

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.10.2011  
Date of Reporting : 22.10.2011

### 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
29528	2893	32421	50.00	25282	2488	27770	49.82	667.7	71.16

\* 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	51.68	12.06		63.73	39.82	43.35	3.53	107.08	6.66
Haryana	64.28	1.19		65.46	34.82	35.70	0.87	101.16	8.08
Rajasthan	88.86	0.16	1.98	91.00	31.39	32.87	1.47	123.87	14.79
Delhi	22.77			22.77	54.62	49.37	-5.25	72.13	0.24
UP	71.93	10.54	1.20	83.66	100.27	97.73	-2.54	181.39	37.93
Uttarakhand		13.76		13.76	10.44	11.92	1.48	25.67	1.67
HP		9.93		9.93	12.37	12.01	-0.36	21.94	0.00
J & K		9.78	0.00	9.78	15.71	20.68	4.97	30.46	1.80
Chandigarh				0.00	4.21	3.97	-0.24	3.97	0.00
<b>Total</b>	<b>299.51</b>	<b>57.40</b>	<b>3.18</b>	<b>360.09</b>	<b>303.66</b>	<b>307.59</b>	<b>3.92</b>	<b>667.68</b>	<b>71.16</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	5035	300	137	-185	4101	0	65	-105	-3.20
Haryana	4249	725	-246	105	3698	266	-14	87	1.95
Rajasthan	5635	158	245	-75	4597	797	-226	-50	-1.32
Delhi	3470	0	-28	75	2077	0	-358	166	5.82
UP	7300	1500	-712	243	7728	1425	237	243	1.62
Uttarakhand	1134	210	-49	50	1006	0	100	50	1.20
HP	1133	0	17	-493	761	0	22	114	0.06
J&K	1358	0	50	-129	1203	0	367	-129	-3.09
Chandigarh	214	0	-32	18	111	0	-19	18	0.43
<b>Total</b>	<b>29528</b>	<b>2893</b>	<b>-618</b>	<b>-391</b>	<b>25282</b>	<b>2488</b>	<b>174</b>	<b>395</b>	<b>3.47</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	1503	1958	1527	36.60	1525	36.07	0.53
	Rihand I STPS	1000	950	1035	1036	22.99	958	22.80	0.19
	Rihand II STPS	1000	965	1027	1022	23.37	974	23.16	0.21
	Dadri I STPS	840	677	838	600	16.37	682	16.24	0.13
	Dadri II STPS	980	806	970	706	18.49	770	19.33	-0.84
	Unchahar I TPS	440	383	420	418	9.24	385	9.19	0.05
	Unchahar II TPS	440	192	211	212	4.64	193	4.61	0.03
	Unchahar III TPS	210	192	214	221	4.65	194	4.61	0.04
	ISTPP (Jhajihar)	500	451	505	480	10.81	450	10.79	0.02
	Dadri GPS	830	791	774	725	17.80	742	18.03	-0.23
	Anta GPS	419	387	387	355	8.55	356	8.31	0.23
	Auraiya GPS	663	613	545	616	13.89	579	13.82	0.08
	<b>Sub Total (A)</b>	<b>9322</b>	<b>7910</b>	<b>8884</b>	<b>7918</b>	<b>187.39</b>	<b>7808</b>	<b>186.96</b>	<b>0.44</b>
	B. NPC	NAPS	440	196	226	230	4.68	195	4.70
RAPS- B		440	407	454	455	9.81	409	9.77	0.04
RAPS- C		440	350	464	237	8.14	339	8.39	-0.25
<b>Sub Total (B)</b>		<b>1320</b>	<b>953</b>	<b>1144</b>	<b>922</b>	<b>22.63</b>	<b>943</b>	<b>22.86</b>	<b>-0.23</b>
C. NHPC	Chamera I HPS	540	534	540	0	2.76	115	3.11	-0.35
	Chamera II HPS	300	297	252	0	2.16	90	2.32	-0.16
	Bairasuil HPS	180	179	179	0	0.97	40	0.97	0.00
	Salal-HPS	690	215	303	230	5.10	212	5.17	-0.07
	Tanakpur-HPS	94	69	66	63	1.68	70	1.67	0.01
	Uri-HPS	480	138	153	114	3.53	147	3.39	0.14
	Dhauliganga-HPS	280	277	257	0	2.08	87	2.08	0.00
	Dulhasti-HPS	390	387	399	0	5.40	225	6.02	-0.62
	Sewa-II HPS	120	119	111	0	0.51	21	0.56	-0.05
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2214</b>	<b>2260</b>	<b>407</b>	<b>24.18</b>	<b>1008</b>	<b>25.27</b>	<b>-1.09</b>
D.NJPC	Nathpa Jhakri	1500	1600	1570	0	13.86	577	14.63	-0.78
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1570</b>	<b>0</b>	<b>13.86</b>	<b>577</b>	<b>14.63</b>	<b>-0.78</b>
E. THDC	Tehri HPS	1000	1050	1045	0	6.00	250	6.00	0.00
	Koteshwar HPS	100	87	166	68	2.08	87	0.50	1.58
<b>Sub Total (E)</b>	<b>1100</b>	<b>1137</b>	<b>1211</b>	<b>68</b>	<b>8.08</b>	<b>337</b>	<b>6.50</b>	<b>1.58</b>	
F. BBMB	Bhakra HPS	1480	522	764	390	13.05	544	12.52	0.53
	Dehar HPS	990	288	498	280	6.92	288	6.92	0.00
	Pong HPS	396	203	300	186	5.05	210	4.88	0.17
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1013</b>	<b>1562</b>	<b>856</b>	<b>25.02</b>	<b>1043</b>	<b>24.32</b>	<b>0.70</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.71	30	0.69	0.02
	KWHEP HPS(IPP)	1000	0	710	227	8.30	346	8.20	0.09
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	123	124	2.89	120	2.89	0.00
<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>833</b>	<b>351</b>	<b>11.90</b>	<b>496</b>	<b>11.78</b>	<b>0.12</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>20625</b>	<b>14827</b>	<b>17464</b>	<b>10522</b>	<b>293.06</b>	<b>12211</b>	<b>292.33</b>	<b>0.74</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	1130.00	24.10	1004
	Guru Nanak Dev TPS(Bhatinda)	440	297.00	297.00	6.28	262
	Guru Hargobind Singh TPS(L.mbt)	920	954.00	961.00	21.29	887
	Thermal (Total)	2620	2296.00	2388.00	51.68	2153
	Total Hydro	1148	615.00	248.00	12.06	502
	<b>Total Punjab</b>	<b>3768</b>	<b>2911</b>	<b>2636</b>	<b>63.73</b>	<b>2655</b>
Haryana	Panipat TPS	1360	1162.00	1128.00	27.47	1145
	DCRTPP (Yamuna nagar)	600	273.00	276.00	6.55	273
	Faridabad GPS (NTPC)	432	387.00	403.00	9.44	393
	RGTPP (khedar) (IPP)	1200	881.00	590.00	20.82	867
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2703.00	2397.00	64.28	2678
	Total Hydro	62	47.00	48.00	1.19	49
	<b>Total Haryana</b>	<b>3679</b>	<b>2750</b>	<b>2445</b>	<b>65.46</b>	<b>2728</b>
Rajasthan	kota TPS	1240	1162.00	1161.00	27.53	1147
	suratgarh TPS	1500	1184.00	1162.00	27.14	1131
	Chabra TPS	500	432.00	420.00	10.55	439
	Dholpur GPS	330	286.00	273.00	6.98	291
	Ramgarh GPS	113	65.00	65.00	1.64	68
	RAPS A (NPC)	300	178.00	182.00	4.31	180
	Barsingsar (NLC)	250	83.00	97.00	2.72	113
	Giral LTPS (IPP)	250	105.00	65.00	2.32	97
	Rajwest LTPS (IPP)	135	243.00	245.00	5.69	237
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0
	Thermal (Total)	4753	3738.00	3670.00	88.86	3703
	Total Hydro	550	0.00	0.00	0.16	7
	Wind power	1294	42.00	76.00	1.47	61
	Biomass	71	23.00	23.00	0.51	21
	Renewable/Others (Total)	1365	65	99	1.98	83
	<b>Total Rajasthan</b>	<b>6668</b>	<b>3803</b>	<b>3769</b>	<b>91.00</b>	<b>3792</b>
	UP	Anpara TPS	1630	1398	1369	33.20
Obra TPS		1442	596	574	14.40	600
Paricha TPS		640	356	327	8.40	350
Panki TPS		210	0	0	0.00	0
Harduaganj TPS		375	36	36	0.80	33
Tanda TPS (NTPC)		440	330	353	8.38	349
Roza TPS (IPP)		600	284	283	6.75	281
Anpara-C (IPP)		600	0	0	0.00	0
Thermal (Total)		5937	3000	2942	71.93	2997
Vishnuparyag HPS (IPP)		400	214	217	5.05	210
Other Hydro		527	248	0	5.49	229
Cogeneration		951	50	50	1.20	50
<b>Total UP</b>		<b>7815</b>	<b>3512</b>	<b>3209</b>	<b>83.66</b>	<b>3276</b>
Uttarakhand		Total Hydro	1303	611	552	13.76
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>611</b>	<b>552</b>	<b>13.76</b>	<b>573</b>
Delhi	Rajghat TPS	135	52	50	1.21	50
	Delhi Gas Turbine	282	188	155	3.85	160
	Pragati Gas Turbine	330	298	309	7.54	314
	Rithala GPS	108	27	29	0.66	28
	Bawana GPS	440	0	45	4.25	177
	Badarpur TPS (NTPC)	705	235	220	5.26	219
	Thermal (Total)	2000	800	763	22.77	949
	<b>Total Delhi</b>	<b>2000</b>	<b>800</b>	<b>763</b>	<b>22.77</b>	<b>949</b>
HP	Baspa HPS (IPP)	330	103	31	2.50	104
	Malana HPS (IPP)	101	25	0	0.61	26
	Other Hydro	571	365	237	6.82	284
	<b>Total HP</b>	<b>1002</b>	<b>493</b>	<b>268</b>	<b>10</b>	<b>414</b>
J & K	Baglihar HPS (IPP)	450	254	252	6.08	253
	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>413</b>	<b>9.78</b>	<b>408</b>
<b>Total State Control Area Generation</b>		<b>27191</b>	<b>15264</b>	<b>14055</b>	<b>360.09</b>	<b>14793</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>-446</b>	<b>1715</b>	<b>31.96</b>	<b>1332</b>
<b>Total Regional Availability(Gross)</b>		<b>47816</b>	<b>32282</b>	<b>26292</b>	<b>685.12</b>	<b>28336</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	9983	7436	1682	83.04	3460
State Control Area Hydro	5365	2398	1529	52.35	2181
<b>Total Regional Hydro</b>	<b>15347</b>	<b>9834</b>	<b>3211</b>	<b>135.39</b>	<b>5641</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	-500	-400	0	500	0.00	8.43	-8.43
Gwalior-Agra (D/C)	-103	627	1119	103	11.95	0.00	11.95
Zerda-Kankroli	-291	-173	0	291	0.00	4.78	-4.78
Zerda-Bhinmal	-206	-138	51	297	0.00	2.98	-2.98
Malanpur-Auraiya	-194	-74	0	215	0.00	2.91	-2.91
Badod-Kota/Morak	-179	-147	0	223	0.00	2.12	-2.12
<b>Sub Total WR</b>	<b>-1473</b>	<b>-305</b>			<b>11.95</b>	<b>21.21</b>	<b>-9.26</b>
Pusauli Bypass	-5	358	358	5	4.33	0.01	4.32
MZP- GKP (D/C)	510	611	824	0	14.82	0.00	14.82
Patna-Balia(D/C)	116	293	301	0	5.67	0.00	5.67
B'Sharif-Balia (D/C)	94	354	373	0	6.34	0.00	6.34
Barh - balia(D/C)	201	404	418	0	8.18	0.00	8.18
Pusauli-Sahupuri	143	39	184	0	2.79	0.00	2.79
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-39	0	40	0.00	0.88	-0.88
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1027</b>	<b>2020</b>			<b>42.12</b>	<b>0.90</b>	<b>41.22</b>
<b>Total IR Exch</b>	<b>-446</b>	<b>1715</b>			<b>54.07</b>	<b>22.11</b>	<b>31.96</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
21.24	1.78	23.02	1.12	3.41	-1.23	2.30	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
22.90	0.06	22.96	41.22	-9.26	31.96	18.32	-9.32	9.00

**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	> 50.2
0.00	0.00	0.50	6.50	44.40	93.40	55.50	7.30	0.10

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				
50.23	8.03	49.04	18.25	49.73	1.00	0.17	50.28	49.62

**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	416	12:59	407	00:18	0.0	0.0	0.0	0.0
Gorakhpur	400	433	13:04	418	11:57	0.0	0.0	42.8	1.7
Bareilly	400	424	17:06	399	09:20	0.0	0.0	1.1	0.0
Kanpur	400	418	13:03	401	23:15	0.0	0.0	0.0	0.0
Dadri	400	414	04:00	401	09:20	0.0	0.0	0.0	0.0
Ballabgarh	400	418	04:00	401	09:20	0.0	0.0	0.0	0.0
Bawana	400	417	03:55	402	09:20	0.0	0.0	0.0	0.0
Bassi	400	426	02:39	401	18:24	0.0	0.0	23.1	0.0
Hissar	400	411	03:55	393	07:41	0.0	0.0	0.0	0.0
Moga	400	421	02:58	399	07:41	0.0	0.0	1.0	0.0
Abdullapur	400	417	02:38	396	11:55	0.0	0.0	0.0	0.0
Nalagarh	400	428	03:56	406	18:25	0.0	0.0	16.3	0.0
Kishenpur	400	427	02:34	398	18:25	0.0	0.0	12.7	0.0
Wagoora	400	417	02:36	380	18:25	0.0	28.7	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	510.32	1560.04	512.01	1650.87	314.12	336.15
Pong	426.72	384.05	422.17	990.81	423.49	1051.02	73.74	284.33
Tehri	829.79	740.04	818.80	928.26	NA	NA	116.54	134.00
Koteshwar	612.50	598.50	605.70	2.67	NA	NA	134.00	138.00
Chamera-I	760.00	748.75	752.59	NA	751.84	NA	103.24	83.89
Rihand	268.22	252.98	NA	NA	258.04	208.70	NA	NA
RPS	352.80	343.81	350.56	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.55	NA	NA	NA	NA	NA
RSD	527.91	487.91	521.82	NA	521.99	NA	126.58	230.24

**IX. System Constraints:**

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

**XI. Weather Conditions For 21.10.2011 :**

Normal weather

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

1. Unit No. 2 of Jhajhar synchronised( First Time) at 18.54 hrs.

**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 : 21.10.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER