>	<b>11.00</b>	<b>0.12</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	643	1036	370	16.11	671	15.44	0.67
Dehar HPS	990	124	330	0	3.10	129	2.98	0.13
Pong HPS	396	319	372	180	7.75	323	7.66	0.09
<b>Sub Total (F)</b>	<b>2883</b>	<b>1086</b>	<b>1738</b>	<b>550</b>	<b>26.96</b>	<b>1123</b>	<b>26.07</b>	<b>0.89</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.51	21	0.49	0.02
KWHEP HPS(IPP)	1000	0	350	0	3.71	155	3.95	-0.24
Malana Stg-II HPS	100	0	0	0	0.00	0	0.11	-0.11
Shree Cement TPS	300	0	210	145	5.37	224	5.55	-0.18
Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00
Sub Total (G)	1662	0	560	145	9.59	400	10.10	-0.51
<b>H. Total Regional Entities (A-G)</b>	<b>23472</b>	<b>16961</b>	<b>16628</b>	<b>9755</b>	<b>287.95</b>	<b>11998</b>	<b>285.13</b>	<b>2.81</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	600	17.17	715	
	Guru Nanak Dev TPS(Bhatinda)	440	342	250	7.01	292	
	Guru Hargobind Singh TPS(L.mbt)	920	398	0	2.24	93	
	Goindwal(GVK)		430	0	0.00	0	
	Thermal (Total)	2620	2010	850	26.41	1100	
	Total Hydro	1148	430	432	10.84	452	
	<b>Total Punjab</b>	<b>3768</b>	<b>2440</b>	<b>1282</b>	<b>37.25</b>	<b>1552</b>	
Haryana	Panipat TPS	1367	872	776	18.66	778	
	DCRTPP (Yamuna nagar)	600	567	508	12.07	503	
	Faridabad GPS (NTPC)	432	0	0	0.00	0	
	RGTPP (khedar) (IPP)	1200	593	458	11.18	466	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	1114	744	21.97	915	
	Thermal (Total)	4944	3146	2486	63.89	2662	
	Total Hydro	62	17	19	0.45	19	
	<b>Total Haryana</b>	<b>5006</b>	<b>3163</b>	<b>2505</b>	<b>64.33</b>	<b>2680</b>	
	Rajasthan	kota TPS	1240	1150	1073	26.64	1110
		suratgarh TPS	1500	1081	1017	25.03	1043
Chabra TPS		500	647	595	14.94	623	
Dholpur GPS		330	109	111	2.75	115	
Ramgarh GPS		111	0	58	0.41	17	
RAPS A (NPC)		300	175	175	4.02	168	
Barsingsar (NLC)		250	217	222	5.16	215	
Giral LTPS		250	59	59	1.33	55	
Rajwest LTPS (IPP)		1080	237	287	6.44	269	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Kalisindh Thermal		600	0	0	0.00	0	
Kawai(Adani)		660	600	480	13.07	545	
Thermal (Total)		6956	4275	4077	99.78	4158	
Total Hydro		550	265	151	4.81	200	
Wind power		2191	56	80	2.41	101	
Biomass		91	17	17	0.41	17	
Solar		201	0	0	0.44	18	
Renewable/Others (Total)		2483	73	97	3.26	136	
<b>Total Rajasthan</b>		<b>9989</b>	<b>4613</b>	<b>4325</b>	<b>107.85</b>	<b>4494</b>	
UP		Anpara TPS	1630	1629	1594	34.60	1442
	Obra TPS	1288	307	309	6.70	279	
	Paricha TPS	1140	892	899	19.10	796	
	Panki TPS	210	70	0	1.10	46	
	Harduaganj TPS	665	491	480	10.70	446	
	Tanda TPS (NTPC)	440	403	402	9.74	406	
	Roza TPS (IPP)	1200	518	594	13.59	566	
	Anpara-C (IPP)	1200	1071	863	23.29	970	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	404	278	8.20	342	
	Thermal (Total)	8223	5785	5419	127.01	5292	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	127	123	3.11	130	
	Cogeneration	981	600	600	14.40	600	
	<b>Total UP</b>	<b>10131</b>	<b>6512</b>	<b>6142</b>	<b>144.52</b>	<b>6022</b>	
	Uttarakhand	Total Hydro	1303	420	331	10.03	418
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>420</b>	<b>331</b>	<b>10.03</b>	<b>418</b>
Delhi	Raighat TPS	135	0	0	0.00	0	
	Delhi Gas Turbine	282	82	82	1.95	81	
	Pragati Gas Turbine	330	307	264	7.20	300	
	Riithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	420	350	8.65	360	
	Thermal (Total)	2232	809	696	17.80	742	
	<b>Total Delhi</b>	<b>2232</b>	<b>809</b>	<b>696</b>	<b>17.80</b>	<b>742</b>	
HP	Baspa HPS (IPP)	330	30	0	1.61	67	
	Malana HPS (IPP)	86	0	0	0.14	6	
	Other Hydro	589	126	81	3.82	159	
	<b>Total HP</b>	<b>1005</b>	<b>156</b>	<b>81</b>	<b>5.56</b>	<b>232</b>	
J & K	Baglihar HPS (IPP)	450	294	118	3.72	155	
	Other Hydro	323	102	120	2.54	106	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>396</b>	<b>238</b>	<b>6.26</b>	<b>261</b>	
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>18509</b>	<b>15600</b>	<b>393.59</b>	<b>16400</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>4129</b>	<b>3688</b>	<b>96.43</b>	<b>4018</b>	
<b>Total Regional Availability(Gross)</b>		<b>57862</b>	<b>39266</b>	<b>29043</b>	<b>777.97</b>	<b>32415</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10500	6520	885	65.06	2711
State Control Area Hydro	5368	1811	1375	41.04	1710
<b>Total Regional Hydro</b>	<b>15868</b>	<b>8331</b>	<b>2260</b>	<b>106.10</b>	<b>4421</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	-50	-50	100	300	2.26	2.25	0.01
Gwalior-Agra (D/C)	1076	1000	1443	0	23.78	0.00	23.78
Zerda-Kankroli	-28	-108	77	179	0.00	0.65	-0.65
Zerda-Bhinmal	121	0	257	120	2.21	0.00	2.21
Malanpur-Auraiya	-112	-109	0	153	0.00	2.80	-2.80
Badod-Kota/Morak	-57	-154	0	183	0.00	2.51	-2.51
Mundra-Mohindergarh(HVDC)	1452	1451	1453	0	35.15	0.00	35.15
<b>Sub Total WR</b>	<b>2402</b>	<b>2030</b>			<b>63.40</b>	<b>8.21</b>	<b>55.19</b>
Pusauli Bypass	-364	-267	0	474	0.00	8.97	-8.97
MZP- GKP (D/C)	430	451	596	0	9.70	0.00	9.70
Patna-Balia(D/C)	704	660	920	0	16.41	0.00	16.41
B'Sharif-Balia (D/C)	443	281	603	0	8.27	0.00	8.27
Pusauli-Balia	0	-11	0	43	0.00	0.25	-0.25
Gaya-Fatehpur (765 Kv)	108	154	285	0	3.85	0.00	3.85
Pusauli-Sahupuri	116	94	172	0	3.38	0.00	3.38
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-30	0	37	0.00	0.84	-0.84
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	322	326	573		9.70	0.00	9.70
<b>Sub Total ER</b>	<b>1727</b>	<b>1658</b>			<b>51.31</b>	<b>10.07</b>	<b>41.24</b>
<b>Total IR Exch</b>	<b>4129</b>	<b>3688</b>			<b>114.71</b>	<b>18.28</b>	<b>96.43</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
34.78	0.45	35.23	14.24	-17.30	1.34	-5.10	4.22	-4.22

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
55.03	29.70	84.73	41.24	55.19	96.43	-13.79	25.49	11.70

**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	4.70	96.30	6.50	91.60	36.20	3.70

<----- 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				
50.28	23.34	49.50	9.27	49.95	0.21	0.14	50.33	49.69

**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	01:59	400	15:34	0.0	0.0	0.0	0.0
Gorakhpur	400	431	00:28	408	13:46	0.0	0.0	45.5	2.3
Barilly	400	425	00:04	399	13:37	0.0	0.0	25.3	0.0
Kanpur	400	298	00:00	241	02:14	100.0	100.0	0.0	0.0
Dadri	400	423	04:01	406	10:14	0.0	0.0	0.0	0.0
Ballabgarh	400	431	04:01	403	10:14	0.0	0.0	37.5	0.3
Bawana	400	426	04:02	402	12:43	0.0	0.0	22.9	0.0
Bassi	400	423	04:02	379	10:23	0.4	8.7	0.4	0.0
Hissar	400	412	04:02	386	12:47	0.0	7.7	0.0	0.0
Moga	400	417	23:35	387	10:09	0.0	1.2	0.0	0.0
Abdullapur	400	425	11:47	387	13:29	3.1	3.4	1.4	0.0
Nalagarh	400	420	04:02	397	11:36	0.0	0.0	0.0	0.0
Kishenpur	400	421	15:53	388	07:46	0.0	0.5	0.0	0.0
Wagoora	400	414	15:53	364	07:47	40.5	75.9	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	779	04:03	731	09:25	0.0	16.2	0.0	0.0
Balia	765	777	23:00	704	10:23	33.6	50.9	0.0	0.0
Moga	765	779	23:34	719	10:09	4.1	34.2	0.0	0.0
Agra	765	812	23:37	774	00:11	0.0	0.0	29.8	0.0
Bhiwani	765	789	21:44	743	12:50	0.0	0.0	0.0	0.0
Unnao	765	777	02:04	721	13:41	2.0	42.9	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	504.28	1272.20	497.14	983.40	180.21	448.43
Pong	426.72	384.05	413.81	633.63	412.44	577.87	66.43	474.84
Tehri	829.79	740.04	816.55	930.00	818.65	982.26	43.24	186.00
Koteshwar	612.50	598.50	609.50	4.21	NA	NA	186.00	189.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	50.00	46.48
Rihand	268.22	252.98	261.31	378.10	262.34	439.10	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	513.26	144.00	518.91	144.00	46.50	123.04

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 19.12.2013 :**

1. As reported , dense Fog persist in some part of 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 : 19.12.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER