

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्टम की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 26.12.2013

Date of Reporting : 27.12.2013

### 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
35236	2139	37375	50.02	28013	295	28308	50.29	759.9	45.71

\* 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:

UI (OD:(+ve), UD:(-ve))

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	43.20	9.97		53.17	34.84	35.58	0.74	88.75	0.00
Haryana	65.64	0.52		66.16	38.92	39.56	0.64	105.72	0.00
Rajasthan	105.16	5.56	7.66	118.38	78.25	76.03	-2.21	194.41	0.00
Delhi	20.14			20.14	42.64	42.47	-0.17	62.61	0.04
UP	116.31	4.01	14.40	134.72	74.78	73.43	-1.35	208.15	42.16
Uttarakhand		10.98		10.98	20.55	21.01	0.45	31.99	1.82
HP		4.97		4.97	19.33	20.14	0.81	25.10	0.00
J & K		6.34	0.00	6.34	30.41	33.19	2.78	39.53	1.70
Chandigarh				0.00	3.24	3.65	0.41	3.65	0.00
<b>Total</b>	<b>350.45</b>	<b>42.34</b>	<b>22.06</b>	<b>414.85</b>	<b>342.94</b>	<b>345.05</b>	<b>2.11</b>	<b>759.90</b>	<b>45.71</b>

\* Shortage furnished by the respective constituent.\$ Others include UP Co-generation and JK Diesel

### II. B. State's Demand Met in MWs:

UI/OA/PX (OD/Import: (+ve), UD/Export: (-ve))

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	4752	0	-40	-510	2860	0	164	-276	-8.63	
Haryana	4857	0	-580	-788	4141	0	197	-771	-22.95	
Rajasthan	8624	0	-183	943	7059	0	30	837	30.12	
Delhi	3304	4	-5	-487	1427	0	-2	-1398	-18.56	
UP	8953	1905	-360	194	8853	295	-6	-165	-5.09	
Uttarakhand	1611	130	110	405	1101	0	-107	363	9.66	
HP	1260	0	5	314	759	0	1	378	8.22	
J&K	1675	100	-145	628	1724	0	206	541	10.88	
Chandigarh	199	0	5	0	90	0	2	-10	-0.08	
<b>Total</b>	<b>35236</b>	<b>2139</b>	<b>-1192</b>	<b>700</b>	<b>28013</b>	<b>295</b>	<b>485</b>	<b>-502</b>	<b>3.56</b>	

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

### III. Regional Entities :

UI (OG:(+ve), UG:(-ve))

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	1945	2097	2080	46.93	1956	46.68	0.25	
	Rihand I STPS	1000	618	530	939	13.75	573	14.82	-1.07	
	Rihand II STPS	1000	930	1054	971	22.54	939	22.32	0.22	
	Rihand III STPS	1000	460	521	477	11.12	463	11.05	0.07	
	Dadri I STPS	840	815	648	452	13.24	552	13.29	-0.05	
	Dadri II STPS	980	985	1041	718	21.62	901	21.76	-0.15	
	Unchahar I TPS	420	407	435	378	9.23	385	9.32	-0.09	
	Unchahar II TPS	420	404	441	325	8.91	371	8.90	0.01	
	Unchahar III TPS	210	201	219	176	4.51	188	4.49	0.01	
	ISTPP (Jhajjar)	1500	1480	616	619	14.75	615	14.85	-0.10	
	Dadri GPS	830	841	421	432	9.88	412	10.15	-0.27	
	Anta GPS	419	427	281	251	6.54	272	6.55	-0.02	
	Auraiya GPS	663	669	163	167	3.83	159	3.90	-0.07	
	<b>Sub Total (A)</b>	<b>11282</b>	<b>10182</b>	<b>8467</b>	<b>7985</b>	<b>186.84</b>	<b>7785</b>	<b>188.09</b>	<b>-1.25</b>	
	B. NPC	NAPS	440	323	359	365	7.78	324	7.75	0.03
		RAPS- B	440	420	465	468	10.14	422	7.35	2.79
RAPS- C		440	430	477	476	10.24	427	10.32	-0.08	
<b>Sub Total (B)</b>		<b>1320</b>	<b>1173</b>	<b>1301</b>	<b>1309</b>	<b>28.15</b>	<b>1173</b>	<b>25.42</b>	<b>2.73</b>	
C. NHPC	Chamera I HPS	540	428	360	0	1.76	73	1.70	0.06	
	Chamera II HPS	300	300	201	0	1.00	42	1.06	-0.06	
	Chamera III HPS	231	231	47	0	0.49	20	0.50	-0.01	
	Bairasuil HPS	180	182	20	0	0.48	20	0.47	0.01	
	Salal-HPS	690	115	224	120	2.80	117	2.76	0.04	
	Tanakpur-HPS	94	28	18	32	0.68	28	0.67	0.00	
	Uri-HPS	480	88	215	19	2.26	94	2.20	0.06	
	Uri-II HPS	120	55	70	33	1.35	56	1.32	0.03	
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00	
	Dulhasti-HPS	390	387	356	0	2.70	113	2.63	0.08	
	Sewa-II HPS	120	119	119	0	0.43	18	0.42	0.01	
	<b>Sub Total (C)</b>	<b>3425</b>	<b>1933</b>	<b>1630</b>	<b>204</b>	<b>13.95</b>	<b>581</b>	<b>13.72</b>	<b>0.23</b>	
	D. NJPC	Nathpa Jhakri	1500	1605	1359	0	7.82	326	6.80	1.02
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1359</b>	<b>0</b>	<b>7.82</b>	<b>326</b>	<b>6.80</b>	<b>1.02</b>	
E. THDC	Tehri HPS	1000	1050	722	0	8.85	369	8.70	0.15	
	Koteshwar HPS	400	125	200	90	3.07	128	3.00	0.07	
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1175</b>	<b>922</b>	<b>90</b>	<b>11.92</b>	<b>497</b>	<b>11.70</b>	<b>0.22</b>	
F. BBMB	Bhakra HPS	1497	680	1018	513	16.61	692	16.33	0.28	
	Dehar HPS	990	118	330	0	3.00	125	2.84	0.17	
	Pong HPS	396	282	372	126	6.86	286	6.78	0.08	
	<b>Sub Total (F)</b>	<b>2883</b>	<b>1081</b>	<b>1720</b>	<b>639</b>	<b>26.47</b>	<b>1103</b>	<b>25.94</b>	<b>0.53</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.38	16	0.41	-0.03	
	KWHEP HPS(IPP)	1000	0	360	0	4.01	167	3.97	0.05	
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.15	-0.15	
	Shree Cement TPS	300	0	282	148	5.65	235	5.53	0.11	
	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>642</b>	<b>148</b>	<b>10.04</b>	<b>418</b>	<b>10.06</b>	<b>-0.02</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>23472</b>	<b>17148</b>	<b>16041</b>	<b>10375</b>	<b>285.19</b>	<b>11883</b>	<b>281.73</b>	<b>3.46</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	640	16.53	689	
	Guru Nanak Dev TPS(Bhatinda)	440	342	250	6.32	263	
	Guru Hargobind Singh TPS(L.mbt)	920	966	787	20.35	848	
	Goindwal(GVK)		0	0	0.00	0	
	Thermal (Total)	2620	2148	1677	43.20	1800	
	Total Hydro	1148	454	401	9.97	416	
	<b>Total Punjab</b>	<b>3768</b>	<b>2602</b>	<b>2078</b>	<b>53.17</b>	<b>2215</b>	
Haryana	Panipat TPS	1367	826	781	18.62	776	
	DCRTPP (Yamuna nagar)	600	552	506	11.98	499	
	Faridabad GPS (NTPC)	432	0	0	0.00	0	
	RGTPP (khedar) (IPP)	1200	594	492	11.73	489	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	1226	744	23.32	972	
	Thermal (Total)	4944	3198	2523	65.64	2735	
	Total Hydro	62	23	21	0.52	22	
	<b>Total Haryana</b>	<b>5006</b>	<b>3221</b>	<b>2544</b>	<b>66.16</b>	<b>2757</b>	
	Rajasthan	kota TPS	1240	1158	1092	26.99	1125
		suratgarh TPS	1500	1088	1008	24.92	1038
Chabra TPS		500	270	202	7.21	300	
Dholpur GPS		330	123	124	3.10	129	
Ramgarh GPS		111	128	128	3.23	135	
RAPS A (NPC)		300	175	175	4.04	168	
Barsingsar (NLC)		250	213	214	5.04	210	
Giral LTPS		250	89	95	1.74	72	
Rajwest LTPS (IPP)		1080	715	559	15.61	651	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Kalisindh Thermal		600	0	0	0.00	0	
Kawai(Adani)		660	600	468	13.29	554	
Thermal (Total)		6956	4559	4065	105.16	4382	
Total Hydro		550	233	143	5.56	232	
Wind power		2191	155	233	6.45	269	
Biomass		91	25	25	0.59	25	
Solar		201	6	0	0.62	26	
Renewable/Others (Total)		2483	180	258	7.66	319	
<b>Total Rajasthan</b>		<b>9989</b>	<b>4972</b>	<b>4466</b>	<b>118.38</b>	<b>4932</b>	
UP		Anpara TPS	1630	1621	1588	34.60	1442
	Obra TPS	1288	523	519	11.00	458	
	Paricha TPS	1140	358	779	10.00	417	
	Panki TPS	210	80	80	1.70	71	
	Harduaganj TPS	665	248	231	5.20	217	
	Tanda TPS (NTPC)	440	396	404	9.20	383	
	Roza TPS (IPP)	1200	820	810	18.92	788	
	Anpara-C (IPP)	1200	771	756	18.62	776	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	362	267	7.07	294	
	Thermal (Total)	8223	5179	5434	116.31	4846	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	174	144	4.01	167	
	Cogeneration	981	600	600	14.40	600	
	<b>Total UP</b>	<b>10131</b>	<b>5953</b>	<b>6178</b>	<b>134.72</b>	<b>5613</b>	
	Uttarakhand	Total Hydro	1303	523	449	10.98	458
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>523</b>	<b>449</b>	<b>10.98</b>	<b>458</b>
Delhi	Raighat TPS	135	0	0	0.00	0	
	Delhi Gas Turbine	282	81	79	1.90	79	
	Pragati Gas Turbine	330	320	267	7.47	311	
	Riithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	540	410	10.77	449	
	Thermal (Total)	2232	941	756	20.14	839	
	<b>Total Delhi</b>	<b>2232</b>	<b>941</b>	<b>756</b>	<b>20.14</b>	<b>839</b>	
HP	Baspa HPS (IPP)	330	60	0	1.44	60	
	Malana HPS (IPP)	86	0	0	0.22	9	
	Other Hydro	589	212	71	3.31	138	
	<b>Total HP</b>	<b>1005</b>	<b>272</b>	<b>71</b>	<b>4.97</b>	<b>207</b>	
J & K	Baglihar HPS (IPP)	450	298	118	3.76	157	
	Other Hydro	323	90	124	2.58	108	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>388</b>	<b>242</b>	<b>6.34</b>	<b>264</b>	
<b>Total State Control Area Generation</b>		<b>34390</b>	<b>18872</b>	<b>16784</b>	<b>414.85</b>	<b>17285</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>3668</b>	<b>2302</b>	<b>89.30</b>	<b>3721</b>	
<b>Total Regional Availability(Gross)</b>		<b>57862</b>	<b>38581</b>	<b>29461</b>	<b>789.34</b>	<b>32889</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10500	5991	933	64.55	2690
State Control Area Hydro	5368	2067	1471	42.34	1764
<b>Total Regional Hydro</b>	<b>15868</b>	<b>8058</b>	<b>2404</b>	<b>106.90</b>	<b>4454</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	500	200	2.24	0.85	1.39
Gwalior-Agra (D/C)	1194	648	1754	0	28.16	0.00	28.16
Zerda-Kankroli	-6	-215	50	255	0.00	1.84	-1.84
Zerda-Bhinmal	46	-117	187	176	0.35	0.00	0.35
Malanpur-Auraiya	-70	-113	0	135	0.00	2.54	-2.54
Badod-Kota/Morak	-77	-194	0	228	0.00	3.28	-3.28
Mundra-Mohindergarh(HVDC)	1169	1171	1455	0	29.21	0.00	29.21
<b>Sub Total WR</b>	<b>2306</b>	<b>1130</b>			<b>59.96</b>	<b>8.51</b>	<b>51.45</b>
Pusauli Bypass	300	300	300	0	7.21	0.00	7.21
MZP- GKP (D/C)	133	210	389	0	5.18	0.00	5.18
Patna-Balia(D/C)	482	425	770	0	13.38	0.00	13.38
B'Sharif-Balia (D/C)	186	67	385	0	4.75	0.00	4.75
Pusauli-Balia	-91	-128	0	135	0.00	2.07	-2.07
Gaya-Fatehpur (765 Kv)	20	28	219	72	1.44	0.00	1.44
Pusauli-Sahupuri	115	205	207	0	3.98	0.00	3.98
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)	249	95	446	72	4.81	0.00	4.81
<b>Sub Total ER</b>	<b>1362</b>	<b>1172</b>			<b>40.76</b>	<b>2.91</b>	<b>37.85</b>
<b>Total IR Exch</b>	<b>3668</b>	<b>2302</b>			<b>100.72</b>	<b>11.41</b>	<b>89.30</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
27.03	0.43	27.45	14.67	-14.90	-1.20	-0.56	3.85	-3.85

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
44.78	36.77	81.55	37.85	51.45	89.30	-6.92	14.68	7.76

**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	0.20	6.90	93.80	9.40	87.10	43.80	6.00

<----- 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)		
50.36	5.05	49.48	9.08	49.96	0.29	0.17	50.31	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	410	17:47	403	21:54	0.0	0.0	0.0	0.0
Gorakhpur	400	427	05:05	408	09:26	0.0	0.0	45.6	0.0
Barilly	400	429	04:00	405	11:00	0.0	0.0	0.0	0.0
Kanpur	400	420	02:53	401	09:19	0.0	0.0	0.0	0.0
Dadri	400	423	03:17	404	09:23	0.0	0.0	10.4	0.0
Ballabgarh	400	432	04:04	408	10:27	0.0	0.0	42.3	1.9
Bawana	400	427	03:02	404	10:30	0.0	0.0	25.0	0.0
Bassi	400	424	04:02	387	10:30	0.0	4.0	6.0	0.0
Hissar	400	415	04:02	390	10:48	0.0	0.0	0.0	0.0
Moga	400	421	03:01	399	10:48	0.0	0.0	0.9	0.0
Abdullapur	400	423	04:00	407	11:00	0.0	0.0	0.0	0.0
Nalagarh	400	426	23:53	403	10:45	0.0	0.0	24.6	0.0
Kishenpur	400	417	13:01	395	08:13	0.0	0.0	0.0	0.0
Wagoora	400	405	13:01	366	18:54	24.9	68.3	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	789	03:01	738	21:10	0.0	2.6	0.0	0.0
Balia	765	765	05:04	727	09:21	0.8	24.7	0.0	0.0
Moga	765	787	03:19	744	10:46	0.0	0.0	0.0	0.0
Agra	765	820	03:18	763	10:50	0.0	0.0	23.6	0.0
Bhiwani	765	782	20:00	752	10:00	0.0	0.0	0.0	0.0
Unnao	765	761	03:16	734	09:22	0.0	11.9	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	503.19	1232.31	495.94	937.45	172.02	480.73
Pong	426.72	384.05	412.77	588.94	411.49	544.90	91.69	425.21
Tehri	829.79	740.04	814.20	887.00	818.65	982.26	48.50	201.00
Koteshwar	612.50	598.50	610.30	4.95	NA	NA	204.00	181.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	44.62	43.74
Rihand	268.22	252.98	261.03	362.32	262.01	419.10	NA	NA
RPS	352.80	343.81	349.28	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.28	NA	NA	NA	NA	NA
RSD	527.91	487.91	512.54	144.00	518.15	144.00	54.85	137.22

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 26.12.2013 :**

1. Normal weather.

**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 : 26.12.2013

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER