

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 25.12.2011  
Date of Reporting : 26.12.2011

### 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
31255	3431	34686	49.80	25371	1005	26376	49.90	667.1	73.01

\* 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	49.77	9.79		59.56	25.98	30.39	4.42	89.95	6.90
Haryana	45.47	0.56		46.03	24.80	35.94	11.14	81.96	19.90
Rajasthan	84.95	4.90	11.06	100.91	48.85	57.01	8.16	157.92	2.48
Delhi	26.01			26.01	41.33	32.36	-8.96	58.38	0.34
UP	77.93	6.56	15.60	100.09	75.86	87.62	11.76	187.71	38.58
Uttarakhand		9.98		9.98	16.49	18.74	2.26	28.72	1.69
HP		5.18		5.18	16.72	17.78	1.07	22.97	0.77
J & K		5.50	0.00	5.50	22.90	30.73	7.83	36.23	1.90
Chandigarh				0.00	3.13	3.32	0.19	3.32	0.45
<b>Total</b>	<b>284.12</b>	<b>42.47</b>	<b>26.66</b>	<b>353.26</b>	<b>276.04</b>	<b>313.89</b>	<b>37.85</b>	<b>667.15</b>	<b>73.01</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	STOA/PX transaction
Punjab	4457	600	-3	-403	3343	0	262	-901	-11.18	
Haryana	3751	1146	581	-68	3370	0	252	-70	-1.67	
Rajasthan	6917	0	367	421	6286	0	517	546	14.66	
Delhi	3258	40	-134	-122	1375	0	-370	-398	-4.87	
UP	8328	1545	265	167	7555	1005	434	167	4.01	
Uttarakhand	1501	0	91	332	1050	0	166	332	7.97	
HP	1143	0	-180	8	820	0	191	237	3.70	
J&K	1730	100	150	252	1479	0	345	254	6.10	
Chandigarh	171	0	-8	0	93	0	5	-30	-0.24	
<b>Total</b>	<b>31255</b>	<b>3431</b>	<b>1129</b>	<b>587</b>	<b>25371</b>	<b>1005</b>	<b>1803</b>	<b>137</b>	<b>18.47</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	Off Peak MW	Energy	Average	Schedule	UI
				(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU
A. NTPC	Singrauli STPS	2000	1426	1854	1351	34.93	1455	34.23	0.70
	Rihand I STPS	1000	545	449	918	13.20	550	13.08	0.13
	Rihand II STPS	1000	962	917	1040	23.11	963	23.08	0.02
	Dadri I STPS	840	793	866	640	18.29	762	17.90	0.38
	Dadri II STPS	980	967	1034	800	22.35	931	22.15	0.20
	Unchahar I TPS	440	374	434	402	9.06	377	8.98	0.08
	Unchahar II TPS	440	374	441	401	9.04	377	8.98	0.07
	Unchahar III TPS	210	187	215	202	4.52	188	4.49	0.03
	ISTPP (Jhajjar)	1000	475	502	452	10.50	438	10.32	0.18
	Dadri GPS	830	840	797	814	19.00	792	19.10	-0.10
	Anta GPS	419	276	245	284	6.34	264	6.11	0.23
	Auraiya GPS	663	654	624	590	14.46	602	14.42	0.03
	<b>Sub Total (A)</b>	<b>9822</b>	<b>7873</b>	<b>8378</b>	<b>7894</b>	<b>184.79</b>	<b>7699</b>	<b>182.83</b>	<b>1.95</b>
	B. NPC	NAPS	440	220	256	260	5.30	221	5.28
RAPS- B		440	420	464	466	10.17	424	10.08	0.09
RAPS- C		440	420	472	473	10.22	426	10.08	0.14
<b>Sub Total (B)</b>		<b>1320</b>	<b>1060</b>	<b>1192</b>	<b>1199</b>	<b>25.69</b>	<b>1070</b>	<b>25.44</b>	<b>0.25</b>
C. NHPC	Chamera I HPS	540	0	0	0	0.00	0	0.00	0.00
	Chamera II HPS	300	297	198	0	1.26	53	1.19	0.08
	Bairasuil HPS	180	179	120	0	0.46	19	0.54	-0.08
	Salal-HPS	690	116	225	106	2.83	118	2.78	0.05
	Tanakpur-HPS	94	30	31	20	0.69	29	0.68	0.01
	Uri-HPS	480	121	212	105	2.70	113	2.90	-0.20
	Dhauliganga-HPS	280	210	116	0	1.03	43	1.08	-0.05
	Dulhasti-HPS	390	275	398	0	2.81	117	2.85	-0.04
	Sewa-II HPS	120	0	0	0	0.17	7	0.00	0.17
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1228</b>	<b>1300</b>	<b>231</b>	<b>11.94</b>	<b>498</b>	<b>12.01</b>	<b>-0.06</b>
	D. NJPC	Nathpa Jhakri	1500	1133	1266	0	6.70	279	6.87
<b>Sub Total (D)</b>		<b>1500</b>	<b>1133</b>	<b>1266</b>	<b>0</b>	<b>6.70</b>	<b>279</b>	<b>6.87</b>	<b>-0.17</b>
E. THDC	Tehri HPS	1000	1030	753	0	5.05	211	5.00	0.05
	Koteshwar HPS	200	119	203	102	2.13	89	2.00	0.13
	<b>Sub Total (E)</b>	<b>1200</b>	<b>1149</b>	<b>956</b>	<b>102</b>	<b>7.19</b>	<b>299</b>	<b>7.00</b>	<b>0.19</b>
F. BBMB	Bhakra HPS	1480	663	944	522	16.47	686	15.92	0.55
	Dehar HPS	990	128	495	0	3.17	132	3.06	0.11
	Pong HPS	396	144	306	66	3.70	154	3.47	0.23
	<b>Sub Total (F)</b>	<b>2866</b>	<b>935</b>	<b>1745</b>	<b>588</b>	<b>23.34</b>	<b>973</b>	<b>22.44</b>	<b>0.90</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.17	7	0.16	0.01
	KWHEP HPS(IPP)	1000	0	370	0	3.66	153	3.60	0.06
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	141	126	3.34	139	2.79	0.55
<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>511</b>	<b>126</b>	<b>7.17</b>	<b>299</b>	<b>6.55</b>	<b>0.62</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>21225</b>	<b>13379</b>	<b>15348</b>	<b>10140</b>	<b>266.81</b>	<b>11117</b>	<b>263.15</b>	<b>3.66</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	1200	1040	25.20	1050	
	Guru Nanak Dev TPS(Bhatinda)	440	216	216	4.66	194	
	Guru Hargobind Singh TPS(L.mbt)	920	961	738	19.91	830	
	Thermal (Total)	2620	2377	1994	49.77	2074	
	Total Hydro	1148	493	192	9.79	408	
	<b>Total Punjab</b>	<b>3768</b>	<b>2870</b>	<b>2186</b>	<b>59.56</b>	<b>2482</b>	
Haryana	Panipat TPS	1360	1022	1005	23.70	987	
	DCRTPP (Yamuna nagar)	600	273	275	6.60	275	
	Faridabad GPS (NTPC)	432	431	449	10.50	438	
	RGTPP (khedar) (IPP)	1200	0	441	4.67	195	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Thermal (Total)	3617	1726	2170	45.47	1895	
	Total Hydro	62	23	21	0.56	23	
		<b>Total Haryana</b>	<b>3679</b>	<b>1749</b>	<b>2191</b>	<b>46.03</b>	<b>1918</b>
Rajasthan	kota TPS	1240	1181	1183	27.77	1157	
	suratgarh TPS	1500	1163	922	25.78	1074	
	Chabra TPS	500	225	211	5.12	213	
	Dholpur GPS	330	220	223	5.27	220	
	Ramgarh GPS	113	65	65	1.68	70	
	RAPS A (NPC)	300	180	182	4.49	187	
	Barsingar (NLC)	250	60	58	1.53	64	
	Giral LTPS (IPP)	250	130	180	2.50	104	
	Rajwest LTPS (IPP)	540	455	425	10.81	450	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5158	3679	3449	84.95	3539	
	Total Hydro	550	207	195	4.90	204	
	Wind power	1294	231	239	4.89	204	
	Biomass	71	46	46	1.10	46	
	Solar	50	0	0	0.17	7	
	Renewable/Others (Total)	1365	277	285	11.06	461	
		<b>Total Rajasthan</b>	<b>7073</b>	<b>4163</b>	<b>3929</b>	<b>100.91</b>	<b>4205</b>
UP	Anpara TPS	1630	1307	1195	29.20	1217	
	Obra TPS	1442	606	562	14.00	583	
	Paricha TPS	640	204	204	5.00	208	
	Panki TPS	210	149	162	3.40	142	
	Harduaganj TPS	415	81	38	1.40	58	
	Tanda TPS (NTPC)	440	400	407	10.90	454	
	Roza TPS (IPP)	600	518	414	12.30	513	
	Anpara-C (IPP)	1200	0	0	0.00	0	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	78	63	1.73	72	
	Thermal (Total)	6757	3343	3045	77.93	3247	
	Vishnuparyag HPS (IPP)	400	94	94	2.23	93	
	Other Hydro	527	193	0	4.33	180	
	Cogeneration	951	650	650	15.60	650	
		<b>Total UP</b>	<b>8635</b>	<b>4280</b>	<b>3789</b>	<b>100.09</b>	<b>4077</b>
	Uttarakhand	Total Hydro	1303	554	280	9.98	416
<b>Total Uttarakhand</b>		<b>1303</b>	<b>554</b>	<b>280</b>	<b>9.98</b>	<b>416</b>	
Delhi	Rajghat TPS	135	49	46	1.10	46	
	Delhi Gas Turbine	282	201	159	4.87	203	
	Praagati Gas Turbine	330	316	310	7.64	318	
	Rithala GPS	108	0	0	0.00	0	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	575	580	12.41	517	
	Thermal (Total)	2000	1141	1095	26.01	1084	
	<b>Total Delhi</b>	<b>2000</b>	<b>1141</b>	<b>1095</b>	<b>26.01</b>	<b>1084</b>	
HP	Baspa HPS (IPP)	330	0	0	1.32	55	
	Malana HPS (IPP)	101	0	0	0.27	11	
	Other Hydro	571	184	116	3.60	150	
	<b>Total HP</b>	<b>1002</b>	<b>184</b>	<b>116</b>	<b>5</b>	<b>216</b>	
J & K	Baglihar HPS (IPP)	450	262	132	3.96	165	
	Other Hydro	323	54	100	1.54	64	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>316</b>	<b>232</b>	<b>5.50</b>	<b>229</b>
<b>Total State Control Area Generation</b>		<b>28416</b>	<b>15257</b>	<b>13818</b>	<b>353.26</b>	<b>14626</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>1713</b>	<b>2304</b>	<b>55.55</b>	<b>2315</b>	
<b>Total Regional Availability(Gross)</b>		<b>49641</b>	<b>32318</b>	<b>26262</b>	<b>675.62</b>	<b>28058</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	5778	1047	56.34	2347
State Control Area Hydro	5365	1970	1036	40.24	1676
<b>Total Regional Hydro</b>	<b>15447</b>	<b>7748</b>	<b>2083</b>	<b>96.57</b>	<b>4024</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	0	0	200	0.00	1.19	-1.19
Gwalior-Agra (D/C)	508	779	933	0	16.64	0.00	16.64
Zerda-Kankroli	-89	-27	68	202	0.00	1.22	-1.22
Zerda-Bhinmal	-19	-43	209	190	0.74	0.00	0.74
Malanpur-Auraiya	-141	-89	0	178	0.00	2.73	-2.73
Badod-Kota/Morak	-55	-85	0	100	0.00	1.43	-1.43
<b>Sub Total WR</b>	<b>4</b>	<b>535</b>			<b>17.38</b>	<b>6.57</b>	<b>10.81</b>
Pusauli Bypass	169	237	401	0	5.70	0.00	5.70
MZP- GKP (D/C)	476	526	836	0	13.68	0.00	13.68
Patna-Balia(D/C)	675	579	936	0	15.56	0.00	15.56
B'Sharif-Balia (D/C)	295	384	461	0	8.07	0.00	8.07
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	124	77	171	0	2.43	0.00	2.43
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-34	0	48	0.00	0.69	-0.69
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1709</b>	<b>1769</b>			<b>45.44</b>	<b>0.69</b>	<b>44.75</b>
<b>Total IR Exch</b>	<b>1713</b>	<b>2304</b>			<b>62.82</b>	<b>7.26</b>	<b>55.55</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
17.21	0.46	17.67	14.66	5.67	-0.45	2.02	2.90	-2.90

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
34.78	-0.02	34.76	44.75	10.81	55.55	9.97	10.82	20.79

**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	1.10	14.20	44.20	85.50	53.40	6.90	0.30

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				
50.30	18.02	49.03	9.15	49.61	1.25	0.20	50.12	49.43

**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	412	09:03	402	13:52	0.0	0.0	0.0	0.0
Gorakhpur	400	433	18:00	403	13:51	0.0	0.0	30.3	0.5
Bareilly	400	423	23:44	404	12:16	0.0	0.0	3.0	0.0
Kanpur	400	418	08:29	403	13:51	0.0	0.0	0.0	0.0
Dadri	400	417	04:00	407	12:38	0.0	0.0	0.0	0.0
Ballabgarh	400	421	04:00	409	13:46	0.0	0.0	10.2	0.0
Bawana	400	421	04:00	408	12:40	0.0	0.0	0.5	0.0
Bassi	400	424	08:26	394	00:05	0.0	0.0	0.9	0.0
Hissar	400	411	05:04	395	14:25	0.0	0.0	0.0	0.0
Moga	400	420	05:07	403	13:38	0.0	0.0	0.0	0.0
Abdullapur	400	421	04:04	410	18:38	0.0	0.0	1.0	0.0
Nalagarh	400	423	04:00	412	00:05	0.0	0.0	13.3	0.0
Kishenpur	400	408	04:04	387	14:15	0.0	5.9	0.0	0.0
Wagoora	400	387	03:59	357	21:08	75.1	100.0	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	503.24	1232.31	504.48	1285.56	175.73	454.09
Pong	426.72	384.05	414.38	656.23	417.53	781.19	40.15	223.93
Tehri	829.79	740.04	810.80	822.28	818.65	982.26	68.56	117.00
Koteswar	612.50	598.50	610.90	4.95	NA	NA	119.00	135.00
Chamera-I	760.00	748.75	747.01	NA	746.93	NA	32.15	0.00
Rihand	268.22	252.98	262.66	526.00	257.40	NA	NA	NA
RPS	352.80	343.81	350.18	NA	NA	NA	NA	276.09
Jawahar Sagar	298.70	295.78	297.88	NA	NA	NA	NA	22.85
RSD	527.91	487.91	511.93	NA	514.60	NA	66.54	344.08

\* NA: Not Available

IX. System Constraints:

X. Grid Disturbance / Any Other Significant Event:

XI. Weather Conditions For 25.12.2011 :

XII. Synchronisation of new generating units :

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 : 25.12.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER