

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 19.03.2012  
Date of Reporting : 20.03.2012

### 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
30215	2313	32528	49.78	26782	650	27432	50.06	709.2	43.78

\* 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	49.05	11.40		60.45	45.74	41.33	-4.41	101.77	1.80
Haryana	54.80	0.62		55.42	25.82	44.47	18.65	99.89	6.22
Rajasthan	94.24	3.32	16.14	113.69	45.68	51.42	5.73	165.11	0.76
Delhi	25.83			25.83	46.82	35.41	-11.41	61.24	0.02
UP	84.83	7.45	14.40	106.68	87.68	94.52	6.84	201.20	30.92
Uttarakhand		10.16		10.16	14.37	17.38	3.01	27.54	1.00
HP		7.59		7.59	17.33	12.44	-4.89	20.04	0.76
J & K		7.67	0.00	7.67	21.50	21.24	-0.26	28.91	2.30
Chandigarh				0.00	3.68	3.49	-0.18	3.49	0.00
<b>Total</b>	<b>308.74</b>	<b>48.20</b>	<b>30.54</b>	<b>387.48</b>	<b>308.63</b>	<b>321.71</b>	<b>13.08</b>	<b>709.19</b>	<b>43.78</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	4501	150	143	-224	4048	0	-146	-148	-3.86
Haryana	4190	328	658	-168	3603	0	472	-180	-4.11
Rajasthan	6033	0	-485	6	7144	0	608	6	0.11
Delhi	3170	0	-291	-127	1794	0	-331	-339	-4.45
UP	8517	1625	256	265	7471	650	-411	243	6.14
Uttarakhand	1455	0	305	150	867	0	30	150	3.60
HP	829	60	-552	-297	570	0	-154	146	0.38
J&K	1336	150	-85	-18	1195	0	153	26	-0.17
Chandigarh	185	0	-4	0	90	0	-4	0	0.00
<b>Total</b>	<b>30215</b>	<b>2313</b>	<b>-55</b>	<b>-414</b>	<b>26782</b>	<b>650</b>	<b>217</b>	<b>-95</b>	<b>-2.36</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	2115	2099	47.64	1985	47.04	0.60
	Rihand I STPS	1000	915	993	995	22.09	920	21.96	0.13
	Rihand II STPS	1000	970	1043	1038	23.56	982	23.28	0.28
	Dadri I STPS	840	803	850	640	17.82	742	17.45	0.37
	Dadri II STPS	980	966	1004	860	22.31	929	21.81	0.50
	Unchahar I TPS	440	406	440	413	9.68	403	9.62	0.07
	Unchahar II TPS	440	404	440	405	9.62	401	9.45	0.17
	Unchahar III TPS	210	202	220	217	4.86	202	4.69	0.16
	ISTPP (Jhajjar)	1000	0	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	687	565	691	15.12	630	14.59	0.53
	Anta GPS	419	405	366	273	8.38	349	8.23	0.14
	Auraiya GPS	663	483	304	318	7.25	302	7.09	0.15
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8201</b>	<b>8340</b>	<b>7949</b>	<b>188.32</b>	<b>7847</b>	<b>185.21</b>	<b>3.11</b>
	B. NPC	NAPS	440	274	295	310	6.43	268	6.58
RAPS- B		440	418	459	464	9.97	416	10.03	-0.06
RAPS- C		440	420	460	475	10.10	421	10.08	0.02
<b>Sub Total (B)</b>		<b>1320</b>	<b>1112</b>	<b>1214</b>	<b>1249</b>	<b>26.50</b>	<b>1104</b>	<b>26.69</b>	<b>-0.19</b>
C. NHPC	Chamera I HPS	540	534	450	0	4.44	185	4.44	0.00
	Chamera II HPS	300	297	178	0	2.98	124	2.36	0.63
	Bairasuil HPS	180	179	179	0	3.42	143	3.20	0.23
	Salal-HPS	690	222	340	228	5.92	247	5.09	0.83
	Tanakpur-HPS	94	23	30	20	0.58	24	0.54	0.04
	Uri-HPS	480	335	344	266	8.50	354	7.82	0.68
	Dhauliganga-HPS	280	210	212	0	0.87	36	0.88	0.00
	Dulhasti-HPS	390	388	405	0	2.69	112	2.41	0.28
	Sewa-II HPS	120	119	115	122	2.57	107	2.63	-0.07
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2307</b>	<b>2253</b>	<b>636</b>	<b>31.98</b>	<b>1332</b>	<b>29.36</b>	<b>2.62</b>
D. NJPC	Nathpa Jhakri	1500	1200	1461	0	8.23	343	8.10	0.13
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1200</b>	<b>1461</b>	<b>0</b>	<b>8.23</b>	<b>343</b>	<b>8.10</b>	<b>0.13</b>
E. THDC	Tehri HPS	1000	580	578	0	6.49	270	6.50	-0.01
	Koteshwar HPS	300	300	300	0	2.48	103	2.40	0.08
	<b>Sub Total (E)</b>	<b>1300</b>	<b>880</b>	<b>878</b>	<b>0</b>	<b>8.97</b>	<b>374</b>	<b>8.90</b>	<b>0.07</b>
F. BBMB	Bhakra HPS	1480	749	993	414	18.36	765	17.97	0.39
	Dehar HPS	990	188	330	0	4.86	203	4.52	0.34
	Pong HPS	396	247	306	126	5.93	247	5.93	0.00
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1184</b>	<b>1629</b>	<b>540</b>	<b>29.15</b>	<b>1215</b>	<b>28.42</b>	<b>0.73</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.75	31	0.46	0.28
	KWHEP HPS(IPP)	1000	0	360	0	4.40	184	3.98	0.42
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	131	214	3.91	163	2.60	1.31
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>491</b>	<b>214</b>	<b>9.06</b>	<b>377</b>	<b>7.04</b>	<b>2.01</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21475</b>	<b>14884</b>	<b>16266</b>	<b>10588</b>	<b>302.21</b>	<b>12592</b>	<b>293.72</b>	<b>8.50</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	1045	23.02	959	
	Guru Nanak Dev TPS(Bhatinda)	440	219	219	4.69	195	
	Guru Hargobind Singh TPS(L.mbt)	920	958	957	21.34	889	
	Thermal (Total)	2620	2077	2221	49.05	2044	
	Total Hydro	1148	370	364	11.40	475	
	<b>Total Punjab</b>	<b>3768</b>	<b>2447</b>	<b>2585</b>	<b>60.45</b>	<b>2519</b>	
Haryana	Panipat TPS	1360	974	1048	24.89	1037	
	DCRTPP (Yamuna nagar)	600	279	279	6.66	278	
	Faridabad GPS (NTPC)	432	401	377	9.37	390	
	RGTPP (kheldar) (IPP)	1200	548	576	13.88	578	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	660	0	0	0.00	0	
	Thermal (Total)	4277	2202	2280	54.80	2283	
	Total Hydro	62	20	15	0.62	26	
	<b>Total Haryana</b>	<b>4339</b>	<b>2222</b>	<b>2295</b>	<b>55.42</b>	<b>2309</b>	
	Rajasthan	kota TPS	1240	1161	1168	27.61	1150
suratgarh TPS		1500	1134	1139	27.52	1147	
Chabra TPS		500	207	208	7.81	326	
Dholpur GPS		330	235	292	5.86	244	
Ramgarh GPS		113	60	62	1.53	64	
RAPS A (NPC)		300	182	185	4.52	188	
Barsingsar (NLC)		250	189	196	5.26	219	
Giral LTPS (IPP)		250	184	193	2.52	105	
Rajwest LTPS (IPP)		540	458	449	11.60	483	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5158	3810	3892	94.24	3927	
Total Hydro		550	138	142	3.32	138	
Wind power		1294	627	882	15.35	639	
Biomass		71	33	33	0.79	33	
Solar		50	0	0	0.00	0	
Renewable/Others (Total)		1365	660	915	16.14	672	
<b>Total Rajasthan</b>		<b>7073</b>	<b>4608</b>	<b>4949</b>	<b>113.69</b>	<b>4737</b>	
UP		Anpara TPS	1630	1422	1471	31.20	1300
		Obra TPS	1442	596	546	12.50	521
		Paricha TPS	640	256	266	5.60	233
	Panki TPS	210	140	125	2.90	121	
	Harduaganj TPS	415	36	38	0.70	29	
	Tanda TPS (NTPC)	440	398	402	10.92	455	
	Roza TPS (IPP)	900	279	279	6.71	280	
	Anpara-C (IPP)	1200	396	378	9.59	399	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	224	189	4.72	197	
	Thermal (Total)	7057	3747	3694	84.83	3535	
	Vishnuparyag HPS (IPP)	400	79	79	1.94	81	
	Other Hydro	527	278	55	5.51	230	
	Cogeneration	951	600	600	14.40	600	
	<b>Total UP</b>	<b>8935</b>	<b>4704</b>	<b>4428</b>	<b>106.68</b>	<b>4364</b>	
	Uttarakhand	Total Hydro	1303	477	307	10.16	423
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>477</b>	<b>307</b>	<b>10.16</b>	<b>423</b>
Delhi	Rajghat TPS	135	105	106	2.82	118	
	Delhi Gas Turbine	282	75	77	1.93	80	
	Pragati Gas Turbine	330	288	265	7.08	295	
	Rithala GPS	108	30	30	0.84	35	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	538	493	13.16	548	
	Thermal (Total)	2000	1036	971	25.83	1076	
	<b>Total Delhi</b>	<b>2000</b>	<b>1036</b>	<b>971</b>	<b>25.83</b>	<b>1076</b>	
HP	Baspa HPS (IPP)	330	0	28	0.91	38	
	Malana HPS (IPP)	101	45	0	0.44	18	
	Other Hydro	571	273	216	6.24	260	
	<b>Total HP</b>	<b>1002</b>	<b>318</b>	<b>244</b>	<b>8</b>	<b>316</b>	
J & K	Baglihar HPS (IPP)	450	238	148	5.25	219	
	Other Hydro	323	95	105	2.41	101	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>333</b>	<b>253</b>	<b>7.67</b>	<b>319</b>	
<b>Total State Control Area Generation</b>		<b>29376</b>	<b>16145</b>	<b>16032</b>	<b>387.48</b>	<b>16064</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>433</b>	<b>2024</b>	<b>43.60</b>	<b>1817</b>	
<b>Total Regional Availability(Gross)</b>		<b>50851</b>	<b>32844</b>	<b>28644</b>	<b>733.29</b>	<b>30473</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10033	6581	1176	83.48	3478
State Control Area Hydro	5365	1934	1380	46.27	1928
<b>Total Regional Hydro</b>	<b>15397</b>	<b>8515</b>	<b>2556</b>	<b>129.75</b>	<b>5406</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	-50	0	100	50	0.09	0.61	-0.52
Gwalior-Agra (D/C)	419	861	1067	0	17.33	0.00	17.33
Zerda-Kankroli	-240	-79	0	240	0.00	3.18	-3.18
Zerda-Bhinmal	-255	-86	49	289	0.00	2.72	-2.72
Malanpur-Auraiya	-103	-58	0	175	0.00	1.33	-1.33
Badod-Kota/Morak	18	-5	48	17	0.35	0.00	0.35
<b>Sub Total WR</b>	<b>-211</b>	<b>633</b>			<b>17.76</b>	<b>7.83</b>	<b>9.93</b>
Pusauli Bypass	-114	31	20	199	0.68	1.11	-0.44
MZP- GKP (D/C)	234	302	530	0	8.53	0.00	8.53
Patna-Balia(D/C)	288	287	526	0	8.40	0.00	8.40
B'Sharif-Balia (D/C)	151	415	514	0	8.80	0.00	8.80
Barh - balia(D/C)	0	307	389	0	6.33	0.00	6.33
Pusauli-Sahupuri	115	81	183	0	3.00	0.00	3.00
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	0.95	-0.95
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>644</b>	<b>1391</b>			<b>35.74</b>	<b>2.06</b>	<b>33.68</b>
<b>Total IR Exch</b>	<b>433</b>	<b>2024</b>			<b>53.50</b>	<b>9.89</b>	<b>43.60</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
29.25	0.16	29.40	-0.97	0.89	3.26	-0.82	1.58	-1.58

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
33.27	-3.76	29.51	33.68	9.93	43.60	0.41	13.69	14.09

**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	0.10	1.30	17.10	97.40	81.60	13.30	1.30

<----- 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					
50.43	18.03	49.22	19.12	49.84	0.50	0.16	50.20	49.65

**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	18:14	401	00:08	0.0	0.0	0.0	0.0
Gorakhpur	400	435	18:15	410	10:21	0.0	0.0	57.8	1.0
Bareilly	400	419	03:01	397	12:07	0.0	0.0	0.0	0.0
Kanpur	400	412	03:16	396	23:04	0.0	0.0	0.0	0.0
Dadri	400	416	03:15	400	12:06	0.0	0.0	0.0	0.0
Ballabgarh	400	418	18:15	401	12:06	0.0	0.0	0.0	0.0
Bawana	400	419	03:15	400	12:09	0.0	0.0	0.0	0.0
Bassi	400	420	18:17	390	23:43	0.0	0.0	0.0	0.0
Hissar	400	414	20:56	396	12:05	0.0	0.0	0.0	0.0
Moga	400	421	05:03	404	09:41	0.0	0.0	0.5	0.0
Abdullapur	400	420	03:21	285	08:17	0.2	0.2	0.0	0.0
Nalagarh	400	424	05:03	407	11:55	0.0	0.0	13.6	0.0
Kishenpur	400	428	23:30	404	09:40	0.0	0.0	14.7	0.0
Wagoora	400	421	23:50	386	07:14	0.0	13.7	0.5	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	481.67	495.33	489.58	735.00	133.41	591.80
Pong	426.72	384.05	405.54	352.07	410.90	524.00	87.73	389.30
Tehri	829.79	740.04	775.60	274.00	818.65	982.26	51.75	220.00
Koteshwar	612.50	598.50	60.81	3.76	NA	NA	198.00	188.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	118.62	134.45
Rihand	268.22	252.98	260.60	338.50	255.67	102.80	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	497.12	NA	504.35	NA	102.73	200.82

\* NA: Not Available

**IX. System Constraints:**

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

1: Due to heavy storm in Kashmir valley, load of J&K crashed from 1100 MW to 250 MW at 0348 hrs along with Uri generation of 340MW. Uri generation normalised at 0609hrs but valley load is being connected.

**XI. Weather Conditions For 19.03.2012 :**

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 : 19.03.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER