

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 17.03.2013  
Date of Reporting : 18.03.2013

### 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
29050	1860	30910	50.16	28547	1195	29742	50.44	718.1	42.54

\* 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	36.62	10.13		46.75	46.24	46.98	0.73	93.73	0.29
Haryana	47.19	0.54		47.72	54.74	54.01	-0.74	101.73	0.89
Rajasthan	94.53	4.41	4.95	103.89	67.00	66.22	-0.78	170.11	0.00
Delhi	24.21			24.21	30.74	29.75	-0.99	53.96	0.08
UP	101.11	6.29	19.20	126.60	86.67	86.50	-0.17	213.09	38.32
Uttarakhand		13.26		13.26	13.91	13.91	-0.01	27.17	1.27
HP		8.11		8.11	14.97	14.47	-0.50	22.58	0.00
J & K		10.42	0.00	10.42	23.86	22.27	-1.59	32.69	1.70
Chandigarh				0.00	3.31	3.07	-0.24	3.07	0.00
<b>Total</b>	<b>303.65</b>	<b>53.15</b>	<b>24.15</b>	<b>380.95</b>	<b>341.45</b>	<b>337.17</b>	<b>-4.28</b>	<b>718.12</b>	<b>42.54</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	3943	0	-181	-26	3484	0	44	151	-0.60
Haryana	4526	0	-173	34	3764	0	-113	-172	-2.93
Rajasthan	5729	0	-166	755	7244	0	-53	921	21.81
Delhi	2786	0	197	-1023	1553	0	-77	-1229	-24.60
UP	8034	1760	-307	-10	9409	1045	-3	36	0.86
Uttarakhand	1397	0	172	222	956	150	-15	115	4.66
HP	884	0	2	-182	785	0	36	100	0.41
J&K	1594	100	50	-5	1260	0	-31	-5	-0.11
Chandigarh	157	0	-17	-60	92	0	-22	0	-0.52
<b>Total</b>	<b>29050</b>	<b>1860</b>	<b>-422</b>	<b>-295</b>	<b>28547</b>	<b>1195</b>	<b>-234</b>	<b>-82</b>	<b>-1.02</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
A. NTPC	Singrauli STPS	2000	1960	1782	2053	44.97	1874	44.66	0.31	
	Rihand I STPS	1000	694	599	595	15.18	633	15.47	-0.29	
	Rihand II STPS	1000	975	800	915	20.83	868	21.66	-0.84	
	Rihand III STPS	500	485	450	482	10.66	444	11.48	-0.82	
	Dadri I STPS	840	617	681	458	11.99	500	14.17	-2.18	
	Dadri II STPS	980	725	402	411	9.76	407	11.49	-1.73	
	Unchahar I TPS	420	408	402	424	9.22	384	9.34	-0.13	
	Unchahar II TPS	420	406	427	431	8.91	371	8.84	0.07	
	Unchahar III TPS	210	202	214	200	4.43	184	4.38	0.04	
	ISTPP (Jhajjar)	1500	995	339	636	13.98	583	14.40	-0.42	
	Dadri GPS	830	806	392	362	8.73	364	8.92	-0.18	
	Anta GPS	419	412	244	222	5.49	229	5.76	-0.28	
	Auraiva GPS	663	640	153	160	3.60	190	3.75	-0.14	
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9325</b>	<b>6885</b>	<b>7349</b>	<b>167.75</b>	<b>6990</b>	<b>174.32</b>	<b>-6.57</b>	
	B. NPC	NAPS	440	297	336	342	7.20	300	7.13	0.07
RAPS- B		440	419	456	469	10.10	421	10.06	0.05	
RAPS- C		440	430	473	476	10.23	426	10.32	-0.10	
<b>Sub Total (B)</b>		<b>1320</b>	<b>1146</b>	<b>1265</b>	<b>1287</b>	<b>27.53</b>	<b>1147</b>	<b>27.50</b>	<b>0.02</b>	
C. NHPC	Chamera I HPS	540	550	360	0	4.01	167	4.04	-0.03	
	Chamera II HPS	300	306	190	0	2.07	86	2.33	-0.27	
	Chamera III HPS	231	231	218	0	1.06	44	1.13	-0.08	
	Bairasuil HPS	180	182	182	20	1.41	59	1.88	-0.47	
	Salal-HPS	690	265	450	181	5.96	248	6.35	-0.39	
	Tanakpur-HPS	94	30	30	31	0.67	28	0.74	-0.07	
	Uri-HPS	480	480	478	478	11.59	483	11.39	0.21	
	Dhauliganga-HPS	280	216	205	0	1.09	46	1.17	-0.07	
	Dulhasti-HPS	390	387	400	0	2.67	111	2.66	0.01	
	Sewa-II HPS	120	120	127	104	2.87	120	2.87	0.00	
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2767</b>	<b>2640</b>	<b>814</b>	<b>33.41</b>	<b>1392</b>	<b>34.57</b>	<b>-1.17</b>	
	D.NJPC	Natpda Jhakri	1500	1605	1230	0	6.73	280	7.12	-0.39
		<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1230</b>	<b>0</b>	<b>6.73</b>	<b>280</b>	<b>7.12</b>	<b>-0.39</b>
E. THDC	Tehri HPS	1000	620	623	199	8.19	341	8.25	-0.06	
	Koteshwar HPS	400	379	392	0	3.30	138	3.00	0.30	
	<b>Sub Total (E)</b>	<b>1400</b>	<b>999</b>	<b>1015</b>	<b>199</b>	<b>11.49</b>	<b>479</b>	<b>11.25</b>	<b>0.24</b>	
F. BBMB	Bhakra HPS	1480	641	994	395	15.30	638	15.39	-0.09	
	Dehar HPS	990	235	495	140	5.72	238	5.65	0.07	
	Pong HPS	396	244	302	122	5.77	240	5.01	0.76	
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1120</b>	<b>1791</b>	<b>657</b>	<b>26.79</b>	<b>1116</b>	<b>26.05</b>	<b>0.74</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.27	11	0.26	0.01	
	KWHEP HPS(IPP)	1000	0	138	0	3.25	135	3.34	-0.09	
	Malana Stg-II HPS	100	0	40	0	0.20	8	0.18	0.02	
	Shree Cement TPS	300	0	267	258	6.35	265	6.46	-0.10	
	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>445</b>	<b>258</b>	<b>10.07</b>	<b>420</b>	<b>10.24</b>	<b>-0.17</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>16962</b>	<b>15271</b>	<b>10564</b>	<b>283.76</b>	<b>11823</b>	<b>291.05</b>	<b>-7.29</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	680	680	16.40	683
	Guru Nanak Dev TPS(Bhatinda)	440	105	105	2.43	101
	Guru Hargobind Singh TPS(L.mbt)	920	744	699	17.80	741
	Thermal (Total)	2620	1529	1484	36.62	1526
	Total Hydro	1148	290	410	10.13	422
<b>Total Punjab</b>	<b>3768</b>	<b>1819</b>	<b>1894</b>	<b>46.75</b>	<b>1948</b>	
Haryana	Panipat TPS	1367	846	912	21.01	875
	DCRTPP (Yamuna nagar)	600	561	555	13.24	552
	Faridabad GPS (NTPC)	432	162	153	4.00	167
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	375	375	8.94	372
	Thermal (Total)	4944	1944	1995	47.19	1966
	Total Hydro	62	20	21	0.54	22
	<b>Total Haryana</b>	<b>5006</b>	<b>1964</b>	<b>2016</b>	<b>47.72</b>	<b>1988</b>
	Rajasthan	kota TPS	1240	1057	1152	27.12
suratgarh TPS		1500	1118	1316	28.61	1192
Chabra TPS		500	390	450	9.84	410
Dholpur GPS		330	143	142	3.31	138
Ramgarh GPS		111	69	74	1.82	76
RAPS A (NPC)		300	179	179	4.82	201
Barsingsar (NLC)		250	184	184	4.33	180
Giral LTPS		250	121	126	2.45	102
Rajwest LTPS (IPP)		1080	504	495	12.23	509
VSLP LTPS (IPP)		135	0	0	0.00	0
Thermal (Total)		5696	3765	4118	94.53	3939
Total Hydro		550	169	107	4.41	184
Wind power		2191	0	391	2.98	124
Biomass		91	26	26	0.63	26
Solar		201	33	0	1.34	56
Renewable/Others (Total)		2483	26	417	4.95	206
<b>Total Rajasthan</b>		<b>8729</b>	<b>3960</b>	<b>4642</b>	<b>103.89</b>	<b>4329</b>
UP	Anpara TPS	1630	1013	1070	22.70	946
	Obra TPS	1382	548	536	11.80	492
	Paricha TPS	890	810	811	17.40	725
	Panki TPS	210	85	85	1.80	75
	Harduaganj TPS	665	291	251	5.80	242
	Tanda TPS (NTPC)	440	410	407	9.88	412
	Roza TPS (IPP)	1200	644	801	17.26	719
	Anpara-C (IPP)	1200	263	234	6.36	265
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	293	401	8.11	338
	Thermal (Total)	8067	4357	4596	101.11	4213
	Vishnuparyag HPS (IPP)	400	68	70	1.66	69
	Other Hydro	527	143	232	4.63	193
	Cogeneration	981	800	800	19.20	800
	<b>Total UP</b>	<b>9975</b>	<b>5368</b>	<b>5698</b>	<b>126.60</b>	<b>5206</b>
	Uttarakhand	Total Hydro	1303	586	529	13.26
<b>Total Uttarakhand</b>		<b>1303</b>	<b>586</b>	<b>529</b>	<b>13.26</b>	<b>552</b>
Delhi	Rajghat TPS	135	0	0	0.10	4
	Delhi Gas Turbine	282	154	155	3.70	154
	Pragati Gas Turbine	330	303	261	7.05	294
	Rithala GPS	108	0	0	0.00	0
	Bawana GPS	677	0	0	0.00	0
	Badarpur TPS (NTPC)	705	630	560	13.36	557
	Thermal (Total)	2237	1087	976	24.21	1009
	<b>Total Delhi</b>	<b>2237</b>	<b>1087</b>	<b>976</b>	<b>24.21</b>	<b>1009</b>
	HP	Baspa HPS (IPP)	330	29	0	0.93
Malana HPS (IPP)		86	41	0	0.20	8
Other Hydro		589	285	260	6.98	291
<b>Total HP</b>		<b>1005</b>	<b>355</b>	<b>260</b>	<b>8.11</b>	<b>338</b>
J & K	Baglihar HPS (IPP)	450	244	242	5.87	245
	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>339</b>	<b>372</b>	<b>10.42</b>	<b>434</b>
<b>Total State Control Area Generation</b>		<b>32979</b>	<b>15478</b>	<b>16387</b>	<b>380.95</b>	<b>15804</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1414</b>	<b>2600</b>	<b>43.96</b>	<b>1832</b>
<b>Total Regional Availability(Gross)</b>		<b>55815</b>	<b>32163</b>	<b>29551</b>	<b>708.67</b>	<b>29459</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	6854	1670	82.13	3422
State Control Area Hydro	5368	1902	1931	53.15	2145
<b>Total Regional Hydro</b>	<b>15731</b>	<b>8756</b>	<b>3601</b>	<b>135.27</b>	<b>5567</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	150	400	0	3.48	0.00	3.48
Gwalior-Agra (D/C)	200	877	907	0	4.42	0.00	4.42
Zerda-Kankroli	-236	-145	0	248	0.00	4.27	-4.27
Zerda-Bhinmal	-135	-72	16	249	0.00	2.02	-2.02
Malanpur-Auraiya	-172	-54	0	172	0.00	2.63	-2.63
Badod-Kota/Morak	-168	-66	0	168	0.00	1.81	-1.81
Mundra-Mohindergarh(HVDC)	1073	1076	1078	0	23.48	0.00	23.48
<b>Sub Total WR</b>	<b>762</b>	<b>1766</b>			<b>31.38</b>	<b>10.73</b>	<b>20.65</b>
Pusauli Bypass	400	400	400	0	9.21	0.00	9.21
MZP- GKP (D/C)	40	68	230	0	1.78	0.00	1.78
Patna-Balia(D/C)	271	367	543	0	9.39	0.00	9.39
B'Sharif-Balia (D/C)	17	76	259	0	3.31	0.00	3.31
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	-116	-130	0	174	0.00	2.73	-2.73
Gaya-Fatehpur (765 Kv)	-46	-52	141	53	0.42	0.00	0.42
Pusauli-Sahupuri	122	145	151	0	2.79	0.00	2.79
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-36	-40	0	44	0.00	0.87	-0.87
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>652</b>	<b>834</b>			<b>26.92</b>	<b>3.60</b>	<b>23.32</b>
<b>Total IR Exch</b>	<b>1414</b>	<b>2600</b>			<b>58.29</b>	<b>14.33</b>	<b>43.96</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
37.09	0.15	37.24	-9.46	-1.57	2.10	-2.07	-1.91	1.94
<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
27.97	35.44	63.41	23.32	20.65	43.96	-4.65	-14.80	-19.45

**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	70.00	70.00	96.68	30.00

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					
50.72	16.03	49.86	11.16	50.23	0.74	0.11	50.55	50.05

**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	412	17:06	403	6:44	0.0	0.0	0.0	0.0
Gorakhpur	400	429	17:05	410	11:31	0.2	0.2	44.8	0.0
Bareilly	400	430	17:06	407	11:16	0.0	0.0	18.0	0.0
Kanpur	400	421	17:02	402	22:34	0.0	0.0	0.4	0.0
Dadri	400	422	17:05	406	11:13	0.0	0.0	1.1	0.0
Ballabhgarh	400	430	17:05	411	11:14	0.0	0.0	29.6	0.0
Bawana	400	426	4:07	408	11:14	0.0	0.0	17.6	0.0
Bassi	400	431	17:08	399	22:35	0.0	0.0	17.0	0.1
Hissar	400	416	4:01	399	9:29	0.0	0.0	0.0	0.0
Moga	400	418	4:06	397	11:15	0.0	0.0	0.0	0.0
Abdullapur	400	428	16:03	412	11:15	0.0	0.0	42.1	0.0
Nalagarh	400	426	16:03	409	11:13	0.0	0.0	31.9	0.0
Kishenpur	400	417	16:01	394	19:09	0.0	0.0	0.0	0.0
Wagoora	400	408	16:01	377	19:21	4.3	25.3	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	483.24	536.06	482.07	511.55	252.39	460.91
Pong	426.72	384.05	401.59	259.17	405.69	361.16	84.50	363.64
Tehri	829.79	740.04	782.25	NA	818.65	982.26	67.88	219.00
Koteswar	612.50	598.50	NA	NA	NA	NA	NA	NA
Chamera-I	760.00	748.75	NA	NA	NA	NA	90.19	106.02
Rihand	268.22	252.98	258.47	NA	260.54	NA	NA	NA
RPS	352.80	343.81	346.07	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	296.24	NA	NA	NA	NA	NA
RSD	527.91	487.91	508.32	NA	495.85	NA	135.86	132.41

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 17.03.2013 :**  
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 : 17.03.2013

पारी प्रभाती अश्विनी / SHIFT CHARGE ENGINEER