

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 29.09.2011  
Date of Reporting : 30.09.2011

### 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
30846	7458	38304	49.28	29333	4482	33815	49.65	692.9	119.83

\* 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	50.16	19.19		69.35	71.74	70.50	-1.24	139.85	32.65
Haryana	49.54	1.02		50.56	41.19	47.83	6.64	98.39	24.29
Rajasthan	59.68	1.39	10.71	71.77	25.09	27.71	2.62	99.48	35.33
Delhi	27.17			27.17	65.40	55.44	-9.96	82.61	0.34
UP	53.77	17.70	1.20	72.68	97.88	120.01	22.12	192.68	20.86
Uttarakhand		19.41		19.41	5.91	7.01	1.10	26.42	3.10
HP		16.19		16.19	2.88	4.02	1.15	20.21	3.26
J & K		14.17	0.00	14.17	12.11	14.16	2.05	28.33	0.00
Chandigarh				0.00	5.05	4.96	-0.10	4.96	0.00
<b>Total</b>	<b>240.32</b>	<b>89.07</b>	<b>11.91</b>	<b>341.30</b>	<b>327.24</b>	<b>351.63</b>	<b>24.39</b>	<b>692.92</b>	<b>119.83</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	6211	1580	-273	873	6018	768	-6	920	20.98
Haryana	4149	1764	29	262	4385	544	659	262	5.43
Rajasthan	4156	1344	68	-355	4530	1315	315	-408	-9.45
Delhi	3948	0	-301	174	2915	0	-631	124	3.83
UP	8545	2480	488	1294	8613	1755	2009	795	24.50
Uttarakhand	1141	220	-18	-100	1047	70	-10	-100	-2.40
HP	1030	70	35	-1464	710	30	-28	-749	-24.05
J&K	1420	0	131	-375	960	0	-95	-275	-8.10
Chandigarh	246	0	-10	30	155	0	-27	30	0.72
<b>Total</b>	<b>30846</b>	<b>7458</b>	<b>149</b>	<b>339</b>	<b>29333</b>	<b>4482</b>	<b>2186</b>	<b>599</b>	<b>11.45</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	969	1129	1012	23.78	991	23.26	0.52
	Rihand I STPS	1000	646	674	781	15.59	650	15.49	0.10
	Rihand II STPS	1000	469	502	501	11.36	473	11.25	0.11
	Dadri I STPS	840	800	874	874	19.41	809	19.20	0.21
	Dadri II STPS	980	975	1026	1037	23.51	980	23.40	0.11
	Unchahar I TPS	440	299	325	329	7.26	302	7.19	0.07
	Unchahar II TPS	440	149	166	156	3.60	150	3.58	0.02
	Unchahar III TPS	210	149	166	156	3.61	151	3.58	0.03
	ISTPP (Jhajjar)	500	452	447	495	10.53	439	10.80	-0.28
	Dadri GPS	830	762	775	791	18.23	760	18.28	-0.05
	Anta GPS	419	384	382	395	9.25	385	9.21	0.04
	Auraiya GPS	663	602	612	637	14.50	604	14.44	0.05
	<b>Sub Total (A)</b>	<b>9322</b>	<b>6656</b>	<b>7078</b>	<b>7164</b>	<b>160.63</b>	<b>6693</b>	<b>159.69</b>	<b>0.94</b>
B. NPC	NAPS	440	143	219	220	4.44	185	3.43	1.00
	RAPS- B	440	392	428	429	9.42	393	9.41	0.01
	RAPS- C	440	420	476	473	10.09	420	10.08	0.01
	<b>Sub Total (B)</b>	<b>1320</b>	<b>955</b>	<b>1123</b>	<b>1122</b>	<b>23.95</b>	<b>998</b>	<b>22.92</b>	<b>1.03</b>
C. NHPC	Chamera I HPS	540	534	540	0	6.95	290	5.79	1.16
	Chamera II HPS	300	272	299	178	4.39	183	4.13	0.26
	Bairasuil HPS	180	120	120	0	1.57	66	1.38	0.19
	Salal-HPS	690	396	485	422	9.76	407	9.57	0.19
	Tanakpur-HPS	94	94	95	94	2.21	92	2.24	-0.04
	Uri-HPS	480	431	468	468	10.67	445	10.71	-0.04
	Dhauliganga-HPS	280	92	282	79	1.55	65	1.28	0.27
	Dulhasti-HPS	390	387	417	409	9.57	399	9.33	0.24
	Sewa-II HPS	120	119	126	0	1.28	53	1.14	0.14
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2445</b>	<b>2832</b>	<b>1650</b>	<b>47.95</b>	<b>1998</b>	<b>45.58</b>	<b>2.37</b>
D.NJPC	Nathpa Jhakri	1500	1519	1608	415	23.34	972	23.00	0.34
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1519</b>	<b>1608</b>	<b>415</b>	<b>23.34</b>	<b>972</b>	<b>23.00</b>	<b>0.34</b>
E. THDC	Tehri HPS	1000	1050	520	0	5.17	215	5.00	0.17
	Koteshwar HPS	100	87	90	88	2.11	88	2.09	0.02
	<b>Sub Total (E)</b>	<b>1100</b>	<b>1137</b>	<b>610</b>	<b>88</b>	<b>7.28</b>	<b>303</b>	<b>7.09</b>	<b>0.19</b>
F. BBMB	Bhakra HPS	1480	903	1101	836	22.31	930	21.67	0.64
	Dehar HPS	990	472	660	480	11.85	494	11.32	0.53
	Pong HPS	396	239	306	186	6.06	253	5.74	0.32
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1614</b>	<b>2067</b>	<b>1502</b>	<b>40.22</b>	<b>1676</b>	<b>38.72</b>	<b>1.50</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	45	45	1.13	47	1.04	0.10
	KWHEP HPS(IPP)	1000	0	710	450	13.48	562	12.32	1.16
	Malana Stg-II HPS	100	0	50	41	1.02	42	0.00	1.02
	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>804.5</b>	<b>535.5</b>	<b>15.63</b>	<b>651</b>	<b>13.36</b>	<b>2.27</b>
<b>H. Total Regional Entities (A-G)</b>		<b>20625</b>	<b>14325</b>	<b>16122</b>	<b>12477</b>	<b>318.99</b>	<b>13291</b>	<b>310.36</b>	<b>8.63</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	1035.00	1030.00	22.92	955	
	Guru Nanak Dev TPS(Bhatinda)	440	287.00	290.00	5.94	248	
	Guru Hargobind Singh TPS(L.mbt)	920	960.00	958.00	21.30	887	
	Thermal (Total)	2620	2282.00	2278.00	50.16	2090	
	Total Hydro	1148	840.00	757.00	19.19	800	
	<b>Total Punjab</b>	<b>3768</b>	<b>3122</b>	<b>3035</b>	<b>69.35</b>	<b>2890</b>	
Haryana	Panipat TPS	1360	999.00	1066.00	24.20	1008	
	DCRTPP (Yamuna nagar)	600	261.00	281.00	6.42	267	
	Faridabad GPS (NTPC)	432	394.00	405.00	9.51	396	
	RGTPP (khedar) (IPP)	1200	462.00	249.00	9.42	393	
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0	
	Thermal (Total)	3617	2116.00	2001.00	49.54	2064	
	Total Hydro	62	35.00	39.00	1.02	43	
		<b>Total Haryana</b>	<b>3679</b>	<b>2151</b>	<b>2040</b>	<b>50.56</b>	<b>2107</b>
Rajasthan	kota TPS	1240	678.00	679.00	16.01	667	
	suratgarh TPS	1500	1169.00	1164.00	27.35	1140	
	Chabra TPS	500	200.00	225.00	4.96	207	
	Dholpur GPS	330	126.00	121.00	3.11	130	
	Ramgarh GPS	113	62.00	62.00	1.61	67	
	RAPS A (NPC)	300	183.00	177.00	4.34	181	
	Barsingsar (NLC)	250	0.00	0.00	0.00	0	
	Giral LTPS (IPP)	250	114.00	112.00	2.30	96	
	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	2532.00	2540.00	59.68	2487	
	Total Hydro	550	71.00	7.00	1.39	58	
	Wind power	1294	270.00	597.00	10.15	423	
	Biomass	71	71.00	25.00	0.56	23	
	Renewable/Others (Total)	1365	341	622	10.71	446	
		<b>Total Rajasthan</b>	<b>6668</b>	<b>2944</b>	<b>3169</b>	<b>71.77</b>	<b>2990</b>
	UP	Anpara TPS	1630	1124	907	24.50	1021
Obra TPS		1442	362	383	8.40	350	
Paricha TPS		640	302	52	5.00	208	
Panki TPS		210	108	99	2.40	100	
Harduaganj TPS		375	0	0	0.00	0	
Tanda TPS (NTPC)		440	276	277	6.87	286	
Roza TPS (IPP)		600	284	284	6.60	275	
Anpara-C (IPP)		600	0	0	0.00	0	
Thermal (Total)		5937	1608	1508	53.77	2241	
Vishnuparyag HPS (IPP)		400	436	436	10.20	425	
Other Hydro		527	363	0	7.50	313	
Cogeneration		951	50	50	1.20	50	
		<b>Total UP</b>	<b>7815</b>	<b>2457</b>	<b>1994</b>	<b>72.68</b>	<b>2603</b>
Uttarakhand	Total Hydro	1303	789	837	19.41	809	
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>789</b>	<b>837</b>	<b>19.41</b>	<b>809</b>	
Delhi	Rajghat TPS	135	80	93	2.29	95	
	Delhi Gas Turbine	282	153	112	3.36	140	
	Pragati Gas Turbine	330	290	303	7.14	298	
	Rithala GPS	108	26	29	0.51	21	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	650	500	13.87	578	
	Thermal (Total)	2000	1199	1037	27.17	1132	
		<b>Total Delhi</b>	<b>2000</b>	<b>1199</b>	<b>1037</b>	<b>27.17</b>	<b>1132</b>
HP	Baspa HPS (IPP)	330	330	180	4.47	186	
	Malana HPS (IPP)	101	49	34	0.88	37	
	Other Hydro	571	523	453	10.84	452	
		<b>Total HP</b>	<b>1002</b>	<b>902</b>	<b>667</b>	<b>16</b>	<b>674</b>
J & K	Baglihar HPS (IPP)	450	441	441	10.61	442	
	Other Hydro	323	377	812	3.56	148	
	Gas/Diesel/Others	183	0	0	0.00	0	
		<b>Total J &amp; K</b>	<b>956</b>	<b>818</b>	<b>1253</b>	<b>14.17</b>	<b>591</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>14382</b>	<b>14032</b>	<b>341.30</b>	<b>13795</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>914</b>	<b>2966</b>	<b>53.19</b>	<b>2216</b>	
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>31418</b>	<b>29475</b>	<b>713.47</b>	<b>29303</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	7921	4191	134.42	5601
State Control Area Hydro	5365	3818	3560	78.87	3286
<b>Total Regional Hydro</b>	<b>15347</b>	<b>11739</b>	<b>7751</b>	<b>213.29</b>	<b>8887</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	0	200	0.00	1.54	-1.54
Gwalior-Agra (D/C)	0	930	1120	0	13.86	0.00	13.86
Zerda-Kankroli	-146	171	171	199	2.00	0.00	2.00
Zerda-Bhinmal	114	-193	190	228	0.02	0.00	0.02
Malanpur-Auraiya	-197	-2	0	197	0.00	1.70	-1.70
Badod-Kota/Morak	0	0	0	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>-429</b>	<b>906</b>			<b>15.88</b>	<b>3.24</b>	<b>12.64</b>
Pusauli Bypass	14	220	224	37	3.26	0.05	3.21
MZP- GKP (D/C)	690	1004	1028	0	21.06	0.00	21.06
Patna-Balia(D/C)	139	381	395	0	6.51	0.00	6.51
B'Sharif-Balia (D/C)	234	339	355	0	7.06	0.00	7.06
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	143	148	162	0	3.38	0.00	3.38
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>1343</b>	<b>2060</b>			<b>41.26</b>	<b>0.72</b>	<b>40.54</b>
<b>Total IR Exch</b>	<b>914</b>	<b>2966</b>			<b>57.15</b>	<b>3.96</b>	<b>53.19</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
13.25	3.22	16.47	-2.93	15.85	-0.63	0.19	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
12.91	15.35	28.26	40.54	12.64	53.19	27.63	-2.71	24.93

**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	10.30	25.30	68.90	90.20	31.10	9.80	0.90

<----- 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				
50.10	13.29	48.78	21.08	49.47	4.72	0.26	49.85	49.00

**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	424	17:56	416	15:37	0.0	0.0	55.1	0.0
Gorakhpur	400	437	12:59	409	02:19	0.0	0.0	67.5	4.2
Bareilly	400	427	08:00	398	05:44	0.0	0.0	5.2	0.0
Kanpur	400	424	09:00	406	10:31	0.0	0.0	1.5	0.0
Dadri	400	415	17:59	401	12:07	0.0	0.0	0.0	0.0
Ballabgarh	400	421	17:59	405	10:11	0.0	0.0	0.1	0.0
Bawana	400	417	03:42	404	12:07	0.0	0.0	0.0	0.0
Bassi	400	429	07:02	411	10:10	0.0	0.0	52.6	0.0
Hissar	400	416	00:39	401	10:10	0.0	0.0	0.0	0.0
Moga	400	423	18:00	405	10:11	0.0	0.0	1.0	0.0
Abdullapur	400	417	03:56	200	15:24	0.1	0.1	0.0	0.0
Nalagarh	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Kishenpur	400	419	03:04	404	18:57	0.0	0.0	0.0	0.0
Wagoora	400	409	02:59	384	19:14	0.0	9.3	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	511.85	1635.65	512.26	1167.20	561.83	633.48
Pong	426.72	384.05	423.48	1051.02	424.59	1114.45	199.35	334.14
Tehri	829.79	740.04	818.95	982.26	NA	NA	213.37	115.00
Koteshwar	612.50	598.50	607.90	3.54	NA	NA	115.00	141.00
Chamera-I	760.00	748.75	753.80	NA	753.30	57.92	175.35	186.54
Rihand	268.22	252.98	NA	NA	258.17	209.50	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	524.23	NA	523.95	NA	240.95	420.96

**IX. System Constraints:**

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

**XI. Weather Conditions For 29.09.2011 :**

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 : 29.09.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER