

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 26.11.2011  
Date of Reporting : 27.11.2011

### I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 Hrs) MW			Demand Met	Off Peak (03:00 Hrs) MW			Day Energy (Net MU)	
	Shortage	Requirement	Freq* (Hz)		Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
30161	2691	32851	49.87	24934	1050	25983.7107	49.80	652.9	43.68

\* 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	49.04	11.83		60.87	24.94	27.46	2.51	88.32	4.30
Haryana	65.13	0.54		65.66	25.64	25.23	-0.41	90.89	3.73
Rajasthan	88.27	5.01	1.49	94.77	52.53	56.42	3.89	151.18	7.27
Delhi	18.30			18.30	39.64	36.23	-3.41	54.53	1.21
UP	90.23	5.46	9.60	105.29	85.08	77.06	-8.02	182.35	24.47
Uttarakhand		8.91		8.91	17.52	17.53	0.01	26.44	0.75
HP		5.86		5.86	15.63	16.64	1.01	22.51	0.35
J & K		6.43	0.00	6.43	21.67	27.01	5.34	33.44	1.60
Chandigarh				0.00	3.55	3.26	-0.30	3.26	0.00
<b>Total</b>	<b>310.97</b>	<b>44.04</b>	<b>11.09</b>	<b>366.09</b>	<b>286.21</b>	<b>286.82</b>	<b>0.61</b>	<b>652.91</b>	<b>43.68</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	4080	600	-37	-564	3035	0	-154	-737	-12.71
Haryana	4255	604	48	-88	3228	0	-234	-104	-2.49
Rajasthan	6465	221	235	436	6615	0	601	561	14.92
Delhi	2921	1	-39	-230	1463	0	-433	-520	-7.92
UP	8252	1015	-444	391	7564	1050	165	391	9.39
Uttarakhand	1275	150	-84	316	925	0	16	316	7.58
HP	1142	0	-165	-340	734	0	103	4	-2.87
J&K	1591	100	35	79	1287	0	233	158	2.97
Chandigarh	180	0	-25	0	83	0	-12	-30	-0.24
<b>Total</b>	<b>30161</b>	<b>2691</b>	<b>-476</b>	<b>2</b>	<b>24934</b>	<b>1050</b>	<b>285</b>	<b>40</b>	<b>8.63</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 (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule Net MU	UI Net MU
	Singrauli STPS	2000	1921	2058	2071	45.66	1903	46.10	-0.44
	Rihand I STPS	1000	817	997	876	19.79	824	19.60	0.19
	Rihand II STPS	1000	977	1039	1040	23.64	985	23.45	0.19
	Dadri I STPS	840	585	627	645	14.14	589	14.04	0.10
	Dadri II STPS	980	853	986	989	19.89	829	20.47	-0.58
	Unchahar I TPS	440	368	388	442	8.91	371	8.84	0.07
	Unchahar II TPS	440	369	381	438	8.94	373	8.86	0.08
	Unchahar III TPS	210	185	190	226	4.47	186	4.44	0.03
	ISTPP (Jhajihar)	1000	456	501	390	10.94	456	10.82	0.11
	Dadri GPS	830	809	676	596	16.33	680	16.43	-0.10
	Anta GPS	419	417	330	342	8.64	360	8.39	0.25
	Auraiya GPS	663	629	539	498	13.18	549	12.51	0.67
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8386</b>	<b>8712</b>	<b>8553</b>	<b>194.53</b>	<b>8105</b>	<b>193.96</b>	<b>0.57</b>
B. NPC	NAPS	440	203	240	235	4.83	201	4.87	-0.04
	RAPS- B	440	207	231	231	5.00	208	4.97	0.03
	RAPS- C	440	420	474	474	10.21	426	10.08	0.13
	<b>Sub Total (B)</b>	<b>1320</b>	<b>830</b>	<b>945</b>	<b>940</b>	<b>20.05</b>	<b>835</b>	<b>19.92</b>	<b>0.13</b>
C. NHPC	Chamera I HPS	540	534	360	0	3.13	130	3.34	-0.21
	Chamera II HPS	300	297	220	0	1.50	62	1.57	-0.07
	Bairasuil HPS	180	120	10	0	0.58	24	0.52	0.07
	Salal-HPS	690	154	215	145	3.37	140	3.69	-0.32
	Tanakpur-HPS	94	38	48	38	1.01	42	1.01	0.00
	Uri-HPS	480	132	219	107	3.13	130	3.04	0.09
	Dhauliganga-HPS	280	277	206	0	1.37	57	1.53	-0.16
	Dulhasti-HPS	390	388	152	0	3.32	138	3.51	-0.18
	Sewa-II HPS	120	0	0	0	0.00	0	0.00	0.00
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1940</b>	<b>1430</b>	<b>290</b>	<b>17.42</b>	<b>726</b>	<b>18.20</b>	<b>-0.79</b>
D. NJPC	Nathpa Jhakri	1500	1600	1339	161	10.31	429	10.31	0.00
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1339</b>	<b>161</b>	<b>10.31</b>	<b>429</b>	<b>10.31</b>	<b>0.00</b>
E. THDC	Tehri HPS	1000	585	1037	0	5.00	208	5.00	0.00
	Koteshwar HPS	200	64	171	87	1.56	65	1.50	0.06
	<b>Sub Total (E)</b>	<b>1200</b>	<b>649</b>	<b>1208</b>	<b>87</b>	<b>6.55</b>	<b>273</b>	<b>6.50</b>	<b>0.05</b>
F. BBMB	Bhakra HPS	1480	683	900	478	17.02	709	16.38	0.64
	Dehar HPS	990	162	495	0	4.06	169	3.90	0.17
	Pong HPS	396	213	306	186	5.29	220	5.10	0.19
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1058</b>	<b>1701</b>	<b>664</b>	<b>26.37</b>	<b>1099</b>	<b>25.38</b>	<b>0.99</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.46	19	0.44	0.02
	KWHEP HPS(IPP)	1000	0	220	127	5.37	224	5.21	0.16
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	129	128	2.82	118	2.77	0.06
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>349</b>	<b>255</b>	<b>8.64</b>	<b>360</b>	<b>8.41</b>	<b>0.23</b>
<b>H. Total Regional Entities (A-G)</b>		<b>21225</b>	<b>14462</b>	<b>15684</b>	<b>10950</b>	<b>283.87</b>	<b>11828</b>	<b>282.68</b>	<b>1.18</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	1050.00	840.00	23.12	963	
	Guru Nanak Dev TPS(Bhatinda)	440	196.00	215.00	4.50	187	
	Guru Hargobind Singh TPS(L.mbt)	920	962.00	963.00	21.42	893	
	Thermal (Total)	2620	2208.00	2018.00	49.04	2043	
	Total Hydro	1148	404.00	254.00	11.83	493	
	<b>Total Punjab</b>	<b>3768</b>	<b>2612</b>	<b>2272</b>	<b>60.87</b>	<b>2536</b>	
Haryana	Panipat TPS	1360	1117.00	1128.00	27.33	1139	
	DCRTPP (Yamuna nagar)	600	270.00	267.00	6.53	272	
	Faridabad GPS (NTPC)	432	442.00	380.00	9.51	396	
	RGTPP (khedar) (IPP)	1200	846.00	819.00	21.77	907	
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0	
	Thermal (Total)	3617	2675.00	2594.00	65.13	2714	
	Total Hydro	62	32.00	23.00	0.54	22	
		<b>Total Haryana</b>	<b>3679</b>	<b>2707</b>	<b>2617</b>	<b>65.66</b>	<b>2736</b>
Rajasthan	kota TPS	1240	1155.00	1159.00	27.84	1160	
	suratgarh TPS	1500	1157.00	1161.00	27.40	1142	
	Chabra TPS	500	420.00	410.00	9.62	401	
	Dholpur GPS	330	252.00	250.00	6.12	255	
	Ramgarh GPS	113	65.00	65.00	1.67	69	
	RAPS A (NPC)	300	174.00	178.00	4.38	183	
	Barsingsar (NLC)	250	0.00	48.00	0.66	27	
	Giral LTPS (IPP)	250	0.00	0.00	0.00	0	
	Rajwest LTPS (IPP)	540	420.00	420.00	10.60	442	
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0	
	Thermal (Total)	5158	3643.00	3691.00	88.27	3678	
	Total Hydro	550	232.00	141.00	5.01	209	
	Wind power	1294	66.00	0.00	0.93	39	
	Biomass	71	28.00	28.00	0.56	23	
	Solar	50	0.00	0.00	0.01	0	
	Renewable/Others (Total)	1365	94	28	1.49	62	
		<b>Total Rajasthan</b>	<b>7073</b>	<b>3969</b>	<b>3860</b>	<b>94.77</b>	<b>3949</b>
UP	Anpara TPS	1630	1343	1326	32.60	1358	
	Obra TPS	1442	581	569	13.80	575	
	Paricha TPS	640	353	361	8.70	363	
	Panki TPS	210	158	154	3.70	154	
	Harduaganj TPS	415	36	40	1.20	50	
	Tanda TPS (NTPC)	440	403	402	9.83	410	
	Roza TPS (IPP)	600	567	563	13.50	563	
	Anpara-C (IPP)	1200	404	0	5.51	230	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	81	41	1.39	58	
	Thermal (Total)	6757	3926	3456	90.23	3760	
	Vishnuparyag HPS (IPP)	400	133	124	2.97	124	
	Other Hydro	527	122	25	2.49	104	
	Cogeneration	951	400	400	9.60	400	
		<b>Total UP</b>	<b>8635</b>	<b>4581</b>	<b>4005</b>	<b>105.29</b>	<b>4263</b>
	Uttarakhand	Total Hydro	1303	446	225	8.91	371
<b>Total Uttarakhand</b>		<b>1303</b>	<b>446</b>	<b>225</b>	<b>8.91</b>	<b>371</b>	
Delhi	Rajghat TPS	135	58	54	1.34	56	
	Delhi Gas Turbine	282	150	153	4.12	172	
	Pragati Gas Turbine	330	303	306	7.36	307	
	Rithala GPS	108	25	29	0.55	23	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	270	175	4.93	205	
	Thermal (Total)	2000	806	717	18.30	763	
	<b>Total Delhi</b>	<b>2000</b>	<b>806</b>	<b>717</b>	<b>18.30</b>	<b>763</b>	
HP	Baspa HPS (IPP)	330	0	30	1.44	60	
	Malana HPS (IPP)	101	0	0	0.32	13	
	Other Hydro	571	220	133	4.11	171	
		<b>Total HP</b>	<b>1002</b>	<b>220</b>	<b>163</b>	<b>6</b>	<b>244</b>
J & K	Baglihar HPS (IPP)	450	294	147	4.70	196	
	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>348</b>	<b>247</b>	<b>6.43</b>	<b>268</b>
<b>Total State Control Area Generation</b>		<b>28416</b>	<b>15689</b>	<b>14106</b>	<b>366.09</b>	<b>15130</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>-133</b>	<b>918</b>	<b>22.80</b>	<b>950</b>	
<b>Total Regional Availability(Gross)</b>		<b>49641</b>	<b>31240</b>	<b>25974</b>	<b>672.75</b>	<b>27908</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	6027	1457	69.29	2887
State Control Area Hydro	5365	1804	1078	41.06	1711
<b>Total Regional Hydro</b>	<b>15447</b>	<b>7831</b>	<b>2535</b>	<b>110.35</b>	<b>4598</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	-350	-200	0	500	0.00	4.68	-4.68
Gwalior-Agra (D/C)	87	71	671	0	7.40	0.00	7.40
Zerda-Kankroli	-196	-106	0	207	0.00	2.89	-2.89
Zerda-Bhinmal	-87	38	160	138	0.14	0.00	0.14
Malanpur-Auraiya	-218	-237	0	237	0.00	4.59	-4.59
Badod-Kota/Morak	-71	-71	0	127	0.00	1.55	-1.55
<b>Sub Total WR</b>	<b>-835</b>	<b>-505</b>			<b>7.54</b>	<b>13.71</b>	<b>-6.17</b>
Pusauli Bypass	-118	-85	26	222	0.03	1.79	-1.76
MZP- GKP (D/C)	380	766	884	0	15.05	0.00	15.05
Patna-Balia(D/C)	221	357	409	0	7.07	0.00	7.07
B'Sharif-Balia (D/C)	133	308	385	0	6.27	0.00	6.27
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	114	117	199	0	3.23	0.00	3.23
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-28	-40	0	45	0.00	0.88	-0.88
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>702</b>	<b>1423</b>			<b>31.64</b>	<b>2.67</b>	<b>28.98</b>
<b>Total IR Exch</b>	<b>-133</b>	<b>918</b>			<b>39.18</b>	<b>16.38</b>	<b>22.80</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
17.02	0.79	17.81	11.11	-1.00	0.69	-1.62	1.32	-1.32

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
30.93	-9.40	21.53	28.98	-6.17	22.80	-1.95	3.22	1.27

**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
0.00	0.10	0.70	12.80	44.60	87.20	55.40	8.10

----- 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				
50.16	21.58	49.10	17.26	49.72	1.16	0.19	50.20	49.37

**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	402	15:44	0.0	0.0	0.0	0.0
Gorakhpur	400	431	18:33	0	00:00	0.9	0.9	52.1	0.9
Bareilly	400	422	04:00	393	11:12	0.0	0.0	1.3	0.0
Kanpur	400	419	04:02	393	11:10	0.0	0.0	0.0	0.0
Dadri	400	418	04:02	398	12:24	0.0	0.0	0.0	0.0
Ballabgarh	400	424	04:07	395	11:10	0.0	0.0	3.1	0.0
Bawana	400	423	04:00	399	11:10	0.0	0.0	3.3	0.0
Bassi	400	425	04:06	389	11:10	0.0	0.6	2.9	0.0
Hissar	400	414	04:02	391	12:16	0.0	0.0	0.0	0.0
Moga	400	417	04:03	396	16:23	0.0	0.0	0.0	0.0
Abdullapur	400	422	04:02	397	11:10	0.0	0.0	1.7	0.0
Nalagarh	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Kishenpur	400	411	05:02	388	18:10	0.0	3.8	0.0	0.0
Wagoora	400	399	13:02	362	19:30	50.2	85.1	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	507.84	1440.82	509.77	1530.03	218.29	455.25
Pong	426.72	384.05	417.99	794.52	420.74	916.71	64.90	323.43
Tehri	829.79	740.04	816.80	942.25	NA	NA	75.03	101.00
Koteshwar	612.50	598.50	601.45	1.15	NA	NA	101.00	93.00
Chamera-I	760.00	748.75	753.15	NA	752.95	8.80	54.48	90.54
Rihand	268.22	252.98	261.58	587.70	257.74	189.70	NA	NA
RPS	352.80	343.81	350.64	NA	NA	NA	NA	249.61
Jawahar Sagar	298.70	295.78	297.58	NA	NA	NA	NA	243.84
RSD	527.91	487.91	518.60	NA	519.60	NA	100.47	253.80

**IX. System Constraints:**

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

**XI. Weather Conditions For 26.11.2011 :**

1.Normal

**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 : 26.11.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER