

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 18.09.2011  
Date of Reporting : 19.09.2011

### I. Regional Availability/Demand:

Evening Peak (20:00 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
31070	2123	33193	49.91	28383	650	29033	50.32	686.5	19.74

\* 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	20.29	21.94		42.23	83.71	75.91	-7.80	118.15	1.80
Haryana	53.78	1.00		54.78	49.08	42.25	-6.83	97.03	0.00
Rajasthan	56.01	2.19	7.39	65.59	37.06	40.14	3.08	105.73	0.06
Delhi	23.19			23.19	57.54	55.95	-1.59	79.14	0.05
UP	57.98	18.70	0.60	77.28	125.81	133.43	7.62	210.70	17.68
Uttarakhand		23.67		23.67	6.80	2.86	-3.94	26.53	0.15
HP		23.22		23.22	2.08	-1.98	-4.06	21.23	0.00
J & K		14.02	0.00	14.02	18.52	9.78	-8.75	23.80	0.00
Chandigarh				0.00	5.47	4.19	-1.29	4.19	0.00
<b>Total</b>	<b>211.25</b>	<b>104.74</b>	<b>7.99</b>	<b>323.97</b>	<b>386.07</b>	<b>362.52</b>	<b>-23.55</b>	<b>686.49</b>	<b>19.74</b>

\* Shortage furnished by the respective constituent.

### II. B. State's Demand Met in MWs:

State	Evening Peak (20:00 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	5148	600	-154	990	4673	0	-701	1053	24.06
Haryana	4705	0	-95	462	3815	0	-259	462	10.23
Rajasthan	5111	62	318	-345	4442	0	186	-408	-9.41
Delhi	3774	11	361	189	3092	0	-83	139	4.19
UP	8597	1300	107	1335	9625	650	1276	1317	31.70
Uttarakhand	1236	150	-35	-200	1072	0	-132	-200	-4.80
HP	976	0	-123	-1176	792	0	-219	-1098	-26.09
J&K	1319	0	-95	-375	723	0	-617	-275	-8.10
Chandigarh	204	0	-28	30	149	0	-79	30	0.72
<b>Total</b>	<b>31070</b>	<b>2123</b>	<b>256</b>	<b>910</b>	<b>28383</b>	<b>650</b>	<b>-628</b>	<b>1020</b>	<b>22.50</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	1585	1828	1385	33.96	1415	33.89	0.07
	Rihand I STPS	1000	928	1028	795	18.06	753	17.98	0.08
	Rihand II STPS	1000	449	470	461	8.99	375	8.71	0.28
	Dadri I STPS	840	800	736	610	13.66	569	14.03	-0.37
	Dadri II STPS	980	906	714	710	17.56	731	16.47	1.09
	Unchahar I TPS	440	392	436	303	7.26	302	7.71	-0.45
	Unchahar II TPS	440	369	382	318	7.00	292	6.99	0.01
	Unchahar III TPS	210	194	211	138	3.74	156	3.77	-0.03
	ISTPP (Jhajjar)	500	470	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	805	516	568	12.55	523	12.49	0.06
	Anta GPS	419	389	251	257	5.80	242	5.89	-0.09
	Auraiya GPS	663	615	310	284	6.92	288	7.70	-0.78
	<b>Sub Total (A)</b>	<b>9322</b>	<b>7902</b>	<b>6882</b>	<b>5829</b>	<b>135.50</b>	<b>5646</b>	<b>135.61</b>	<b>-0.11</b>
	B. NPC	NAPS	440	190	223	224	4.59	191	4.56
RAPS- B		440	190	215	216	4.65	194	4.56	0.09
RAPS- C		440	420	475	477	10.19	424	10.08	0.10
<b>Sub Total (B)</b>		<b>1320</b>	<b>800</b>	<b>913</b>	<b>917</b>	<b>19.42</b>	<b>809</b>	<b>19.20</b>	<b>0.22</b>
C. NHPC	Chamera I HPS	540	542	540	540	12.24	510	12.18	0.05
	Chamera II HPS	300	297	301	297	7.10	296	7.14	-0.05
	Bairasuil HPS	180	179	179	120	3.90	163	3.95	-0.05
	Salal-HPS	690	630	629	627	15.19	633	15.12	0.07
	Tanakpur-HPS	94	102	94	94	2.20	92	2.16	0.05
	Uri-HPS	480	471	478	480	11.23	468	11.58	-0.35
	Dhauliganga-HPS	280	277	281	268	6.62	276	5.83	0.79
	Dulhasti-HPS	390	387	414	134	8.67	361	8.71	-0.05
	Sewa-II HPS	120	119	121	120	2.88	120	2.87	0.02
	<b>Sub Total (C)</b>	<b>3074</b>	<b>3003</b>	<b>3037</b>	<b>2680</b>	<b>70.02</b>	<b>2917</b>	<b>69.55</b>	<b>0.46</b>
D.NJPC	Nathpa Jhakri	1500	1600	1388	1515	36.03	1501	37.38	-1.35
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1388</b>	<b>1515</b>	<b>36.03</b>	<b>1501</b>	<b>37.38</b>	<b>-1.35</b>
E. THDC	Tehri HPS	1000	947	808	929	21.99	916	21.90	0.09
	Koteshwar HPS	100	87	87	85	2.03	85	2.09	-0.06
	<b>Sub Total (E)</b>	<b>1100</b>	<b>1034</b>	<b>895</b>	<b>1014</b>	<b>24.02</b>	<b>1001</b>	<b>23.99</b>	<b>0.03</b>
F. BBMB	Bhakra HPS	1480	1227	1256	1256	30.16	1257	29.45	0.71
	Dehar HPS	990	582	825	600	14.33	597	13.98	0.36
	Pong HPS	396	239	306	186	5.99	250	5.74	0.25
	<b>Sub Total (F)</b>	<b>2866</b>	<b>2048</b>	<b>2387</b>	<b>2042</b>	<b>50.48</b>	<b>2103</b>	<b>49.16</b>	<b>1.32</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	94	94	2.26	94	2.18	0.07
	KWHEP HPS(IPP)	1000	0	737	708	17.51	730	16.80	0.71
	Malana Stg-II HPS	100	0	78	59	1.65	69	0.00	1.65
	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>909</b>	<b>861</b>	<b>21.41</b>	<b>892</b>	<b>18.98</b>	<b>2.43</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>20625</b>	<b>16387</b>	<b>16411</b>	<b>14858</b>	<b>356.88</b>	<b>14870</b>	<b>353.87</b>	<b>3.01</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	340.00	510.00	9.45	394
	Guru Nanak Dev TPS(Bhatinda)	440	100.00	95.00	2.02	84
	Guru Hargobind Singh TPS(L.mbt)	920	472.00	363.00	8.83	368
	Thermal (Total)	2620	912.00	968.00	20.29	846
	Total Hydro	1148	999.00	880.00	21.94	914
	<b>Total Punjab</b>	<b>3768</b>	<b>1911</b>	<b>1848</b>	<b>42.23</b>	<b>1760</b>
Haryana	Panipat TPS	1360	851.00	865.00	20.81	867
	DCRTPP (Yamuna nagar)	600	442.00	509.00	10.98	458
	Faridabad GPS (NTPC)	432	190.00	195.00	4.66	194
	RGTPP (khedar) (IPP)	1200	977.00	471.00	17.33	722
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2460.00	2040.00	53.78	2241
	Total Hydro	62	38.00	38.00	1.00	42
	<b>Total Haryana</b>	<b>3679</b>	<b>2498</b>	<b>2078</b>	<b>54.78</b>	<b>2283</b>
Rajasthan	kota TPS	1240	747.00	701.00	16.97	707
	suratgarh TPS	1500	1134.00	986.00	23.32	972
	Chabra TPS	500	205.00	206.00	4.96	207
	Dholpur GPS	330	128.00	130.00	3.12	130
	Ramgarh GPS	113	62.00	62.00	1.60	67
	RAPS A (NPC)	300	196.00	186.00	4.31	180
	Barsingsar (NLC)	250	76.00	51.00	1.73	72
	Giral LTPS (IPP)	250	0.00	0.00	0.00	0
	Rajwst LTPS (IPP)	135	0.00	0.00	0.00	0
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0
	Thermal (Total)	4753	2548.00	2322.00	56.01	2334
	Total Hydro	550	71.00	77.00	2.19	91
	Wind power	1294	342.00	341.00	6.80	283
	Biomass	71	25.00	25.00	0.60	25
	Renewable/Others (Total)	1365	367	366	7.39	308
	<b>Total Rajasthan</b>	<b>6668</b>	<b>2986</b>	<b>2765</b>	<b>65.59</b>	<b>2733</b>
	UP	Anpara TPS	1630	4498	860	25.20
Obra TPS		1442	465	470	10.90	454
Paricha TPS		640	227	359	7.20	300
Panki TPS		210	63	57	1.20	50
Harduaganj TPS		375	43	45	1.00	42
Tanda TPS (NTPC)		440	285	232	6.55	273
Roza TPS (IPP)		600	279	203	5.93	247
Anpara-C (IPP)		600	0	0	0.00	0
Thermal (Total)		5937	5860	2226	57.98	2416
Vishnuparyag HPS (IPP)		400	436	436	10.45	435
Other Hydro		527	363	0	8.25	344
Cogeneration		951	25	25	0.60	25
<b>Total UP</b>		<b>7815</b>	<b>6684</b>	<b>2687</b>	<b>77.28</b>	<b>2784</b>
Uttarakhand		Total Hydro	1303	953	1002	23.67
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>953</b>	<b>1002</b>	<b>23.67</b>	<b>986</b>
Delhi	Rajghat TPS	135	92	52	1.39	58
	Delhi Gas Turbine	282	112	112	2.58	107
	Pragati Gas Turbine	330	297	270	6.97	290
	Rithala GPS	108	27	29	0.64	27
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	530	515	11.62	484
	Thermal (Total)	2000	1058	978	23.19	966
	<b>Total Delhi</b>	<b>2000</b>	<b>1058</b>	<b>978</b>	<b>23.19</b>	<b>966</b>
HP	Baspa HPS (IPP)	330	300	330	6.96	290
	Malana HPS (IPP)	101	84	77	1.71	71
	Other Hydro	571	612	613	14.54	606
	<b>Total HP</b>	<b>1002</b>	<b>996</b>	<b>1020</b>	<b>23</b>	<b>967</b>
J & K	Baglihar HPS (IPP)	450	442	442	10.64	443
	Other Hydro	323	119	166	3.38	141
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>561</b>	<b>608</b>	<b>14.02</b>	<b>584</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>17647</b>	<b>12986</b>	<b>323.97</b>	<b>13063</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1118</b>	<b>1104</b>	<b>22.42</b>	<b>934</b>
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>35176</b>	<b>28948</b>	<b>703.27</b>	<b>28867</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	8616	8112	201.96	8415
State Control Area Hydro	5365	3981	3625	94.29	3929
<b>Total Regional Hydro</b>	<b>15347</b>	<b>12597</b>	<b>11737</b>	<b>296.25</b>	<b>12344</b>

**V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(20:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal B/B	-250	0	0	400	0.00	5.85	-5.85
Gwalior-Agra (D/C)	433	111	490	0	5.20	0.00	5.20
Zerda-Kankroli	99	-108	121	260	0.00	2.33	-2.33
Zerda-Bhinmal	115	-59	149	196	1.03	0.00	1.03
Malanpur-Auraiya	-48	-62	0	136	0.00	1.62	-1.62
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>349</b>	<b>-118</b>			<b>6.23</b>	<b>9.80</b>	<b>-3.57</b>
Pusauli Bypass	-143	-127	117	295	0.09	2.49	-2.40
MZP- GKP (D/C)	544	830	1038	0	16.95	0.00	16.95
Patna-Balia(D/C)	150	167	321	0	3.71	0.00	3.71
B'Sharif-Balia (D/C)	122	245	480	0	5.05	0.00	5.05
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	131	139	148	0	3.67	0.00	3.67
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-35	-32	0	38	0.00	0.99	-0.99
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>769</b>	<b>1222</b>			<b>29.47</b>	<b>3.48</b>	<b>25.99</b>
<b>Total IR Exch</b>	<b>1118</b>	<b>1104</b>			<b>35.70</b>	<b>13.28</b>	<b>22.42</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
16.79	3.35	20.14	-0.18	23.74	-2.01	3.42	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
17.95	26.46	44.41	25.99	-3.57	22.42	8.04	-30.03	-21.99

**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	0.20	1.90	5.10	85.30	81.90	60.90	12.80

<----- 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				
50.44	3.26	49.12	18.52	50.02	0.34	0.18	50.43	49.47

**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	424	08:03	410	22:23	0.0	0.0	25.6	0.0
Gorakhpur	400	438	18:17	10	10:29	0.1	0.1	73.9	11.9
Bareilly	400	425	08:00	399	18:52	0.0	0.0	8.8	0.0
Kanpur	400	423	09:00	401	18:52	0.0	0.0	4.2	0.0
Dadri	400	417	07:51	400	18:51	0.0	0.0	0.0	0.0
Ballabgarh	400	423	07:55	402	19:15	0.0	0.0	13.7	0.0
Bawana	400	420	07:54	398	18:52	0.0	0.0	0.0	0.0
Bassi	400	430	04:00	401	19:11	0.0	0.0	42.8	0.0
Hissar	400	420	03:46	399	18:52	0.0	0.0	0.0	0.0
Moga	400	426	03:36	408	18:51	0.0	0.0	18.4	0.0
Abdullapur	400	414	07:53	395	18:51	0.0	0.0	0.0	0.0
Nalagarh	400	412	00:00	9999	00:00	0.0	0.0	0.0	0.0
Kishenpur	400	421	04:03	402	18:52	0.0	0.0	0.1	0.0
Wagoora	400	410	03:46	383	18:52	0.0	14.1	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	512.39	1667.20	512.08	1650.87	1057.72	911.49
Pong	426.72	384.05	423.73	1066.19	424.80	1130.65	958.33	334.39
Tehri	829.79	740.04	818.45	962.25	NA	NA	451.08	491.00
Koteshwar	612.50	598.50	608.50	3.98	NA	NA	491.00	125.00
Chamera-I	760.00	748.75	755.55	12.81	756.20	NA	290.17	325.36
Rihand	268.22	252.98	265.60	656.80	257.28	169.80	NA	NA
RPS	352.80	343.81	349.14	NA	349.41	NA	23.76	NA
Jawahar Sagar	298.70	295.78	298.00	NA	297.27	NA	44.46	NA
RSD	527.91	487.91	524.84	NA	523.96	NA	207.24	337.25

**IX. System Constraints:**

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

**XI. Weather Conditions For 18.09.2011 :**  
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 : 18.09.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER