

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 14.02.2012  
Date of Reporting : 15.02.2012

### 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
31856	2656	34512	49.87	25900	670	26570	50.21	716.8	43.92

\* 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)	Consumption (Net MU)	Shortages * (MU)
	Thermal	Hydro	Renewable/others \$	Total					
Punjab	49.26	12.15		61.40	42.54	41.57	-0.97	102.97	2.55
Haryana	55.45	0.59		56.04	30.02	40.22	10.21	96.26	5.93
Rajasthan	95.11	4.94	10.26	110.30	46.67	52.26	5.59	162.56	1.70
Delhi	26.14			26.14	41.88	35.34	-6.55	61.48	0.08
UP	88.49	5.99	14.40	108.88	86.86	96.56	9.70	205.45	29.67
Uttarakhand		9.75		9.75	18.35	20.33	1.98	30.08	1.39
HP		4.05		4.05	19.29	20.45	1.17	24.50	0.31
J & K		5.16	0.00	5.16	25.29	24.68	-0.62	29.83	2.30
Chandigarh				0.00	3.59	3.67	0.08	3.67	0.00
<b>Total</b>	<b>314.45</b>	<b>42.62</b>	<b>24.66</b>	<b>381.73</b>	<b>314.49</b>	<b>335.07</b>	<b>20.58</b>	<b>716.80</b>	<b>43.92</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	
Punjab	4547	150	-35	-287	3847	0	4	-401	-6.62
Haryana	4303	635	585	-127	3437	0	91	-129	-3.09
Rajasthan	6413	0	-92	32	6502	0	444	82	4.75
Delhi	3280	0	134	-138	1357	0	-190	-410	-5.23
UP	9128	1610	791	265	7817	670	29	265	6.36
Uttarakhand	1356	110	-17	360	1052	0	91	360	8.64
HP	1109	2	-288	103	762	0	142	323	6.53
J&K	1524	150	-7	248	1036	0	-134	261	5.80
Chandigarh	196	0	-11	0	90	0	2	-41	-0.33
<b>Total</b>	<b>31856</b>	<b>2656</b>	<b>1060</b>	<b>457</b>	<b>25900</b>	<b>670</b>	<b>480</b>	<b>310</b>	<b>16.81</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	1765	1895	1873	41.44	1726	42.20	-0.76
	Rihand I STPS	1000	920	1000	916	21.94	914	21.71	0.22
	Rihand II STPS	1000	977	1043	921	23.21	967	22.96	0.26
	Dadri I STPS	840	798	872	616	16.97	707	16.98	-0.01
	Dadri II STPS	980	976	1021	761	21.78	907	22.02	-0.25
	Unchahar I TPS	440	400	425	410	9.49	395	9.48	0.01
	Unchahar II TPS	440	404	442	418	9.64	402	9.47	0.17
	Unchahar III TPS	210	202	218	200	4.78	199	4.71	0.08
	ISTPP (Jhajjar)	1000	485	517	442	10.90	454	11.29	-0.39
	Dadri GPS	830	677	559	407	12.42	517	12.48	-0.06
	Anta GPS	419	429	338	299	7.91	330	7.81	0.10
	Auraiya GPS	663	650	484	428	10.89	454	10.82	0.07
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8683</b>	<b>8814</b>	<b>7691</b>	<b>191.36</b>	<b>7973</b>	<b>191.91</b>	<b>-0.56</b>
	B. NPC	NAPS	440	139	155	161	3.30	137	3.34
RAPS- B		440	424	461	470	10.14	423	10.18	-0.03
RAPS- C		440	420	476	477	10.25	427	10.08	0.17
<b>Sub Total (B)</b>		<b>1320</b>	<b>983</b>	<b>1092</b>	<b>1108</b>	<b>23.69</b>	<b>987</b>	<b>23.59</b>	<b>0.10</b>
C. NHPC	Chamera I HPS	540	534	540	0	2.92	122	2.94	-0.02
	Chamera II HPS	300	297	246	0	1.19	49	1.20	-0.01
	Bairasuil HPS	180	120	120	0	1.36	57	1.26	0.10
	Salal-HPS	690	200	325	60	4.71	196	4.84	-0.13
	Tanakpur-HPS	94	27	26	20	0.55	23	0.59	-0.03
	Uri-HPS	480	204	255	145	4.88	203	4.74	0.14
	Dhauliganga-HPS	280	210	211	0	0.86	36	0.85	0.01
	Dulhasti-HPS	390	0	0	0	0.00	0	0.00	0.00
	Sewa-II HPS	120	119	114	0	2.45	102	2.50	-0.05
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1712</b>	<b>1837</b>	<b>225</b>	<b>18.93</b>	<b>789</b>	<b>18.91</b>	<b>0.02</b>
D. NJPC	Nathpa Jhakri	1500	1133	1550	0	6.18	257	6.05	0.12
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1133</b>	<b>1550</b>	<b>0</b>	<b>6.18</b>	<b>257</b>	<b>6.05</b>	<b>0.12</b>
E. THDC	Tehri HPS	1000	910	909	0	8.80	367	8.75	0.05
	Koteshwar HPS	200	266	202	0	2.81	117	3.00	-0.19
	<b>Sub Total (E)</b>	<b>1200</b>	<b>1176</b>	<b>1111</b>	<b>0</b>	<b>11.60</b>	<b>483</b>	<b>11.75</b>	<b>-0.15</b>
F. BBMB	Bhakra HPS	1480	753	994	543	18.82	784	18.06	0.76
	Dehar HPS	990	157	495	0	2.93	122	3.77	-0.84
	Pong HPS	396	251	366	126	6.33	264	6.02	0.31
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1160</b>	<b>1855</b>	<b>669</b>	<b>28.08</b>	<b>1170</b>	<b>27.85</b>	<b>0.23</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	60	0	0.24	10	0.23	0.01
	KWHEP HPS(IPP)	1000	0	270	0	3.39	141	3.36	0.03
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	129	144	3.44	143	3.40	0.04
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>459</b>	<b>144</b>	<b>7.07</b>	<b>295</b>	<b>6.99</b>	<b>0.08</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21225</b>	<b>14847</b>	<b>16718</b>	<b>9837</b>	<b>286.90</b>	<b>11954</b>	<b>287.05</b>	<b>-0.15</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	1040	1045	23.29	970	
	Guru Nanak Dev TPS(Bhatinda)	440	218	186	4.51	188	
	Guru Hargobind Singh TPS(L.mbt)	920	964	959	21.46	894	
	Thermal (Total)	2620	2222	2190	49.26	2052	
	Total Hydro	1148	379	311	12.15	506	
	<b>Total Punjab</b>	<b>3768</b>	<b>2601</b>	<b>2501</b>	<b>61.40</b>	<b>2558</b>	
Haryana	Panipat TPS	1360	822	822	20.06	836	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	419	433	10.30	429	
	RGTPP (kheldar) (IPP)	1200	924	957	25.09	1045	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	660	0	0	0.00	0	
	Thermal (Total)	4277	2165	2212	55.45	2310	
	Total Hydro	62	20	22	0.59	25	
	<b>Total Haryana</b>	<b>4339</b>	<b>2185</b>	<b>2234</b>	<b>56.04</b>	<b>2335</b>	
Rajasthan	kota TPS	1240	1171	1174	27.47	1145	
	suratgarh TPS	1500	1373	1351	32.51	1354	
	Chabra TPS	500	440	423	10.52	438	
	Dholpur GPS	330	226	225	5.51	230	
	Ramgarh GPS	113	42	44	1.09	45	
	RAPS A (NPC)	300	182	184	4.50	188	
	Barsingsar (NLC)	250	98	198	4.40	183	
	Giral LTPS (IPP)	250	54	54	0.81	34	
	Rajwest LTPS (IPP)	540	265	418	8.31	346	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5158	3851	4071	95.11	3963	
	Total Hydro	550	171	202	4.94	206	
	Wind power	1294	158	100	4.41	184	
	Biomass	71	41	41	0.91	38	
	Solar	50	0	0	0.00	0	
	Renewable/Others (Total)	1365	199	141	10.26	427	
	<b>Total Rajasthan</b>	<b>7073</b>	<b>4221</b>	<b>4414</b>	<b>110.30</b>	<b>4596</b>	
	UP	Anpara TPS	1630	1549	1583	33.60	1400
		Obra TPS	1442	503	650	12.50	521
Paricha TPS		640	163	257	4.60	192	
Panki TPS		210	0	0	0.00	0	
Harduaganj TPS		415	143	295	5.00	208	
Tanda TPS (NTPC)		440	402	287	9.32	389	
Roza TPS (IPP)		900	551	427	12.38	516	
Anpara-C (IPP)		1200	303	414	8.31	346	
Bajaj Energy Pvt.Ltd(IPP) TPS		180	117	77	2.78	116	
Thermal (Total)		7057	3731	3990	88.49	3687	
Vishnuparyag HPS (IPP)		400	74	70	1.74	73	
Other Hydro		527	204	43	4.25	177	
Cogeneration		951	600	600	14.40	600	
<b>Total UP</b>		<b>8935</b>	<b>4609</b>	<b>4703</b>	<b>108.88</b>	<b>4464</b>	
Uttarakhand		Total Hydro	1303	512	321	9.75	406
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>512</b>	<b>321</b>	<b>9.75</b>	<b>406</b>	
Delhi	Rajghat TPS	135	105	103	2.79	116	
	Delhi Gas Turbine	282	81	81	1.96	82	
	Pragati Gas Turbine	330	308	154	6.53	272	
	Rithala GPS	108	19	19	0.29	12	
	Bawana GPS	440	143	46	4.50	187	
	Badarpur TPS (NTPC)	705	480	410	10.08	420	
	Thermal (Total)	2000	1136	914	26.14	1089	
	<b>Total Delhi</b>	<b>2000</b>	<b>1136</b>	<b>914</b>	<b>26.14</b>	<b>1089</b>	
HP	Baspa HPS (IPP)	330	0	0	1.02	43	
	Malana HPS (IPP)	101	44	0	0.18	7	
	Other Hydro	571	151	44	2.85	119	
	<b>Total HP</b>	<b>1002</b>	<b>195</b>	<b>44</b>	<b>4</b>	<b>169</b>	
J & K	Baglihar HPS (IPP)	450	152	126	3.14	131	
	Other Hydro	323	83	126	2.02	84	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>235</b>	<b>252</b>	<b>5.16</b>	<b>215</b>	
<b>Total State Control Area Generation</b>		<b>29376</b>	<b>15694</b>	<b>15383</b>	<b>381.73</b>	<b>15833</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1569</b>	<b>1892</b>	<b>60.25</b>	<b>2511</b>	
<b>Total Regional Availability(Gross)</b>		<b>50601</b>	<b>33981</b>	<b>27112</b>	<b>728.88</b>	<b>30297</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	6812	1038	71.86	2994
State Control Area Hydro	5365	1716	1195	40.88	1703
<b>Total Regional Hydro</b>	<b>15447</b>	<b>8528</b>	<b>2233</b>	<b>112.74</b>	<b>4697</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	2.01	0.39	1.62
Gwalior-Agra (D/C)	383	761	1086	0	19.14	0.00	19.14
Zerda-Kankroli	-80	-124	47	139	0.00	0.66	-0.66
Zerda-Bhinmal	3	-15	242	86	2.06	0.00	2.06
Malanpur-Auraiya	-102	-73	0	123	0.00	1.56	-1.56
Badod-Kota/Morak	1	15	66	2	0.56	0.00	0.56
<b>Sub Total WR</b>	<b>405</b>	<b>464</b>			<b>23.76</b>	<b>2.60</b>	<b>21.16</b>
Pusauli Bypass	-128	104	279	176	2.85	0.34	2.51
MZP- GKP (D/C)	326	401	632	0	11.66	0.00	11.66
Patna-Balia(D/C)	215	288	395	0	7.11	0.00	7.11
B'Sharif-Balia (D/C)	373	276	712	0	7.99	0.00	7.99
Barh - balia(D/C)	246	308	417	0	7.93	0.00	7.93
Pusauli-Sahupuri	162	83	162	0	2.85	0.00	2.85
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	0.95	-0.95
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1164</b>	<b>1428</b>			<b>40.39</b>	<b>1.29</b>	<b>39.10</b>
<b>Total IR Exch</b>	<b>1569</b>	<b>1892</b>			<b>64.15</b>	<b>3.90</b>	<b>60.25</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
22.36	0.20	22.56	7.86	10.45	0.91	10.98	2.81	-2.81

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
34.14	12.01	46.15	39.10	21.16	60.25	4.96	9.14	14.10

**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	2.80	21.40	94.70	76.10	23.50	2.50

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time					
50.42	18.05	49.22	19.11	49.85	0.58	0.19	50.24	49.67

**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	408	02:49	398	12:17	0.0	0.0	0.0	0.0
Gorakhpur	400	432	21:56	406	06:32	0.0	0.0	37.3	0.9
Bareilly	400	419	03:59	393	06:31	0.0	0.0	0.0	0.0
Kanpur	400	416	02:59	396	06:30	0.0	0.0	0.0	0.0
Dadri	400	421	02:59	400	11:15	0.0	0.0	1.6	0.0
Ballabgarh	400	423	03:20	401	09:40	0.0	0.0	9.3	0.0
Bawana	400	426	03:57	401	11:14	0.0	0.0	20.1	0.0
Bassi	400	423	19:53	391	06:32	0.0	0.0	0.8	0.0
Hissar	400	414	05:03	393	10:20	0.0	0.0	0.0	0.0
Moga	400	424	05:03	403	11:13	0.0	0.0	1.2	0.0
Abdullapur	400	425	03:58	399	11:13	0.0	0.0	12.4	0.0
Nalagarh	400	425	05:03	403	11:05	0.0	0.0	14.9	0.0
Kishenpur	400	425	05:03	387	19:11	0.0	2.4	2.6	0.0
Wagoora	400	423	03:26	371	21:08	19.5	39.3	0.2	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	492.39	808.03	496.31	948.89	174.40	577.50
Pong	426.72	384.05	410.01	494.27	413.39	611.20	99.14	338.50
Tehri	829.79	740.04	792.10	483.10	818.65	982.26	50.39	219.00
Koteshwar	612.50	598.50	608.60	3.98	NZ	NA	224.00	269.00
Chamera-I	760.00	748.75	754.06	NA	NA	NA	88.30	72.46
Rihand	268.22	252.98	262.80	435.50	256.30	131.20	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	500.86	NA	504.02	NA	65.44	211.36

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 14.02.2012 :**

1. Rains & Snow in J & K , HP .rest NR cold 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 : 14.02.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER