

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 17.11.2011  
Date of Reporting : 18.11.2011

### 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
29165	3301	32466	49.92	24396	974	25370	49.88	645.1	68.36

\* Half hourly (two 15 minutes block--one block each before and after the designated time) average frequency

### II. A. State's Load Energy 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	48.19	10.45		58.64	23.14	25.48	2.33	84.11	6.65
Haryana	51.90	0.87		52.77	27.06	30.91	3.85	83.68	10.14
Rajasthan	76.41	3.74	6.14	86.29	47.58	58.58	11.00	144.86	18.53
Delhi	27.24			27.24	40.70	33.21	-7.49	60.45	0.04
UP	83.01	8.59	4.10	95.70	86.65	90.22	3.57	185.92	30.91
Uttarakhand		9.91		9.91	17.48	18.62	1.14	28.54	0.60
HP		6.33		6.33	15.21	15.21	0.00	21.54	0.00
J & K		6.28	0.00	6.28	21.16	26.32	5.16	32.60	1.50
Chandigarh				0.00	3.64	3.41	-0.23	3.41	0.00
<b>Total</b>	<b>286.74</b>	<b>46.17</b>	<b>10.24</b>	<b>343.15</b>	<b>282.63</b>	<b>301.96</b>	<b>19.33</b>	<b>645.11</b>	<b>68.36</b>

\* Shortage furnished by the respective constituent.

### 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	4156	250	-6	-564	2974	0	45	-737	-12.71
Haryana	3501	1250	52	-88	2769	0	-261	-104	-2.49
Rajasthan	6216	851	532	301	6501	74	1166	426	11.68
Delhi	3057	0	-111	-257	1483	0	-930	-495	-8.04
UP	8017	950	-167	391	7664	900	440	391	9.39
Uttarakhand	1443	0	4	316	952	0	23	316	7.58
HP	1079	0	-116	-362	727	0	169	-22	-3.57
J&K	1511	0	-11	79	1239	0	227	158	2.96
Chandigarh	185	0	-28	0	87	0	-13	-30	-0.24
<b>Total</b>	<b>29165</b>	<b>3301</b>	<b>149</b>	<b>-183</b>	<b>24396</b>	<b>974</b>	<b>866</b>	<b>-97</b>	<b>4.57</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 (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule Net MU	UI Net MU
A. NTPC	Singrauli STPS	2000	1910	2053	2057	46.20	1925	45.84	0.36
	Rihand I STPS	1000	804	1006	859	19.48	812	19.29	0.19
	Rihand II STPS	1000	975	1044	1043	23.61	984	23.40	0.21
	Dadri I STPS	840	585	641	545	13.73	572	13.59	0.13
	Dadri II STPS	980	922	1004	840	22.11	921	21.66	0.45
	Unchahar I TPS	440	400	438	433	9.66	403	9.60	0.06
	Unchahar II TPS	440	399	440	437	9.49	396	9.57	-0.08
	Unchahar III TPS	210	201	220	224	4.85	202	4.82	0.03
	ISTPP (Jhajihar)	1000	475	505	500	11.45	477	11.28	0.17
	Dadri GPS	830	618	543	523	13.32	555	13.35	-0.02
	Anta GPS	419	403	367	337	8.68	362	8.42	0.27
	Auraiya GPS	663	617	461	438	10.53	439	10.56	-0.04
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8308</b>	<b>8722</b>	<b>8236</b>	<b>193.11</b>	<b>8046</b>	<b>191.38</b>	<b>1.73</b>
	B. NPC	NAPS	440	199	232	227	4.76	198	4.78
RAPS- B		440	190	222	223	4.82	201	4.56	0.26
RAPS- C		440	420	476	477	10.16	423	10.08	0.08
<b>Sub Total (B)</b>		<b>1320</b>	<b>809</b>	<b>930</b>	<b>927</b>	<b>19.74</b>	<b>823</b>	<b>19.42</b>	<b>0.32</b>
C. NHPC	Chamera I HPS	540	534	360	0	3.04	127	2.88	0.16
	Chamera II HPS	300	297	199	0	1.77	74	1.73	0.04
	Bairasuil HPS	180	179	60	0	0.70	29	0.66	0.04
	Salal-HPS	690	153	227	145	3.54	148	3.68	-0.14
	Tanakpur-HPS	94	45	51	40	1.07	45	1.07	0.00
	Uri-HPS	480	162	229	53	3.61	151	4.00	-0.39
	Dhauliganga-HPS	280	277	283	0	1.58	66	1.60	-0.03
	Dulhasti-HPS	390	388	417	0	4.02	167	3.78	0.23
	Sewa-II HPS	120	119	120	0	0.45	19	0.44	0.01
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2153</b>	<b>1946</b>	<b>238</b>	<b>19.77</b>	<b>824</b>	<b>19.85</b>	<b>-0.07</b>
D. NJPC	Nathpa Jhakri	1500	1600	1557	0	10.02	418	10.32	-0.29
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1557</b>	<b>0</b>	<b>10.02</b>	<b>418</b>	<b>10.32</b>	<b>-0.29</b>
E. THDC	Tehri HPS	1000	693	1021	0	4.02	168	4.00	0.02
	Koteshwar HPS	200	53	87	86	1.27	53	1.25	0.02
<b>Sub Total (E)</b>	<b>1200</b>	<b>746</b>	<b>1108</b>	<b>86</b>	<b>5.29</b>	<b>221</b>	<b>5.25</b>	<b>0.04</b>	
F. BBMB	Bhakra HPS	1480	614	997	412	15.16	632	14.74	0.42
	Dehar HPS	990	195	495	140	4.70	196	4.68	0.02
	Pong HPS	396	272	300	240	6.79	283	6.53	0.26
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1082</b>	<b>1792</b>	<b>792</b>	<b>26.65</b>	<b>1110</b>	<b>25.96</b>	<b>0.69</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.45	19	0.44	0.02
	KWHEP HPS(IPP)	1000	0	391	130	5.63	235	5.97	-0.34
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	125	127	3.04	127	2.75	0.29
<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>516</b>	<b>257</b>	<b>9.12</b>	<b>380</b>	<b>9.16</b>	<b>-0.04</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>21225</b>	<b>14698</b>	<b>16571</b>	<b>10536</b>	<b>283.71</b>	<b>11821</b>	<b>281.34</b>	<b>2.37</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	1045.00	1045.00	23.50	979	
	Guru Nanak Dev TPS(Bhatinda)	440	210.00	208.00	4.47	186	
	Guru Hargobind Singh TPS(L.mbt)	920	909.00	908.00	20.22	842	
	Thermal (Total)	2620	2164.00	2161.00	48.19	2008	
	Total Hydro	1148	539.00	235.00	10.45	435	
	<b>Total Punjab</b>	<b>3768</b>	<b>2703</b>	<b>2396</b>	<b>58.64</b>	<b>2443</b>	
Haryana	Panipat TPS	1360	794.00	894.00	21.44	893	
	DCRTPP (Yamuna nagar)	600	266.00	269.00	6.56	273	
	Faridabad GPS (NTPC)	432	409.00	326.00	9.46	394	
	RGTPP (khedar) (IPP)	1200	498.00	516.00	14.43	601	
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0	
	Thermal (Total)	3617	1967.00	2005.00	51.90	2162	
	Total Hydro	62	32.00	35.00	0.87	36	
		<b>Total Haryana</b>	<b>3679</b>	<b>1999</b>	<b>2040</b>	<b>52.77</b>	<b>2199</b>
Rajasthan	kota TPS	1240	1166.00	1160.00	27.67	1153	
	suratgarh TPS	1500	1133.00	1147.00	27.04	1127	
	Chabra TPS	500	198.00	225.00	3.57	149	
	Dholpur GPS	330	277.00	275.00	6.73	281	
	Ramgarh GPS	113	65.00	65.00	1.65	69	
	RAPS A (NPC)	300	0.00	0.00	0.00	0	
	Barsingsar (NLC)	250	33.00	0.00	0.60	25	
	Giral LTPS (IPP)	250	84.00	117.00	1.23	51	
	Rajwst LTPS (IPP)	540	300.00	364.00	7.91	330	
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0	
	Thermal (Total)	5158	3256.00	3353.00	76.41	3184	
	Total Hydro	550	270.00	182.00	3.74	156	
	Wind power	1294	105.00	60.00	5.40	225	
	Biomass	71	31.00	31.00	0.73	31	
	Solar	50	0.00	0.00	0.00	0	
	Renewable/Others (Total)	1365	136	91	6.14	256	
		<b>Total Rajasthan</b>	<b>7073</b>	<b>3662</b>	<b>3626</b>	<b>86.29</b>	<b>3595</b>
	UP	Anpara TPS	1630	1552	1508	33.00	1375
Obra TPS		1442	649	638	13.70	571	
Paricha TPS		640	403	423	8.70	363	
Panki TPS		210	160	172	3.60	150	
Harduaganj TPS		415	30	28	0.50	21	
Tanda TPS (NTPC)		440	293	298	7.64	318	
Roza TPS (IPP)		600	566	562	13.50	563	
Anpara-C (IPP)		1200	0	0	0.00	0	
Bajaj Energy Pvt.Ltd(IPP) TPS		180	25	0	2.38	99	
Thermal (Total)		6757	3678	3629	83.01	3459	
Vishnuparyag HPS (IPP)		400	139	139	3.26	136	
Other Hydro		527	163	54	5.32	222	
Cogeneration		951	170	170	4.10	171	
		<b>Total UP</b>	<b>8635</b>	<b>4150</b>	<b>3992</b>	<b>95.70</b>	<b>3852</b>
Uttarakhand		Total Hydro	1303	550	309	9.91	413
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>550</b>	<b>309</b>	<b>9.91</b>	<b>413</b>
Delhi	Rajghat TPS	135	48	56	1.33	56	
	Delhi Gas Turbine	282	189	184	4.68	195	
	Pragati Gas Turbine	330	299	313	7.56	315	
	Rithala GPS	108	22	29	0.52	22	
	Bawana GPS	440	150	25	2.31	96	
	Badarpur TPS (NTPC)	705	470	485	10.83	451	
	Thermal (Total)	2000	1178	1177	27.24	1135	
		<b>Total Delhi</b>	<b>2000</b>	<b>1178</b>	<b>1177</b>	<b>27.24</b>	<b>1135</b>
HP	Baspa HPS (IPP)	330	0	0	1.53	64	
	Malana HPS (IPP)	101	0	0	0.34	14	
	Other Hydro	571	235	111	4.46	186	
		<b>Total HP</b>	<b>1002</b>	<b>235</b>	<b>111</b>	<b>6</b>	<b>264</b>
J & K	Baglihar HPS (IPP)	450	293	146	4.55	189	
	Other Hydro	323	54	100	1.73	72	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>347</b>	<b>246</b>	<b>6.28</b>	<b>262</b>
<b>Total State Control Area Generation</b>		<b>28416</b>	<b>14824</b>	<b>13897</b>	<b>343.15</b>	<b>14162</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>287</b>	<b>1315</b>	<b>30.78</b>	<b>1282</b>	
<b>Total Regional Availability(Gross)</b>		<b>49641</b>	<b>31682</b>	<b>25748</b>	<b>657.63</b>	<b>27265</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	6919	1373	70.86	2952
State Control Area Hydro	5365	2136	1172	42.91	1788
<b>Total Regional Hydro</b>	<b>15447</b>	<b>9055</b>	<b>2545</b>	<b>113.76</b>	<b>4740</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	-300	0	300	0.00	4.78	-4.78
Gwalior-Agra (D/C)	-207	119	634	207	3.47	0.00	3.47
Zerda-Kankroli	-188	-43	0	276	0.00	3.78	-3.78
Zerda-Bhinmal	-73	41	68	231	0.00	1.72	-1.72
Malanpur-Auraiya	-266	-219	0	266	0.00	4.63	-4.63
Badod-Kota/Morak	-84	-55	0	125	0.00	1.78	-1.78
<b>Sub Total WR</b>	<b>-1018</b>	<b>-457</b>			<b>3.47</b>	<b>16.68</b>	<b>-13.21</b>
Pusauli Bypass	-6	255	376	6	4.83	0.01	4.82
MZP- GKP (D/C)	560	586	620	0	17.48	0.00	17.48
Patna-Balia(D/C)	397	507	560	0	11.28	0.00	11.28
B'Sharif-Balia (D/C)	233	378	451	0	8.72	0.00	8.72
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	156	86	156	0	2.56	0.00	2.56
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-35	-40	0	48	0.00	0.88	-0.88
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1305</b>	<b>1772</b>			<b>44.87</b>	<b>0.88</b>	<b>43.99</b>
<b>Total IR Exch</b>	<b>287</b>	<b>1315</b>			<b>48.34</b>	<b>17.57</b>	<b>30.78</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
22.88	1.03	23.91	7.44	-2.28	-2.28	-4.89	0.00	0.00

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
29.08	-12.84	16.24	43.99	-13.21	30.78	14.91	-0.37	14.54

**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
0.00	0.00	0.40	12.60	53.90	87.20	45.90	2.30

----- 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				
50.27	8.04	49.08	9.16	49.68	1.27	0.16	50.01	0.00

**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	00:00	401	15:03	0.0	0.0	0.0	0.0
Gorakhpur	400	432	20:28	416	18:10	0.0	0.0	71.4	7.4
Bareilly	400	422	21:48	399	11:10	0.0	0.0	1.3	0.0
Kanpur	400	415	20:17	401	12:19	0.0	0.0	0.0	0.0
Dadri	400	417	21:48	400	12:21	0.0	0.0	0.0	0.0
Ballabgarh	400	420	21:49	401	10:50	0.0	0.0	0.0	0.0
Bawana	400	421	21:48	403	12:21	0.0	0.0	0.5	0.0
Bassi	400	423	20:18	394	00:51	0.0	0.0	2.8	0.0
Hissar	400	417	21:53	396	11:11	0.0	0.0	0.0	0.0
Moga	400	419	21:47	401	16:25	0.0	0.0	0.0	0.0
Abdullapur	400	424	21:48	404	10:52	0.0	0.0	5.1	0.0
Nalagarh	400	425	00:00	404	10:52	0.0	0.0	5.7	0.0
Kishenpur	400	410	13:10	387	18:28	0.0	2.2	0.0	0.0
Wagoora	400	403	13:03	375	11:11	26.5	73.5	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	508.83	1485.27	510.58	1575.10	230.73	368.49
Pong	426.72	384.05	418.96	848.35	421.54	961.02	58.73	419.12
Tehri	829.79	740.04	817.26	942.25	NA	NA	75.28	74.00
Koteshwar	612.50	598.50	599.90	0.45	NA	NA	75.00	79.00
Chamera-I	760.00	748.75	755.31	NA	755.14	1.60	75.16	74.28
Rihand	268.22	252.98	NA	NA	277.77	191.10	NA	NA
RPS	352.80	343.81	350.66	NA	349.00	NA	NA	252.19
Jawahar Sagar	298.70	295.78	297.88	NA	297.88	NA	NA	222.85
RSD	527.91	487.91	519.77	NA	520.43	NA	99.11	158.21

**IX. System Constraints:**

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

**XI. Weather Conditions For 17.11.2011 :**  
Normal weather

**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 : 17.11.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER