

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 17.10.2011  
Date of Reporting : 18.10.2011

### 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
28713	4122	32835	49.87	24558	3093	27651	49.86	641.1	96.55

\* 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	55.23	10.99		66.23	41.65	40.07	-1.58	106.30	7.06
Haryana	50.08	1.22		51.30	30.63	40.86	10.23	92.16	19.59
Rajasthan	82.22	0.00	0.97	83.19	30.40	31.00	0.60	114.19	23.73
Delhi	22.70			22.70	51.99	45.31	-6.68	68.01	0.47
UP	67.74	12.15	1.20	81.08	99.39	98.53	-0.86	179.61	41.90
Uttarakhand		15.21		15.21	9.86	9.99	0.13	25.20	2.20
HP		11.12		11.12	12.31	10.78	-1.53	21.89	0.00
J & K		12.17	0.00	12.17	14.99	17.52	2.53	29.70	1.60
Chandigarh				0.00	4.55	4.00	-0.55	4.00	0.00
<b>Total</b>	<b>277.97</b>	<b>62.85</b>	<b>2.17</b>	<b>342.99</b>	<b>295.77</b>	<b>298.07</b>	<b>2.29</b>	<b>641.06</b>	<b>96.55</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	4977	300	79	-100	4105	0	-129	-20	-1.16
Haryana	3724	1479	61	-63	3998	0	891	-96	-2.46
Rajasthan	4846	538	294	-74	4448	1063	-228	-49	-1.45
Delhi	3466	0	153	-100	2232	0	-456	-9	-3.24
UP	7870	1645	-31	443	7011	2030	-249	443	10.62
Uttarakhand	1195	160	51	49	961	0	-2	49	1.19
HP	1077	0	117	-260	587	0	-72	129	1.65
J&K	1336	0	55	-178	1100	0	192	-178	-4.27
Chandigarh	222	0	-11	18	116	0	-38	18	0.43
<b>Total</b>	<b>28713</b>	<b>4122</b>	<b>768</b>	<b>-264</b>	<b>24558</b>	<b>3093</b>	<b>-91</b>	<b>287</b>	<b>1.32</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	1352	1475	1477	32.75	1364	32.45
	Rihand I STPS	1000	950	1028	1030	22.96	956	22.80	0.16
	Rihand II STPS	1000	842	1002	535	20.42	851	20.22	0.20
	Dadri I STPS	840	702	821	710	16.83	701	16.84	-0.01
	Dadri II STPS	980	829	977	750	19.98	833	19.88	0.10
	Unchahar I TPS	440	380	406	423	9.97	415	9.11	0.86
	Unchahar II TPS	440	187	200	213	4.95	206	4.49	0.47
	Unchahar III TPS	210	188	204	213	4.99	208	4.51	0.48
	ISTPP (Jhajihar)	500	460	503	499	11.12	463	10.99	0.13
	Dadri GPS	830	787	763	779	17.97	749	17.93	0.04
	Anta GPS	419	383	364	361	8.60	358	8.53	0.07
	Auraiya GPS	663	606	589	552	14.02	584	13.98	0.04
	<b>Sub Total (A)</b>	<b>9322</b>	<b>7666</b>	<b>8332</b>	<b>7542</b>	<b>184.56</b>	<b>7690</b>	<b>181.73</b>	<b>2.83</b>
B. NPC	NAPS	440	192	229	236	4.70	196	4.61	0.09
	RAPS- B	440	403	447	447	9.68	403	9.67	0.00
	RAPS- C	440	361	235	474	8.63	359	8.66	-0.04
	<b>Sub Total (B)</b>	<b>1320</b>	<b>956</b>	<b>911</b>	<b>1157</b>	<b>23.00</b>	<b>958</b>	<b>22.94</b>	<b>0.06</b>
C. NHPC	Chamera I HPS	540	534	540	0	4.96	207	5.93	-0.97
	Chamera II HPS	300	136	142	99	2.80	117	2.75	0.05
	Bairasuil HPS	180	179	179	0	0.96	40	1.04	-0.08
	Salal-HPS	690	330	320	180	6.51	271	6.61	-0.11
	Tanakpur-HPS	94	75	87	76	1.92	80	1.90	0.02
	Uri-HPS	480	167	221	120	4.07	170	4.55	-0.48
	Dhauliganga-HPS	280	277	278	0	2.60	108	2.69	-0.10
	Dulhasti-HPS	390	387	380	120	7.05	294	6.99	0.06
	Sewa-II HPS	120	119	121	0	0.59	25	0.63	-0.03
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2203</b>	<b>2268</b>	<b>595</b>	<b>31.46</b>	<b>1311</b>	<b>33.09</b>	<b>-1.63</b>
D. NJPC	Nathpa Jhakri	1500	1600	1514	0	16.85	702	17.20	-0.35
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1514</b>	<b>0</b>	<b>16.85</b>	<b>702</b>	<b>17.20</b>	<b>-0.35</b>
E. THDC	Tehri HPS	1000	1050	1047	0	6.07	253	6.00	0.07
	Koteshwar HPS	100	87	140	0	5.10	213	1.10	4.00
	<b>Sub Total (E)</b>	<b>1100</b>	<b>1137</b>	<b>1187</b>	<b>0</b>	<b>11.17</b>	<b>466</b>	<b>7.10</b>	<b>4.07</b>
F. BBMB	Bhakra HPS	1480	530	759	386	13.11	546	12.73	0.38
	Dehar HPS	990	324	495	330	8.09	337	7.78	0.31
	Pong HPS	396	230	306	186	5.80	242	5.53	0.27
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1085</b>	<b>1560</b>	<b>902</b>	<b>27.00</b>	<b>1125</b>	<b>26.04</b>	<b>0.96</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	37	0	0.74	31	0.71	0.03
	KWHEP HPS(IPP)	1000	0	704	237	8.83	368	8.20	0.63
	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	0.00	0.00
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>741</b>	<b>237</b>	<b>9.56</b>	<b>398</b>	<b>8.91</b>	<b>0.66</b>
<b>H. Total Regional Entities (A-G)</b>		<b>20625</b>	<b>14647</b>	<b>16513</b>	<b>10433</b>	<b>303.60</b>	<b>12650</b>	<b>297.01</b>	<b>6.59</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	1255.00	1250.00	28.03	1168
	Guru Nanak Dev TPS(Bhatinda)	440	275.00	268.00	5.82	242
	Guru Hargobind Singh TPS(L.mbt)	920	947.00	963.00	21.39	891
	Thermal (Total)	2620	2477.00	2481.00	55.23	2301
	Total Hydro	1148	481.00	290.00	10.99	458
	<b>Total Punjab</b>	<b>3768</b>	<b>2958</b>	<b>2771</b>	<b>66.23</b>	<b>2759</b>
Haryana	Panipat TPS	1360	1053.00	1048.00	24.78	1032
	DCRTPP (Yamuna nagar)	600	279.00	280.00	6.61	276
	Faridabad GPS (NTPC)	432	371.00	375.00	8.96	373
	RGTPP (khedar) (IPP)	1200	426.00	291.00	9.73	405
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2129.00	1994.00	50.08	2087
	Total Hydro	62	45.00	48.00	1.22	51
	<b>Total Haryana</b>	<b>3679</b>	<b>2174</b>	<b>2042</b>	<b>51.30</b>	<b>2137</b>
Rajasthan	kota TPS	1240	969.00	1092.00	23.44	977
	suratgarh TPS	1500	841.00	1169.00	25.99	1083
	Chabra TPS	500	405.00	424.00	10.21	425
	Dholpur GPS	330	286.00	293.00	7.04	293
	Ramgarh GPS	113	53.00	53.00	1.29	54
	RAPS A (NPC)	300	155.00	169.00	4.32	180
	Barsingsar (NLC)	250	63.00	59.00	1.30	54
	Giral LTPS (IPP)	250	142.00	136.00	3.40	142
	Rajwst LTPS (IPP)	135	240.00	110.00	5.24	218
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0
	Thermal (Total)	4753	3154.00	3505.00	82.22	3426
	Total Hydro	550	0.00	0.00	0.00	0
	Wind power	1294	0.00	67.00	0.43	18
	Biomass	71	22.00	22.00	0.54	22
	Renewable/Others (Total)	1365	22	89	0.97	40
	<b>Total Rajasthan</b>	<b>6668</b>	<b>3176</b>	<b>3594</b>	<b>83.19</b>	<b>3466</b>
	UP	Anpara TPS	1630	1374	1360	29.70
Obra TPS		1442	517	647	12.70	529
Paricha TPS		640	343	381	8.30	346
Panki TPS		210	0	0	0.00	0
Harduaganj TPS		375	40	42	0.90	38
Tanda TPS (NTPC)		440	355	397	9.36	390
Roza TPS (IPP)		600	284	283	6.77	282
Anpara-C (IPP)		600	0	0	0.00	0
Thermal (Total)		5937	2913	3110	67.74	2822
Vishnuparyag HPS (IPP)		400	262	258	6.06	252
Other Hydro		527	298	62	6.09	254
Cogeneration		951	50	50	1.20	50
<b>Total UP</b>		<b>7815</b>	<b>3523</b>	<b>3480</b>	<b>81.08</b>	<b>3126</b>
Uttarakhand		Total Hydro	1303	678	614	15.21
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>678</b>	<b>614</b>	<b>15.21</b>	<b>634</b>
Delhi	Rajghat TPS	135	55	106	2.39	99
	Delhi Gas Turbine	282	189	163	4.32	180
	Pragati Gas Turbine	330	296	307	7.27	303
	Rithala GPS	108	27	29	0.60	25
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	395	450	8.12	338
	Thermal (Total)	2000	962	1055	22.70	946
	<b>Total Delhi</b>	<b>2000</b>	<b>962</b>	<b>1055</b>	<b>22.70</b>	<b>946</b>
HP	Baspa HPS (IPP)	330	30	119	2.81	117
	Malana HPS (IPP)	101	37	0	0.62	26
	Other Hydro	571	316	278	7.68	320
	<b>Total HP</b>	<b>1002</b>	<b>383</b>	<b>397</b>	<b>11</b>	<b>463</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>14337</b>	<b>14468</b>	<b>342.99</b>	<b>14039</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>192</b>	<b>1007</b>	<b>11.06</b>	<b>461</b>
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>31042</b>	<b>25908</b>	<b>657.65</b>	<b>27150</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	7270	1734	96.04	4002
State Control Area Hydro	5365	2368	1926	56.79	2366
<b>Total Regional Hydro</b>	<b>15347</b>	<b>9638</b>	<b>3660</b>	<b>152.84</b>	<b>6368</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	-400	0	400	0.00	5.80	-5.80
Gwalior-Agra (D/C)	500	730	877	0	10.93	0.00	10.93
Zerda-Kankroli	-239	-155	0	373	0.00	5.32	-5.32
Zerda-Bhinmal	-181	-82	38	275	0.00	3.13	-3.13
Malanpur-Auraiya	-143	-84	0	229	0.00	2.65	-2.65
Badod-Kota/Morak	-82	-70	0	239	0.00	3.05	-3.05
<b>Sub Total WR</b>	<b>-345</b>	<b>-61</b>			<b>10.93</b>	<b>19.95</b>	<b>-9.02</b>
Pusauli Bypass	-195	56	56	295	0.23	2.51	-2.28
MZP- GKP (D/C)	261	557	724	0	11.35	0.00	11.35
Patna-Balia(D/C)	146	207	244	0	3.60	0.00	3.60
B'Sharif-Balia (D/C)	177	261	295	0	4.86	0.00	4.86
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	180	26	183	0	3.38	0.00	3.38
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>537</b>	<b>1068</b>			<b>23.42</b>	<b>3.33</b>	<b>20.09</b>
<b>Total IR Exch</b>	<b>192</b>	<b>1007</b>			<b>34.34</b>	<b>23.28</b>	<b>11.06</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
15.24	1.96	17.20	-1.44	4.71	-5.07	0.73	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
10.69	-0.33	10.36	20.09	-9.02	11.06	9.40	-8.69	0.70

**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	0.60	10.20	45.20	89.70	54.70	2.20	0.10

<----- 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				
50.23	18.47	49.03	14.51	49.70	1.15	0.16	50.02	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	416	20:58	406	09:40	0.0	0.0	0.0	0.0
Gorakhpur	400	435	17:39	406	09:27	0.0	0.0	73.9	4.3
Bareilly	400	427	17:37	397	09:29	0.0	0.0	20.8	0.0
Kanpur	400	421	17:58	401	06:36	0.0	0.0	0.2	0.0
Dadri	400	416	00:00	401	09:37	0.0	0.0	0.0	0.0
Ballabgarh	400	422	17:39	404	09:41	0.0	0.0	1.2	0.0
Bawana	400	421	17:37	404	09:40	0.0	0.0	0.5	0.0
Bassi	400	431	17:58	404	18:27	0.0	0.0	44.7	0.2
Hissar	400	415	00:00	398	09:40	0.0	0.0	0.0	0.0
Moga	400	422	02:56	406	08:08	0.0	0.0	2.1	0.0
Abdullapur	400	420	00:00	402	09:40	0.0	0.0	0.0	0.0
Nalagarh	400	432	02:56	412	18:42	0.0	0.0	57.0	0.8
Kishenpur	400	428	12:53	401	18:36	0.0	0.0	8.3	0.0
Wagoora	400	432	12:53	380	18:36	0.0	29.0	3.0	0.1

**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 17.10.2011 :**  
Normal weather

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

**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 : 17.10.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER