

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 18.03.2013  
Date of Reporting : 19.03.2013

### 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
30804	1680	32484	50.03	28459	1610	30069	50.32	736.6	40.55

\* 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	41.66	10.55		52.21	45.38	46.68	1.30	98.89	0.84
Haryana	51.64	0.52		52.15	54.97	53.03	-1.94	105.18	0.00
Rajasthan	94.90	4.04	5.38	104.32	70.08	69.03	-1.05	173.34	0.21
Delhi	25.17			25.17	35.93	33.22	-2.71	58.39	0.00
UP	105.17	6.05	19.20	130.41	83.28	82.52	-0.76	212.93	36.97
Uttarakhand		12.56		12.56	16.10	16.49	0.39	29.05	0.84
HP		8.27		8.27	15.30	15.00	-0.30	23.27	0.00
J & K		8.07	0.00	8.07	24.71	24.09	-0.62	32.16	1.70
Chandigarh				0.00	3.63	3.41	-0.22	3.41	0.00
<b>Total</b>	<b>318.54</b>	<b>50.05</b>	<b>24.58</b>	<b>393.16</b>	<b>349.37</b>	<b>343.45</b>	<b>-5.92</b>	<b>736.61</b>	<b>40.55</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	4408	0	-45	-131	3478	0	-66	109	-1.78
Haryana	5058	0	-153	12	3654	0	-7	-77	-5.76
Rajasthan	5993	0	-474	880	7197	0	358	868	21.61
Delhi	3011	0	-10	-750	1551	0	-164	-1259	-22.47
UP	8168	1580	-16	14	9524	1610	147	66	1.54
Uttarakhand	1434	0	169	337	979	0	-94	215	6.53
HP	963	0	-6	-132	702	0	-52	101	1.27
J&K	1587	100	125	23	1284	0	49	23	0.54
Chandigarh	183	0	-3	0	90	0	-13	0	-0.11
<b>Total</b>	<b>30804</b>	<b>1680</b>	<b>-413</b>	<b>253</b>	<b>28459</b>	<b>1610</b>	<b>158</b>	<b>45</b>	<b>1.38</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	1963	2022	1859	45.48	1895	45.19	0.30	
	Rihand I STPS	1000	715	719	675	15.83	660	16.06	-0.23	
	Rihand II STPS	1000	975	897	970	21.49	895	21.79	-0.30	
	Rihand III STPS	500	485	487	476	11.20	467	11.56	-0.36	
	Dadri I STPS	840	662	638	595	14.08	587	14.47	-0.40	
	Dadri II STPS	980	729	442	348	7.66	319	10.43	-2.77	
	Unchahar I TPS	420	408	411	334	8.92	372	8.53	0.39	
	Unchahar II TPS	420	406	421	314	8.76	365	8.15	0.61	
	Unchahar III TPS	210	202	206	155	4.38	183	4.16	0.22	
	ISTPP (Jhajjar)	1500	995	675	690	15.22	634	15.78	-0.56	
	Dadri GPS	830	806	370	374	8.71	363	8.81	-0.10	
	Anta GPS	419	412	249	229	5.54	231	5.66	-0.12	
	Auraiva GPS	663	638	155	161	3.60	150	3.72	-0.12	
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9396</b>	<b>7692</b>	<b>7180</b>	<b>170.88</b>	<b>7120</b>	<b>174.32</b>	<b>-3.44</b>	
	B. NPC	NAPS	440	297	330	344	7.23	301	7.13	0.10
		RAPS- B	440	420	458	464	10.03	418	10.08	-0.05
RAPS- C		440	430	471	477	10.21	425	10.32	-0.11	
<b>Sub Total (B)</b>		<b>1320</b>	<b>1147</b>	<b>1259</b>	<b>1285</b>	<b>27.47</b>	<b>1144</b>	<b>27.53</b>	<b>-0.06</b>	
C. NHPC	Chamera I HPS	540	550	540	0	3.98	166	4.01	-0.03	
	Chamera II HPS	300	310	52	0	1.59	66	2.02	-0.43	
	Chamera III HPS	231	231	145	0	1.00	42	1.08	-0.08	
	Bairasuil HPS	180	182	182	10	1.37	57	1.51	-0.14	
	Salal-HPS	690	248	438	253	4.83	201	5.90	-1.07	
	Tanakpur-HPS	94	31	32	31	0.67	28	0.72	-0.06	
	Uri-HPS	480	460	478	479	11.41	476	11.50	-0.09	
	Dhauliganga-HPS	280	233	140	0	1.08	45	1.10	-0.01	
	Dulhasti-HPS	390	387	399	0	2.74	114	2.77	-0.03	
	Sewa-II HPS	120	120	125	106	2.82	117	2.86	-0.04	
	<b>Sub Total (C)</b>	<b>3305</b>	<b>2751</b>	<b>2531</b>	<b>879</b>	<b>31.49</b>	<b>1312</b>	<b>33.48</b>	<b>-1.98</b>	
	D.NJPC	Natpda Jhakri	1500	1605	1431	0	7.94	331	8.20	-0.26
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1431</b>	<b>0</b>	<b>7.94</b>	<b>331</b>	<b>8.20</b>	<b>-0.26</b>	
E. THDC	Tehri HPS	1000	620	617	0	5.46	228	5.88	-0.42	
	Koteshwar HPS	400	258	203	0	2.19	91	2.30	-0.11	
	<b>Sub Total (E)</b>	<b>1400</b>	<b>878</b>	<b>820</b>	<b>0</b>	<b>7.65</b>	<b>319</b>	<b>8.18</b>	<b>-0.53</b>	
F. BBMB	Bhakra HPS	1480	656	994	414	15.81	659	15.75	0.06	
	Dehar HPS	990	241	495	140	5.68	237	5.79	-0.11	
	Pong HPS	396	239	302	61	5.70	238	5.01	0.69	
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1137</b>	<b>1791</b>	<b>615</b>	<b>27.19</b>	<b>1133</b>	<b>26.54</b>	<b>0.65</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.50	21	0.49	0.02	
	KWHEP HPS(IPP)	1000	0	139	0	4.01	167	4.15	-0.14	
	Malana Stg-II HPS	100	0	43	0	0.20	8	0.17	0.02	
	Shree Cement TPS	300	0	263	218	6.28	261	6.51	-0.24	
	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>218</b>	<b>10.99</b>	<b>458</b>	<b>11.32</b>	<b>-0.34</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>16914</b>	<b>15969</b>	<b>10177</b>	<b>283.62</b>	<b>11817</b>	<b>289.57</b>	<b>-5.96</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	900	680	20.02	834
	Guru Nanak Dev TPS(Bhatinda)	440	200	105	4.06	169
	Guru Hargobind Singh TPS(L.mbt)	920	706	737	17.59	733
	Thermal (Total)	2620	1806	1522	41.66	1736
	Total Hydro	1148	422	420	10.55	440
	<b>Total Punjab</b>	<b>3768</b>	<b>2228</b>	<b>1942</b>	<b>52.21</b>	<b>2175</b>
Haryana	Panipat TPS	1367	1048	808	22.86	953
	DCRTPP (Yamuna nagar)	600	565	521	13.13	547
	Faridabad GPS (NTPC)	432	166	152	4.04	168
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	618	371	11.60	483
	Thermal (Total)	4944	2397	1852	51.64	2151
	Total Hydro	62	20	22	0.52	22
	<b>Total Haryana</b>	<b>5006</b>	<b>2417</b>	<b>1874</b>	<b>52.15</b>	<b>2173</b>
	Rajasthan	kota TPS	1240	1066	1106	26.86
suratgarh TPS		1500	1117	1211	28.51	1188
Chabra TPS		500	381	398	9.61	401
Dholpur GPS		330	121	143	2.87	120
Ramgarh GPS		111	67	71	1.79	74
RAPS A (NPC)		300	179	179	4.78	199
Barsingsar (NLC)		250	185	184	4.34	181
Giral LTPS		250	99	121	2.47	103
Rajwest LTPS (IPP)		1080	608	597	13.67	569
VSLP LTPS (IPP)		135	0		0.00	0
Thermal (Total)		5696	3823	4010	94.90	3954
Total Hydro		550	78	145	4.04	168
Wind power		2191	42	316	3.46	144
Biomass		91	21	21	0.50	21
Solar		201	35	0	1.41	59
Renewable/Others (Total)		2483	63	337	5.38	224
<b>Total Rajasthan</b>		<b>8729</b>	<b>3964</b>	<b>4492</b>	<b>104.32</b>	<b>4347</b>
UP	Anpara TPS	1630	1095	1048	22.70	946
	Obra TPS	1382	518	543	11.80	492
	Paricha TPS	890	798	863	17.20	717
	Panki TPS	210	80	85	1.80	75
	Harduaganj TPS	665	285	300	6.30	263
	Tanda TPS (NTPC)	440	356	405	9.51	396
	Roza TPS (IPP)	1200	630	801	17.93	747
	Anpara-C (IPP)	1200	391	396	9.37	390
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	310	401	8.56	357
	Thermal (Total)	8067	4463	4842	105.17	4382
	Vishnuparyag HPS (IPP)	400	70	71	1.71	71
	Other Hydro	527	148	264	4.34	181
	Cogeneration	981	800	800	19.20	800
	<b>Total UP</b>	<b>9975</b>	<b>5481</b>	<b>5977</b>	<b>130.41</b>	<b>5363</b>
Uttarakhand	Total Hydro	1303	530	543	12.56	523
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>530</b>	<b>543</b>	<b>12.56</b>	<b>523</b>
Delhi	Rajghat TPS	135	62	59	1.23	51
	Delhi Gas Turbine	282	152	154	3.72	155
	Pragati Gas Turbine	330	316	202	7.04	293
	Rithala GPS	108	0	0	0.00	0
	Bawana GPS	677	0	0	0.00	0
	Badarpur TPS (NTPC)	705	575	570	13.18	549
	Thermal (Total)	2237	1105	985	25.17	1049
	<b>Total Delhi</b>	<b>2237</b>	<b>1105</b>	<b>985</b>	<b>25.17</b>	<b>1049</b>
HP	Baspa HPS (IPP)	330	0	0	1.05	44
	Malana HPS (IPP)	86	42	0	0.19	8
	Other Hydro	589	263	308	7.03	293
	<b>Total HP</b>	<b>1005</b>	<b>305</b>	<b>308</b>	<b>8.27</b>	<b>345</b>
J & K	Baglihar HPS (IPP)	450	146	146	3.52	147
	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>241</b>	<b>276</b>	<b>8.07</b>	<b>336</b>
<b>Total State Control Area Generation</b>		<b>32979</b>	<b>16271</b>	<b>16397</b>	<b>393.16</b>	<b>16310</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>2492</b>	<b>2629</b>	<b>63.83</b>	<b>2660</b>
<b>Total Regional Availability(Gross)</b>		<b>55815</b>	<b>34732</b>	<b>29203</b>	<b>740.61</b>	<b>30787</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	6755	1494	78.99	3291
State Control Area Hydro	5368	1744	1978	50.05	2014
<b>Total Regional Hydro</b>	<b>15731</b>	<b>8499</b>	<b>3472</b>	<b>129.04</b>	<b>5306</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	350	0	350	0	4.64	0.00	4.64
Gwalior-Agra (D/C)	447	782	882	0	14.16	0.00	14.16
Zerda-Kankroli	-104	-168	0	276	0.00	3.18	-3.18
Zerda-Bhinmal	16	-91	75	247	0.00	1.21	-1.21
Malanpur-Auraiya	-140	-98	0	-148	0.00	2.52	-2.52
Badod-Kota/Morak	-124	-142	0	217	0.00	2.63	-2.63
Mundra-Mohindergarh(HVDC)	1052	1053	1054	0	25.54	0.00	25.54
<b>Sub Total WR</b>	<b>1497</b>	<b>1336</b>			<b>44.34</b>	<b>9.54</b>	<b>34.80</b>
Pusauli Bypass	400	400	400	0	9.23	0.00	9.23
MZP- GKP (D/C)	134	210	88	0	2.45	0.00	2.45
Patna-Balia(D/C)	384	473	530	0	10.72	0.00	10.72
B'Sharif-Balia (D/C)	154	228	271	0	4.85	0.00	4.85
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	-172	-111	0	204	0.00	1.77	-1.77
Gaya-Fatehpur (765 Kv)	0	-10	158	6	1.48	0.00	1.48
Pusauli-Sahupuri	131	143	149	0	2.90	0.00	2.90
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-36	-40	0	44	0.00	0.83	-0.83
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>995</b>	<b>1293</b>			<b>31.63</b>	<b>2.60</b>	<b>29.03</b>
<b>Total IR Exch</b>	<b>2492</b>	<b>2629</b>			<b>75.97</b>	<b>12.14</b>	<b>63.83</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
42.17	0.13	42.30	-10.65	1.26	2.10	-2.41	-2.09	2.11
<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
31.66	40.84	72.50	29.03	34.80	63.83	-2.63	-6.05	-8.67

**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	0.10	79.80	79.70	77.50	20.20

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					
50.50	4.08	49.69	22.40	50.10	0.27	0.13	50.48	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	2:48	401	9:33	0.0	0.0	0.0	0.0
Gorakhpur	400	429	16:10	409	10:33	0.0	0.0	31.1	0.0
Bareilly	400	425	4:05	403	8:54	0.0	0.0	11.6	0.0
Kanpur	400	420	4:04	400	9:34	0.0	0.0	0.0	0.0
Dadri	400	423	4:06	399	11:17	0.0	0.0	3.2	0.0
Ballabhgarh	400	430	4:04	404	11:16	0.0	0.0	20.9	0.0
Bawana	400	427	4:05	402	11:16	0.0	0.0	14.4	0.0
Bassi	400	429	4:07	396	22:12	0.0	0.0	8.8	0.0
Hissar	400	417	4:02	392	11:11	0.0	0.0	0.0	0.0
Moga	400	420	4:06	396	10:49	0.0	0.0	0.0	0.0
Abdullapur	400	432	4:07	405	10:49	0.0	0.0	22.5	0.7
Nalagarh	400	433	4:06	403	11:07	0.0	0.0	24.9	2.1
Kishenpur	400	418	4:07	394	19:18	0.0	0.0	0.0	0.0
Wagoora	400	410	4:08	377	19:53	3.1	9.6	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 18.03.2013 :**  
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 : 18.03.2013

पारी प्रभाती अश्विनी / SHIFT CHARGE ENGINEER