

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 16.02.2013  
Date of Reporting : 17.02.2013

### 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
27831	3566	31397	49.91	18863	-647	18216	50.61	568.5	37.15

\* 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	29.65	8.42		38.06	40.79	40.17	-0.62	78.23	2.03
Haryana	36.93	0.36		37.30	42.00	41.22	-0.78	78.52	0.00
Rajasthan	44.89	5.18	5.37	55.44	56.63	58.83	2.20	114.27	1.91
Delhi	20.70			20.70	32.76	35.37	2.61	56.07	0.28
UP	69.98	3.36	19.20	92.54	59.19	58.18	-1.01	150.72	28.82
Uttarakhand		11.11		11.11	17.15	15.71	-1.44	26.83	1.36
HP		5.10		5.10	16.83	18.17	1.34	23.27	1.06
J & K		6.99	0.00	6.99	30.41	30.05	-0.36	37.05	1.70
Chandigarh				0.00	3.31	3.55	0.24	3.55	0.00
<b>Total</b>	<b>202.15</b>	<b>40.53</b>	<b>24.57</b>	<b>267.24</b>	<b>299.07</b>	<b>301.26</b>	<b>2.18</b>	<b>568.50</b>	<b>37.15</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	4031	645	138	-60	2433	0	-383	265	2.19
Haryana	4328	280	117	-165	2255	0	-205	-748	-10.81
Rajasthan	5708	616	487	420	3553	0	-325	751	20.70
Delhi	2987	0	170	-1134	1283	3	-21	-1556	-32.58
UP	6302	1835	-373	-30	6189	-650	-161	-85	-2.26
Uttarakhand	1451	80	14	434	880	0	-137	411	9.41
HP	1068	10	22	68	749	0	41	350	4.70
J&K	1771	100	-35	400	1434	0	-79	374	9.07
Chandigarh	184	0	0	-27	87	0	2	-31	-0.44
<b>Total</b>	<b>27831</b>	<b>3566</b>	<b>540</b>	<b>-95</b>	<b>18863</b>	<b>-647</b>	<b>-1268</b>	<b>-268</b>	<b>-0.02</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	
										UI (OG:(+ve), UG:(-ve))
A. NTPC	Singrauli STPS	2000	1738	1584	1465	36.78	1532	36.61	0.17	
	Rihand I STPS	1000	420	464	300	8.47	353	8.84	-0.37	
	Rihand II STPS	1000	975	1035	680	19.01	792	20.46	-1.45	
	Rihand III STPS	500	485	507	284	10.56	440	9.73	0.83	
	Dadri I STPS	840	807	875	610	16.28	678	17.03	-0.75	
	Dadri II STPS	980	969	998	705	18.84	785	19.73	-0.89	
	Unchahar I TPS	420	407	438	318	8.06	336	8.09	-0.03	
	Unchahar II TPS	420	405	218	155	4.61	192	4.97	-0.36	
	Unchahar III TPS	210	202	218	155	3.75	156	3.79	-0.04	
	ISTPP (Jhajjar)	1500	980	363	336	8.14	339	8.45	-0.31	
	Dadri GPS	830	830	201	188	4.68	195	5.12	-0.44	
	Anta GPS	419	422	279	205	5.82	242	5.75	0.07	
	Auraiva GPS	663	671	162	162	3.98	166	3.97	0.01	
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9312</b>	<b>7342</b>	<b>5563</b>	<b>148.96</b>	<b>6207</b>	<b>152.53</b>	<b>-3.56</b>	
	B. NPC	NAPS	440	304	341	343	7.33	306	7.30	0.04
RAPS- B		440	424	468	468	10.23	426	10.18	-0.05	
RAPS- C		440	430	473	439	9.94	414	10.32	-0.38	
<b>Sub Total (B)</b>		<b>1320</b>	<b>1158</b>	<b>1282</b>	<b>1250</b>	<b>27.50</b>	<b>1146</b>	<b>27.79</b>	<b>-0.29</b>	
C. NHPC	Chamera I HPS	540	550	540	0	2.17	91	2.23	-0.05	
	Chamera II HPS	300	204	201	0	1.45	60	1.42	0.02	
	Chamera III HPS	231	231	150	0	0.77	32	0.78	-0.01	
	Bairasuil HPS	180	182	60	10	0.83	35	0.85	-0.02	
	Salal-HPS	690	148	310	60	3.74	156	3.61	0.13	
	Tanakpur-HPS	94	33	32	22	0.77	32	0.79	-0.01	
	Uri-HPS	480	290	358	116	6.61	276	6.10	0.51	
	Dhauliganga-HPS	280	283	130	0	0.64	27	0.63	0.02	
	Dulhasti-HPS	390	0	0	0	0.00	0	0.00	0.00	
	Sewa-II HPS	120	80	83	38	1.67	70	1.68	-0.01	
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2000</b>	<b>1864</b>	<b>246</b>	<b>18.65</b>	<b>777</b>	<b>18.07</b>	<b>0.57</b>	
	D.NJPC	Natpcha Jhakri	1500	1350	1353	0	6.48	270	6.50	-0.02
		<b>Sub Total (D)</b>	<b>1500</b>	<b>1350</b>	<b>1353</b>	<b>0</b>	<b>6.48</b>	<b>270</b>	<b>6.50</b>	<b>-0.02</b>
E. THDC	Tehri HPS	1000	890	897	0	5.55	231	5.80	-0.25	
	Koteshwar HPS	400	100	100	100	2.02	84	2.30	-0.28	
	<b>Sub Total (E)</b>	<b>1400</b>	<b>990</b>	<b>997</b>	<b>100</b>	<b>7.56</b>	<b>315</b>	<b>8.10</b>	<b>-0.54</b>	
F. BBMB	Bhakra HPS	1480	547	1158	375	13.02	543	13.12	-0.10	
	Dehar HPS	990	155	495	0	3.98	166	3.73	0.25	
	Pong HPS	396	207	312	0	5.27	220	5.01	0.26	
	<b>Sub Total (F)</b>	<b>2866</b>	<b>909</b>	<b>1965</b>	<b>375</b>	<b>22.27</b>	<b>928</b>	<b>21.85</b>	<b>0.42</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.31	13	0.26	0.05	
	KWHEP HPS(IPP)	1000	0	150	0	3.22	134	3.37	-0.15	
	Malana Stg-II HPS	100	0	30	0	0.13	5	0.11	0.02	
	Shree Cement TPS	300	0	291	226	5.46	227	6.40	-0.94	
	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>471</b>	<b>226</b>	<b>9.11</b>	<b>380</b>	<b>10.14</b>	<b>-1.03</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>15719</b>	<b>15274</b>	<b>7760</b>	<b>240.54</b>	<b>10023</b>	<b>244.99</b>	<b>-4.44</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	630	510	12.83	535
	Guru Nanak Dev TPS(Bhatinda)	440	120	105	2.43	101
	Guru Hargobind Singh TPS(L.mbt)	920	746	529	14.38	599
	Thermal (Total)	2620	1496	1144	29.65	1235
	Total Hydro	1148	419	260	8.42	351
	<b>Total Punjab</b>	<b>3768</b>	<b>1915</b>	<b>1404</b>	<b>38.06</b>	<b>1586</b>
Haryana	Panipat TPS	1367	197	395	7.28	304
	DCRTPP (Yamuna nagar)	600	281	236	6.49	271
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP)	1200	572	318	10.31	430
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	586	282	12.85	535
	Thermal (Total)	4944	1636	1231	36.93	1539
	Total Hydro	62	16	15	0.36	15
	<b>Total Haryana</b>	<b>5006</b>	<b>1652</b>	<b>1246</b>	<b>37.30</b>	<b>1554</b>
	Rajasthan	kota TPS	1240	566	522	13.68
suratgarh TPS		1500	577	359	9.81	409
Chabra TPS		500	202	191	5.12	213
Dholpur GPS		330	140	0	1.47	61
Ramgarh GPS		111	32	0	0.42	18
RAPS A (NPC)		300	197	197	4.97	207
Barsingsar (NLC)		250	99	106	2.06	86
Giral LTPS		250	0	0	0.00	0
Rajwest LTPS (IPP)		675	329	315	7.35	306
VSLP LTPS (IPP)		135	0	0	0.00	0
Thermal (Total)		5291	2142	1690	44.89	1870
Total Hydro		550	225	122	5.18	216
Wind power		2191	153	219	4.77	199
Biomass		91	20	20	0.49	20
Solar		201	4	0	0.12	5
Renewable/Others (Total)		2483	173	239	5.37	224
<b>Total Rajasthan</b>		<b>8324</b>	<b>2540</b>	<b>2051</b>	<b>55.44</b>	<b>2310</b>
UP	Anpara TPS	1630	1011	745	22.60	942
	Obra TPS	1382	157	194	4.40	183
	Paricha TPS	890	312	366	7.80	325
	Panki TPS	210	0	0	0.00	0
	Harduaganj TPS	665	227	239	4.80	200
	Tanda TPS (NTPC)	440	400	240	8.08	337
	Roza TPS (IPP)	1200	270	527	7.43	310
	Anpara-C (IPP)	1200	383	256	8.16	340
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	297	304	6.71	280
	Thermal (Total)	8067	3057	2871	69.98	2916
	Vishnuparyag HPS (IPP)	400	74	69	1.60	67
	Other Hydro	527	48	72	1.75	73
	Cogeneration	981	800	800	19.20	800
	<b>Total UP</b>	<b>9975</b>	<b>3979</b>	<b>3812</b>	<b>92.54</b>	<b>3789</b>
	Uttarakhand	Total Hydro	1303	555	355	11.11
<b>Total Uttarakhand</b>		<b>1303</b>	<b>555</b>	<b>355</b>	<b>11.11</b>	<b>463</b>
Delhi	Rajghat TPS	135	93	103	2.42	101
	Delhi Gas Turbine	282	145	84	2.24	93
	Pragati Gas Turbine	330	311	261	7.22	301
	Rithala GPS	108	0	0	0.00	0
	Bawana GPS	677	0	209	0.70	29
	Badarpur TPS (NTPC)	705	415	315	8.12	339
	Thermal (Total)	2237	964	972	20.70	862
	<b>Total Delhi</b>	<b>2237</b>	<b>964</b>	<b>972</b>	<b>20.70</b>	<b>862</b>
	HP	Baspa HPS (IPP)	330	28	0	1.07
Malana HPS (IPP)		86	33	0	0.20	8
Other Hydro		589	164	113	3.83	159
<b>Total HP</b>		<b>1005</b>	<b>225</b>	<b>113</b>	<b>5.10</b>	<b>213</b>
J & K	Baglihar HPS (IPP)	450	146	144	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>241</b>	<b>274</b>	<b>6.99</b>	<b>291</b>
<b>Total State Control Area Generation</b>		<b>32574</b>	<b>12071</b>	<b>10227</b>	<b>267.24</b>	<b>11068</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2646</b>	<b>1582</b>	<b>75.79</b>	<b>3158</b>
<b>Total Regional Availability(Gross)</b>		<b>55410</b>	<b>29991</b>	<b>19569</b>	<b>583.57</b>	<b>24249</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	6359	721	58.62	2443
State Control Area Hydro	5368	1729	1211	40.53	1622
<b>Total Regional Hydro</b>	<b>15731</b>	<b>8088</b>	<b>1932</b>	<b>99.15</b>	<b>4064</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	-200	400	300	4.51	1.79	2.72
Gwalior-Agra (D/C)	73	399	814	0	11.80	0.00	11.80
Zerda-Kankroli	-176	-329	54	330	0.00	3.11	-3.11
Zerda-Bhinmal	-89	-124	219	282	0.00	0.81	-0.81
Malanpur-Auraiya	-4	-2	0	50	0.00	0.65	-0.65
Badod-Kota/Morak	-22	-93	0	167	0.00	0.33	-0.33
Mundra-Mohindergarh(HVDC)	1267	875	1270	0	29.53	0.00	29.53
<b>Sub Total WR</b>	<b>1449</b>	<b>526</b>			<b>45.84</b>	<b>6.69</b>	<b>39.15</b>
Pusauli Bypass	400	400	400	0	9.67	0.00	9.67
MZP- GKP (D/C)	112	240	500	0	7.00	0.00	7.00
Patna-Balia(D/C)	553	325	727	0	12.40	0.00	12.40
B'Sharif-Balia (D/C)	107	160	484	0	5.72	0.00	5.72
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	0	-134	0	156	0.00	0.64	-0.64
Gaya-Fatehpur (765 Kv)	-17	60	234	22	1.81	0.00	1.81
Pusauli-Sahupuri	77	45	88	0	1.60	0.00	1.60
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>1197</b>	<b>1056</b>			<b>38.20</b>	<b>1.56</b>	<b>36.64</b>
<b>Total IR Exch</b>	<b>2646</b>	<b>1582</b>			<b>84.04</b>	<b>8.26</b>	<b>75.79</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
35.79	0.13	35.91	-2.14	-2.28	2.88	-8.72	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
40.87	31.28	72.15	36.64	39.15	75.79	-4.23	7.87	3.64

**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	1.00	68.10	67.10	74.80	31.90

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					
50.71	3.24	49.62	18.53	50.14	0.62	0.21	50.77	49.90

**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	1:23	0	13:07	1.7	1.7	0.0	0.0
Gorakhpur	400	430	2:16	417	11:51	0.0	0.0	75.9	0.0
Bareilly	400	434	3:16	409	18:38	0.0	0.0	42.0	3.9
Kanpur	400	427	2:31	406	18:36	0.0	0.0	27.3	0.0
Dadri	400	429	1:49	406	18:36	0.0	0.0	26.6	0.0
Ballabgarh	400	435	1:49	409	18:37	0.0	0.0	51.7	19.9
Bawana	400	433	1:48	408	18:38	0.0	0.0	40.0	14.2
Bassi	400	438	4:00	408	18:37	0.0	0.0	81.6	22.7
Hissar	400	423	0:06	397	18:37	0.0	0.0	13.2	0.0
Moga	400	424	1:47	398	18:38	0.0	0.0	4.6	0.0
Abdullapur	400	432	1:20	300	14:01	0.0	0.0	51.1	7.3
Nalagarh	400	428	21:26	407	18:36	0.0	0.0	29.7	0.0
Kishenpur	400	420	1:48	393	18:51	0.0	0.0	0.0	0.0
Wagoora	400	404	4:32	373	18:51	9.6	37.3	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	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:**

1. Less demand due to wide spread rains in Punjab, Haryana, Rajasthan, Delhi & UP.

**XI. Weather Conditions For 16.02.2013 :**

1. Rains in Punjab, Haryana, Rajasthan, Delhi & UP

**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 :**

1. Shree cement (IPP) tripped at 20.25 hrs (290 MW) due to tripping of associated lines.