

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 14.12.2012

Date of Reporting : 15.12.2012

### 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
32277	3856	36133	50.17	22819	600	23419	50.49	662.9	44.12

\* 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)	UI [OD:(+ve), UD: (-ve)]	
	Thermal	Hydro	Renewable/others \$	Total				Consumption (Net MU)	Shortages * (MU)
Punjab	48.08	8.61		56.69	25.16	23.31	-1.85	80.00	1.80
Haryana	56.29	0.58		56.88	24.53	25.01	0.48	81.89	9.23
Rajasthan	82.16	5.19	7.00	94.35	65.80	65.71	-0.09	160.06	0.06
Delhi	23.26			23.26	37.50	34.86	-2.64	58.12	0.00
UP	108.83	3.99	14.40	127.22	73.43	68.81	-4.62	196.03	31.31
Uttarakhand		9.86		9.86	18.96	19.29	0.33	29.15	0.00
HP		5.06		5.06	18.43	18.28	-0.15	23.34	0.01
J & K		6.63	0.00	6.63	27.74	24.17	-3.58	30.79	1.70
Chandigarh				0.00	3.59	3.53	-0.05	3.53	0.00
<b>Total</b>	<b>318.61</b>	<b>39.93</b>	<b>21.40</b>	<b>379.94</b>	<b>295.14</b>	<b>282.98</b>	<b>-12.16</b>	<b>662.92</b>	<b>44.12</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	4572	600	88	-550	2398	0	-401	18	-6.36	
Haryana	4254	1030	99	-93	2551	0	-234	-173	-3.73	
Rajasthan	7311	0	139	451	6176	0	-132	668	24.07	
Delhi	3054	0	-131	-1086	1346	0	-85	-1989	-34.72	
UP	8668	2126	-324	-58	7642	600	-283	-106	-5.99	
Uttarakhand	1551	0	25	436	966	0	-106	434	8.79	
HP	1188	0	-16	249	723	0	9	335	6.40	
J&K	1489	100	-408	393	934	0	-268	496	10.12	
Chandigarh	190	0	-15	-6	84	0	-15	-31	-0.33	
<b>Total</b>	<b>32277</b>	<b>3856</b>	<b>-543</b>	<b>-264</b>	<b>22819</b>	<b>600</b>	<b>-1515</b>	<b>-348</b>	<b>-1.75</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)	UI [OG:(+ve), UG: (-ve)]	
							Schedule Net MU	UI Net MU
<b>A. NTPC</b>								
Singrauli STPS	2000	1947	2079	1633	43.59	1816	43.52	0.07
Rihand I STPS	1000	940	1017	715	20.81	867	20.57	0.23
Rihand II STPS	1000	975	1026	765	21.57	899	21.29	0.28
Rihand III STPS	500	320	336	349	7.35	306	7.31	0.05
Dadri I STPS	840	810	861	615	17.52	730	18.08	-0.56
Dadri II STPS	980	975	982	728	20.27	845	22.08	-1.81
Unchahar I TPS	420	407	429	303	8.51	355	8.57	-0.06
Unchahar II TPS	420	405	436	310	8.26	344	8.25	0.00
Unchahar III TPS	210	202	221	152	4.17	174	4.19	-0.01
ISTPP (Jhajjar)	1500	940	308	640	9.73	406	10.45	-0.72
Dadri GPS	830	844	354	325	7.94	331	8.07	-0.12
Anta GPS	419	284	170	171	4.47	186	4.44	0.04
Auraiya GPS	663	664	269	243	6.01	250	5.91	0.10
<b>Sub Total (A)</b>	<b>10782</b>	<b>9714</b>	<b>8488</b>	<b>6949</b>	<b>180.22</b>	<b>7509</b>	<b>182.74</b>	<b>-2.52</b>
<b>B. NPC</b>								
NAPS	440	285	325	324	6.80	283	6.84	-0.04
RAPS- B	440	208	229	233	4.99	208	4.99	0.00
RAPS- C	440	435	470	475	10.15	423	10.44	-0.29
<b>Sub Total (B)</b>	<b>1320</b>	<b>928</b>	<b>1024</b>	<b>1032</b>	<b>21.95</b>	<b>914</b>	<b>22.27</b>	<b>-0.33</b>
<b>C. NHPC</b>								
Chamera I HPS	540	550	540	0	2.25	94	2.35	-0.09
Chamera II HPS	300	303	199	0	1.24	52	1.25	0.00
Chamera III HPS	231	154	78	0	0.70	29	0.76	-0.06
Bairasuil HPS	180	182	20	0	0.73	30	0.64	0.09
Salai-HPS	690	182	312	100	4.32	180	4.42	-0.10
Tanakpur-HPS	94	33	42	24	0.77	32	0.78	-0.01
Uri-HPS	480	102	211	37	2.48	103	2.47	0.01
Dhauliganga-HPS	280	144	142	0	1.32	55	1.30	0.02
Dulhasi-HPS	390	388	373	0	2.81	117	2.75	0.05
Sewa-II HPS	120	119	99	0	0.20	9	0.20	0.00
<b>Sub Total (C)</b>	<b>3305</b>	<b>2156</b>	<b>2016</b>	<b>161</b>	<b>16.83</b>	<b>701</b>	<b>16.91</b>	<b>-0.08</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	1020	0	7.09	296	7.10	-0.01
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1020</b>	<b>0</b>	<b>7.09</b>	<b>296</b>	<b>7.10</b>	<b>-0.01</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	1049	0	7.86	328	8.00	-0.14
Koteshwar HPS	400	100	101	92	2.32	97	2.40	-0.08
<b>Sub Total (E)</b>	<b>1400</b>	<b>1150</b>	<b>1150</b>	<b>92</b>	<b>10.18</b>	<b>424</b>	<b>10.40</b>	<b>-0.22</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	585	1153	382	14.23	593	14.05	0.18
Dehar HPS	990	130	495	0	3.16	132	3.12	0.04
Pong HPS	396	311	366	186	7.61	317	5.01	2.60
<b>Sub Total (F)</b>	<b>2866</b>	<b>1026</b>	<b>2014</b>	<b>568</b>	<b>25.00</b>	<b>1042</b>	<b>22.17</b>	<b>2.83</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.47	20	0.52	-0.05
KWHEP HPS(IPP)	1000	0	135	0	3.82	159	4.13	-0.31
Malana Stg-II HPS	100	0	23	0	0.18	8	0.15	0.03
Shree Cement TPS	300	0	140	139	3.34	139	4.80	-1.46
Budhil HPS(IPP)	70	0	0	0	0.00	0	0.15	-0.15
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>298</b>	<b>139</b>	<b>7.80</b>	<b>325</b>	<b>9.75</b>	<b>-1.95</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>16578</b>	<b>16010</b>	<b>8941</b>	<b>269.07</b>	<b>11211</b>	<b>271.34</b>	<b>-2.27</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	1264	980	25.07	1045	
	Guru Nanak Dev TPS(Bhatinda)	440	105	295	3.77	157	
	Guru Hargobind Singh TPS(L.mbt)	920	973	697	19.23	801	
	Thermal (Total)	2620	2342	1972	48.08	2003	
	Total Hydro	1148	440	274	8.61	359	
	<b>Total Punjab</b>	<b>3768</b>	<b>2782</b>	<b>2246</b>	<b>56.69</b>	<b>2362</b>	
Haryana	Panipat TPS	1367	854	845	20.19	841	
	DCRTPP (Yamuna nagar)	600	277	278	6.48	270	
	Faridabad GPS (NTPC)	432	162	148	4.00	167	
	RGTPP (khedar) (IPP)	1200	593	426	12.48	520	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	621	378	13.14	548	
	Thermal (Total)	4944	2507	2075	56.29	2346	
	Total Hydro	62	26	24	0.58	24	
	<b>Total Haryana</b>	<b>5006</b>	<b>2533</b>	<b>2099</b>	<b>56.88</b>	<b>2370</b>	
Rajasthan	kota TPS	1240	967	873	21.83	910	
	suratgarh TPS	1500	1210	1145	29.11	1213	
	Chabra TPS	500	451	382	9.93	414	
	Dholpur GPS	330	140	143	2.64	110	
	Ramgarh GPS	111	29	39	0.77	32	
	RAPS A (NPC)	300	197	179	4.39	183	
	Barsingar (NLC)	250	103	107	2.28	95	
	Giral LTPS	250	0	40	0.28	12	
	Rajwest LTPS (IPP)	540	471	431	10.93	455	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	3568	3339	82.16	3423	
	Total Hydro	550	289	162	5.19	216	
	Wind power	2191	351	227	6.35	264	
	Biomass	91	23	23	0.56	23	
	Solar	201	0	0	0.09	4	
	Renewable/Others (Total)	2483	374	250	7.00	292	
		<b>Total Rajasthan</b>	<b>8189</b>	<b>4231</b>	<b>3751</b>	<b>94.35</b>	<b>3931</b>
	UP	Anpara TPS	1630	1436	1357	31.50	1313
Obra TPS		1382	328	316	7.90	329	
Paricha TPS		890	611	593	14.70	613	
Panki TPS		210	63	54	1.50	63	
Harduaganj TPS		665	200	248	5.40	225	
Tanda TPS (NTPC)		440	393	341	9.51	396	
Roza TPS (IPP)		1200	864	837	21.17	882	
Anpara-C (IPP)		1200	302	279	8.58	358	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	364	360	8.58	358	
Thermal (Total)		8067	4561	4385	108.83	4535	
Vishnuparyag HPS (IPP)		400	0	0	0.00	0	
Other Hydro		527	160	163	3.99	166	
Cogeneration		981	600	600	14.40	600	
		<b>Total UP</b>	<b>9975</b>	<b>5321</b>	<b>5148</b>	<b>127.22</b>	<b>5301</b>
Uttarakhand	Total Hydro	1303	485	323	9.86	411	
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>485</b>	<b>323</b>	<b>9.86</b>	<b>411</b>	
Delhi	Raighat TPS	135	108	103	2.53	105	
	Delhi Gas Turbine	282	159	78	3.11	130	
	Pragati Gas Turbine	330	322	273	6.73	280	
	Rithala GPS	108	0	0	0.00	0	
	Bawana GPS	677	211	123	3.55	148	
	Badarpur TPS (NTPC)	705	285	415	7.34	306	
	Thermal (Total)	2237	1085	992	23.26	969	
	<b>Total Delhi</b>	<b>2237</b>	<b>1085</b>	<b>992</b>	<b>23.26</b>	<b>969</b>	
HP	Baspa HPS (IPP)	330	29	0	1.19	50	
	Malana HPS (IPP)	86	37	0	0.24	10	
	Other Hydro	589	187	112	3.64	152	
		<b>Total HP</b>	<b>1005</b>	<b>253</b>	<b>112</b>	<b>5</b>	<b>211</b>
J & K	Baglihar HPS (IPP)	450	146	136	3.45	144	
	Other Hydro	323	120	175	3.18	133	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>266</b>	<b>311</b>	<b>6.63</b>	<b>276</b>
<b>Total State Control Area Generation</b>		<b>32439</b>	<b>16956</b>	<b>14982</b>	<b>379.94</b>	<b>15831</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>738</b>	<b>-156</b>	<b>27.15</b>	<b>1131</b>	
<b>Total Regional Availability(Gross)</b>		<b>55275</b>	<b>33704</b>	<b>23767</b>	<b>676.16</b>	<b>28173</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	6358	821	63.57	2649
State Control Area Hydro	5368	1919	1369	39.93	1664
<b>Total Regional Hydro</b>	<b>15731</b>	<b>8277</b>	<b>2190</b>	<b>103.49</b>	<b>4312</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	10.36	-10.36
Gwalior-Agra (D/C)	-65	-403	422	594	0.00	0.99	-0.99
Zerda-Kankroli	-72	-218	141	350	0.00	1.89	-1.89
Zerda-Bhinmal	91	-123	288	286	0.18	0.00	0.18
Malanpur-Auraiya	-167	-245	0	245	0.00	4.06	-4.06
Badod-Kota/Morak	-124	-190	0	277	0.00	2.96	-2.96
Mundra-Mohindergarh(HVDC)	475	477	479	0	11.54	0.00	11.54
<b>Sub Total WR</b>	<b>-362</b>	<b>-1152</b>			<b>11.72</b>	<b>20.26</b>	<b>-8.54</b>
Pusauli Bypass	50	50	50	0	1.27	0.00	1.27
MZP- GKP (D/C)	280	336	646	0	9.43	0.00	9.43
Patna-Balia(D/C)	594	419	902	0	14.43	0.00	14.43
B'Sharif-Balia (D/C)	69	137	372	0	5.02	0.00	5.02
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	-118	-60	0	175	0.00	0.59	-0.59
Gaya-Fatehpur (765 Kv)	118	0	272	0	3.47	0.00	3.47
Pusauli-Sahupuri	144	146	154	0	3.51	0.00	3.51
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-37	-32	0	48	0.00	0.85	-0.85
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1100</b>	<b>996</b>			<b>37.13</b>	<b>1.44</b>	<b>35.69</b>
<b>Total IR Exch</b>	<b>738</b>	<b>-156</b>			<b>48.85</b>	<b>21.70</b>	<b>27.15</b>

**V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]**

ISGS/LT Schedule (MU)			Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
ER	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
38.82	0.41	39.23	7.47	-24.54	-0.02	8.02	-3.60	3.75
<b>Total IR Schedule (MU)</b>			<b>Total IR Actual (MU)</b>			<b>Net IR UI (MU)</b>		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
43.07	-3.42	39.66	35.69	-8.54	27.15	-7.38	-5.12	-12.51

**VI. Frequency Profile** <----- % of Time Frequency ----->

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	0.00	1.15	86.59	85.94	76.18	13.41
Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum		Hz			MAX (Hz)	MIN (Hz)
50.71	4.07	49.61	17.26	50.13	0.45	0.14	50.59	49.84

**VII. Voltage profile**

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	409	2:46	0	19:00	0.3	0.3	0.0	0.0
Gorakhpur	400	434	3:05	411	13:10	0.0	0.0	42.7	3.9
Bareilly	400	419	22:54	404	17:56	0.0	0.0	0.0	0.0
Kanpur	400	424	2:59	395	12:16	0.0	0.0	8.8	0.0
Dadri	400	428	3:13	404	12:17	0.0	0.0	22.7	0.0
Ballabhgarh	400	434	3:05	405	12:17	0.0	0.0	32.1	7.0
Bawana	400	432	3:04	408	12:18	0.0	0.0	31.6	8.0
Bassi	400	437	3:49	398	6:45	0.0	0.0	31.2	7.1
Hissar	400	424	3:15	399	12:18	0.0	0.0	8.4	0.0
Moga	400	427	3:01	399	17:56	0.0	0.0	21.2	0.0
Abdullapur	400	431	2:56	0	13:02	1.8	2.7	48.2	0.1
Nalagarh	400	427	0:00	408	14:49	0.0	0.0	19.1	0.0
Kishenpur	400	433	3:00	391	18:28	0.0	0.0	25.8	5.8
Wagoora	400	424	4:02	372	18:27	7.9	30.5	7.2	0.0

**VIII. 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 (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	497.79	1006.54	505.17	1312.37	161.63	421.75
Pong	426.72	384.05	413.31	611.20	415.69	705.67	69.60	491.61
Tehri	829.79	740.04	817.95	962.00	818.65	982.26	50.80	181.00
Koteshwar	612.50	598.50	608.80	3.98	NA	NA	181.00	162.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	49.23	48.35
Rihand	268.22	252.98	262.46	500.10	264.14	617.70	NA	NA
RPS	352.80	343.81	349.22	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.27	NA	NA	NA	NA	NA
RSD	527.91	487.91	519.27	NA	515.67	NA	54.14	166.08

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 14.12.2012 :**

1. Rains & Snow fall in J &K, HP & upper part of Uttranchal.

**XII. Synchronisation of new generating units :**

0.00

**XIII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**

**XIV. Tripping of lines in pooling stations :**

**XV. Complete generation loss in a generating station :**

Report for : 14.12.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER