

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 22.09.2011  
Date of Reporting : 23.09.2011

### I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 Hrs) MW			Demand Met	Off Peak (03:00 Hrs) MW			Day Energy (Net MU)
	Shortage	Requirement	Freq* (Hz)		Shortage	Requirement	Freq* (Hz)	
33105	2685	35790	49.88	31296	1030	32326	50.06	771.0

\* 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	46.24	13.74		59.98	85.35	82.56	-2.79	142.54	1.80
Haryana	70.35	1.05		71.40	41.62	42.88	1.26	114.27	1.38
Rajasthan	58.54	2.30	6.05	66.89	35.52	47.58	12.06	114.47	2.28
Delhi	31.59			31.59	66.49	63.65	-2.84	95.24	0.00
UP	68.10	17.56	0.60	86.26	126.85	134.21	7.37	220.47	26.92
Uttarakhand		19.75		19.75	6.36	9.50	3.13	29.25	0.30
HP		19.08		19.08	3.15	4.50	1.35	23.58	0.00
J & K		14.24	0.00	14.24	15.45	11.97	-3.48	26.21	0.00
Chandigarh				0.00	5.31	4.93	-0.38	4.93	0.00
<b>Total</b>	<b>274.82</b>	<b>87.72</b>	<b>6.65</b>	<b>369.19</b>	<b>386.10</b>	<b>401.79</b>	<b>15.68</b>	<b>770.98</b>	<b>32.67</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	6141	600	-390	885	5739	0	-96	936	21.40
Haryana	5174	495	-38	462	4389	0	183	362	8.90
Rajasthan	4842	70	521	-355	5066	0	574	-408	-9.46
Delhi	4074	0	-200	353	3134	0	44	303	8.12
UP	8932	1335	62	1294	10004	1030	590	989	27.26
Uttarakhand	1267	185	72	-200	1131	0	53	-200	-4.80
HP	1071	0	133	-1571	855	0	-1	-1189	-31.86
J&K	1365	0	-19	-375	822	0	-339	-275	-8.10
Chandigarh	239	0	-21	30	156	0	-14	30	0.72
<b>Total</b>	<b>33105</b>	<b>2685</b>	<b>120</b>	<b>523</b>	<b>31296</b>	<b>1030</b>	<b>994</b>	<b>548</b>	<b>12.18</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	1725	1867	1872	42.03	1751	41.40	0.63
	Rihand I STPS	1000	950	1028	939	22.67	945	22.09	0.58
	Rihand II STPS	1000	475	522	498	11.45	477	11.08	0.37
	Dadri I STPS	840	800	858	631	16.91	705	16.98	-0.07
	Dadri II STPS	980	970	1015	735	21.11	879	21.31	-0.20
	Unchahar I TPS	440	370	423	378	8.81	367	8.74	0.07
	Unchahar II TPS	440	181	212	162	4.22	176	4.18	0.04
	Unchahar III TPS	210	181	219	166	4.26	177	4.19	0.06
	ISTPP (Jhajjar)	500	470	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	780	706	588	15.41	642	15.69	-0.29
	Anta GPS	419	391	323	321	8.08	337	7.80	0.28
	Auraiya GPS	663	620	459	442	10.61	442	10.73	-0.12
	<b>Sub Total (A)</b>	<b>9322</b>	<b>7913</b>	<b>7632</b>	<b>6732</b>	<b>165.56</b>	<b>6898</b>	<b>164.20</b>	<b>1.36</b>
B. NPC	NAPS	440	190	227	226	4.56	190	4.56	0.00
	RAPS- B	440	218	216	220	4.65	194	5.22	-0.57
	RAPS- C	440	420	474	476	10.19	424	10.08	0.11
	<b>Sub Total (B)</b>	<b>1320</b>	<b>828</b>	<b>917</b>	<b>922</b>	<b>19.40</b>	<b>809</b>	<b>19.86</b>	<b>-0.46</b>
C. NHPC	Chamera I HPS	540	534	540	540	12.82	534	12.82	0.00
	Chamera II HPS	300	297	300	204	5.72	238	5.70	0.02
	Bairasuil HPS	180	179	179	20	2.15	90	2.05	0.10
	Salal-HPS	690	516	522	553	12.77	532	12.39	0.38
	Tanakpur-HPS	94	94	94	94	2.28	95	2.24	0.03
	Uri-HPS	480	475	479	480	11.39	475	10.71	0.68
	Dhauliganga-HPS	280	277	281	208	5.73	239	5.64	0.09
	Dulhasti-HPS	390	387	391	402	9.39	391	9.17	0.22
	Sewa-II HPS	120	116	125	122	2.89	120	2.86	0.03
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2874</b>	<b>2911</b>	<b>2623</b>	<b>65.14</b>	<b>2714</b>	<b>63.59</b>	<b>1.55</b>
D. NJPC	Nathpa Jhakri	1500	1600	1544	1053	28.74	1198	27.75	0.99
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1544</b>	<b>1053</b>	<b>28.74</b>	<b>1198</b>	<b>27.75</b>	<b>0.99</b>
E. THDC	Tehri HPS	1000	1050	920	251	16.30	679	16.00	0.30
	Koteshwar HPS	100	86	88	88	2.08	87	2.06	0.02
	<b>Sub Total (E)</b>	<b>1100</b>	<b>1136</b>	<b>1008</b>	<b>339</b>	<b>18.38</b>	<b>766</b>	<b>18.06</b>	<b>0.32</b>
F. BBMB	Bhakra HPS	1480	1047	1231	966	25.74	1073	25.14	0.60
	Dehar HPS	990	576	825	580	14.67	611	13.84	0.83
	Pong HPS	396	238	366	186	6.07	253	5.72	0.35
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1862</b>	<b>2422</b>	<b>1732</b>	<b>46.48</b>	<b>1937</b>	<b>44.70</b>	<b>1.78</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	58	58	1.40	59	1.36	0.04
	KWHEP HPS(IPP)	1000	0	720	650	16.49	687	15.60	0.89
	Malana Stg-II HPS	100	0	69	62	1.38	58	0.00	1.38
	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>847</b>	<b>770</b>	<b>19.28</b>	<b>803</b>	<b>16.96</b>	<b>2.32</b>
<b>H. Total Regional Entities (A-G)</b>		<b>20625</b>	<b>16213</b>	<b>17281</b>	<b>14171</b>	<b>362.98</b>	<b>15124</b>	<b>355.12</b>	<b>7.86</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	1235.00	1026.00	23.77	991
	Guru Nanak Dev TPS(Bhatinda)	440	125.00	90.00	2.12	88
	Guru Hargobind Singh TPS(L.mbt)	920	945.00	883.00	20.35	848
	Thermal (Total)	2620	2305.00	1999.00	46.24	1927
	Total Hydro	1148	736.00	395.00	13.74	572
	<b>Total Punjab</b>	<b>3768</b>	<b>3041</b>	<b>2394</b>	<b>59.98</b>	<b>2499</b>
Haryana	Panipat TPS	1360	1086.00	1105.00	26.40	1100
	DCRTPP (Yamuna nagar)	600	535.00	517.00	11.90	496
	Faridabad GPS (NTPC)	432	397.00	301.00	8.73	364
	RGTPP (khedar) (IPP)	1200	893.00	933.00	23.32	972
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2911.00	2856.00	70.35	2931
	Total Hydro	62	39.00	40.00	1.05	44
	<b>Total Haryana</b>	<b>3679</b>	<b>2950</b>	<b>2896</b>	<b>71.40</b>	<b>2975</b>
Rajasthan	kota TPS	1240	780.00	778.00	18.54	772
	suratgarh TPS	1500	1129.00	1161.00	25.94	1081
	Chabra TPS	500	209.00	190.00	4.74	198
	Dholpur GPS	330	128.00	130.00	3.16	132
	Ramgarh GPS	113	62.00	62.00	1.67	70
	RAPS A (NPC)	300	180.00	181.00	4.30	179
	Barsingsar (NLC)	250	0.00	56.00	0.19	8
	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	2488.00	2558.00	58.54	2439
	Total Hydro	550	84.00	50.00	2.30	96
	Wind power	1294	156.00	431.00	5.55	231
	Biomass	71	25.00	25.00	0.50	21
	Renewable/Others (Total)	1365	181	456	6.05	252
	<b>Total Rajasthan</b>	<b>6668</b>	<b>2753</b>	<b>3064</b>	<b>66.89</b>	<b>2787</b>
	UP	Anpara TPS	1630	1420	1409	30.00
Obra TPS		1442	579	606	12.90	538
Paricha TPS		640	407	393	8.70	363
Panki TPS		210	75	47	1.10	46
Harduaganj TPS		375	46	45	2.00	83
Tanda TPS (NTPC)		440	251	290	6.68	278
Roza TPS (IPP)		600	281	279	6.72	280
Anpara-C (IPP)		600	0	0	0.00	0
Thermal (Total)		5937	3059	3069	68.10	2838
Vishnuparyag HPS (IPP)		400	436	436	10.46	436
Other Hydro		527	321	0	7.10	296
Cogeneration		951	25	25	0.60	25
<b>Total UP</b>		<b>7815</b>	<b>3841</b>	<b>3530</b>	<b>86.26</b>	<b>3158</b>
Uttarakhand		Total Hydro	1303	835	853	19.75
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>835</b>	<b>853</b>	<b>19.75</b>	<b>823</b>
Delhi	Rajghat TPS	135	105	102	2.70	112
	Delhi Gas Turbine	282	122	76	2.60	108
	Pragati Gas Turbine	330	296	302	7.39	308
	Rithala GPS	108	26	29	7.39	308
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	545	510	11.51	480
	Thermal (Total)	2000	1094	1019	31.59	1316
	<b>Total Delhi</b>	<b>2000</b>	<b>1094</b>	<b>1019</b>	<b>31.59</b>	<b>1316</b>
HP	Baspa HPS (IPP)	330	248	179	5.67	236
	Malana HPS (IPP)	101	50	36	1.12	47
	Other Hydro	571	587	475	12.29	512
	<b>Total HP</b>	<b>1002</b>	<b>885</b>	<b>690</b>	<b>19</b>	<b>795</b>
J & K	Baglihar HPS (IPP)	450	442	442	10.64	443
	Other Hydro	323	112	138	3.60	150
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>554</b>	<b>580</b>	<b>14.24</b>	<b>593</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>15953</b>	<b>15026</b>	<b>369.19</b>	<b>14947</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1887</b>	<b>3002</b>	<b>53.64</b>	<b>2235</b>
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>35121</b>	<b>32199</b>	<b>785.81</b>	<b>32306</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	8732	6517	178.01	7417
State Control Area Hydro	5365	3454	2608	77.26	3219
<b>Total Regional Hydro</b>	<b>15347</b>	<b>12186</b>	<b>9125</b>	<b>255.27</b>	<b>10636</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	100	400	400	0	4.08	0.00	4.08
Gwalior-Agra (D/C)	538	894	1025	0	18.69	0.00	18.69
Zerda-Kankroli	67	195	231	57	2.40	0.00	2.40
Zerda-Bhinmal	96	187	277	17	3.04	0.00	3.04
Malanpur-Auraiya	-37	1	0	98	0.00	0.68	-0.68
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>764</b>	<b>1677</b>			<b>28.21</b>	<b>0.68</b>	<b>27.54</b>
Pusauli Bypass	-40	-94	114	152	0.33	1.08	-0.75
MZP- GKP (D/C)	469	810	1090	0	14.32	0.00	14.32
Patna-Balia(D/C)	195	201	296	0	4.38	0.00	4.38
B'Sharif-Balia (D/C)	237	304	456	0	5.93	0.00	5.93
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	139	136	159	0	3.22	0.00	3.22
K'nasa-Sahupuri	158	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>1123</b>	<b>1325</b>			<b>28.18</b>	<b>2.07</b>	<b>26.11</b>
<b>Total IR Exch</b>	<b>1887</b>	<b>3002</b>			<b>56.39</b>	<b>2.75</b>	<b>53.64</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
19.55	3.57	23.11	-1.20	14.59	-0.75	8.55	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
21.17	22.34	43.51	26.11	27.54	53.64	4.94	5.19	10.13

**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	3.20	19.50	96.80	80.50	10.10	0.00

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				
50.18	4.47	49.26	20.16	49.82	0.64	0.15	50.14	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	414	09:01	408	22:10	0.0	0.0	0.0	0.0
Gorakhpur	400	433	10:02	414	14:00	0.1	0.1	62.0	3.4
Bareilly	400	417	08:00	391	14:17	0.0	0.0	0.0	0.0
Kanpur	400	417	09:00	399	14:17	0.0	0.0	0.0	0.0
Dadri	400	412	03:35	393	15:05	0.0	0.0	0.0	0.0
Ballabgarh	400	418	03:45	396	15:05	0.0	0.0	0.0	0.0
Bawana	400	415	03:45	395	14:21	0.0	0.0	0.0	0.0
Bassi	400	426	03:46	400	15:17	0.0	0.0	13.4	0.0
Hissar	400	414	03:07	397	14:17	0.0	0.0	0.0	0.0
Moga	400	420	03:06	403	14:18	0.0	0.0	0.0	0.0
Abdullapur	400	413	03:45	396	14:21	0.0	0.0	0.0	0.0
Nalagarh	400	420	04:00	402	15:00	0.0	0.0	0.0	0.0
Kishenpur	400	418	03:07	402	19:23	0.0	0.0	0.0	0.0
Wagoora	400	408	03:04	391	06:33	0.0	0.0	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	512.15	1650.87	512.53	1683.57	731.00	512.53
Pong	426.72	384.05	423.82	1066.19	424.62	1114.45	264.54	336.14
Tehri	829.79	740.04	817.15	942.25	NA	NA	282.40	366.00
Koteshwar	612.50	598.50	608.30	3.76	NA	NA	476.00	138.00
Chamera-I	760.00	748.75	756.00	NA	NA	NA	278.00	350.16
Rihand	268.22	252.98	265.66	661.20	258.07	205.10	NA	NA
RPS	352.80	343.81	349.76	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.48	NA	NA	NA	31.09	68.92
RSD	527.91	487.91	524.97	NA	524.09	NA	364.55	300.10

**IX. System Constraints:**

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

**XI. Weather Conditions For 22.09.2011 :**  
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 : 22.09.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER