

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 13.02.2013  
Date of Reporting : 14.02.2013

### 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
31872	2474	34346	50.12	26310	665	26975	50.22	717.4	48.02

\* 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	35.31	10.78		46.09	43.42	44.24	0.82	90.33	3.71
Haryana	43.53	0.37		43.90	47.63	49.80	2.16	93.70	1.99
Rajasthan	88.94	3.98	13.88	106.79	69.79	67.23	-2.56	174.02	0.00
Delhi	27.34			27.34	34.25	31.46	-2.79	58.80	0.15
UP	106.75	5.24	19.20	131.19	73.66	74.87	1.21	206.06	40.11
Uttarakhand		9.61		9.61	20.92	20.56	-0.36	30.17	0.37
HP		5.40		5.40	18.12	17.96	-0.17	23.35	0.00
J & K		6.99	0.00	6.99	32.55	30.33	-2.22	37.32	1.70
Chandigarh				0.00	3.63	3.59	-0.03	3.59	0.00
<b>Total</b>	<b>301.86</b>	<b>42.38</b>	<b>33.08</b>	<b>377.32</b>	<b>343.97</b>	<b>340.03</b>	<b>-3.94</b>	<b>717.35</b>	<b>48.02</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	4771	600	82	-165	3013	0	100	148	0.60
Haryana	4624	0	149	-175	3038	0	1	-727	-11.72
Rajasthan	6763	0	-506	927	6674	0	-166	852	27.66
Delhi	2996	14	-43	-1044	1328	0	-185	-1680	-30.47
UP	8150	1760	-405	-6	8849	665	511	-71	-1.86
Uttarakhand	1576	0	96	517	1036	0	-44	504	11.42
HP	1054	0	-76	117	747	0	-16	380	5.91
J&K	1741	100	-168	400	1533	0	-68	374	8.74
Chandigarh	197	0	0	-16	93	0	-11	-31	-0.39
<b>Total</b>	<b>31872</b>	<b>2474</b>	<b>-871</b>	<b>554</b>	<b>26310</b>	<b>665</b>	<b>122</b>	<b>-250</b>	<b>9.90</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	1960	2088	2089	47.44	1977	47.04	0.40
	Rihand I STPS	1000	925	992	839	20.96	873	21.41	-0.46
	Rihand II STPS	1000	975	1045	787	22.13	922	22.66	-0.52
	Rihand III STPS	500	473	500	390	10.90	454	10.93	-0.02
	Dadri I STPS	840	790	751	617	15.50	646	16.11	-0.61
	Dadri II STPS	980	948	938	684	19.28	803	20.99	-1.71
	Unchahar I TPS	420	407	442	309	8.94	372	8.99	-0.05
	Unchahar II TPS	420	405	442	313	8.74	364	8.61	0.13
	Unchahar III TPS	210	202	218	153	4.31	179	4.29	0.02
	ISTPP (Jhajjar)	1500	980	411	391	13.31	555	9.18	4.13
	Dadri GPS	830	831	379	365	8.70	363	8.77	-0.07
	Anta GPS	419	412	235	211	5.32	222	5.28	0.04
	Auraiva GPS	663	654	306	318	7.17	299	7.04	0.13
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9961</b>	<b>8747</b>	<b>7466</b>	<b>192.69</b>	<b>8029</b>	<b>191.28</b>	<b>1.41</b>
B. NPC	NAPS	440	304	342	345	7.29	304	7.30	-0.01
	RAPS- B	440	426	463	469	10.19	425	10.22	-0.04
	RAPS- C	440	430	471	478	10.23	426	10.32	-0.09
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1160</b>	<b>1276</b>	<b>1292</b>	<b>27.71</b>	<b>1155</b>	<b>27.84</b>	<b>-0.13</b>
C. NHPC	Chamera I HPS	540	550	530	0	2.76	115	2.73	0.03
	Chamera II HPS	300	204	130	0	1.11	46	1.21	-0.10
	Chamera III HPS	231	231	146	0	0.59	25	0.59	0.00
	Bairasuil HPS	180	182	80	50	0.76	32	0.80	-0.04
	Salal-HPS	690	146	315	145	3.67	153	3.53	0.14
	Tanakpur-HPS	94	33	46	26	0.74	31	0.74	0.00
	Uri-HPS	480	279	341	147	6.12	255	5.83	0.30
	Dhauliganga-HPS	280	283	137	0	1.12	47	1.00	0.12
	Dulhasti-HPS	390	0	0	0	0.00	0	0.00	0.00
	Sewa-II HPS	120	80	84	39	1.68	70	1.71	-0.03
	<b>Sub Total (C)</b>	<b>3305</b>	<b>1987</b>	<b>1809</b>	<b>407</b>	<b>18.56</b>	<b>773</b>	<b>18.15</b>	<b>0.40</b>
	D.NJPC	Natpaha Jhakri	1500	1350	1341	0	6.49	270	6.50
<b>Sub Total (D)</b>		<b>1500</b>	<b>1350</b>	<b>1341</b>	<b>0</b>	<b>6.49</b>	<b>270</b>	<b>6.50</b>	<b>-0.01</b>
E. THDC	Tehri HPS	1000	900	896	0	5.80	242	5.80	0.00
	Koteshwar HPS	400	100	102	102	2.39	100	2.40	-0.01
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1000</b>	<b>998</b>	<b>102</b>	<b>8.19</b>	<b>341</b>	<b>8.20</b>	<b>-0.01</b>
F. BBMB	Bhakra HPS	1480	601	1106	419	14.68	612	14.41	0.27
	Dehar HPS	990	147	495	0	3.66	153	3.53	0.13
	Pong HPS	396	183	312	60	4.67	195	5.01	-0.34
	<b>Sub Total (F)</b>	<b>2866</b>	<b>931</b>	<b>1913</b>	<b>479</b>	<b>23.01</b>	<b>959</b>	<b>22.95</b>	<b>0.06</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.10	4	0.26	-0.16
	KWHEP HPS(IPP)	1000	0	225	150	3.37	140	3.36	0.01
	Malana Stg-II HPS	100	0	32	0	0.13	6	0.12	0.02
	Shree Cement TPS	300	0	276	257	6.37	265	6.40	-0.03
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>533</b>	<b>407</b>	<b>9.97</b>	<b>416</b>	<b>10.13</b>	<b>-0.16</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>16388</b>	<b>16617</b>	<b>10153</b>	<b>286.62</b>	<b>11942</b>	<b>285.06</b>	<b>1.56</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	843	680	17.63	735
	Guru Nanak Dev TPS(Bhatinda)	440	120	105	2.54	106
	Guru Hargobind Singh TPS(L.mbt)	920	738	558	15.15	631
	Thermal (Total)	2620	1701	1343	35.31	1471
	Total Hydro	1148	516	349	10.78	449
<b>Total Punjab</b>	<b>3768</b>	<b>2217</b>	<b>1692</b>	<b>46.09</b>	<b>1921</b>	
Haryana	Panipat TPS	1367	681	679	16.31	680
	DCRTPP (Yamuna nagar)	600	561	559	13.29	554
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP)	1200	0	0	0.72	30
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	587	353	13.20	550
	Thermal (Total)	4944	1829	1591	43.53	1814
	Total Hydro	62	17	15	0.37	16
	<b>Total Haryana</b>	<b>5006</b>	<b>1846</b>	<b>1606</b>	<b>43.90</b>	<b>1829</b>
Rajasthan	kota TPS	1240	1067	1065	28.87	1203
	suratgarh TPS	1500	945	961	23.79	991
	Chabra TPS	500	452	399	9.85	410
	Dholpur GPS	330	129	127	2.99	124
	Ramgarh GPS	111	41	42	1.08	45
	RAPS A (NPC)	300	197	185	4.86	203
	Barsingsar (NLC)	250	203	204	4.80	200
	Giral LTPS	250	0	0	0.00	0
	Rajwest LTPS (IPP)	675	607	486	12.71	530
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5291	3641	3469	88.94	3706
	Total Hydro	550	155	210	3.98	166
	Wind power	2191	406	772	13.13	547
	Biomass	91	24	24	0.57	24
	Solar	201	0	0	0.18	8
	Renewable/Others (Total)	2483	430	796	13.88	578
	<b>Total Rajasthan</b>	<b>8324</b>	<b>4226</b>	<b>4475</b>	<b>106.79</b>	<b>4450</b>
UP	Anpara TPS	1630	1365	1371	29.00	1208
	Obra TPS	1382	502	349	9.10	379
	Paricha TPS	890	621	645	13.50	563
	Panki TPS	210	60	60	1.30	54
	Harduaganj TPS	665	0	212	3.90	163
	Tanda TPS (NTPC)	440	402	404	9.87	411
	Roza TPS (IPP)	1200	830	702	20.56	857
	Anpara-C (IPP)	1200	395	451	10.91	455
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	361	401	8.62	359
	Thermal (Total)	8067	4536	4595	106.75	4448
	Vishnuparyag HPS (IPP)	400	69	65	1.62	68
	Other Hydro	527	127	202	3.62	151
	Cogeneration	981	800	800	19.20	800
	<b>Total UP</b>	<b>9975</b>	<b>5532</b>	<b>5662</b>	<b>131.19</b>	<b>5399</b>
Uttarakhand	Total Hydro	1303	455	236	9.61	400
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>455</b>	<b>236</b>	<b>9.61</b>	<b>400</b>
Delhi	Rajghat TPS	135	103	106	2.76	115
	Delhi Gas Turbine	282	87	85	2.09	87
	Pragati Gas Turbine	330	306	265	7.38	308
	Rithala GPS	108	0	0	0.00	0
	Bawana GPS	677	214	221	5.71	238
	Badarpur TPS (NTPC)	705	415	410	9.41	392
	Thermal (Total)	2237	1125	1087	27.34	1139
	<b>Total Delhi</b>	<b>2237</b>	<b>1125</b>	<b>1087</b>	<b>27.34</b>	<b>1139</b>
HP	Baspa HPS (IPP)	330	30	0	0.97	40
	Malana HPS (IPP)	86	33	0	0.19	8
	Other Hydro	589	179	127	4.24	177
	<b>Total HP</b>	<b>1005</b>	<b>242</b>	<b>127</b>	<b>5.40</b>	<b>225</b>
J & K	Baglihar HPS (IPP)	450	150	148	3.59	150
	Other Hydro	323	95	130	3.40	142
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>245</b>	<b>278</b>	<b>6.99</b>	<b>291</b>
<b>Total State Control Area Generation</b>		<b>32574</b>	<b>15888</b>	<b>15163</b>	<b>377.32</b>	<b>15654</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2475</b>	<b>1092</b>	<b>68.48</b>	<b>2853</b>
<b>Total Regional Availability(Gross)</b>		<b>55410</b>	<b>34980</b>	<b>26408</b>	<b>732.42</b>	<b>30450</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	6318	1138	59.85	2494
State Control Area Hydro	5368	1757	1417	42.38	1698
<b>Total Regional Hydro</b>	<b>15731</b>	<b>8075</b>	<b>2555</b>	<b>102.23</b>	<b>4192</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	-300	200	300	1.62	2.80	-1.18
Gwalior-Agra (D/C)	332	83	790	0	11.09	0.00	11.09
Zerda-Kankroli	-34	-353	133	353	0.00	2.10	-2.10
Zerda-Bhinmal	27	-278	222	313	0.00	0.11	-0.11
Malanpur-Auraiya	-124	-102	0	136	0.00	2.06	-2.06
Badod-Kota/Morak	-46	-202	54	116	0.00	1.49	-1.49
Mundra-Mohindergarh(HVDC)	1265	1267	1269	0	30.46	0.00	30.46
<b>Sub Total WR</b>	<b>1620</b>	<b>115</b>			<b>43.17</b>	<b>8.55</b>	<b>34.62</b>
Pusauli Bypass	250	100	250	0	4.93	0.00	4.93
MZP- GKP (D/C)	88	140	372	0	4.64	0.00	4.64
Patna-Balia(D/C)	482	521	853	0	15.54	0.00	15.54
B'Sharif-Balia (D/C)	76	223	386	0	5.90	0.00	5.90
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	-211	-94	0	211	0.00	1.22	-1.22
Gaya-Fatehpur (765 Kv)	84	5	210	0	1.93	0.00	1.93
Pusauli-Sahupuri	121	122	145	0	3.07	0.00	3.07
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-35	-40	0	42	0.00	0.92	-0.92
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>855</b>	<b>977</b>			<b>36.00</b>	<b>2.14</b>	<b>33.86</b>
<b>Total IR Exch</b>	<b>2475</b>	<b>1092</b>			<b>79.17</b>	<b>10.69</b>	<b>68.48</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
34.81	0.60	35.41	-1.49	1.16	0.25	-0.56	4.22	-4.22
<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
38.38	41.05	79.43	33.86	34.62	68.48	-4.52	-6.43	-10.95

**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	1.60	93.10	91.50	61.10	6.90

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					
50.55	17.03	49.56	6.43	50.03	0.16	0.12	50.36	49.76

**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	407	3:58	0	1:48	19.9	19.9	0.0	0.0
Gorakhpur	400	431	0:00	416	9:25	0.0	0.0	73.1	0.0
Bareilly	400	425	4:03	401	6:40	0.0	0.0	9.0	0.0
Kanpur	400	412	17:02	397	10:15	0.0	0.0	0.0	0.0
Dadri	400	422	4:03	399	8:37	0.0	0.0	1.5	0.0
Ballabgarh	400	428	4:01	400	8:39	0.0	0.0	21.7	0.0
Bawana	400	427	4:02	404	8:37	0.0	0.0	22.8	0.0
Bassi	400	428	4:06	387	6:41	0.0	2.6	7.8	0.0
Hissar	400	416	4:03	392	8:37	0.0	0.0	0.0	0.0
Moga	400	416	1:58	395	7:10	0.0	0.0	0.0	0.0
Abdullapur	400	421	4:01	401	18:43	0.0	0.0	0.8	0.0
Nalagarh	400	423	1:59	404	8:38	0.0	0.0	17.6	0.0
Kishenpur	400	417	4:04	395	7:10	0.0	0.0	0.0	0.0
Wagoora	400	405	13:01	375	18:47	12.8	51.4	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	486.93	644.48	492.70	817.98	185.90	404.99
Pong	426.72	384.05	405.49	362.07	410.12	504.32	88.04	329.35
Tehri	829.79	740.04	792.15	465.00	818.65	982.26	52.19	156.00
Koteswar	612.50	598.50	610.30	4.69	NA	NA	156.00	154.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	61.53	72.96
Rihand	268.22	252.98	259.72	500.10	262.22	617.70	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	510.43	NA	500.76	NA	92.03	172.82

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 13.02.2013 :**

1.Normal Weather in NR.

**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 : 13.02.2013

पारी प्रभाती अजिंयता / SHIFT CHARGE ENGINEER