

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 20.11.2012

Date of Reporting : 21.11.2012

### I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 Hrs) MW			Demand Met	Off Peak (03:00 Hrs) MW			Day Energy (Net MU)	
	Shortage	Requirement	Freq* (Hz)		Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
31518	2650	34167	50.15	25852	780	26632	50.21	674.1	42.09

\* Half hourly (two 15 minutes block—one block each before and after the designated time) average frequency

### II. A. State's Load 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)	UI [OD:(+ve), UD: (-ve)]	
	Thermal	Hydro	Renewable/others \$	Total				Consumption (Net MU)	Shortages * (MU)
Punjab	44.25	8.79		53.04	28.44	28.70	0.26	81.73	1.80
Haryana	44.00	0.63		44.63	48.58	50.09	1.52	94.72	3.72
Rajasthan	92.97	5.78	5.41	104.16	55.55	54.56	-0.99	158.72	1.42
Delhi	30.10			30.10	27.08	24.47	-2.61	54.57	0.03
UP	117.00	5.64	1.68	124.32	77.26	71.53	-5.73	195.86	30.24
Uttarakhand		8.50		8.50	16.74	17.62	0.88	26.12	3.19
HP		6.33		6.33	15.80	16.91	1.11	23.24	0.00
J & K		7.51	0.00	7.51	26.17	28.31	2.14	35.82	1.70
Chandigarh				0.00	3.33	3.38	0.05	3.38	0.00
<b>Total</b>	<b>328.31</b>	<b>43.18</b>	<b>7.09</b>	<b>378.58</b>	<b>298.95</b>	<b>295.57</b>	<b>-3.38</b>	<b>674.15</b>	<b>42.09</b>

\* Shortage furnished by the respective constituent.\$ Others include UP Co-generation and JK Diesel

### 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	STOA/PX transaction	
Punjab	4290	600	-86	-402	2786	0	18	-76	-5.48	
Haryana	4632	560	16	268	3138	0	-58	232	4.99	
Rajasthan	6799	90	-10	329	6776	0	-7	536	12.46	
Delhi	2861	0	-85	-1402	1390	0	-135	-2074	-39.68	
UP	8289	1300	-423	-56	8517	715	-184	385	2.22	
Uttarakhand	1561	0	170	399	924	65	63	281	7.64	
HP	1151	0	23	20	714	0	26	218	3.54	
J&K	1744	100	-253	457	1517	0	140	439	8.38	
Chandigarh	191	0	-9	0	91	0	8	-31	-0.34	
<b>Total</b>	<b>31518</b>	<b>2650</b>	<b>-657</b>	<b>-387</b>	<b>25852</b>	<b>780</b>	<b>-128</b>	<b>-90</b>	<b>-6.26</b>	

\* STOA figures are at sellers boundary & PX figures are at regional boundary.

### III. Regional Entities :

Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	UI [OG:(+ve), UD: (-ve)]	
							Schedule Net MU	UI Net MU
<b>A. NTPC</b>								
Singrauli STPS	2000	1945	2084	2058	46.42	1934	46.68	-0.26
Rihand I STPS	1000	460	509	477	10.96	457	10.96	0.00
Rihand II STPS	1000	975	1041	909	22.89	954	22.92	-0.03
Rihand III STPS	500	76	186	0	2.06	86	1.83	0.23
Dadri I STPS	840	810	848	710	18.07	753	18.53	-0.46
Dadri II STPS	980	975	930	1008	22.48	937	23.03	-0.55
Unchahar I TPS	420	402	421	349	8.74	364	9.06	-0.32
Unchahar II TPS	420	405	429	329	8.60	358	8.63	-0.03
Unchahar III TPS	210	202	220	180	4.42	184	4.51	-0.09
ISTPP (Jhajjar)	1500	470	465	349	9.17	382	10.05	-0.89
Dadri GPS	830	837	525	579	11.84	493	11.90	-0.06
Anta GPS	419	282	222	171	4.52	188	4.53	-0.01
Auraiya GPS	663	657	299	308	6.91	288	7.16	-0.26
<b>Sub Total (A)</b>	<b>10782</b>	<b>8496</b>	<b>8179</b>	<b>7427</b>	<b>177.08</b>	<b>7378</b>	<b>179.79</b>	<b>-2.71</b>
<b>B. NPC</b>								
NAPS	440	280	115	320	6.72	280	6.72	0.00
RAPS- B	440	416	461	462	9.98	416	9.98	0.00
RAPS- C	440	430	470	473	10.14	422	10.32	-0.18
<b>Sub Total (B)</b>	<b>1320</b>	<b>1126</b>	<b>1046</b>	<b>1255</b>	<b>26.84</b>	<b>1119</b>	<b>27.02</b>	<b>-0.18</b>
<b>C. NHPC</b>								
Chamera I HPS	540	550	360	0	2.46	102	2.37	0.08
Chamera II HPS	300	303	202	0	1.70	71	1.53	0.17
Chamera III HPS	231	231	141	0	0.92	38	0.96	-0.04
Bairasuil HPS	180	182	20	0	0.65	27	0.65	0.00
Salai-HPS	690	144	227	136	3.23	135	3.34	-0.10
Tanakpur-HPS	94	44	59	41	1.02	42	1.04	-0.02
Uri-HPS	480	118	165	38	2.50	104	2.60	-0.10
Dhauliganga-HPS	280	288	208	0	1.11	46	1.10	0.01
Dulhasti-HPS	390	388	352	0	3.69	154	3.42	0.27
Sewa-II HPS	120	120	81	0	0.26	11	0.25	0.01
<b>Sub Total (C)</b>	<b>3305</b>	<b>2368</b>	<b>1815</b>	<b>215</b>	<b>17.53</b>	<b>731</b>	<b>17.27</b>	<b>0.27</b>
<b>D.NJPC</b>								
Nathpa Jhakri	1500	1605	1209	0	9.14	381	8.90	0.24
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1209</b>	<b>0</b>	<b>9.14</b>	<b>381</b>	<b>8.90</b>	<b>0.24</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	750	0	5.13	214	5.00	0.13
Koteswar HPS	400	240	89	0	1.31	55	1.35	-0.04
<b>Sub Total (E)</b>	<b>1400</b>	<b>1290</b>	<b>839</b>	<b>0</b>	<b>6.44</b>	<b>268</b>	<b>6.35</b>	<b>0.09</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	658	1101	413	16.27	678	15.78	0.49
Dehar HPS	990	168	495	0	4.22	176	4.03	0.20
Pong HPS	396	284	366	186	6.86	286	5.01	1.85
<b>Sub Total (F)</b>	<b>2866</b>	<b>1109</b>	<b>1962</b>	<b>599</b>	<b>27.35</b>	<b>1140</b>	<b>24.81</b>	<b>2.54</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.66	28	0.65	0.02
KWHEP HPS(IPP)	1000	0	260	0	4.94	206	4.97	-0.03
Malana Stg-II HPS	100	0	31	13	0.28	12	0.26	0.02
Shree Cement TPS	300	0	283	276	6.51	271	6.56	-0.05
Budhil HPS(IPP)	70	0	10	6	0.16	7	0.42	-0.26
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>584</b>	<b>295</b>	<b>12.55</b>	<b>523</b>	<b>12.87</b>	<b>-0.31</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>15994</b>	<b>15634</b>	<b>9791</b>	<b>276.93</b>	<b>11539</b>	<b>277.01</b>	<b>-0.08</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	1258	1100	26.78	1116	
	Guru Nanak Dev TPS(Bhatinda)	440	95	95	2.06	86	
	Guru Hargobind Singh TPS(L.mbt)	920	743	543	15.41	642	
	Thermal (Total)	2620	2096	1738	44.25	1844	
	Total Hydro	1148	391	433	8.79	366	
	<b>Total Punjab</b>	<b>3768</b>	<b>2487</b>	<b>2171</b>	<b>53.04</b>	<b>2210</b>	
Haryana	Panipat TPS	1367	893	687	20.43	851	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	121	99	2.78	116	
	RGTPP (khedar) (IPP)	1200	428	436	10.33	430	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	622	374	10.47	436	
	Thermal (Total)	4944	2064	1596	44.00	1833	
	Total Hydro	62	28	23	0.63	26	
	<b>Total Haryana</b>	<b>5006</b>	<b>2092</b>	<b>1619</b>	<b>44.63</b>	<b>1859</b>	
Rajasthan	kota TPS	1240	1154	1148	27.83	1160	
	suratgarh TPS	1500	1341	1325	31.48	1312	
	Chabra TPS	500	438	380	9.77	407	
	Dholpur GPS	330	132	138	3.16	132	
	Ramgarh GPS	111	74	75	1.94	81	
	RAPS A (NPC)	300	172	172	4.24	177	
	Barsingar (NLC)	250	107	104	2.49	104	
	Giral LTPS	250	0	69	0.60	25	
	Rajwest LTPS (IPP)	540	486	486	11.47	478	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	3904	3897	92.97	3874	
	Total Hydro	550	265	296	5.78	241	
	Wind power	2191	147	248	4.87	203	
	Biomass	91	16	16	0.39	16	
	Solar	201	2	0	0.15	6	
	Renewable/Others (Total)	2483	163	264	5.41	225	
	<b>Total Rajasthan</b>	<b>8189</b>	<b>4332</b>	<b>4457</b>	<b>104.16</b>	<b>4340</b>	
	UP	Anpara TPS	1630	1575	1577	34.30	1429
		Obra TPS	1382	406	400	8.70	363
		Paricha TPS	890	379	419	8.60	358
Panki TPS		210	135	160	3.30	138	
Harduaganj TPS		665	218	242	5.10	213	
Tanda TPS (NTPC)		440	296	298	7.32	305	
Roza TPS (IPP)		1200	909	1044	25.25	1052	
Anpara-C (IPP)		1200	845	837	20.02	834	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	194	160	4.42	184	
Thermal (Total)		8067	4957	5137	117.00	4875	
Vishnuparyag HPS (IPP)		400	113	114	2.67	111	
Other Hydro		527	90	128	2.98	124	
Cogeneration		981	70	70	1.68	70	
<b>Total UP</b>		<b>9975</b>	<b>5230</b>	<b>5449</b>	<b>124.32</b>	<b>5069</b>	
Uttarakhand		Total Hydro	1303	400	274	8.50	354
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>400</b>	<b>274</b>	<b>8.50</b>	<b>354</b>
Delhi	Raighat TPS	135	102	102	2.44	102	
	Delhi Gas Turbine	282	73	72	1.92	80	
	Pragati Gas Turbine	330	312	317	7.57	316	
	Rithala GPS	108	0	0	0.36	15	
	Bawana GPS	677	277	220	6.11	254	
	Badarpur TPS (NTPC)	705	511	500	11.70	488	
	Thermal (Total)	2237	1275	1211	30.10	1254	
	<b>Total Delhi</b>	<b>2237</b>	<b>1275</b>	<b>1211</b>	<b>30.10</b>	<b>1254</b>	
HP	Baspa HPS (IPP)	330	31	31	1.35	56	
	Malana HPS (IPP)	86	40	17	0.34	14	
	Other Hydro	589	248	184	4.64	193	
	<b>Total HP</b>	<b>1005</b>	<b>319</b>	<b>232</b>	<b>6</b>	<b>264</b>	
J & K	Baglihar HPS (IPP)	450	298	148	4.33	180	
	Other Hydro	323	120	175	3.18	133	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>418</b>	<b>323</b>	<b>7.51</b>	<b>313</b>	
<b>Total State Control Area Generation</b>		<b>32439</b>	<b>16553</b>	<b>15736</b>	<b>378.58</b>	<b>15663</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>846</b>	<b>1825</b>	<b>39.94</b>	<b>1664</b>	
<b>Total Regional Availability(Gross)</b>		<b>55275</b>	<b>33033</b>	<b>27352</b>	<b>695.45</b>	<b>28866</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	6116	827	66.34	2764
State Control Area Hydro	5368	1911	1709	43.18	1688
<b>Total Regional Hydro</b>	<b>15731</b>	<b>8027</b>	<b>2536</b>	<b>109.51</b>	<b>4452</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	-100	-400	100	400	0.16	6.38	-6.22
Gwalior-Agra (D/C)	-109	339	480	109	6.01	0.00	6.01
Zerda-Kankroli	-216	-94	0	216	0.00	3.45	-3.45
Zerda-Bhinmal	-133	-11	46	212	0.00	1.36	-1.36
Malanpur-Auraiya	-161	-141	0	178	0.00	3.29	-3.29
Badod-Kota/Morak	-194	-137	0	194	0.00	3.38	-3.38
Mundra-Mohindergarh(HVDC)	845	845	850	0	20.51	0.00	20.51
<b>Sub Total WR</b>	<b>-68</b>	<b>401</b>			<b>26.68</b>	<b>17.87</b>	<b>8.81</b>
Pusauli Bypass	150	190	150	0	3.61	0.00	3.61
MZP- GKP (D/C)	314	404	478	0	9.06	0.00	9.06
Patna-Balia(D/C)	293	400	730	0	9.14	0.00	9.14
B'Sharif-Balia (D/C)	86	271	324	0	5.64	0.00	5.64
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	-91	-54	0	133	0.00	0.98	-0.98
Gaya-Fatehpur (765 Kv)	59	106	175	75	2.33	0.00	2.33
Pusauli-Sahupuri	143	141	173	0	3.28	0.00	3.28
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-40	-34	0	46	0.00	0.95	-0.95
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>914</b>	<b>1424</b>			<b>33.06</b>	<b>1.93</b>	<b>31.13</b>
<b>Total IR Exch</b>	<b>846</b>	<b>1825</b>			<b>59.74</b>	<b>19.80</b>	<b>39.94</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
33.22	0.66	33.88	-0.90	-16.25	-1.05	0.95	-1.07	1.16
<b>Total IR Schedule (MU)</b>			<b>Total IR Actual (MU)</b>			<b>Net IR UI (MU)</b>		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
30.85	7.52	38.37	31.13	8.81	39.94	0.28	1.29	1.57

**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	0.00	19.52	95.21	75.69	80.48	4.79
<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.51	21.00	49.75	19.34	50.10	0.25	0.10	50.38	49.89

**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	410	20:54	0	17:57	0.1	0.1	0.0	0.0
Gorakhpur	400	434	20:57	418	12:23	0.0	0.0	96.9	5.3
Bareilly	400	423	20:53	405	11:49	0.0	0.0	1.7	0.0
Kanpur	400	423	4:00	402	18:21	0.0	0.0	4.4	0.0
Dadri	400	424	3:07	408	10:17	0.0	0.0	22.2	0.0
Ballabgarh	400	433	3:10	411	18:22	0.0	0.0	48.9	4.0
Bawana	400	428	3:05	410	17:53	0.0	0.0	30.6	0.0
Bassi	400	433	4:00	408	8:20	0.0	0.0	41.7	1.6
Hissar	400	421	3:09	402	10:13	0.0	0.0	0.8	0.0
Moga	400	425	3:04	401	10:13	0.0	0.0	22.6	0.0
Abdullapur	400	428	2:02	292	11:25	0.0	0.0	29.5	0.0
Nalagarh	400	430	0:02	408	17:39	0.0	0.0	38.4	0.0
Kishenpur	400	422	4:01	389	10:18	0.0	0.1	1.6	0.0
Wagoora	400	409	3:59	348	10:16	46.3	63.1	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 (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	502.53	1205.87	508.83	1485.27	217.81	440.47
Pong	426.72	384.05	417.64	781.19	418.96	848.35	64.14	495.03
Tehri	829.79	740.04	823.30	1070.00	818.65	982.26	68.01	112.00
Koteswar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	59.88	59.00
Rihand	268.22	252.98	262.92	500.10	264.78	617.70	NA	NA
RPS	352.80	343.81	350.94	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.64	NA	NA	NA	NA	NA
RSD	527.91	487.91	520.91	NA	519.40	NA	47.88	79.06

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 20.11.2012 :**

Normal

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

0.00

**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 : 20.11.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER