

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 16.03.2013  
Date of Reporting : 17.03.2013

### 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
31020	1800	32820	50.15	27707	1876	29583	50.24	734.6	52.96

\* 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	38.37	10.06		48.43	43.92	44.69	0.77	93.12	0.84
Haryana	47.73	0.54		48.27	56.19	56.10	-0.09	104.36	0.51
Rajasthan	93.15	3.55	11.20	107.91	69.65	67.35	-2.29	175.26	0.00
Delhi	25.59			25.59	34.45	31.55	-2.90	57.15	0.01
UP	96.56	7.23	19.20	122.99	88.58	89.75	1.16	212.74	49.35
Uttarakhand		14.35		14.35	15.38	16.46	1.09	30.81	0.00
HP		8.44		8.44	14.66	14.98	0.32	23.42	0.55
J & K		10.37	0.00	10.37	23.80	23.80	0.00	34.17	1.70
Chandigarh				0.00	3.62	3.52	-0.09	3.52	0.00
<b>Total</b>	<b>301.40</b>	<b>54.54</b>	<b>30.40</b>	<b>386.34</b>	<b>350.24</b>	<b>348.21</b>	<b>-2.03</b>	<b>734.56</b>	<b>52.96</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	4266	70	-154	-213	3266	0	111	50	-3.17
Haryana	4921	0	115	-78	3648	71	200	-178	-5.39
Rajasthan	6130	0	-319	675	7442	0	-35	1081	25.08
Delhi	2909	0	-42	-700	1612	0	-19	-1244	-21.12
UP	8395	1630	-371	14	8365	1805	270	66	1.53
Uttarakhand	1513	0	112	338	1228	0	220	116	5.60
HP	995	0	74	-131	767	0	51	100	0.69
J&K	1699	100	108	-5	1288	0	37	-5	-0.16
Chandigarh	192	0	0	-51	92	0	-14	0	-0.36
<b>Total</b>	<b>31020</b>	<b>1800</b>	<b>-476</b>	<b>-149</b>	<b>27707</b>	<b>1876</b>	<b>820</b>	<b>-14</b>	<b>2.71</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	1963	2092	2080	46.90	1954	46.88	0.02
	Rihand I STPS	1000	675	641	705	15.73	655	15.96	-0.23
	Rihand II STPS	1000	975	947	1030	22.52	938	23.01	-0.49
	Rihand III STPS	500	401	507	0	8.74	364	9.51	-0.77
	Dadri I STPS	840	693	650	615	14.57	607	15.55	-0.98
	Dadri II STPS	980	725	375	352	9.31	388	11.92	-2.62
	Unchahar I TPS	420	408	340	397	8.91	371	8.97	-0.06
	Unchahar II TPS	420	406	357	378	8.79	366	8.76	0.03
	Unchahar III TPS	210	202	175	198	4.47	186	4.45	0.02
	ISTPP (Jhajjar)	1500	995	654	649	14.14	589	14.33	-0.18
	Dadri GPS	830	806	352	331	8.51	355	8.65	-0.14
	Anta GPS	419	406	231	222	5.39	225	5.55	-0.15
	Auraiva GPS	663	638	153	159	3.59	150	3.68	-0.09
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9293</b>	<b>7474</b>	<b>7116</b>	<b>171.57</b>	<b>7149</b>	<b>177.23</b>	<b>-5.66</b>
	B. NPC	NAPS	440	297	333	344	7.21	300	7.13
RAPS- B		440	419	464	465	10.09	420	10.06	-0.03
RAPS- C		440	430	474	471	10.20	425	10.32	-0.12
<b>Sub Total (B)</b>		<b>1320</b>	<b>1146</b>	<b>1271</b>	<b>1280</b>	<b>27.50</b>	<b>1146</b>	<b>27.50</b>	<b>-0.01</b>
C. NHPC	Chamera I HPS	540	550	540	0	3.91	163	4.04	-0.13
	Chamera II HPS	300	306	308	0	2.12	88	2.01	0.11
	Chamera III HPS	231	231	147	0	1.07	44	1.17	-0.11
	Bairasuil HPS	180	182	182	10	1.49	62	1.63	-0.15
	Salal-HPS	690	301	451	287	6.49	271	7.15	-0.65
	Tanakpur-HPS	94	30	29	30	0.71	30	0.75	-0.04
	Uri-HPS	480	480	477	479	11.42	476	11.49	-0.06
	Dhauliganga-HPS	280	216	205	0	0.85	36	1.00	-0.15
	Dulhasti-HPS	390	387	407	0	2.45	102	2.63	-0.19
	Sewa-II HPS	120	120	126	107	2.86	119	2.87	0.00
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2802</b>	<b>2872</b>	<b>913</b>	<b>33.37</b>	<b>1391</b>	<b>34.74</b>	<b>-1.37</b>
	D.NJPC	Natpaha Jhakri	1500	1605	1430	0	6.68	278	7.02
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1430</b>	<b>0</b>	<b>6.68</b>	<b>278</b>	<b>7.02</b>	<b>-0.34</b>
E. THDC	Tehri HPS	1000	630	628	0	8.13	339	8.25	-0.13
	Koteshwar HPS	400	400	392	0	3.30	138	3.30	0.00
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1030</b>	<b>1020</b>	<b>0</b>	<b>11.43</b>	<b>476</b>	<b>11.55</b>	<b>-0.13</b>
F. BBMB	Bhakra HPS	1480	637	994	415	15.37	640	15.28	0.09
	Dehar HPS	990	271	495	140	6.44	268	6.52	-0.07
	Pong HPS	396	215	304	62	5.21	217	5.01	0.20
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1123</b>	<b>1793</b>	<b>617</b>	<b>27.02</b>	<b>1126</b>	<b>26.80</b>	<b>0.22</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.54	22	0.52	0.02
	KWHEP HPS(IPP)	1000	0	140	0	3.51	146	3.57	-0.06
	Malana Stg-II HPS	100	0	41	0	0.17	7	0.18	-0.02
	Shree Cement TPS	300	0	263	218	6.40	267	6.48	-0.08
	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>444</b>	<b>218</b>	<b>10.61</b>	<b>442</b>	<b>10.75</b>	<b>-0.13</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>17000</b>	<b>16304</b>	<b>10144</b>	<b>288.18</b>	<b>12007</b>	<b>295.59</b>	<b>-7.42</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	740	680	16.80	700
	Guru Nanak Dev TPS(Bhatinda)	440	105	105	2.40	100
	Guru Hargobind Singh TPS(L.mbt)	920	833	727	19.16	798
	Thermal (Total)	2620	1678	1512	38.37	1599
	Total Hydro	1148	410	438	10.06	419
	<b>Total Punjab</b>	<b>3768</b>	<b>2088</b>	<b>1950</b>	<b>48.43</b>	<b>2018</b>
Haryana	Panipat TPS	1367	913	825	21.49	895
	DCRTPP (Yamuna nagar)	600	563	556	13.22	551
	Faridabad GPS (NTPC)	432	170	152	4.01	167
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	373	376	9.00	375
	Thermal (Total)	4944	2019	1909	47.73	1989
	Total Hydro	62	23	20	0.54	23
	<b>Total Haryana</b>	<b>5006</b>	<b>2042</b>	<b>1929</b>	<b>48.27</b>	<b>2011</b>
	Rajasthan	kota TPS	1240	1062	1017	26.18
suratgarh TPS		1500	1121	1150	27.98	1166
Chabra TPS		500	379	389	9.45	394
Dholpur GPS		330	142	117	3.28	137
Ramgarh GPS		111	73	55	1.76	73
RAPS A (NPC)		300	179	179	4.82	201
Barsingsar (NLC)		250	185	184	4.35	181
Giral LTPS		250	117	83	2.32	96
Rajwest LTPS (IPP)		1080	504	518	13.02	543
VSLP LTPS (IPP)		135	0	0	0.00	0
Thermal (Total)		5696	3762	3692	93.15	3881
Total Hydro		550	95	98	3.55	148
Wind power		2191	203	772	9.14	381
Biomass		91	25	25	0.60	25
Solar		201	34	0	1.46	61
Renewable/Others (Total)		2483	228	797	11.20	467
<b>Total Rajasthan</b>		<b>8729</b>	<b>4085</b>	<b>4587</b>	<b>107.91</b>	<b>4496</b>
UP	Anpara TPS	1630	1091	894	21.30	888
	Obra TPS	1382	484	529	11.30	471
	Paricha TPS	890	871	640	16.10	671
	Panki TPS	210	75	0	0.50	21
	Harduaganj TPS	665	241	247	5.40	225
	Tanda TPS (NTPC)	440	406	409	9.89	412
	Roza TPS (IPP)	1200	621	806	18.29	762
	Anpara-C (IPP)	1200	243	0	4.51	188
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	401	403	9.27	386
	Thermal (Total)	8067	4433	3928	96.56	4023
	Vishnuparyag HPS (IPP)	400	66	71	1.66	69
	Other Hydro	527	171	264	5.57	232
	Cogeneration	981	800	800	19.20	800
	<b>Total UP</b>	<b>9975</b>	<b>5470</b>	<b>5063</b>	<b>122.99</b>	<b>5055</b>
	Uttarakhand	Total Hydro	1303	630	570	14.35
<b>Total Uttarakhand</b>		<b>1303</b>	<b>630</b>	<b>570</b>	<b>14.35</b>	<b>598</b>
Delhi	Rajghat TPS	135	0	54	0.48	20
	Delhi Gas Turbine	282	196	196	4.90	204
	Pragati Gas Turbine	330	304	266	7.05	294
	Rithala GPS	108	0	0	0.00	0
	Bawana GPS	677	0	0	0.00	0
	Badarpur TPS (NTPC)	705	580	550	13.16	548
	Thermal (Total)	2237	1080	1066	25.59	1066
	<b>Total Delhi</b>	<b>2237</b>	<b>1080</b>	<b>1066</b>	<b>25.59</b>	<b>1066</b>
	HP	Baspa HPS (IPP)	330	0	0	1.01
Malana HPS (IPP)		86	30	0	0.17	7
Other Hydro		589	295	297	7.26	302
<b>Total HP</b>		<b>1005</b>	<b>325</b>	<b>297</b>	<b>8.44</b>	<b>351</b>
J & K	Baglihar HPS (IPP)	450	248	234	5.82	243
	Other Hydro	323	95	130	4.55	189
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>343</b>	<b>364</b>	<b>10.37</b>	<b>432</b>
<b>Total State Control Area Generation</b>		<b>32979</b>	<b>16063</b>	<b>15826</b>	<b>386.34</b>	<b>16028</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1801</b>	<b>2097</b>	<b>60.84</b>	<b>2535</b>
<b>Total Regional Availability(Gross)</b>		<b>55815</b>	<b>34168</b>	<b>28067</b>	<b>735.35</b>	<b>30570</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	7296	1530	82.71	3446
State Control Area Hydro	5368	1997	2051	54.54	2203
<b>Total Regional Hydro</b>	<b>15731</b>	<b>9293</b>	<b>3581</b>	<b>137.24</b>	<b>5649</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	300	150	450	0	5.38	0.00	5.38
Gwalior-Agra (D/C)	458	709	1130	0	17.25	0.00	17.25
Zerda-Kankroli	-218	-108	35	218	0.00	2.40	-2.40
Zerda-Bhinmal	-146	-55	110	215	0.00	0.62	-0.62
Malanpur-Auraiya	-94	-108	0	114	0.00	2.14	-2.14
Badod-Kota/Morak	-164	-99	2	164	0.00	1.76	-1.76
Mundra-Mohindergarh(HVDC)	1088	486	1088	0	23.57	0.00	23.57
<b>Sub Total WR</b>	<b>1224</b>	<b>975</b>			<b>46.20</b>	<b>6.92</b>	<b>39.28</b>
Pusauli Bypass	400	400	400	0	9.57	0.00	9.57
MZP- GKP (D/C)	98	232	264	0	1.66	0.00	1.66
Patna-Balia(D/C)	283	356	496	0	8.93	0.00	8.93
B'Sharif-Balia (D/C)	-74	151	315	74	2.08	0.00	2.08
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	-202	-110	0	202	0.00	3.25	-3.25
Gaya-Fatehpur (765 Kv)	-47	5	147	47	1.04	0.00	1.04
Pusauli-Sahupuri	157	128	195	0	2.66	0.00	2.66
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-38	-40	0	44	0.00	1.14	-1.14
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>577</b>	<b>1122</b>			<b>25.94</b>	<b>4.39</b>	<b>21.56</b>
<b>Total IR Exch</b>	<b>1801</b>	<b>2097</b>			<b>72.14</b>	<b>11.31</b>	<b>60.84</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
38.68	0.12	38.80	-10.73	-2.23	2.72	2.59	-1.73	1.73
<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
29.06	39.39	68.45	21.56	39.28	60.84	-7.50	-0.11	-7.61

**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	0.00	74.00	74.00	83.50	26.00

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	4.02	49.77	1.25	50.12	0.32	0.13	50.50	49.97

**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	409	3:57	407	5:50	0.0	0.0	0.0	0.0
Gorakhpur	400	428	4:03	408	5:51	0.0	0.0	26.4	0.0
Bareilly	400	427	4:03	405	9:42	0.0	0.0	12.6	0.0
Kanpur	400	422	4:05	397	17:23	0.0	0.0	0.5	0.0
Dadri	400	423	4:03	402	10:42	0.0	0.0	6.5	0.0
Ballabgarh	400	428	4:05	405	10:41	0.0	0.0	16.7	0.0
Bawana	400	427	2:22	406	10:41	0.0	0.0	16.2	0.0
Bassi	400	427	4:02	396	9:42	0.0	0.0	4.3	0.0
Hissar	400	420	4:02	394	9:41	0.0	0.0	0.0	0.0
Moga	400	421	4:00	396	9:44	0.0	0.0	0.6	0.0
Abdullapur	400	425	3:03	410	4:38	0.0	0.0	15.8	0.0
Nalagarh	400	431	2:22	406	10:46	0.0	0.0	26.3	0.2
Kishenpur	400	421	4:00	396	19:07	0.0	0.0	0.5	0.0
Wagoora	400	409	17:02	379	19:33	0.2	24.5	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	483.42	544.27	482.45	519.70	274.56	465.39
Pong	426.72	384.05	401.76	259.17	405.83	361.16	87.92	391.56
Tehri	829.79	740.04	782.75	366.00	818.65	982.26	68.64	226.00
Koteshwar	612.50	598.50	610.10	4.69	NA	NA	226.00	218.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	99.17	106.21
Rihand	268.22	252.98	258.53	NA	260.57	NA	NA	NA
RPS	352.80	343.81	346.07	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	296.94	NA	NA	NA	NA	NA
RSD	527.91	487.91	508.35	NA	496.17	NA	110.86	150.48

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 16.03.2013 :**  
Normal Weather in Northern Region.

**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 : 16.03.2013

पारी प्रभाती अशियंता / SHIFT CHARGE ENGINEER