

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 18.03.2012  
Date of Reporting : 19.03.2012

### 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
29112	1330	30442	49.90	27605	1000	28605	49.82	699.1	36.47

\* 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	48.84	9.99		58.84	48.94	42.68	-6.26	101.51	1.80
Haryana	54.89	0.58		55.47	25.84	45.06	19.22	100.52	2.99
Rajasthan	91.30	3.48	6.42	101.20	48.38	58.93	10.55	160.14	0.80
Delhi	25.15			25.15	41.25	31.07	-10.18	56.22	0.01
UP	82.11	6.97	14.40	103.47	89.01	96.27	7.26	199.74	27.52
Uttarakhand		9.53		9.53	14.40	17.18	2.78	26.71	0.30
HP		6.20		6.20	15.90	12.82	-3.07	19.03	0.76
J & K		7.67	0.00	7.67	21.36	24.52	3.16	32.18	2.30
Chandigarh				0.00	3.39	3.04	-0.36	3.04	0.00
<b>Total</b>	<b>302.29</b>	<b>44.42</b>	<b>20.82</b>	<b>367.53</b>	<b>308.46</b>	<b>331.56</b>	<b>23.09</b>	<b>699.09</b>	<b>36.47</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	4334	150	-324	-224	4002	0	-21	-148	-3.86
Haryana	4369	0	760	-168	3732	0	621	-180	-4.11
Rajasthan	6025	0	-205	6	6913	0	962	6	0.11
Delhi	2705	0	-390	-123	1768	0	-239	-335	-4.35
UP	8047	970	-119	265	8188	1000	418	243	6.14
Uttarakhand	1305	0	141	150	1006	0	204	150	3.60
HP	707	60	-557	-297	678	0	87	146	0.38
J&K	1464	150	33	-18	1224	0	220	26	-0.17
Chandigarh	156	0	-21	0	93	0	-2	0	0.00
<b>Total</b>	<b>29112</b>	<b>1330</b>	<b>-682</b>	<b>-410</b>	<b>27605</b>	<b>1000</b>	<b>2250</b>	<b>-91</b>	<b>-2.26</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	2100	2113	47.36	1973	47.04	0.32
	Rihand I STPS	1000	915	992	990	22.11	921	21.96	0.15
	Rihand II STPS	1000	975	1040	1048	23.50	979	23.40	0.10
	Dadri I STPS	840	803	670	732	17.10	713	15.31	1.79
	Dadri II STPS	980	960	1014	960	22.30	929	20.89	1.41
	Unchahar I TPS	440	406	438	439	9.71	405	9.47	0.25
	Unchahar II TPS	440	404	438	439	9.71	404	9.21	0.50
	Unchahar III TPS	210	202	219	221	4.86	202	4.64	0.22
	ISTPP (Jhajjar)	1000	0	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	822	771	630	17.45	727	16.77	0.68
	Anta GPS	419	406	381	306	8.33	347	8.17	0.16
	Auraiya GPS	663	482	302	320	7.33	305	7.25	0.07
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8335</b>	<b>8365</b>	<b>8198</b>	<b>189.75</b>	<b>7906</b>	<b>184.11</b>	<b>5.64</b>
B. NPC	NAPS	440	277	300	314	6.49	270	6.65	-0.16
	RAPS- B	440	421	459	464	10.10	421	10.10	0.00
	RAPS- C	440	420	464	473	10.10	421	10.08	0.02
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1118</b>	<b>1223</b>	<b>1251</b>	<b>26.70</b>	<b>1112</b>	<b>26.83</b>	<b>-0.13</b>
C. NHPC	Chamera I HPS	540	534	540	0	4.14	172	4.13	0.00
	Chamera II HPS	300	297	178	0	2.24	94	2.01	0.23
	Bairasuil HPS	180	179	179	0	2.91	121	2.59	0.32
	Salal-HPS	690	205	340	228	5.41	226	4.95	0.46
	Tanakpur-HPS	94	25	31	17	0.55	23	0.51	0.04
	Uri-HPS	480	323	344	266	7.62	318	7.29	0.33
	Dhauliganga-HPS	280	210	212	0	0.88	37	0.86	0.02
	Dulhasti-HPS	390	388	405	0	2.23	93	2.14	0.08
	Sewa-II HPS	120	119	115	122	2.57	107	2.57	0.00
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2279</b>	<b>2344</b>	<b>633</b>	<b>28.54</b>	<b>1189</b>	<b>27.06</b>	<b>1.48</b>
D. NJPC	Nathpa Jhakri	1500	1200	1586	0	6.69	279	6.62	0.07
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1200</b>	<b>1586</b>	<b>0</b>	<b>6.69</b>	<b>279</b>	<b>6.62</b>	<b>0.07</b>
E. THDC	Tehri HPS	1000	580	583	0	6.43	268	6.50	-0.07
	Koteshwar HPS	300	300	302	0	2.44	102	2.40	0.04
	<b>Sub Total (E)</b>	<b>1300</b>	<b>880</b>	<b>885</b>	<b>0</b>	<b>8.87</b>	<b>370</b>	<b>8.90</b>	<b>-0.03</b>
F. BBMB	Bhakra HPS	1480	749	993	414	18.36	765	17.98	0.38
	Dehar HPS	990	155	330	0	4.86	203	3.72	1.15
	Pong HPS	396	231	306	126	5.93	247	5.55	0.38
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1135</b>	<b>1629</b>	<b>540</b>	<b>29.15</b>	<b>1215</b>	<b>27.24</b>	<b>1.91</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.33	14	0.30	0.03
	KWHEP HPS(IPP)	1000	0	360	0	3.86	161	3.98	-0.12
	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	2.09	1.82
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>491</b>	<b>214</b>	<b>8.10</b>	<b>338</b>	<b>6.37</b>	<b>1.73</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21475</b>	<b>14947</b>	<b>16523</b>	<b>10836</b>	<b>297.80</b>	<b>12408</b>	<b>287.14</b>	<b>10.66</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	1040	1040	22.87	953	
	Guru Nanak Dev TPS(Bhatinda)	440	219	219	4.65	194	
	Guru Hargobind Singh TPS(L.mbt)	920	942	966	21.32	888	
	Thermal (Total)	2620	2201	2225	48.84	2035	
	Total Hydro	1148	345	328	9.99	416	
	<b>Total Punjab</b>	<b>3768</b>	<b>2546</b>	<b>2553</b>	<b>58.84</b>	<b>2452</b>	
Haryana	Panipat TPS	1360	1028	1027	25.08	1045	
	DCRTPP (Yamuna nagar)	600	277	279	6.59	275	
	Faridabad GPS (NTPC)	432	403	411	9.72	405	
	RGTPP (kheldar) (IPP)	1200	564	558	13.50	562	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	660	0	0	0.00	0	
	Thermal (Total)	4277	2272	2275	54.89	2287	
	Total Hydro	62	21	17	0.58	24	
	<b>Total Haryana</b>	<b>4339</b>	<b>2293</b>	<b>2292</b>	<b>55.47</b>	<b>2311</b>	
	Rajasthan	kota TPS	1240	1097	1165	27.62	1151
suratgarh TPS		1500	1123	1134	26.59	1108	
Chabra TPS		500	186	219	4.77	199	
Dholpur GPS		330	292	275	6.76	282	
Ramgarh GPS		113	60	59	1.48	62	
RAPS A (NPC)		300	185	186	4.52	188	
Barsingsar (NLC)		250	196	190	5.27	220	
Giral LTPS (IPP)		250	193	134	3.11	130	
Rajwest LTPS (IPP)		540	449	435	11.17	465	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5158	3781	3797	91.30	3804	
Total Hydro		550	138	142	3.48	145	
Wind power		1294	237	308	5.76	240	
Biomass		71	28	28	0.66	28	
Solar		50	0	0	0.00	0	
Renewable/Others (Total)		1365	265	336	6.42	268	
<b>Total Rajasthan</b>		<b>7073</b>	<b>4184</b>	<b>4275</b>	<b>101.20</b>	<b>4217</b>	
UP		Anpara TPS	1630	1456	1300	29.90	1246
		Obra TPS	1442	523	499	10.20	425
		Paricha TPS	640	259	354	7.40	308
	Panki TPS	210	150	115	2.70	113	
	Harduaganj TPS	415	36	38	0.80	33	
	Tanda TPS (NTPC)	440	401	399	10.92	455	
	Roza TPS (IPP)	900	279	279	6.71	280	
	Anpara-C (IPP)	1200	387	405	9.53	397	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	185	132	3.95	165	
	Thermal (Total)	7057	3676	3521	82.11	3421	
	Vishnuparyag HPS (IPP)	400	79	74	1.83	76	
	Other Hydro	527	200	51	5.13	214	
	Cogeneration	951	600	600	14.40	600	
	<b>Total UP</b>	<b>8935</b>	<b>4555</b>	<b>4246</b>	<b>103.47</b>	<b>4235</b>	
	Uttarakhand	Total Hydro	1303	469	295	9.53	397
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>469</b>	<b>295</b>	<b>9.53</b>	<b>397</b>
Delhi	Rajghat TPS	135	108	107	2.81	117	
	Delhi Gas Turbine	282	77	77	1.95	81	
	Pragati Gas Turbine	330	288	269	7.01	292	
	Rithala GPS	108	30	30	0.46	19	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	497	555	12.92	538	
	Thermal (Total)	2000	1000	1116	25.15	1048	
	<b>Total Delhi</b>	<b>2000</b>	<b>1000</b>	<b>1116</b>	<b>25.15</b>	<b>1048</b>	
HP	Baspa HPS (IPP)	330	0	0	0.94	39	
	Malana HPS (IPP)	101	43	0	0.44	18	
	Other Hydro	571	190	123	4.83	201	
	<b>Total HP</b>	<b>1002</b>	<b>233</b>	<b>123</b>	<b>6</b>	<b>259</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>15613</b>	<b>15153</b>	<b>367.53</b>	<b>15238</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>588</b>	<b>2912</b>	<b>49.36</b>	<b>2056</b>	
<b>Total Regional Availability(Gross)</b>		<b>50851</b>	<b>32724</b>	<b>28901</b>	<b>714.69</b>	<b>29702</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10033	6804	1173	77.45	3227
State Control Area Hydro	5365	1739	1209	42.59	1774
<b>Total Regional Hydro</b>	<b>15397</b>	<b>8543</b>	<b>2382</b>	<b>120.03</b>	<b>5001</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	0	0	400	0.00	5.21	-5.21
Gwalior-Agra (D/C)	265	1071	1187	0	17.67	0.00	17.67
Zerda-Kankroli	-102	34	59	196	0.00	1.17	-1.17
Zerda-Bhinmal	-85	106	180	186	0.31	0.00	0.31
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>-207</b>	<b>1148</b>			<b>18.33</b>	<b>7.71</b>	<b>10.62</b>
Pusauli Bypass	-243	143	251	243	2.17	0.96	1.21
MZP- GKP (D/C)	125	402	520	0	8.63	0.00	8.63
Patna-Balia(D/C)	216	333	386	0	7.56	0.00	7.56
B'Sharif-Balia (D/C)	333	496	625	0	11.33	0.00	11.33
Barh - balia(D/C)	248	356	410	0	8.33	0.00	8.33
Pusauli-Sahupuri	146	66	149	0	2.53	0.00	2.53
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	0.86	-0.86
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>795</b>	<b>1764</b>			<b>40.56</b>	<b>1.82</b>	<b>38.74</b>
<b>Total IR Exch</b>	<b>588</b>	<b>2912</b>			<b>58.89</b>	<b>9.53</b>	<b>49.36</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
29.08	0.20	29.28	-0.87	0.92	7.08	1.07	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
37.06	-0.90	36.17	38.74	10.62	49.36	1.67	11.51	13.19

**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	1.60	18.00	95.10	78.70	17.60	3.30

<----- 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					
50.37	18.03	49.13	22.03	49.85	0.51	0.17	50.27	49.68

**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	404	03:04	399	14:08	0.0	0.0	0.0	0.0
Gorakhpur	400	427	21:49	408	12:19	0.0	0.0	11.7	0.0
Bareilly	400	416	08:03	401	12:03	0.0	0.0	0.0	0.0
Kanpur	400	416	18:14	395	00:14	0.0	0.0	0.0	0.0
Dadri	400	418	18:15	404	08:40	0.0	0.0	0.0	0.0
Ballabgarh	400	423	18:15	405	00:13	0.0	0.0	2.0	0.0
Bawana	400	421	18:03	406	12:03	0.0	0.0	1.1	0.0
Bassi	400	424	18:15	394	00:14	0.0	0.0	2.2	0.0
Hissar	400	413	18:03	397	08:47	0.0	0.0	0.0	0.0
Moga	400	421	22:38	404	10:11	0.0	0.0	1.0	0.0
Abdullapur	400	425	18:03	292	06:46	0.2	0.2	8.8	0.0
Nalagarh	400	428	22:11	411	12:09	0.0	0.0	19.3	0.0
Kishenpur	400	419	04:15	400	19:11	0.0	0.0	0.0	0.0
Wagoora	400	401	04:14	382	18:43	0.0	43.8	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	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:**

**XI. Weather Conditions For 18.03.2012 :**

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 : 18.03.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER