

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 22.11.2012

Date of Reporting : 23.11.2012

### 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
31440	3415	34854	50.04	25871	200	26071	50.08	683.2	62.27

\* 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 *
Punjab	42.58	9.07		51.65	33.69	33.39	-0.30	85.04	5.28
Haryana	43.04	0.60		43.65	47.73	47.85	0.12	91.49	8.57
Rajasthan	91.69	5.33	2.12	99.14	68.27	63.87	-4.39	163.01	0.00
Delhi	32.34			32.34	25.38	23.22	-2.16	55.56	0.10
UP	113.38	6.91	1.68	121.97	77.08	75.07	-2.02	197.04	44.00
Uttarakhand		8.62		8.62	16.86	18.63	1.77	27.25	2.18
HP		6.09		6.09	15.71	17.05	1.34	23.14	0.45
J & K		7.51	0.00	7.51	27.73	29.78	2.05	37.28	1.70
Chandigarh				0.00	3.35	3.37	0.02	3.37	0.00
<b>Total</b>	<b>323.04</b>	<b>44.13</b>	<b>3.80</b>	<b>370.97</b>	<b>315.80</b>	<b>312.23</b>	<b>-3.57</b>	<b>683.19</b>	<b>62.27</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	4168	775	-169	-423	2793	0	17	-174	-6.12	
Haryana	4512	753	-138	238	3146	0	114	234	4.12	
Rajasthan	7031	0	-217	620	6876	0	-304	1228	25.95	
Delhi	2972	0	-141	-1424	1377	0	-77	-2419	-41.57	
UP	8169	1696	-373	67	8396	150	-100	404	-0.54	
Uttarakhand	1544	80	68	400	900	50	67	270	7.49	
HP	1119	11	48	74	764	0	86	232	3.58	
J&K	1739	100	-314	532	1526	0	133	439	9.87	
Chandigarh	186	0	-17	-12	93	0	6	-31	-0.36	
<b>Total</b>	<b>31440</b>	<b>3415</b>	<b>-1253</b>	<b>71</b>	<b>25871</b>	<b>200</b>	<b>-58</b>	<b>184</b>	<b>2.42</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), UG: (-ve)]	
							Schedule Net MU	UI Net MU
<b>A. NTPC</b>								
Singrauli STPS	2000	1945	2080	2087	46.63	1943	46.68	-0.05
Rihand I STPS	1000	460	505	510	11.15	464	11.04	0.11
Rihand II STPS	1000	975	1041	1047	23.52	980	23.40	0.12
Rihand III STPS	500	195	222	216	4.74	198	4.68	0.06
Dadri I STPS	840	810	865	780	18.36	765	18.40	-0.04
Dadri II STPS	980	975	1013	990	23.09	962	23.36	-0.28
Unchahar I TPS	420	402	437	391	9.36	390	9.40	-0.04
Unchahar II TPS	420	365	439	346	8.17	341	8.29	-0.12
Unchahar III TPS	210	198	219	219	4.55	190	4.60	-0.05
ISTPP (Jhajjar)	1500	470	501	385	9.88	412	10.09	-0.21
Dadri GPS	830	837	413	329	9.38	391	10.25	-0.86
Anta GPS	419	282	274	174	5.96	248	5.92	0.04
Auraiya GPS	663	659	314	289	7.32	305	7.53	-0.21
<b>Sub Total (A)</b>	<b>10782</b>	<b>8572</b>	<b>8323</b>	<b>7763</b>	<b>182.10</b>	<b>7587</b>	<b>183.65</b>	<b>-1.55</b>
<b>B. NPC</b>								
NAPS	440	280	319	318	6.74	281	6.72	0.02
RAPS- B	440	417	462	462	10.05	419	10.01	0.04
RAPS- C	440	430	468	474	9.63	401	10.32	-0.70
<b>Sub Total (B)</b>	<b>1320</b>	<b>1127</b>	<b>1249</b>	<b>1254</b>	<b>26.42</b>	<b>1101</b>	<b>27.05</b>	<b>-0.63</b>
<b>C. NHPC</b>								
Chamera I HPS	540	550	360	0	2.11	88	2.20	-0.09
Chamera II HPS	300	303	201	0	1.52	64	1.48	0.05
Chamera III HPS	231	231	160	0	0.94	39	0.90	0.04
Bairasuil HPS	180	182	120	0	0.64	26	0.54	0.09
Salai-HPS	690	143	224	137	3.22	134	3.13	0.09
Tanakpur-HPS	94	37	44	44	0.98	41	0.93	0.05
Uri-HPS	480	110	152	101	2.64	110	2.44	0.19
Dhauliganga-HPS	280	288	179	0	1.52	64	1.43	0.10
Dulhasi-HPS	390	388	403	0	3.68	153	3.26	0.42
Sewa-II HPS	120	120	79	0	0.26	11	0.20	0.05
<b>Sub Total (C)</b>	<b>3305</b>	<b>2351</b>	<b>1922</b>	<b>282</b>	<b>17.49</b>	<b>729</b>	<b>16.50</b>	<b>0.99</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	1430	0	8.88	370	8.60	0.28
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1430</b>	<b>0</b>	<b>8.88</b>	<b>370</b>	<b>8.60</b>	<b>0.28</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	751	0	7.20	300	7.00	0.20
Koteswar HPS	400	251	98	0	1.38	58	1.35	0.03
<b>Sub Total (E)</b>	<b>1400</b>	<b>1301</b>	<b>849</b>	<b>0</b>	<b>8.59</b>	<b>358</b>	<b>8.35</b>	<b>0.24</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	666	1102	415	16.50	688	15.98	0.52
Dehar HPS	990	168	495	0	4.23	176	4.03	0.20
Pong HPS	396	291	366	240	7.25	302	5.01	2.24
<b>Sub Total (F)</b>	<b>2866</b>	<b>1125</b>	<b>1963</b>	<b>655</b>	<b>27.98</b>	<b>1166</b>	<b>25.01</b>	<b>2.97</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.63	26	0.65	-0.02
KWHEP HPS(IPP)	1000	0	230	0	6.29	262	4.62	1.67
Malana Stg-II HPS	100	0	25	13	0.28	12	0.25	0.03
Shree Cement TPS	300	0	148	146	3.52	147	3.56	-0.04
Budhil HPS(IPP)	70	0	10	6	0.15	6	0.42	-0.27
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>413</b>	<b>165</b>	<b>10.86</b>	<b>453</b>	<b>9.50</b>	<b>1.36</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>16081</b>	<b>16149</b>	<b>10119</b>	<b>282.32</b>	<b>11763</b>	<b>278.66</b>	<b>3.67</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	1056	932	23.16	965	
	Guru Nanak Dev TPS(Bhatinda)	440	35	0	3.37	140	
	Guru Hargobind Singh TPS(L.mbt)	920	752	746	16.05	669	
	Thermal (Total)	2620	1843	1678	42.58	1774	
	Total Hydro	1148	467	270	9.07	378	
	<b>Total Punjab</b>	<b>3768</b>	<b>2310</b>	<b>1948</b>	<b>51.65</b>	<b>2152</b>	
Haryana	Panipat TPS	1367	958	858	20.53	855	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	143	102	3.04	127	
	RGTPP (khedar) (IPP)	1200	503	0	8.97	374	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	620	381	10.50	438	
	Thermal (Total)	4944	2224	1341	43.04	1793	
	Total Hydro	62	25	25	0.60	25	
	<b>Total Haryana</b>	<b>5006</b>	<b>2249</b>	<b>1366</b>	<b>43.65</b>	<b>1819</b>	
Rajasthan	kota TPS	1240	1173	1156	27.99	1166	
	suratgarh TPS	1500	1318	1158	30.54	1272	
	Chabra TPS	500	454	392	9.95	415	
	Dholpur GPS	330	130	168	1.90	79	
	Ramgarh GPS	111	82	84	2.15	89	
	RAPS A (NPC)	300	183	183	4.33	180	
	Barsingar (NLC)	250	107	107	2.42	101	
	Giral LTPS	250	48	26	0.92	38	
	Rajwest LTPS (IPP)	540	486	486	11.50	479	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	3981	3760	91.69	3820	
	Total Hydro	550	241	213	5.33	222	
	Wind power	2191	6	156	1.35	56	
	Biomass	91	26	26	0.62	26	
	Solar	201	4	0	0.15	6	
	Renewable/Others (Total)	2483	32	182	2.12	88	
	<b>Total Rajasthan</b>	<b>8189</b>	<b>4254</b>	<b>4155</b>	<b>99.14</b>	<b>4131</b>	
	UP	Anpara TPS	1630	1378	1372	33.70	1404
		Obra TPS	1382	394	366	7.80	325
Paricha TPS		890	218	433	8.30	346	
Panki TPS		210	135	104	2.80	117	
Harduaganj TPS		665	41	36	0.90	38	
Tanda TPS (NTPC)		440	396	399	9.61	401	
Roza TPS (IPP)		1200	1076	950	26.87	1119	
Anpara-C (IPP)		1200	784	749	18.59	774	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	159	203	4.82	201	
Thermal (Total)		8067	4581	4612	113.38	4724	
Vishnuparyag HPS (IPP)		400	119	109	2.70	113	
Other Hydro		527	108	147	4.21	175	
Cogeneration		981	70	70	1.68	70	
<b>Total UP</b>		<b>9975</b>	<b>4878</b>	<b>4938</b>	<b>121.97</b>	<b>4970</b>	
Uttarakhand		Total Hydro	1303	490	242	8.62	359
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>490</b>	<b>242</b>	<b>8.62</b>	<b>359</b>	
Delhi	Raighat TPS	135	103	105	2.50	104	
	Delhi Gas Turbine	282	161	155	3.88	162	
	Pragati Gas Turbine	330	312	321	7.58	316	
	Rithala GPS	108	20	0	0.29	12	
	Bawana GPS	677	277	224	6.18	257	
	Badarpur TPS (NTPC)	705	580	490	11.92	497	
	Thermal (Total)	2237	1453	1295	32.34	1348	
	<b>Total Delhi</b>	<b>2237</b>	<b>1453</b>	<b>1295</b>	<b>32.34</b>	<b>1348</b>	
HP	Baspa HPS (IPP)	330	30	30	1.41	59	
	Malana HPS (IPP)	86	37	0	0.30	12	
	Other Hydro	589	192	153	4.38	183	
	<b>Total HP</b>	<b>1005</b>	<b>259</b>	<b>183</b>	<b>6</b>	<b>254</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>16311</b>	<b>14450</b>	<b>370.97</b>	<b>15344</b>	
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>791</b>	<b>2665</b>	<b>36.65</b>	<b>1527</b>	
<b>Total Regional Availability(Gross)</b>		<b>55275</b>	<b>33251</b>	<b>27234</b>	<b>689.93</b>	<b>28635</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	6419	950	70.14	2922
State Control Area Hydro	5368	2008	1403	44.13	1726
<b>Total Regional Hydro</b>	<b>15731</b>	<b>8427</b>	<b>2353</b>	<b>114.27</b>	<b>4648</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	-400	-500	0	500	0.00	10.23	-10.23
Gwalior-Agra (D/C)	226	620	620	0	10.11	0.00	10.11
Zerda-Kankroli	-120	94	94	140	0.00	0.58	-0.58
Zerda-Bhinmal	-53	185	195	131	0.00	1.56	-1.56
Malanpur-Auraiya	-145	-72	0	145	0.00	2.72	-2.72
Badod-Kota/Morak	-118	-32	0	135	0.00	1.91	-1.91
Mundra-Mohindergarh(HVDC)	365	846	848	0	14.53	0.00	14.53
<b>Sub Total WR</b>	<b>-245</b>	<b>1141</b>			<b>24.64</b>	<b>17.00</b>	<b>7.64</b>
Pusauli Bypass	-50	-50	0	50	0.00	2.00	-2.00
MZP- GKP (D/C)	340	476	484	0	9.08	0.00	9.08
Patna-Balia(D/C)	310	411	525	0	9.04	0.00	9.04
B'Sharif-Balia (D/C)	167	345	345	0	6.25	0.00	6.25
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	53	51	321	0	0.21	0.00	0.21
Gaya-Fatehpur (765 Kv)	129	191	256	0	4.44	0.00	4.44
Pusauli-Sahupuri	127	134	148	0	2.94	0.00	2.94
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>1036</b>	<b>1524</b>			<b>31.95</b>	<b>2.95</b>	<b>29.01</b>
<b>Total IR Exch</b>	<b>791</b>	<b>2665</b>			<b>56.59</b>	<b>19.95</b>	<b>36.65</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
35.27	0.60	35.87	-2.76	-14.38	-1.11	13.22	-1.82	1.90
<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
30.19	23.62	53.81	29.01	7.64	36.65	-1.18	-15.98	-17.17

**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	0.17	5.03	97.01	92.15	56.61	2.82

<----- 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				
50.54	13.03	49.48	15.17	50.03	0.22	0.11	50.30	49.69

**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	00:00	0	05:23	4.7	0.0	0.0	0.0
Gorakhpur	400	431	16:42	417	12:23	0.0	0.0	85.0	2.8
Bareilly	400	420	21:02	403	11:19	0.0	0.0	0.0	0.0
Kanpur	400	420	04:02	401	16:29	0.0	0.0	0.0	0.0
Dadri	400	424	00:41	409	14:17	0.0	0.0	20.9	0.0
Ballabhgarh	400	432	03:14	411	14:16	0.0	0.0	52.2	3.9
Bawana	400	426	21:02	412	14:16	0.0	0.0	31.6	0.0
Bassi	400	435	03:57	407	06:53	0.0	0.0	38.9	6.3
Hissar	400	420	00:45	398	14:16	0.0	0.0	0.0	0.0
Moga	400	424	03:20	399	14:16	0.0	0.0	6.7	0.0
Abdullapur	400	428	00:44	293	12:02	0.0	0.0	39.5	0.0
Nalagarh	400	429	00:44	406	17:54	0.0	0.0	28.1	0.0
Kishenpur	400	421	03:15	393	06:55	0.0	0.0	0.0	0.0
Wagoora	400	408	03:20	369	19:16	22.1	58.1	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	501.62	1166.44	508.21	1455.60	192.50	450.58
Pong	426.72	384.05	416.76	743.22	418.28	807.91	85.01	434.66
Tehri	829.79	740.04	822.60	1057.00	818.65	982.26	66.16	157.00
Koteswar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	59.47	61.23
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 22.11.2012 :**

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 : 22.11.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER