

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 29.10.2011

Date of Reporting : 30.10.2011

### I. Regional Availability/Demand:

Evening Peak (19:00 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
28929	2210	31139	50.00	25429	1425	26854	50.15	648.2	48.37

\* 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	49.58	11.01		60.59	42.82	36.61	-6.21	97.20	1.80
Haryana	61.25	1.21		62.45	36.16	34.88	-1.27	97.34	0.62
Rajasthan	80.43	2.80	0.67	83.89	36.60	47.23	10.63	131.12	11.05
Delhi	20.69			20.69	43.90	37.96	-5.94	58.65	0.04
UP	69.32	8.07	1.20	78.58	107.36	103.17	-4.19	181.75	32.68
Uttarakhand		11.70		11.70	10.67	14.10	3.44	25.80	0.99
HP		8.86		8.86	12.56	11.68	-0.88	20.55	0.00
J & K		9.79	0.00	9.79	19.77	22.57	2.79	32.35	1.20
Chandigarh				0.00	3.71	3.41	-0.30	3.41	0.00
<b>Total</b>	<b>281.26</b>	<b>53.43</b>	<b>1.87</b>	<b>336.56</b>	<b>313.55</b>	<b>311.61</b>	<b>-1.94</b>	<b>648.18</b>	<b>48.37</b>

\* Shortage furnished by the respective constituent.

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

State	Evening Peak (19:00 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	4431	150	-780	-163	3927	0	-3	-85	-2.83
Haryana	4354	367	103	145	3167	0	-466	122	2.54
Rajasthan	5841	233	524	-50	5842	0	1003	-50	-1.20
Delhi	3059	0	-108	-80	1735	0	-360	11	-2.11
UP	7283	1300	-1070	577	7810	1425	137	577	13.84
Uttarakhand	1260	160	86	50	908	0	102	50	1.20
HP	1088	0	95	-313	707	0	-58	114	0.63
J&K	1421	0	-109	-28	1232	0	183	51	0.43
Chandigarh	192	0	-9	18	101	0	-5	18	0.43
<b>Total</b>	<b>28929</b>	<b>2210</b>	<b>-1268</b>	<b>155</b>	<b>25429</b>	<b>1425</b>	<b>533</b>	<b>807</b>	<b>12.93</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	1871	2028	1990	45.62	1901	44.70	0.92
	Rihand I STPS	1000	960	1050	1040	22.92	955	22.50	0.42
	Rihand II STPS	1000	975	1040	1055	23.20	967	22.75	0.45
	Dadri I STPS	840	769	619	612	13.72	572	13.76	-0.04
	Dadri II STPS	980	921	943	729	19.38	807	19.70	-0.32
	Unchahar I TPS	440	389	422	370	8.67	361	8.44	0.23
	Unchahar II TPS	440	390	431	307	8.22	342	7.71	0.51
	Unchahar III TPS	210	196	219	171	5.24	218	4.12	1.13
	ISTPP (Jhajihar)	500	470	482	506	10.93	455	11.13	-0.20
	Dadri GPS	830	804	568	533	12.88	537	13.06	-0.18
	Anta GPS	419	392	223	211	5.83	243	5.60	0.23
	Auraiya GPS	663	626	451	422	10.20	425	10.03	0.17
	<b>Sub Total (A)</b>	<b>9322</b>	<b>8761</b>	<b>8476</b>	<b>7946</b>	<b>186.81</b>	<b>7784</b>	<b>183.50</b>	<b>3.31</b>
B. NPC	NAPS	440	200	238	239	4.81	200	4.80	0.01
	RAPS- B	440	410	451	456	9.80	408	9.84	-0.04
	RAPS- C	440	420	474	477	10.17	424	10.08	0.09
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1030</b>	<b>1163</b>	<b>1172</b>	<b>24.78</b>	<b>1033</b>	<b>24.72</b>	<b>0.06</b>
C. NHPC	Chamera I HPS	540	534	450	0	3.61	150	4.16	-0.55
	Chamera II HPS	300	297	297	0	2.21	92	2.34	-0.13
	Bairasuil HPS	180	179	80	0	0.80	33	0.81	-0.01
	Salal-HPS	690	204	223	220	4.70	196	4.90	-0.20
	Tanakpur-HPS	94	60	63	50	1.42	59	1.46	-0.04
	Uri-HPS	480	189	240	26	3.85	160	3.19	0.66
	Dhauliganga-HPS	280	277	278	0	2.04	85	2.04	0.00
	Dulhasti-HPS	390	387	410	0	5.42	226	5.72	-0.30
	Sewa-II HPS	120	119	121	0	0.67	28	0.63	0.04
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2246</b>	<b>2162</b>	<b>296</b>	<b>24.72</b>	<b>1030</b>	<b>25.25</b>	<b>-0.53</b>
D. NJPC	Nathpa Jhakri	1500	1600	1538	0	12.58	524	13.38	-0.80
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1538</b>	<b>0</b>	<b>12.58</b>	<b>524</b>	<b>13.38</b>	<b>-0.80</b>
E. THDC	Tehri HPS	1000	1050	1041	0	4.02	168	4.00	0.02
	Koteshwar HPS	100	187	192	0	1.42	59	1.40	0.02
	<b>Sub Total (E)</b>	<b>1100</b>	<b>1237</b>	<b>1233</b>	<b>0</b>	<b>5.44</b>	<b>227</b>	<b>5.40</b>	<b>0.04</b>
F. BBMB	Bhakra HPS	1480	573	793	420	14.57	607	13.74	0.83
	Dehar HPS	990	226	495	165	6.00	250	5.43	0.57
	Pong HPS	396	319	366	306	7.95	331	7.66	0.29
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1118</b>	<b>1654</b>	<b>891</b>	<b>28.52</b>	<b>1188</b>	<b>26.83</b>	<b>1.69</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.00	0	0.69	-0.69
	KWHEP HPS(IPP)	1000	0	550	216	7.12	297	6.96	0.17
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	0	0	0.00	0	1.22	-1.22
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>550</b>	<b>216</b>	<b>7.12</b>	<b>297</b>	<b>8.87</b>	<b>-1.74</b>
<b>H. Total Regional Entities (A-G)</b>		<b>20625</b>	<b>15992</b>	<b>16776</b>	<b>10521</b>	<b>289.97</b>	<b>12082</b>	<b>287.94</b>	<b>2.03</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	1045.00	1050.00	23.14	964
	Guru Nanak Dev TPS(Bhatinda)	440	188.00	188.00	5.08	212
	Guru Hargobind Singh TPS(L.mbt)	920	297.00	943.00	21.36	890
	Thermal (Total)	2620	2492.00	2181.00	49.58	2066
	Total Hydro	1148	443.00	440.00	11.01	459
<b>Total Punjab</b>	<b>3768</b>	<b>2935</b>	<b>2621</b>	<b>60.59</b>	<b>2525</b>	
Haryana	Panipat TPS	1360	1111.00	1121.00	28.63	1193
	DCRTPP (Yamuna nagar)	600	0.00	0.00	0.88	37
	Faridabad GPS (NTPC)	432	379.00	322.00	8.85	369
	RGTPP (khedar) (IPP)	1200	820.00	936.00	22.88	953
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2310.00	2379.00	61.25	2552
	Total Hydro	62	45.00	47.00	1.21	50
	<b>Total Haryana</b>	<b>3679</b>	<b>2355</b>	<b>2426</b>	<b>62.45</b>	<b>2602</b>
Rajasthan	kota TPS	1240	1169.00	1170.00	27.58	1149
	suratgarh TPS	1500	1178.00	1162.00	27.14	1131
	Chabra TPS	500	226.00	226.00	5.38	224
	Dholpur GPS	330	281.00	285.00	6.82	284
	Ramgarh GPS	113	65.00	65.00	1.64	68
	RAPS A (NPC)	300	173.00	175.00	4.34	181
	Barsingsar (NLC)	250	72.00	71.00	1.35	56
	Giral LTPS (IPP)	250	0.00	0.00	0.00	0
	Rajwst LTPS (IPP)	135	206.00	261.00	6.18	258
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0
	Thermal (Total)	4753	3370.00	3415.00	80.43	3351
	Total Hydro	550	124.00	64.00	2.80	117
	Wind power	1294	15.00	0.00	0.07	3
	Biomass	71	25.00	25.00	0.60	25
	Renewable/Others (Total)	1365	40	25	0.67	28
	<b>Total Rajasthan</b>	<b>6668</b>	<b>3534</b>	<b>3504</b>	<b>83.89</b>	<b>3496</b>
	UP	Anpara TPS	1630	1360	1258	31.10
Obra TPS		1442	277	298	7.30	304
Paricha TPS		640	365	368	8.80	367
Panki TPS		210	150	151	3.50	146
Harduaganj TPS		375	32	115	2.40	100
Tanda TPS (NTPC)		440	397	302	9.04	377
Roza TPS (IPP)		600	284	284	6.45	269
Anpara-C (IPP)		600	0	0	0.00	0
Thermal (Total)		5937	2897	2794	69.32	2888
Vishnuparyag HPS (IPP)		400	183	174	4.17	174
Other Hydro		527	212	0	3.90	163
Cogeneration		951	50	50	1.20	50
<b>Total UP</b>		<b>7815</b>	<b>3342</b>	<b>3018</b>	<b>78.58</b>	<b>3101</b>
Uttarakhand		Total Hydro	1303	539	435	11.70
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>539</b>	<b>435</b>	<b>11.70</b>	<b>488</b>
Delhi	Rajghat TPS	135	105	104	2.42	101
	Delhi Gas Turbine	282	113	116	2.79	116
	Pragati Gas Turbine	330	303	316	7.40	308
	Rithala GPS	108	27	29	0.83	35
	Bawana GPS	440	0	23	2.24	93
	Badarpur TPS (NTPC)	705	375	200	5.02	209
	Thermal (Total)	2000	923	765	20.69	862
	<b>Total Delhi</b>	<b>2000</b>	<b>923</b>	<b>765</b>	<b>20.69</b>	<b>862</b>
HP	Baspa HPS (IPP)	330	62	52	2.01	84
	Malana HPS (IPP)	101	3	0	0.45	19
	Other Hydro	571	265	240	6.41	267
	<b>Total HP</b>	<b>1002</b>	<b>330</b>	<b>292</b>	<b>9</b>	<b>369</b>
J & K	Baglihar HPS (IPP)	450	254	253	6.09	254
	Other Hydro	323	130	161	3.70	154
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>384</b>	<b>414</b>	<b>9.79</b>	<b>408</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>14342</b>	<b>13475</b>	<b>336.56</b>	<b>13850</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>860</b>	<b>2258</b>	<b>39.45</b>	<b>1644</b>
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>31978</b>	<b>26254</b>	<b>665.98</b>	<b>27576</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	7137	1403	78.38	3266
State Control Area Hydro	5365	2077	1692	49.26	2053
<b>Total Regional Hydro</b>	<b>15347</b>	<b>9214</b>	<b>3095</b>	<b>127.65</b>	<b>5319</b>

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

Element	Peak(19:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal B/B	200	-100	200	100	1.71	0.35	1.36
Gwalior-Agra (D/C)	262	848	1133	0	17.11	0.00	17.11
Zerda-Kankroli	-154	-92	0	220	0.00	2.90	-2.90
Zerda-Bhinmal	-67	21	123	128	0.10	0.00	0.10
Malanpur-Auraiya	-134	-39	0	139	0.00	1.60	-1.60
Badod-Kota/Morak	-46	14	14	75	0.00	4.88	-4.88
<b>Sub Total WR</b>	<b>61</b>	<b>652</b>			<b>18.92</b>	<b>9.73</b>	<b>9.19</b>
Pusauli Bypass	-49	94	179	125	1.35	0.55	0.80
MZP- GKP (D/C)	340	663	702	0	12.54	0.00	12.54
Patna-Balia(D/C)	216	426	550	0	7.99	0.00	7.99
B'Sharif-Balia (D/C)	206	381	416	0	7.35	0.00	7.35
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	117	78	140	0	2.48	0.00	2.48
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-31	-36	0	40	0.00	0.90	-0.90
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>799</b>	<b>1606</b>			<b>31.70</b>	<b>1.44</b>	<b>30.26</b>
<b>Total IR Exch</b>	<b>860</b>	<b>2258</b>			<b>50.62</b>	<b>11.17</b>	<b>39.45</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
17.59	1.46	19.05	2.21	12.95	-0.49	11.78	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
20.77	19.18	39.95	30.26	9.19	39.45	9.49	-9.99	-0.50

**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	1.80	13.50	96.80	85.10	21.50	1.40

<----- 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				
50.32	18.31	49.32	18.08	49.87	0.42	0.16	50.23	49.66

**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	413	03:10	405	16:48	0.0	0.0	0.0	0.0
Gorakhpur	400	426	08:05	398	06:01	0.0	0.0	25.4	0.0
Bareilly	400	424	21:44	401	12:34	0.0	0.0	6.9	0.0
Kanpur	400	420	03:15	401	12:09	0.0	0.0	0.0	0.0
Dadri	400	421	03:12	399	12:14	0.0	0.0	0.4	0.0
Ballabgarh	400	425	03:12	399	12:14	0.0	0.0	9.4	0.0
Bawana	400	426	03:16	402	12:10	0.0	0.0	16.6	0.0
Bassi	400	427	03:16	399	10:56	0.0	0.0	17.8	0.0
Hissar	400	416	03:09	394	12:14	0.0	0.0	0.0	0.0
Moga	400	423	02:17	401	11:38	0.0	0.0	10.3	0.0
Abdullapur	400	429	03:09	405	10:46	0.0	0.0	21.5	0.0
Nalagarh	400	428	01:02	409	10:18	0.0	0.0	20.5	0.0
Kishenpur	400	421	01:54	396	18:11	0.0	0.0	1.7	0.0
Wagoora	400	404	02:04	373	18:16	3.9	50.3	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	510.12	1560.04	511.90	1635.65	267.28	333.40
Pong	426.72	384.05	421.37	946.20	423.17	1035.89	61.19	440.27
Tehri	829.79	740.04	817.60	962.25	NA	NA	103.88	132.00
Koteshwar	612.50	598.50	609.10	NA	NA	NA	132.00	134.00
Chamera-I	760.00	748.75	753.08	NA	751.84	NA	99.87	75.24
Rihand	268.22	252.98	NA	NA	257.98	200.80	NA	NA
RPS	352.80	343.81	350.45	NA	349.26	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.55	NA	297.48	NA	NA	NA
RSD	527.91	487.91	521.58	NA	521.45	NA	67.17	90.44

**IX. System Constraints:**

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

**XI. Weather Conditions For 29.10.2011 :**

Normal weather

**XII. Synchronisation of new generating units :**

**XIII. Synchronisation of new 220 / 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 : 29.10.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER