

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 17.12.2011  
Date of Reporting : 18.12.2011

### I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 Hrs) MW			Off Peak (03:00 Hrs) MW			Day Energy (Net MU)		
	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
29988	3891	33879	49.60	24402	845.75	25248	50.03	657.0	65.73

\* 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	49.34	11.79		61.13	25.13	23.85	-1.28	84.98	5.60
Haryana	53.25	0.64		53.89	25.43	30.64	5.21	84.53	18.31
Rajasthan	88.87	5.33	10.32	104.51	49.89	51.97	2.08	156.48	2.84
Delhi	19.88			19.88	38.52	36.62	-1.90	56.51	1.44
UP	88.55	6.44	15.60	110.59	71.68	74.79	3.11	185.38	34.55
Uttarakhand		9.04		9.04	16.40	19.58	3.19	28.62	0.77
HP		5.18		5.18	15.83	17.92	2.09	23.11	0.33
J & K		5.50	0.00	5.50	22.57	28.72	6.15	34.22	1.90
Chandigarh				0.00	3.17	3.15	-0.02	3.15	0.00
<b>Total</b>	<b>299.90</b>	<b>43.92</b>	<b>25.92</b>	<b>369.73</b>	<b>268.61</b>	<b>287.25</b>	<b>18.64</b>	<b>656.98</b>	<b>65.73</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	
Punjab	4043	600	-215	-403	2943	0	-119	-901	-11.18
Haryana	3754	1024	-31	-56	3287	91	291	-70	-1.61
Rajasthan	6431	433	-59	422	6387	0	403	537	14.50
Delhi	3015	44	-56	-122	1352	0	-255	-678	-7.51
UP	8284	1535	-128	167	7181	755	-122	167	4.01
Uttarakhand	1398	140	8	332	1014	0	73	332	7.97
HP	1226	16	-76	8	752	0	166	237	3.70
J&K	1671	100	-3	216	1393	0	286	254	5.91
Chandigarh	166	0	-27	0	93	0	9	-30	-0.24
<b>Total</b>	<b>29988</b>	<b>3891</b>	<b>-587</b>	<b>564</b>	<b>24402</b>	<b>845.75</b>	<b>733</b>	<b>-153</b>	<b>15.54</b>

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

### III. Regional Entities :

A. NTPC	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
	Singrauli STPS	2000	1230	1349	1348	30.24	1260	29.52	0.72
	Rihand I STPS	1000	361	454	447	8.81	367	8.67	0.14
	Rihand II STPS	1000	977	1042	1037	23.66	986	23.45	0.21
	Dadri I STPS	840	592	648	490	13.68	570	13.61	0.07
	Dadri II STPS	980	962	1032	788	22.69	945	22.63	0.06
	Unchahar I TPS	440	341	437	361	8.27	344	8.19	0.08
	Unchahar II TPS	440	341	439	359	8.27	344	8.19	0.08
	Unchahar III TPS	210	171	219	181	4.63	193	4.09	0.53
	ISTPP (Jhajjar)	1000	475	505	497	11.34	472	11.28	0.06
	Dadri GPS	830	834	773	678	18.05	752	18.03	0.02
	Anta GPS	419	278	275	242	6.40	267	6.10	0.30
	Auraiya GPS	663	652	637	512	14.27	594	14.08	0.19
	<b>Sub Total (A)</b>	<b>9822</b>	<b>7213</b>	<b>7810</b>	<b>6940</b>	<b>170.29</b>	<b>7095</b>	<b>167.83</b>	<b>2.46</b>
B. NPC	NAPS	440	218	255	258	5.30	221	5.23	0.07
	RAPS- B	440	420	464	468	10.12	422	10.08	0.04
	RAPS- C	440	420	468	477	10.20	425	10.08	0.12
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1058</b>	<b>1187</b>	<b>1203</b>	<b>25.61</b>	<b>1067</b>	<b>25.39</b>	<b>0.22</b>
C. NHPC	Chamera I HPS	540	0	0	0	0.00	0	0.00	0.00
	Chamera II HPS	300	297	224	0	1.45	60	1.41	0.04
	Bairasuil HPS	180	179	5	0	0.51	21	0.47	0.04
	Salal-HPS	690	118	301	108	3.06	128	2.89	0.17
	Tanakpur-HPS	94	31	37	29	0.79	33	0.76	0.03
	Uri-HPS	480	130	77	13	3.14	131	3.04	0.10
	Dhauliganga-HPS	280	210	209	0	1.18	49	1.11	0.07
	Dulhasti-HPS	390	303	403	0	3.19	133	2.94	0.25
	Sewa-II HPS	120	0	0	0	0.00	0	0.00	0.00
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1268</b>	<b>1256</b>	<b>150</b>	<b>13.30</b>	<b>554</b>	<b>12.60</b>	<b>0.70</b>
D. NJPC	Nathpa Jhakri	1500	956	1250	0	7.03	293	6.81	0.22
	<b>Sub Total (D)</b>	<b>1500</b>	<b>956</b>	<b>1250</b>	<b>0</b>	<b>7.03</b>	<b>293</b>	<b>6.81</b>	<b>0.22</b>
E. THDC	Tehri HPS	1000	1040	753	0	6.58	274	6.50	0.08
	Koteshwar HPS	200	119	204	0	2.27	94	2.10	0.17
	<b>Sub Total (E)</b>	<b>1200</b>	<b>1159</b>	<b>957</b>	<b>0</b>	<b>8.85</b>	<b>369</b>	<b>8.60</b>	<b>0.25</b>
F. BBMB	Bhakra HPS	1480	676	944	522	17.04	710	16.23	0.82
	Dehar HPS	990	136	495	0	3.62	151	3.27	0.35
	Pong HPS	396	228	366	126	5.56	232	5.48	0.08
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1040</b>	<b>1805</b>	<b>648</b>	<b>26.22</b>	<b>1093</b>	<b>24.97</b>	<b>1.25</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.34	14	0.27	0.07
	KWHEP HPS(IPP)	1000	0	269	0	4.22	176	3.84	0.38
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	140	139	3.17	132	2.83	0.35
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>409</b>	<b>139</b>	<b>7.74</b>	<b>322</b>	<b>6.94</b>	<b>0.80</b>
<b>H. Total Regional Entities (A-G)</b>		<b>21225</b>	<b>12695</b>	<b>14674</b>	<b>9080</b>	<b>259.04</b>	<b>10793</b>	<b>253.14</b>	<b>5.90</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	1050	1050	23.48	979	
	Guru Nanak Dev TPS(Bhatinda)	440	215	215	4.54	189	
	Guru Hargobind Singh TPS(L.mbt)	920	964	956	21.32	888	
	Thermal (Total)	2620	2229	2221	49.34	2056	
	Total Hydro	1148	436	226	11.79	491	
	<b>Total Punjab</b>	<b>3768</b>	<b>2665</b>	<b>2447</b>	<b>61.13</b>	<b>2547</b>	
Haryana	Panipat TPS	1360	1088	1099	28.38	1182	
	DCRTPP (Yamuna nagar)	600	282	289	6.52	272	
	Faridabad GPS (NTPC)	432	440	440	10.45	435	
	RGTPP (khedar) (IPP)	1200	527	195	7.91	330	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Thermal (Total)	3617	2337	2023	53.25	2219	
	Total Hydro	62	19	24	0.64	27	
		<b>Total Haryana</b>	<b>3679</b>	<b>2356</b>	<b>2047</b>	<b>53.89</b>	<b>2245</b>
Rajasthan	kota TPS	1240	1173	1177	27.71	1155	
	suratgarh TPS	1500	1153	1148	27.29	1137	
	Chabra TPS	500	403	411	10.04	418	
	Dholpur GPS	330	230	225	5.44	227	
	Ramgarh GPS	113	65	65	1.69	71	
	RAPS A (NPC)	300	177	183	4.44	185	
	Barsingar (NLC)	250	50	41	1.17	49	
	Giral LTPS (IPP)	250	50	56	0.85	35	
	Rajwest LTPS (IPP)	540	424	362	10.23	426	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5158	3725	3668	88.87	3703	
	Total Hydro	550	224	134	5.33	222	
	Wind power	1294	27	228	3.58	149	
	Biomass	71	52	52	1.24	52	
	Solar	50	0	0	0.17	7	
	Renewable/Others (Total)	1365	79	280	10.32	430	
		<b>Total Rajasthan</b>	<b>7073</b>	<b>4028</b>	<b>4082</b>	<b>104.51</b>	<b>4355</b>
UP	Anpara TPS	1630	1437	1364	33.50	1396	
	Obra TPS	1442	577	573	13.30	554	
	Paricha TPS	640	341	333	8.20	342	
	Panki TPS	210	95	90	2.20	92	
	Harduaganj TPS	415	0	0	0.10	4	
	Tanda TPS (NTPC)	440	400	402	9.79	408	
	Roza TPS (IPP)	600	509	495	11.80	492	
	Anpara-C (IPP)	1200	378	351	8.33	347	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	28	78	1.34	56	
	Thermal (Total)	6757	3765	3686	88.55	3690	
	Vishnuparyag HPS (IPP)	400	108	104	2.45	102	
	Other Hydro	527	206	40	3.99	166	
	Cogeneration	951	650	650	15.60	650	
		<b>Total UP</b>	<b>8635</b>	<b>4729</b>	<b>4480</b>	<b>110.59</b>	<b>4506</b>
	Uttarakhand	Total Hydro	1303	519	326	9.04	377
<b>Total Uttarakhand</b>		<b>1303</b>	<b>519</b>	<b>326</b>	<b>9.04</b>	<b>377</b>	
Delhi	Rajghat TPS	135	48	50	1.11	46	
	Delhi Gas Turbine	282	240	160	5.00	208	
	Praagati Gas Turbine	330	262	309	5.23	218	
	Rithala GPS	108	0	0	0.00	0	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	360	393	8.55	356	
	Thermal (Total)	2000	910	912	19.88	828	
	<b>Total Delhi</b>	<b>2000</b>	<b>910</b>	<b>912</b>	<b>19.88</b>	<b>828</b>	
HP	Baspa HPS (IPP)	330	0	0	1.32	55	
	Malana HPS (IPP)	101	38	0	0.27	11	
	Other Hydro	571	189	93	3.60	150	
		<b>Total HP</b>	<b>1002</b>	<b>227</b>	<b>93</b>	<b>5</b>	<b>216</b>
J & K	Baglihar HPS (IPP)	450	260	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>314</b>	<b>232</b>	<b>5.50</b>	<b>229</b>
<b>Total State Control Area Generation</b>		<b>28416</b>	<b>15748</b>	<b>14619</b>	<b>369.73</b>	<b>15303</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>1539</b>	<b>1508</b>	<b>42.91</b>	<b>1788</b>	
<b>Total Regional Availability(Gross)</b>		<b>49641</b>	<b>31961</b>	<b>25207</b>	<b>671.68</b>	<b>27884</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	5677	937	63.14	2631
State Control Area Hydro	5365	1945	1075	41.47	1728
<b>Total Regional Hydro</b>	<b>15447</b>	<b>7622</b>	<b>2012</b>	<b>104.60</b>	<b>4359</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	0	-300	100	300	0.94	2.11	-1.17
Gwalior-Agra (D/C)	637	712	1040	0	16.09	0.00	16.09
Zerda-Kankroli	-89	-5	102	176	0.00	1.12	-1.12
Zerda-Bhinmal	16	73	193	175	0.97	0.00	0.97
Malanpur-Auraiya	-127	-121	0	166	0.00	2.70	-2.70
Badod-Kota/Morak	-77	-61	0	101	0.00	1.24	-1.24
<b>Sub Total WR</b>	<b>360</b>	<b>298</b>			<b>18.00</b>	<b>7.17</b>	<b>10.83</b>
Pusauli Bypass	300	300	300	0	7.28	0.00	7.28
MZP- GKP (D/C)	313	315	566	0	9.59	0.00	9.59
Patna-Balia(D/C)	266	330	429	0	7.76	0.00	7.76
B'Sharif-Balia (D/C)	192	247	420	0	6.02	0.00	6.02
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	138	52	150	0	2.30	0.00	2.30
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-34	0	48	0.00	0.87	-0.87
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1179</b>	<b>1210</b>			<b>32.95</b>	<b>0.87</b>	<b>32.08</b>
<b>Total IR Exch</b>	<b>1539</b>	<b>1508</b>			<b>50.95</b>	<b>8.04</b>	<b>42.91</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
16.99	0.45	17.43	12.83	5.46	0.23	4.22	1.60	-1.60

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
32.09	2.55	34.64	32.08	10.83	42.91	-0.01	8.28	8.27

**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	0.30	1.60	30.60	64.10	69.40	35.90	3.50	0.00

←----- 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				
50.17	4.03	48.83	17.26	49.62	1.91	0.21	50.11	49.31

**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	414	21:53	408	06:05	0.0	0.0	0.0	0.0
Gorakhpur	400	431	07:39	411	16:37	0.0	0.0	66.7	0.3
Bareilly	400	427	21:55	403	10:30	0.0	0.0	16.2	0.0
Kanpur	400	421	04:02	407	15:01	0.0	0.0	0.4	0.0
Dadri	400	420	04:02	404	10:29	0.0	0.0	0.0	0.0
Ballabgarh	400	422	21:54	406	06:25	0.0	0.0	1.6	0.0
Bawana	400	423	04:02	407	10:25	0.0	0.0	3.5	0.0
Bassi	400	421	19:57	392	06:25	0.0	0.0	0.2	0.0
Hissar	400	414	19:58	394	14:59	0.0	0.0	0.0	0.0
Moga	400	420	19:57	401	09:09	0.0	0.0	0.0	0.0
Abdullapur	400	422	04:02	295	05:26	0.1	0.1	0.8	0.0
Nalagarh	400	428	04:02	409	10:26	0.0	0.0	24.9	0.0
Kishenpur	400	410	02:00	0	11:46	24.7	24.7	0.0	0.0
Wagoora	400	395	13:02	361	10:33	72.6	99.7	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	505.55	1285.56	505.92	1352.91	186.04	464.40
Pong	426.72	384.05	415.16	680.86	418.30	807.91	52.44	335.16
Tehri	829.79	740.04	812.90	852.75	818.65	982.26	70.36	151.00
Koteshwar	612.50	598.50	607.30	3.32	NA	NA	151.00	150.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	44.13	0.00
Rihand	268.22	252.98	263.96	542.00	257.56	181.70	NA	NA
RPS	352.80	343.81	350.41	NA	NA	NA	NA	234.69
Jawahar Sagar	298.70	295.78	297.73	NA	NA	NA	NA	243.47
RSD	527.91	487.91	514.15	NA	515.97	NA	55.42	234.15

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 17.12.2011 :**

1. Fog in Eastern U.P.

**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 : 17.12.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER