

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 26.12.2012

Date of Reporting : 27.12.2012

### 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
34071	3873	37944	50.07	27198	700	27898	50.39	721.4	76.11

\* 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 *
Punjab	47.44	12.46		59.90	31.14	32.05	0.91	91.95	4.93
Haryana	46.27	0.54		46.81	47.81	49.73	1.92	96.53	8.54
Rajasthan	84.76	4.76	2.47	91.99	69.39	72.41	3.02	164.40	7.36
Delhi	31.49			31.49	34.16	30.90	-3.26	62.39	1.02
UP	129.91	4.04	16.80	150.75	67.90	66.98	-0.92	217.73	48.71
Uttarakhand		7.59		7.59	20.04	21.97	1.93	29.56	3.36
HP		4.53		4.53	18.95	19.49	0.54	24.02	0.50
J & K		0.00	0.00	0.00	27.99	30.82	2.83	30.82	1.70
Chandigarh				0.00	3.58	4.01	0.43	4.01	0.00
<b>Total</b>	<b>339.86</b>	<b>33.92</b>	<b>19.27</b>	<b>393.05</b>	<b>320.96</b>	<b>328.36</b>	<b>7.41</b>	<b>721.42</b>	<b>76.11</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	4925	600	60	-477	3093	0	69	50	-8.11	
Haryana	4731	480	-14	-117	3667	15	263	-46	2.81	
Rajasthan	7094	632	306	1138	6960	0	-87	1120	29.78	
Delhi	3271	0	-478	-792	1346	0	-27	-2288	-30.66	
UP	9314	1886	-597	-128	8724	665	-6	-107	-7.04	
Uttarakhand	1554	160	111	420	1067	0	106	423	9.87	
HP	1197	15	19	236	725	20	26	335	7.20	
J&K	1776	100	-49	391	1520	0	88	493	9.25	
Chandigarh	209	0	-8	0	97	0	11	-31	-0.19	
<b>Total</b>	<b>34071</b>	<b>3873</b>	<b>-650</b>	<b>669</b>	<b>27198</b>	<b>700</b>	<b>443</b>	<b>-52</b>	<b>12.92</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	1950	2096	2020	46.63	1943	46.80	-0.17
Rihand I STPS	1000	920	992	938	21.95	915	22.08	-0.13
Rihand II STPS	1000	975	1039	1009	23.34	972	23.40	-0.06
Rihand III STPS	500	299	401	128	6.77	282	6.55	0.22
Dadri I STPS	840	630	811	630	15.07	628	15.07	0.00
Dadri II STPS	980	715	978	699	17.29	720	17.10	0.19
Unchahar I TPS	420	404	436	380	9.51	396	9.57	-0.07
Unchahar II TPS	420	405	440	362	9.41	392	9.51	-0.10
Unchahar III TPS	210	202	219	180	4.70	196	4.79	-0.09
ISTPP (Jhajjar)	1500	708	865	449	15.27	636	16.75	-1.47
Dadri GPS	830	845	427	352	9.56	398	10.42	-0.87
Anta GPS	419	434	279	200	6.15	256	6.11	0.04
Auraiya GPS	663	673	331	260	7.16	298	7.26	-0.10
<b>Sub Total (A)</b>	<b>10782</b>	<b>9161</b>	<b>9314</b>	<b>7607</b>	<b>192.79</b>	<b>8033</b>	<b>195.40</b>	<b>-2.61</b>
<b>B. NPC</b>								
NAPS	440	283	327	332	7.02	292	6.79	0.23
RAPS- B	440	208	234	234	4.88	203	4.99	-0.12
RAPS- C	440	220	238	239	5.12	213	5.28	-0.16
<b>Sub Total (B)</b>	<b>1320</b>	<b>711</b>	<b>799</b>	<b>805</b>	<b>17.02</b>	<b>709</b>	<b>17.06</b>	<b>-0.05</b>
<b>C. NHPC</b>								
Chamera I HPS	540	365	270	0	2.27	95	2.24	0.03
Chamera II HPS	300	303	170	0	1.00	42	0.90	0.11
Chamera III HPS	231	231	57	0	0.60	25	0.62	-0.01
Bairasuil HPS	180	182	120	0	0.51	21	0.50	0.00
Salai-HPS	690	126	228	115	3.18	132	3.03	0.15
Tanakpur-HPS	94	30	32	25	0.66	27	0.68	-0.02
Uri-HPS	480	93	151	33	2.71	113	2.62	0.08
Dhauliganga-HPS	280	210	71	0	0.66	27	0.63	0.03
Dulhasi-HPS	390	388	262	0	2.55	106	2.59	-0.04
Sewa-II HPS	120	70	41	0	0.24	10	0.23	0.01
<b>Sub Total (C)</b>	<b>3305</b>	<b>1998</b>	<b>1402</b>	<b>173</b>	<b>14.37</b>	<b>599</b>	<b>14.05</b>	<b>0.33</b>
<b>D.NJPC</b>								
Nathpa Jhakri	1500	1605	1016	0	7.04	293	7.06	-0.02
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1016</b>	<b>0</b>	<b>7.04</b>	<b>293</b>	<b>7.06</b>	<b>-0.02</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	901	0	10.71	446	10.50	0.21
Koteshwar HPS	400	300	302	86	3.67	153	3.60	0.07
<b>Sub Total (E)</b>	<b>1400</b>	<b>1350</b>	<b>1203</b>	<b>86</b>	<b>14.38</b>	<b>599</b>	<b>14.10</b>	<b>0.28</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	660	1104	413	16.19	675	15.84	0.35
Dehar HPS	990	134	495	0	3.28	137	3.21	0.07
Pong HPS	396	258	300	120	6.41	267	5.01	1.40
<b>Sub Total (F)</b>	<b>2866</b>	<b>1051</b>	<b>1899</b>	<b>533</b>	<b>25.88</b>	<b>1078</b>	<b>24.05</b>	<b>1.83</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.48	20	0.52	-0.05
KWHEP HPS(IPP)	1000	0	0	0	0.00	0	0.00	0.00
Malana Stg-II HPS	100	0	22	0	0.18	7	0.16	0.02
Shree Cement TPS	300	0	277	241	6.36	265	6.32	0.04
Budhil HPS(IPP)	70	0	0	0	0.00	0	0.17	-0.17
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>299</b>	<b>241</b>	<b>7.02</b>	<b>293</b>	<b>7.17</b>	<b>-0.15</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>15876</b>	<b>15932</b>	<b>9445</b>	<b>278.50</b>	<b>11604</b>	<b>278.90</b>	<b>-0.40</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	1055	890	22.65	944	
	Guru Nanak Dev TPS(Bhatinda)	440	218	295	4.78	199	
	Guru Hargobind Singh TPS(L.mbt)	920	978	707	20.01	834	
	Thermal (Total)	2620	2251	1892	47.44	1977	
	Total Hydro	1148	621	318	12.46	519	
	<b>Total Punjab</b>	<b>3768</b>	<b>2872</b>	<b>2210</b>	<b>59.90</b>	<b>2496</b>	
Haryana	Panipat TPS	1367	601	609	13.70	571	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	439	284	9.66	402	
	RGTPP (khedar) (IPP)	1200	573	588	13.85	577	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	390	396	9.06	378	
	Thermal (Total)	4944	196	1877	46.27	1928	
	Total Hydro	62	21	21	0.54	22	
	<b>Total Haryana</b>	<b>5006</b>	<b>217</b>	<b>1898</b>	<b>46.81</b>	<b>1950</b>	
Rajasthan	kota TPS	1240	1168	1127	27.27	1136	
	suratgarh TPS	1500	1120	1041	25.87	1078	
	Chabra TPS	500	423	405	8.36	348	
	Dholpur GPS	330	131	57	2.35	98	
	Ramgarh GPS	111	79	86	2.03	85	
	RAPS A (NPC)	300	181	181	4.38	183	
	Barsingar (NLC)	250	112	111	2.47	103	
	Giral LTPS	250	88	42	0.88	37	
	Rajwest LTPS (IPP)	540	477	477	11.14	464	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	3779	3527	84.76	3532	
	Total Hydro	550	266	111	4.76	198	
	Wind power	2191	28	201	1.70	71	
	Biomass	91	26	26	0.63	26	
	Solar	201	3	0	0.14	6	
	Renewable/Others (Total)	2483	54	227	2.47	103	
	<b>Total Rajasthan</b>	<b>8189</b>	<b>4099</b>	<b>3865</b>	<b>91.99</b>	<b>3833</b>	
	UP	Anpara TPS	1630	1589	1547	33.40	1392
		Obra TPS	1382	516	513	11.10	463
Paricha TPS		890	661	630	13.90	579	
Panki TPS		210	70	70	1.40	58	
Harduaganj TPS		665	262	227	4.90	204	
Tanda TPS (NTPC)		440	405	404	9.80	408	
Roza TPS (IPP)		1200	1098	1058	27.87	1161	
Anpara-C (IPP)		1200	889	514	17.96	749	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	400	404	9.58	399	
Thermal (Total)		8067	5890	5367	129.91	5413	
Vishnuparyag HPS (IPP)		400	0	0	0.00	0	
Other Hydro		527	153	191	4.04	168	
Cogeneration		981	700	700	16.80	700	
<b>Total UP</b>		<b>9975</b>	<b>6743</b>	<b>6258</b>	<b>150.75</b>	<b>6281</b>	
Uttarakhand		Total Hydro	1303	445	229	7.59	316
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>445</b>	<b>229</b>	<b>7.59</b>	<b>316</b>	
Delhi	Raighat TPS	135	106	104	2.79	116	
	Delhi Gas Turbine	282	156	154	4.00	167	
	Pragati Gas Turbine	330	318	325	7.87	328	
	Rithala GPS	108	20	21	0.41	17	
	Bawana GPS	677	224	214	5.19	216	
	Badarpur TPS (NTPC)	705	620	470	11.23	468	
	Thermal (Total)	2237	1444	1288	31.49	1312	
	<b>Total Delhi</b>	<b>2237</b>	<b>1444</b>	<b>1288</b>	<b>31.49</b>	<b>1312</b>	
HP	Baspa HPS (IPP)	330	29	0	1.11	46	
	Malana HPS (IPP)	86	40	0	0.22	9	
	Other Hydro	589	129	91	3.20	133	
	<b>Total HP</b>	<b>1005</b>	<b>198</b>	<b>91</b>	<b>5</b>	<b>189</b>	
J & K	Baglihar HPS (IPP)	450	150	0	0.00	0	
	Other Hydro	323	0	0	0.00	0	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>150</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	
<b>Total State Control Area Generation</b>		<b>32439</b>	<b>16168</b>	<b>15839</b>	<b>393.05</b>	<b>16377</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2254</b>	<b>3343</b>	<b>73.52</b>	<b>3063</b>	
<b>Total Regional Availability(Gross)</b>		<b>55275</b>	<b>34354</b>	<b>28627</b>	<b>745.07</b>	<b>31045</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	5542	792	62.33	2597
State Control Area Hydro	5368	1854	961	33.92	1413
<b>Total Regional Hydro</b>	<b>15731</b>	<b>7396</b>	<b>1753</b>	<b>96.25</b>	<b>4010</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	Import	Export	
Vindhychal B/B	-200	100	100	200	0.54	2.98	-2.44		
Gwalior-Agra (D/C)	294	454	837	0	12.11	0.00	12.11		
Zerda-Kankroli	-76	60	171	98	1.08	0.00	1.08		
Zerda-Bhinmal	30	132	323	32	3.06	0.00	3.06		
Malanpur-Auraiya	-160	-61	0	201	0.00	2.13	-2.13		
Badod-Kota/Morak	-94	16	54	74	0.00	0.16	-0.16		
Mundra-Mohindergarh(HVDC)	626	938	942	0	17.93	0.00	17.93		
<b>Sub Total WR</b>	<b>420</b>	<b>1639</b>			<b>34.72</b>	<b>5.26</b>	<b>29.45</b>		
Pusauli Bypass	-100	100	100	100	0.09	2.34	-2.25		
MZP- GKP (D/C)	426	416	610	0	11.47	0.00	11.47		
Patna-Balia(D/C)	934	682	1107	0	20.16	0.00	20.16		
B'Sharif-Balia (D/C)	418	226	511	0	8.36	0.00	8.36		
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00		
Pusauli-Balia	73	10	119	35	1.13	0.00	1.13		
Gaya-Fatehpur (765 Kv)	0	194	316	0	3.28	0.00	3.28		
Pusauli-Sahupuri	120	108	161	0	2.98	0.00	2.98		
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00		
Son Ngr-Rihand	-37	-32	0	48	0.00	1.04	-1.04		
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
<b>Sub Total ER</b>	<b>1834</b>	<b>1704</b>			<b>47.45</b>	<b>3.38</b>	<b>44.07</b>		
<b>Total IR Exch</b>	<b>2254</b>	<b>3343</b>			<b>82.17</b>	<b>8.65</b>	<b>73.52</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
41.85	0.21	42.06	8.39	-18.04	-0.01	18.72	-2.44	2.51
<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
48.00	15.65	63.65	44.07	29.45	73.52	-3.93	13.80	9.87

**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	0.03	10.00	91.88	81.90	53.99	8.09

<----- 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				
50.49	17.05	49.49	13.42	50.03	0.32	0.16	50.44	49.71

**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	4:14	398	13:14	0.0	0.0	0.0	0.0
Gorakhpur	400	425	17:06	403	9:40	0.0	0.0	18.6	0.0
Bareilly	400	422	4:07	394	9:31	0.0	0.0	0.5	0.0
Kanpur	400	421	4:04	394	9:23	0.0	0.0	0.0	0.0
Dadri	400	414	20:39	396	11:14	0.0	0.0	0.0	0.0
Ballabgarh	400	427	3:25	400	9:42	0.0	0.0	10.1	0.0
Bawana	400	425	4:05	400	11:14	0.0	0.0	10.1	0.0
Bassi	400	434	4:02	397	9:43	0.0	0.0	18.6	4.3
Hissar	400	413	4:00	387	11:14	0.0	1.2	0.0	0.0
Moga	400	416	20:38	391	12:13	0.0	0.0	0.0	0.0
Abdullapur	400	423	4:02	400	11:14	0.0	0.0	6.9	0.0
Nalagarh	400	419	3:22	397	11:13	0.0	0.0	0.0	0.0
Kishenpur	400	413	4:01	386	12:15	0.0	4.7	0.0	0.0
Wagoora	400	409	14:14	360	18:12	43.0	82.1	0.0	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	495.94	937.45	503.07	1219.07	145.07	437.18
Pong	426.72	384.05	411.49	544.90	414.30	641.91	74.11	400.82
Tehri	829.79	740.04	813.35	870.27	818.65	982.26	49.55	244.00
Koteshwar	612.50	598.50	609.25	4.69	NA	NA	244.00	244.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	48.27	61.47
Rihand	268.22	252.98	261.88	500.10	263.65	617.70	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	517.33	NA	511.39	NA	75.35	214.78

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 26.12.2012 :**

1. Dense Fog in northern region.

**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 : 26.12.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER