

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 26.09.2011  
Date of Reporting : 27.09.2011

### 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
32038	4581	36619	49.67	29768	2057	31825	49.82	736.3	81.82

\* 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	49.96	21.83		71.80	72.38	71.64	-0.74	143.44	25.20
Haryana	63.87	1.02		64.89	41.50	47.58	6.08	112.47	6.46
Rajasthan	62.69	1.29	14.69	78.66	24.32	35.89	11.57	114.55	6.30
Delhi	27.06			27.06	61.08	56.84	-4.23	83.90	0.09
UP	42.59	17.32	1.20	61.11	102.97	138.67	35.70	199.78	39.69
Uttarakhand		19.96		19.96	3.26	7.13	3.87	27.08	2.42
HP		17.24		17.24	2.89	4.90	2.01	22.13	0.06
J & K		14.17	0.00	14.17	11.96	13.85	1.89	28.02	1.60
Chandigarh				0.00	5.07	4.90	-0.17	4.90	0.00
<b>Total</b>	<b>246.17</b>	<b>92.82</b>	<b>15.89</b>	<b>354.88</b>	<b>325.42</b>	<b>381.39</b>	<b>55.97</b>	<b>736.27</b>	<b>81.82</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	6369	1580	-178	878	6522	568	125	931	21.25
Haryana	4575	910	232	262	4685	0	277	262	5.43
Rajasthan	4650	248	220	-355	5066	109	746	-408	-9.45
Delhi	3907	0	-210	353	3001	0	-173	303	8.12
UP	8680	1585	1538	1294	7558	1380	1386	829	25.31
Uttarakhand	1159	220	32	-200	1073	0	207	-200	-4.80
HP	972	38	61	-1519	799	0	155	-844	-26.34
J&K	1483	0	184	-375	910	0	-36	-275	-8.10
Chandigarh	243	0	-10	30	154	0	-22	30	0.72
<b>Total</b>	<b>32038</b>	<b>4581</b>	<b>1869</b>	<b>368</b>	<b>29768</b>	<b>2057</b>	<b>2665</b>	<b>628</b>	<b>12.15</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	548	683	586	13.67	569	13.15	0.52
	Rihand I STPS	1000	740	784	900	17.29	720	17.76	-0.48
	Rihand II STPS	1000	460	508	505	11.21	467	11.04	0.17
	Dadri I STPS	840	800	863	788	19.02	792	18.17	0.85
	Dadri II STPS	980	975	1024	1035	22.99	958	22.87	0.11
	Unchahar I TPS	440	290	340	335	7.02	293	6.96	0.06
	Unchahar II TPS	440	144	156	155	3.47	144	3.45	0.02
	Unchahar III TPS	210	144	157	159	3.85	161	3.45	0.41
	ISTPP (Jhajjar)	500	401	434	298	7.40	309	9.33	-1.92
	Dadri GPS	830	774	762	787	18.14	756	18.53	-0.40
	Anta GPS	419	387	386	394	9.35	390	9.23	0.12
	Auraiya GPS	663	609	621	631	14.51	604	14.61	-0.10
	<b>Sub Total (A)</b>	<b>9322</b>	<b>6270</b>	<b>6718</b>	<b>6573</b>	<b>147.90</b>	<b>6162</b>	<b>148.54</b>	<b>-0.64</b>
	B. NPC	NAPS	440	190	221	228	4.35	181	4.56
RAPS- B		440	372	340	345	4.67	195	8.92	-4.25
RAPS- C		440	420	470	471	10.12	422	10.08	0.04
<b>Sub Total (B)</b>		<b>1320</b>	<b>982</b>	<b>1031</b>	<b>1044</b>	<b>19.14</b>	<b>798</b>	<b>23.56</b>	<b>-4.42</b>
C. NHPC		Chamera I HPS	540	534	540	0	7.53	314	7.07
	Chamera II HPS	300	297	233	92	4.91	204	4.57	0.34
	Bairasuil HPS	180	120	120	20	1.89	79	1.85	0.05
	Salal-HPS	690	411	540	370	10.28	429	9.87	0.41
	Tanakpur-HPS	94	94	94	94	2.28	95	2.24	0.04
	Uri-HPS	480	469	480	480	11.60	483	11.60	0.01
	Dhauliganga-HPS	280	233	212	70	4.62	192	4.66	-0.04
	Dulhasti-HPS	390	387	392	156	9.34	389	9.23	0.11
	Sewa-II HPS	120	119	121	0	1.83	76	1.78	0.05
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2663</b>	<b>2732</b>	<b>1282</b>	<b>54.29</b>	<b>2262</b>	<b>52.87</b>	<b>1.43</b>
	D.NJPC	Nathpa Jhakri	1500	1600	1598	502	24.45	1019	24.00
<b>Sub Total (D)</b>		<b>1500</b>	<b>1600</b>	<b>1598</b>	<b>502</b>	<b>24.45</b>	<b>1019</b>	<b>24.00</b>	<b>0.45</b>
E. THDC	Tehri HPS	1000	1050	913	0	5.14	214	5.00	0.14
	Koteshwar HPS	100	87	87	92	2.13	89	2.09	0.04
<b>Sub Total (E)</b>	<b>1100</b>	<b>1137</b>	<b>1000</b>	<b>92</b>	<b>7.28</b>	<b>303</b>	<b>7.09</b>	<b>0.19</b>	
F. BBMB	Bhakra HPS	1480	980	1097	990	24.13	1005	23.53	0.60
	Dehar HPS	990	526	825	495	13.15	548	12.62	0.53
	Pong HPS	396	239	306	186	6.07	253	5.74	0.33
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1745</b>	<b>2228</b>	<b>1671</b>	<b>43.35</b>	<b>1806</b>	<b>41.89</b>	<b>1.46</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	50	51	1.21	51	1.17	0.04
	KWHEP HPS(IPP)	1000	0	548	553	13.87	578	13.42	0.45
	Malana Stg-II HPS	100	0	76	40	1.13	47	0.00	1.13
	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>674</b>	<b>644</b>	<b>16.21</b>	<b>675</b>	<b>14.59</b>	<b>1.62</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>20625</b>	<b>14397</b>	<b>15981</b>	<b>11808</b>	<b>312.62</b>	<b>13026</b>	<b>312.53</b>	<b>0.09</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	1040.00	1040.00	23.28	970
	Guru Nanak Dev TPS(Bhatinda)	440	285.00	280.00	5.93	247
	Guru Hargobind Singh TPS(L.mbt)	920	942.00	950.00	20.76	865
	Thermal (Total)	2620	2267.00	2270.00	49.96	2082
	Total Hydro	1148	1029.00	871.00	21.83	910
	<b>Total Punjab</b>	<b>3768</b>	<b>3296</b>	<b>3141</b>	<b>71.80</b>	<b>2992</b>
Haryana	Panipat TPS	1360	1156.00	1158.00	27.91	1163
	DCRTPP (Yamuna nagar)	600	276.00	277.00	6.44	268
	Faridabad GPS (NTPC)	432	395.00	402.00	9.56	398
	RGTPP (khedar) (IPP)	1200	480.00	856.00	19.97	832
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2307.00	2693.00	63.87	2661
	Total Hydro	62	40.00	38.00	1.02	42
	<b>Total Haryana</b>	<b>3679</b>	<b>2347</b>	<b>2731</b>	<b>64.89</b>	<b>2704</b>
	Rajasthan	kota TPS	1240	874.00	871.00	20.80
suratgarh TPS		1500	1178.00	1176.00	26.81	1117
Chabra TPS		500	224.00	226.00	5.34	223
Dholpur GPS		330	85.00	132.00	2.13	89
Ramgarh GPS		113	62.00	62.00	0.98	41
RAPS A (NPC)		300	178.00	178.00	4.29	179
Barsingsar (NLC)		250	0.00	0.00	0.00	0
Giral LTPS (IPP)		250	114.00	62.00	2.34	97
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	2715.00	2707.00	62.69	2612
Total Hydro		550	46.00	0.00	1.29	54
Wind power		1294	442.00	766.00	14.37	599
Biomass		71	15.00	15.00	0.32	13
Renewable/Others (Total)		1365	457	781	14.69	612
<b>Total Rajasthan</b>		<b>6668</b>	<b>3218</b>	<b>3488</b>	<b>78.66</b>	<b>3277</b>
UP		Anpara TPS	1630	470	335	10.40
	Obra TPS	1442	102	76	2.60	108
	Paricha TPS	640	291	365	7.90	329
	Panki TPS	210	66	63	1.50	63
	Harduaganj TPS	375	66	32	1.00	42
	Tanda TPS (NTPC)	440	257	220	6.42	267
	Roza TPS (IPP)	600	284	284	6.00	250
	Anpara-C (IPP)	600	0	0	6.77	282
	Thermal (Total)	5937	1536	1375	42.59	1775
	Vishnuparyag HPS (IPP)	400	436	436	10.46	436
	Other Hydro	527	304	0	6.86	286
	Cogeneration	951	50	50	1.20	50
	<b>Total UP</b>	<b>7815</b>	<b>2326</b>	<b>1861</b>	<b>61.11</b>	<b>2111</b>
	Uttarakhand	Total Hydro	1303	846	790	19.96
<b>Total Uttarakhand</b>		<b>1303</b>	<b>846</b>	<b>790</b>	<b>19.96</b>	<b>831</b>
Delhi	Rajghat TPS	135	91	97	2.27	95
	Delhi Gas Turbine	282	156	112	3.25	135
	Pragati Gas Turbine	330	294	301	7.18	299
	Rithala GPS	108	26	29	0.63	26
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	670	555	13.73	572
	Thermal (Total)	2000	1237	1094	27.06	1128
	<b>Total Delhi</b>	<b>2000</b>	<b>1237</b>	<b>1094</b>	<b>27.06</b>	<b>1128</b>
HP	Baspa HPS (IPP)	330	245	108	4.46	186
	Malana HPS (IPP)	101	50	38	1.03	43
	Other Hydro	571	519	436	11.75	489
	<b>Total HP</b>	<b>1002</b>	<b>814</b>	<b>582</b>	<b>17</b>	<b>718</b>
J & K	Baglihar HPS (IPP)	450	442	442	10.61	442
	Other Hydro	323	114	138	3.56	148
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>556</b>	<b>580</b>	<b>14.17</b>	<b>591</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>14640</b>	<b>14267</b>	<b>354.88</b>	<b>14351</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2667</b>	<b>3980</b>	<b>74.34</b>	<b>3098</b>
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>33288</b>	<b>30055</b>	<b>741.84</b>	<b>30474</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	8232	4191	145.58	6066
State Control Area Hydro	5365	3635	2861	82.36	3432
<b>Total Regional Hydro</b>	<b>15347</b>	<b>11867</b>	<b>7052</b>	<b>227.94</b>	<b>9498</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	200	0	200	300	1.69	1.08	0.61
Gwalior-Agra (D/C)	595	1182	1282	0	21.10	0.00	21.10
Zerda-Kankroli	68	278	278	41	2.92	0.00	2.92
Zerda-Bhinmal	97	240	302	80	3.07	0.00	3.07
Malanpur-Auraiya	-38	-5	0	38	0.00	0.58	-0.58
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>922</b>	<b>1695</b>			<b>28.78</b>	<b>1.66</b>	<b>27.12</b>
Pusauli Bypass	34	448	448	21	6.35	0.02	6.33
MZP- GKP (D/C)	723	760	1348	0	21.68	0.00	21.68
Patna-Balia(D/C)	427	421	444	0	8.29	0.00	8.29
B'Sharif-Balia (D/C)	315	601	601	0	9.09	0.00	9.09
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	123	87	134	0	2.50	0.00	2.50
K'nasa-Sahupuri	158	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-35	-32	0	38	0.00	0.67	-0.67
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1745</b>	<b>2285</b>			<b>47.91</b>	<b>0.69</b>	<b>47.22</b>
<b>Total IR Exch</b>	<b>2667</b>	<b>3980</b>			<b>76.69</b>	<b>2.35</b>	<b>74.34</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
11.93	3.63	15.56	-1.15	14.55	-0.48	-3.36	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
13.93	10.41	24.34	47.22	27.12	74.34	33.29	16.71	50.00

**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
0.00	0.00	1.20	22.90	63.90	77.10	75.40	1.70

<----- 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				
50.14	18.01	49.08	22.23	49.63	1.71	0.18	49.96	49.38

**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	429	10:17	416	14:41	0.0	0.0	65.3	0.0
Gorakhpur	400	438	18:00	408	14:45	0.0	0.0	78.4	13.7
Bareilly	400	427	08:00	397	15:45	0.0	0.0	1.3	0.0
Kanpur	400	424	09:00	401	15:45	0.0	0.0	4.3	0.0
Dadri	400	414	05:59	397	15:45	0.0	0.0	0.0	0.0
Ballabgarh	400	419	05:59	399	14:37	0.0	0.0	0.0	0.0
Bawana	400	416	05:58	399	14:31	0.0	0.0	0.0	0.0
Bassi	400	424	18:02	400	17:21	0.0	0.0	3.2	0.0
Hissar	400	412	00:22	397	14:26	0.0	0.0	0.0	0.0
Moga	400	419	03:57	406	09:38	0.0	0.0	0.0	0.0
Abdullapur	400	412	03:42	394	18:58	0.0	0.0	0.0	0.0
Nalagarh	400	414	03:46	401	18:48	0.0	0.0	0.0	0.0
Kishenpur	400	416	04:03	400	18:58	0.0	0.0	0.0	0.0
Wagoora	400	403	13:02	386	18:56	0.0	18.4	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	511.99	1650.87	512.21	1650.87	641.18	784.94
Pong	426.72	384.05	423.67	1066.19	424.62	1114.45	191.00	332.95
Tehri	829.79	740.04	817.85	962.25	NA	NA	266.50	120.00
Koteshwar	612.50	598.50	608.90	3.98	NA	NA	120.00	140.00
Chamera-I	760.00	748.75	754.84	NA	NA	NA	218.67	329.50
Rihand	268.22	252.98	265.91	679.00	258.17	209.50	NA	NA
RPS	352.80	343.81	349.81	NA	349.13	NA	148.21	NA
Jawahar Sagar	298.70	295.78	297.82	NA	NA	NA	297.18	105.34
RSD	527.91	487.91	524.75	NA	524.07	NA	310.13	375.31

**IX. System Constraints:**

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

**XI. Weather Conditions For 26.09.2011 :**

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 : 26.09.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER