

# पाँवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 11.09.2011  
Date of Reporting : 12.09.2011

### 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
31900	2379	34279	49.99	29867	1030	30897	50.18	694.5	22.06

\* 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	34.26	18.07		52.32	90.42	85.94	-4.48	138.26	1.80
Haryana	46.41	0.82		47.23	41.69	46.49	4.80	93.72	0.54
Rajasthan	63.61	2.52	1.71	67.84	33.61	33.45	-0.16	101.28	1.63
Delhi	19.45			19.45	63.13	59.38	-3.75	78.83	0.00
UP	69.04	18.07	0.60	87.71	124.40	116.70	-7.70	204.41	16.89
Uttarakhand		21.64		21.64	5.81	6.07	0.26	27.71	0.00
HP		23.91		23.91	0.52	-3.10	-3.61	20.81	0.00
J & K		13.99	0.00	13.99	16.70	11.17	-5.53	25.15	1.20
Chandigarh				0.00	5.46	4.34	-1.12	4.34	0.00
<b>Total</b>	<b>232.78</b>	<b>99.00</b>	<b>2.31</b>	<b>334.08</b>	<b>381.73</b>	<b>360.43</b>	<b>-21.30</b>	<b>694.51</b>	<b>22.06</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	STOA/PX transaction
Punjab	5778	600	-337	1384	5357	0	-527	1447	33.53
Haryana	5386	251	163	562	4862	0	344	562	12.63
Rajasthan	4388	228	170	-445	4355	0	183	-508	-11.81
Delhi	3780	0	-181	329	3183	0	22	329	8.65
UP	8650	1300	-243	1575	9240	1030	265	1575	37.80
Uttarakhand	1333	0	142	-200	1103	0	-33	-200	-4.80
HP	983	0	-105	-1324	807	0	-144	-1389	-32.50
J&K	1378	0	-2	-345	801	0	-416	-245	-7.38
Chandigarh	224	0	-15	30	159	0	-49	30	0.72
<b>Total</b>	<b>31900</b>	<b>2379</b>	<b>-408</b>	<b>1566</b>	<b>29867</b>	<b>1030</b>	<b>-355</b>	<b>1602</b>	<b>36.83</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	1309	1470	1410	31.59	1316	31.29	0.29
	Rihand I STPS	1000	869	1015	805	20.03	835	20.02	0.02
	Rihand II STPS	1000	480	517	460	11.14	464	11.08	0.06
	Dadri I STPS	840	790	787	533	15.22	634	15.36	-0.14
	Dadri II STPS	980	970	543	443	11.82	493	13.59	-1.77
	Unchahar I TPS	440	335	414	293	7.73	322	7.51	0.22
	Unchahar II TPS	440	168	215	153	3.74	156	3.56	0.17
	Unchahar III TPS	210	168	215	152	3.81	159	3.65	0.16
	ISTPP (Jhajjar)	500	470	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	797	374	376	8.38	349	9.41	-1.03
	Anta GPS	419	389	229	234	5.80	242	5.71	0.09
	Auraiva GPS	663	504	312	273	6.85	285	7.16	-0.32
	<b>Sub Total (A)</b>	<b>9322</b>	<b>7250</b>	<b>6091</b>	<b>5132</b>	<b>126.11</b>	<b>5255</b>	<b>128.36</b>	<b>-2.25</b>
	B. NPC	NAPS	440	184	225	225	4.48	187	4.42
RAPS- B		440	197	215	218	4.66	194	4.73	-0.07
RAPS- C		440	420	472	469	10.12	422	10.08	0.04
<b>Sub Total (B)</b>		<b>1320</b>	<b>801</b>	<b>912</b>	<b>912</b>	<b>19.26</b>	<b>802</b>	<b>19.22</b>	<b>0.03</b>
C. NHPC	Chamera I HPS	540	534	540	540	12.60	525	12.82	-0.21
	Chamera II HPS	300	297	300	299	7.10	296	7.14	-0.04
	Bairasuil HPS	180	179	179	20	2.47	103	2.45	0.01
	Salal-HPS	690	627	625	625	15.03	626	15.05	-0.02
	Tanakpur-HPS	94	94	95	94	2.25	94	2.24	0.00
	Uri-HPS	480	311	351	272	7.46	311	7.03	0.42
	Dhauliganga-HPS	280	277	284	278	6.75	281	6.72	0.03
	Dulhasti-HPS	390	387	410	188	8.75	365	8.53	0.22
	Sewa-II HPS	120	115	115	120	2.75	114	2.82	-0.07
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2821</b>	<b>2899</b>	<b>2436</b>	<b>65.15</b>	<b>2714</b>	<b>64.80</b>	<b>0.34</b>
D. NJPC	Nathpa Jhakri	1500	1579	1344	1604	37.01	1542	37.90	-0.89
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1579</b>	<b>1344</b>	<b>1604</b>	<b>37.01</b>	<b>1542</b>	<b>37.90</b>	<b>-0.89</b>
E. THDC	Tehri HPS	1000	1060	1057	917	24.69	1029	24.66	0.03
	Koteswar HPS	100	87	91	88	2.08	87	2.09	-0.01
<b>Sub Total (E)</b>	<b>1100</b>	<b>1147</b>	<b>1148</b>	<b>1005</b>	<b>26.77</b>	<b>1116</b>	<b>26.75</b>	<b>0.02</b>	
F. BBMB	Bhakra HPS	1480	1227	1255	1255	30.14	1256	29.45	0.69
	Dehar HPS	990	602	825	620	14.61	609	14.45	0.16
	Pong HPS	396	239	306	186	6.02	251	5.74	0.28
	<b>Sub Total (F)</b>	<b>2866</b>	<b>2068</b>	<b>2386</b>	<b>2061</b>	<b>50.77</b>	<b>2115</b>	<b>49.63</b>	<b>1.14</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	108	93	2.32	97	1.91	0.41
	KWHEP HPS(IPP)	1000	0	700	700	16.84	702	16.79	0.05
	Malana Stg-II HPS	100	0	40	85	1.35	56	0.00	1.35
	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>848</b>	<b>878</b>	<b>20.50</b>	<b>854</b>	<b>18.69</b>	<b>1.81</b>

H. Total Regional Entities (A-G)	20625	15665	15628	14028	345.56	14398	345.36	0.21
----------------------------------	-------	-------	-------	-------	--------	-------	--------	------

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	735.00	740.00	17.71	738
	Guru Nanak Dev TPS(Bhatinda)	440	108.00	108.00	2.26	94
	Guru Hargobind Singh TPS(L.mbt)	920	682.00	600.00	14.28	595
	Thermal (Total)	2620	1525.00	1448.00	34.26	1427
	Total Hydro	1148	1026.00	668.00	18.07	753
	<b>Total Punjab</b>	<b>3768</b>	<b>2551</b>	<b>2116</b>	<b>52.32</b>	<b>2180</b>
Haryana	Panipat TPS	1360	726.00	758.00	17.19	716
	DCRTPP (Yamuna nagar)	600	276.00	538.00	8.30	346
	Faridabad GPS (NTPC)	432	192.00	194.00	4.68	195
	RGTPP (khedar) (IPP)	1200	720.00	605.00	16.24	677
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	1914.00	2095.00	46.41	1934
	Total Hydro	62	29.00	32.00	0.82	34
	<b>Total Haryana</b>	<b>3679</b>	<b>1943</b>	<b>2127</b>	<b>47.23</b>	<b>1968</b>
	Rajasthan	kota TPS	1240	861.00	847.00	19.81
suratgarh TPS		1500	1169.00	1108.00	25.54	1064
Chabra TPS		500	250.00	225.00	5.22	217
Dholpur GPS		330	268.00	254.00	6.27	261
Ramgarh GPS		113	62.00	62.00	0.61	25
RAPS A (NPC)		300	191.00	186.00	4.33	180
Barsingar (NLC)		250	79.00	79.00	1.84	77
Giral LTPS (IPP)		250	0.00	0.00	0.00	0
Rajwest LTPS (IPP)		135	0.00	0.00	0.00	0
VSLP LTPS (IPP)		135	0.00	0.00	0.00	0
Thermal (Total)		4753	2880.00	2761.00	63.61	2651
Total Hydro		550	60.00	86.00	2.52	105
Wind power		1294	149.00	68.00	1.23	51
Biomass		71	20.00	20.00	0.48	20
Renewable/Others (Total)		1365	169	88	1.71	71
<b>Total Rajasthan</b>		<b>6668</b>	<b>3109</b>	<b>2935</b>	<b>67.84</b>	<b>2827</b>
UP		Anpara TPS	1630	1310	1262	30.60
	Obra TPS	1442	429	345	9.30	388
	Paricha TPS	640	341	361	8.40	350
	Panki TPS	210	68	36	1.30	54
	Harduaganj TPS	375	41	38	0.90	38
	Tanda TPS (NTPC)	440	284	289	6.68	278
	Roza TPS (IPP)	600	563	558	11.87	495
	Anpara-C (IPP)	600	0	0	0.00	0
	Thermal (Total)	5937	3036	2889	69.04	2877
	Vishnuparyag HPS (IPP)	400	436	436	10.46	436
	Other Hydro	527	294	0	7.61	317
	Cogeneration	951	25	25	0.60	25
	<b>Total UP</b>	<b>7815</b>	<b>3791</b>	<b>3350</b>	<b>87.71</b>	<b>3219</b>
	Uttarakhand	Total Hydro	1303	869	982	21.64
<b>Total Uttarakhand</b>		<b>1303</b>	<b>869</b>	<b>982</b>	<b>21.64</b>	<b>902</b>
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	141	142	3.30	138
	Pragati Gas Turbine	330	295	299	7.15	298
	Rithala GPS	108	26	29	0.62	26
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	355	485	8.38	349
	Thermal (Total)	2000	817	955	19.45	811
	<b>Total Delhi</b>	<b>2000</b>	<b>817</b>	<b>955</b>	<b>19.45</b>	<b>811</b>
HP	Baspa HPS (IPP)	330	330	330	7.92	330
	Malana HPS (IPP)	101	92	92	2.06	86
	Other Hydro	571	573	586	13.93	580
	<b>Total HP</b>	<b>1002</b>	<b>995</b>	<b>1008</b>	<b>24</b>	<b>996</b>
J & K	Baqilhar HPS (IPP)	450	440	438	10.60	442
	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>559</b>	<b>604</b>	<b>13.99</b>	<b>583</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>14634</b>	<b>14077</b>	<b>334.08</b>	<b>13485</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>1929</b>	<b>1698</b>	<b>31.38</b>	<b>1308</b>
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>32191</b>	<b>29803</b>	<b>711.03</b>	<b>29191</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	8625	7984	200.20	8341
State Control Area Hydro	5365	3832	3380	88.55	3689
<b>Total Regional Hydro</b>	<b>15347</b>	<b>12457</b>	<b>11364</b>	<b>288.74</b>	<b>12031</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	-50	100	500	0.50	4.26	-3.76
Gwalior-Agra (D/C)	340	463	610	0	5.95	0.00	5.95
Zerda-Kankroli	-9	-34	73	190	0.00	0.95	-0.95
Zerda-Bhinmal	49	18	125	110	0.39	0.00	0.39
Malanpur-Auraiya	-83	-37	0	91	0.00	1.17	-1.17
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>397</b>	<b>360</b>			<b>6.83</b>	<b>6.38</b>	<b>0.45</b>
Pusaali Bypass	-45	-156	10	262	0.06	2.21	-2.15
MZP- GKP (D/C)	944	822	1042	0	19.28	0.00	19.28
Patna-Balia(D/C)	246	252	288	0	5.02	0.00	5.02
B'Sharif-Balia (D/C)	292	305	357	0	6.22	0.00	6.22
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusaali-Sahupuri	131	147	165	0	3.14	0.00	3.14
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-36	-32	0	38	0.00	0.57	-0.57
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1532</b>	<b>1338</b>			<b>33.72</b>	<b>2.78</b>	<b>30.94</b>
<b>Total IR Exch</b>	<b>1929</b>	<b>1698</b>			<b>40.55</b>	<b>9.16</b>	<b>31.38</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
20.64	3.66	24.30	5.13	32.45	-3.76	-8.35	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
25.66	23.32	48.98	30.94	0.45	31.38	5.27	-22.87	-17.60

**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	1.00	6.40	95.60	90.20	35.20	3.40

<----- 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				
50.33	6.02	49.31	20.22	49.95	0.26	0.15	50.33	49.60

**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	420	04:04	408	22:54	0.0	0.0	0.0	0.0
Gorakhpur	400	434	08:05	422	19:04	0.1	0.1	53.9	3.0
Bareilly	400	423	08:00	397	22:24	0.0	0.0	2.6	0.0
Kanpur	400	424	09:00	399	22:26	0.0	0.0	2.9	0.0
Dadri	400	418	08:04	399	22:26	0.0	0.0	0.0	0.0
Ballabgarh	400	423	17:15	403	22:05	0.0	0.0	18.4	0.0
Bawana	400	418	08:07	400	22:08	0.0	0.0	0.0	0.0
Bassi	400	430	17:03	408	19:13	0.0	0.0	61.1	0.0
Hissar	400	417	17:06	402	19:11	0.0	0.0	0.0	0.0
Moga	400	423	03:07	410	20:18	0.0	0.0	8.1	0.0
Abdullapur	400	412	08:09	408	06:23	0.0	0.0	0.0	0.0
Nalagarh	400	418	08:10	412	00:00	0.0	0.0	0.0	0.0
Kishenpur	400	419	03:09	403	19:11	0.0	0.0	0.0	0.0
Wagoora	400	410	02:44	384	19:12	0.0	9.1	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	512.09	1650.87	512.11	1650.87	1163.93	916.19
Pong	426.72	384.05	423.08	1035.89	423.81	1066.19	588.82	336.12
Tehri	829.79	740.04	817.60	962.00	NA	NA	416.51	553.00
Koteshwar	612.50	598.50	609.00	3.98	NA	NA	613.00	138.00
Chamera-I	760.00	748.75	751.90	12.30	752.00	NA	265.13	297.67
Rihand	268.22	252.98	265.54	652.40	257.19	165.90	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	524.41	NA	523.83	NA	364.61	322.25

**IX. System Constraints:**

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

**XI. Weather Conditions For 11.09.2011 :**  
Normal weather in Northern Region.

**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 : 11.09.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER