

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 16.10.2011  
Date of Reporting : 17.10.2011

### 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
28940	2750	31690	50.07	25364	2920	28284	49.80	653.5	78.17

\* 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	54.81	11.45		66.26	41.62	43.04	1.42	109.30	3.60
Haryana	50.95	1.21		52.16	35.64	46.82	11.18	98.98	12.13
Rajasthan	85.05	0.05	1.69	86.79	30.87	31.74	0.88	118.53	12.56
Delhi	25.63			25.63	50.90	40.77	-10.13	66.40	0.00
UP	69.45	12.41	1.20	83.06	104.11	101.58	-2.53	184.64	46.22
Uttarakhand		15.66		15.66	10.81	7.95	-2.86	23.61	2.06
HP		11.29		11.29	11.82	9.44	-2.38	20.74	0.00
J & K		12.17	0.00	12.17	14.96	15.65	0.69	27.83	1.60
Chandigarh				0.00	4.34	3.50	-0.84	3.50	0.00
<b>Total</b>	<b>285.89</b>	<b>64.25</b>	<b>2.89</b>	<b>353.02</b>	<b>305.07</b>	<b>300.50</b>	<b>-4.57</b>	<b>653.52</b>	<b>78.17</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	4945	150	-54	-100	4394	0	52	-20	-1.16
Haryana	3887	801	395	116	3647	259	165	112	2.24
Rajasthan	5026	4	60	-100	4833	651	-2	-100	-2.39
Delhi	3250	0	-262	-180	2412	0	-494	-89	-4.51
UP	8059	1645	-10	726	7151	2010	-134	726	17.41
Uttarakhand	1154	150	-48	100	955	0	-17	100	2.39
HP	1050	0	-352	-323	719	0	-155	129	1.31
J&K	1383	0	42	-178	1136	0	184	-178	-4.28
Chandigarh	186	0	-48	18	117	0	-44	18	0.43
<b>Total</b>	<b>28940</b>	<b>2750</b>	<b>-277</b>	<b>78</b>	<b>25364</b>	<b>2920</b>	<b>-445</b>	<b>698</b>	<b>11.46</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	
										UI (OG:(+ve), UG: (-ve))
A. NTPC	Singrauli STPS	2000	1589	1812	1806	38.27	1595	38.13	0.14	
	Rihand I STPS	1000	950	1031	1040	22.95	956	22.80	0.15	
	Rihand II STPS	1000	465	516	510	11.25	469	11.16	0.09	
	Dadri I STPS	840	719	818	706	17.30	721	17.27	0.04	
	Dadri II STPS	980	829	958	754	20.00	834	19.90	0.11	
	Unchahar I TPS	440	390	421	436	9.45	394	9.36	0.09	
	Unchahar II TPS	440	192	212	211	4.68	195	4.61	0.07	
	Unchahar III TPS	210	192	217	212	4.65	194	4.61	0.05	
	ISTPP (Jhajihar)	500	460	485	478	10.66	444	10.99	-0.33	
	Dadri GPS	830	782	773	788	17.63	735	17.72	-0.09	
	Anta GPS	419	381	350	357	8.37	349	8.35	0.02	
	Auraiya GPS	663	606	576	610	13.67	569	13.67	0.00	
	<b>Sub Total (A)</b>	<b>9322</b>	<b>7556</b>	<b>8169</b>	<b>7908</b>	<b>178.90</b>	<b>7454</b>	<b>178.55</b>	<b>0.34</b>	
	B. NPC	NAPS	440	191	228	230	4.67	195	4.58	0.09
		RAPS- B	440	402	441	449	9.64	402	9.65	0.00
RAPS- C		440	420	475	476	10.21	426	10.08	0.13	
<b>Sub Total (B)</b>		<b>1320</b>	<b>1013</b>	<b>1144</b>	<b>1155</b>	<b>24.53</b>	<b>1022</b>	<b>24.31</b>	<b>0.21</b>	
C. NHPC	Chamera I HPS	540	534	540	0	2.91	121	3.78	-0.88	
	Chamera II HPS	300	198	136	99	2.76	115	2.94	-0.19	
	Bairasuil HPS	180	179	179	0	0.89	37	1.00	-0.11	
	Salal-HPS	690	317	327	306	6.91	288	7.60	-0.69	
	Tanakpur-HPS	94	70	81	88	1.91	80	1.97	-0.06	
	Uri-HPS	480	181	239	151	4.42	184	4.62	-0.19	
	Dhauliganga-HPS	280	277	210	0	3.28	137	3.26	0.02	
	Dulhasti-HPS	390	387	366	120	7.06	294	7.61	-0.55	
	Sewa-II HPS	120	119	68	0	0.49	20	0.63	-0.14	
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2261</b>	<b>2146</b>	<b>764</b>	<b>30.62</b>	<b>1276</b>	<b>33.40</b>	<b>-2.78</b>	
D. NJPC	Nathpa Jhakri	1500	1600	1456	159	14.61	609	15.91	-1.31	
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1456</b>	<b>159</b>	<b>14.61</b>	<b>609</b>	<b>15.91</b>	<b>-1.31</b>	
E. THDC	Tehri HPS	1000	1050	1050	0	7.08	295	7.00	0.08	
	Koteshwar HPS	100	72	154	68	2.69	112	1.13	1.56	
<b>Sub Total (E)</b>	<b>1100</b>	<b>1122</b>	<b>1204</b>	<b>68</b>	<b>9.77</b>	<b>407</b>	<b>8.13</b>	<b>1.64</b>		
F. BBMB	Bhakra HPS	1480	545	764	391	13.61	567	13.08	0.53	
	Dehar HPS	990	324	495	280	7.99	333	7.78	0.21	
	Pong HPS	396	230	306	186	5.77	240	5.52	0.25	
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1099</b>	<b>1565</b>	<b>857</b>	<b>27.37</b>	<b>1140</b>	<b>26.37</b>	<b>1.00</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	32	0	0.75	31	0.72	0.02	
	KWHEP HPS(IPP)	1000	0	450	276	12.48	520	8.11	4.36	
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00	
	Shree Cement TPS	150	0	0	0	0.00	0	0.02	-0.02	
<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>482</b>	<b>276</b>	<b>13.22</b>	<b>551</b>	<b>8.85</b>	<b>4.37</b>		
<b>H. Total Regional Entities (A-G)</b>	<b>20625</b>	<b>14651</b>	<b>16166</b>	<b>11187</b>	<b>299.00</b>	<b>12459</b>	<b>295.53</b>	<b>3.48</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	1250.00	1260.00	27.88	1162	
	Guru Nanak Dev TPS(Bhatinda)	440	276.00	257.00	5.69	237	
	Guru Hargobind Singh TPS(L.mbt)	920	961.00	960.00	21.24	885	
	Thermal (Total)	2620	2487.00	2477.00	54.81	2284	
	Total Hydro	1148	335.00	316.00	11.45	477	
	<b>Total Punjab</b>	<b>3768</b>	<b>2822</b>	<b>2793</b>	<b>66.26</b>	<b>2761</b>	
Haryana	Panipat TPS	1360	1088.00	1085.00	25.70	1071	
	DCRTPP (Yamuna nagar)	600	281.00	176.00	6.10	254	
	Faridabad GPS (NTPC)	432	375.00	371.00	9.00	375	
	RGTPP (khedar) (IPP)	1200	0.00	455.00	10.14	423	
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0	
	Thermal (Total)	3617	1744.00	2087.00	50.95	2123	
	Total Hydro	62	47.00	47.00	1.21	51	
		<b>Total Haryana</b>	<b>3679</b>	<b>1791</b>	<b>2134</b>	<b>52.16</b>	<b>2173</b>
Rajasthan	kota TPS	1240	1159.00	1160.00	27.64	1152	
	suratgarh TPS	1500	1153.00	1150.00	27.12	1130	
	Chabra TPS	500	422.00	425.00	10.35	431	
	Dholpur GPS	330	213.00	279.00	6.46	269	
	Ramgarh GPS	113	53.00	53.00	1.38	58	
	RAPS A (NPC)	300	161.00	155.00	4.28	178	
	Barsingsar (NLC)	250	50.00	60.00	1.25	52	
	Giral LTPS (IPP)	250	150.00	145.00	3.30	138	
	Rajwst LTPS (IPP)	135	113.00	225.00	3.27	136	
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0	
	Thermal (Total)	4753	3474.00	3652.00	85.05	3544	
	Total Hydro	550	0.00	0.00	0.05	2	
	Wind power	1294	1.00	42.00	1.06	44	
	Biomass	71	28.00	28.00	0.63	26	
	Renewable/Others (Total)	1365	29	70	1.69	70	
		<b>Total Rajasthan</b>	<b>6668</b>	<b>3503</b>	<b>3722</b>	<b>86.79</b>	<b>3616</b>
	UP	Anpara TPS	1630	1462	1401	31.30	1304
Obra TPS		1442	656	591	13.60	567	
Paricha TPS		640	382	397	8.30	346	
Panki TPS		210	0	0	0.00	0	
Harduaganj TPS		375	40	119	0.80	33	
Tanda TPS (NTPC)		440	387	399	8.70	363	
Roza TPS (IPP)		600	284	284	6.75	281	
Anpara-C (IPP)		600	0	0	0.00	0	
Thermal (Total)		5937	3211	3191	69.45	2894	
Vishnuparyag HPS (IPP)		400	277	273	6.42	268	
Other Hydro		527	218	60	5.99	250	
Cogeneration		951	50	50	1.20	50	
		<b>Total UP</b>	<b>7815</b>	<b>3756</b>	<b>3574</b>	<b>83.06</b>	<b>3193</b>
Uttarakhand	Total Hydro	1303	680	605	15.66	652	
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>680</b>	<b>605</b>	<b>15.66</b>	<b>652</b>	
Delhi	Rajghat TPS	135	107	101	2.85	119	
	Delhi Gas Turbine	282	188	157	4.47	186	
	Pragati Gas Turbine	330	296	309	7.45	310	
	Rithala GPS	108	28	29	0.69	29	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	485	470	10.18	424	
	Thermal (Total)	2000	1104	1066	25.63	1068	
	<b>Total Delhi</b>	<b>2000</b>	<b>1104</b>	<b>1066</b>	<b>25.63</b>	<b>1068</b>	
HP	Baspa HPS (IPP)	330	194	87	2.71	113	
	Malana HPS (IPP)	101	47	0	0.62	26	
	Other Hydro	571	374	323	7.96	332	
		<b>Total HP</b>	<b>1002</b>	<b>615</b>	<b>410</b>	<b>11</b>	<b>471</b>
J & K	Baglihar HPS (IPP)	450	353	354	8.47	353	
	Other Hydro	323	130	161	3.70	154	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>483</b>	<b>515</b>	<b>12.17</b>	<b>507</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>14754</b>	<b>14819</b>	<b>353.02</b>	<b>14442</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>-142</b>	<b>396</b>	<b>12.59</b>	<b>525</b>	
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>30778</b>	<b>26402</b>	<b>664.62</b>	<b>27425</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	6853	2124	95.58	3983
State Control Area Hydro	5365	2378	1953	57.83	2410
<b>Total Regional Hydro</b>	<b>15347</b>	<b>9231</b>	<b>4077</b>	<b>153.41</b>	<b>6392</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	-200	0	300	0.00	5.26	-5.26
Gwalior-Agra (D/C)	208	567	1142	0	11.43	0.00	11.43
Zerda-Kankroli	-224	-230	0	329	0.00	5.53	-5.53
Zerda-Bhinmal	-124	-166	38	275	0.00	3.41	-3.41
Malanpur-Auraiya	-131	-159	0	190	0.00	2.60	-2.60
Badod-Kota/Morak	-96	-97	0	143	0.00	2.93	-2.93
<b>Sub Total WR</b>	<b>-567</b>	<b>-285</b>			<b>11.43</b>	<b>19.73</b>	<b>-8.30</b>
Pusauli Bypass	-174	-30	15	255	0.06	2.51	-2.45
MZP- GKP (D/C)	289	447	632	0	11.03	0.00	11.03
Patna-Balia(D/C)	73	124	289	0	4.25	0.00	4.25
B'Sharif-Balia (D/C)	109	150	384	0	5.53	0.00	5.53
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	160	29	200	0	3.35	0.00	3.35
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-39	0	40	0.00	0.82	-0.82
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>425</b>	<b>681</b>			<b>24.22</b>	<b>3.33</b>	<b>20.89</b>
<b>Total IR Exch</b>	<b>-142</b>	<b>396</b>			<b>35.65</b>	<b>23.06</b>	<b>12.59</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
15.12	1.85	16.97	-1.59	15.00	-4.92	0.21	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
10.46	9.65	20.11	20.89	-8.30	12.59	10.43	-17.95	-7.52

**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	3.30	38.60	96.10	60.80	5.90	0.60

----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz				
50.35	16.05	49.34	22.32	49.75	0.84	0.15	50.28	49.66

**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	416	01:49	407	14:40	0.0	0.0	0.0	0.0
Gorakhpur	400	428	21:02	400	10:03	0.0	0.0	39.3	0.0
Bareilly	400	426	17:04	398	09:17	0.0	0.0	16.6	0.0
Kanpur	400	421	16:05	405	09:16	0.0	0.0	0.1	0.0
Dadri	400	416	03:54	404	12:14	0.0	0.0	0.0	0.0
Ballabgarh	400	421	16:05	405	12:15	0.0	0.0	0.1	0.0
Bawana	400	421	23:55	405	12:15	0.0	0.0	0.2	0.0
Bassi	400	430	16:05	396	14:35	0.0	0.0	50.9	0.0
Hissar	400	417	23:55	398	12:20	0.0	0.0	0.0	0.0
Moga	400	424	03:54	409	12:20	0.0	0.0	15.0	0.0
Abdullapur	400	422	23:53	402	12:16	0.0	0.0	1.2	0.0
Nalagarh	400	433	23:57	412	18:39	0.0	0.0	74.8	5.0
Kishenpur	400	423	03:29	403	19:24	0.0	0.0	13.7	0.0
Wagoora	400	414	14:07	380	19:24	0.0	15.9	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	510.32	1560.04	512.05	1650.87	363.33	407.42
Pong	426.72	384.05	422.53	1005.78	423.87	1082.23	103.10	271.59
Tehri	829.79	740.04	818.00	358.90	NA	NA	121.26	181.00
Koteshwar	612.50	598.50	606.40	2.88	NA	NA	182.00	196.00
Chamera-I	760.00	748.75	752.28	NA	751.70	NA	114.51	93.40
Rihand	268.22	252.98	265.51	650.20	258.10	206.60	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	522.36	NA	522.70	NA	111.99	175.48

**IX. System Constraints:**

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

**XI. Weather Conditions For 16.10.2011 :**

Normal weather

**XII. Synchronisation of new generating units :**

ANPARA ( C) Lanco Unit # 2 (600MW) first time synchronized with grid at 17.03 hrs of dt. 16.10.2011

**XIII. Synchronisation of new 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 : 16.10.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER