

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 19.02.2012  
Date of Reporting : 20.02.2012

### I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 Hrs) MW			Demand Met	Off Peak (03:00 Hrs) MW			Day Energy (Net MU)	
	Shortage	Requirement	Freq* (Hz)		Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
30684	1631	32315	49.96	25918	650	26568	50.03	704.9	37.34

\* 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	49.16	11.76		60.92	38.88	38.34	-0.53	99.26	1.94
Haryana	58.06	0.56		58.62	23.89	38.66	14.77	97.28	3.59
Rajasthan	91.24	4.30	8.58	104.12	46.93	56.69	9.76	160.81	1.28
Delhi	26.72			26.72	36.76	29.70	-7.06	56.43	0.01
UP	94.06	5.36	14.40	113.81	84.85	88.77	3.92	202.58	25.97
Uttarakhand		9.44		9.44	18.03	17.79	-0.24	27.23	1.75
HP		3.89		3.89	19.98	19.00	-0.97	22.90	0.50
J & K		4.58	0.00	4.58	24.91	30.55	5.64	35.14	2.30
Chandigarh				0.00	3.55	3.32	-0.24	3.32	0.00
<b>Total</b>	<b>319.24</b>	<b>39.89</b>	<b>22.98</b>	<b>382.11</b>	<b>297.78</b>	<b>322.82</b>	<b>25.04</b>	<b>704.93</b>	<b>37.34</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	4186	150	-235	-287	3666	0	330	-407	-6.66
Haryana	4596	121	1086	-129	3542	0	309	-129	-3.10
Rajasthan	6191	0	-3	12	6394	0	682	62	4.27
Delhi	2814	0	-271	-123	1381	0	-275	-420	-5.39
UP	8843	1060	145	265	7626	650	33	265	6.36
Uttarakhand	1304	150	-34	350	1036	0	87	350	8.40
HP	1005	0	-426	223	785	0	157	323	7.25
J&K	1573	150	139	255	1398	0	275	261	5.83
Chandigarh	172	0	-29	0	91	0	6	-41	-0.33
<b>Total</b>	<b>30684</b>	<b>1631</b>	<b>373</b>	<b>566</b>	<b>25918</b>	<b>650</b>	<b>1604</b>	<b>264</b>	<b>16.63</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)	UI [OG:(+ve), UG: (-ve)]	
								Net MU	Net MU
A. NTPC	Singrauli STPS	2000	1765	1886	1884	42.73	1780	42.03	0.70
	Rihand I STPS	1000	920	998	870	21.80	908	21.56	0.24
	Rihand II STPS	1000	975	1037	977	23.22	968	22.73	0.49
	Dadri I STPS	840	798	482	450	11.52	480	11.79	-0.27
	Dadri II STPS	980	976	999	695	21.53	897	22.17	-0.64
	Unchahar I TPS	440	406	436	376	9.51	396	9.48	0.03
	Unchahar II TPS	440	404	440	347	9.40	392	9.23	0.17
	Unchahar III TPS	210	202	213	170	4.69	196	4.66	0.03
	ISTPP (Jhajjar)	1000	0	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	646	534	427	11.54	481	11.53	0.01
	Anta GPS	419	429	536	298	7.79	325	7.57	0.22
	Auraiya GPS	663	654	441	406	10.12	422	10.08	0.05
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8176</b>	<b>8002</b>	<b>6900</b>	<b>173.84</b>	<b>7243</b>	<b>172.83</b>	<b>1.01</b>
B. NPC	NAPS	440	139	159	166	3.33	139	3.34	0.00
	RAPS- B	440	425	466	471	10.21	425	10.20	0.01
	RAPS- C	440	420	472	477	10.01	417	10.08	-0.07
	<b>Sub Total (B)</b>	<b>1320</b>	<b>984</b>	<b>1097</b>	<b>1114</b>	<b>23.55</b>	<b>981</b>	<b>23.62</b>	<b>-0.07</b>
C. NHPC	Chamera I HPS	540	438	360	0	3.95	165	3.92	0.03
	Chamera II HPS	300	297	181	0	1.33	55	1.36	-0.03
	Bairasuil HPS	180	127	120	0	1.25	52	1.23	0.02
	Salal-HPS	690	149	300	35	3.13	130	3.50	-0.38
	Tanakpur-HPS	94	26	29	16	0.54	23	0.53	0.01
	Uri-HPS	480	228	237	100	5.51	230	5.20	0.31
	Dhauliganga-HPS	280	140	140	0	0.68	28	0.75	-0.07
	Dulhasti-HPS	390	0	0	0	0.00	0	0.00	0.00
	Sewa-II HPS	120	119	121	0	1.19	49	1.17	0.02
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1523</b>	<b>1488</b>	<b>151</b>	<b>17.58</b>	<b>732</b>	<b>17.66</b>	<b>-0.08</b>
D. NJPC	Nathpa Jhakri	1500	1133	1579	0	6.45	269	6.79	-0.34
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1133</b>	<b>1579</b>	<b>0</b>	<b>6.45</b>	<b>269</b>	<b>6.79</b>	<b>-0.34</b>
E. THDC	Tehri HPS	1000	900	895	0	8.24	343	8.40	-0.16
	Koteshwar HPS	200	163	202	80	2.78	116	2.80	-0.02
	<b>Sub Total (E)</b>	<b>1200</b>	<b>1063</b>	<b>1097</b>	<b>80</b>	<b>11.02</b>	<b>459</b>	<b>11.20</b>	<b>-0.18</b>
F. BBMB	Bhakra HPS	1480	777	995	417	19.10	796	18.65	0.45
	Dehar HPS	990	126	495	0	3.30	138	3.03	0.28
	Pong HPS	396	199	306	60	4.94	206	4.76	0.18
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1102</b>	<b>1796</b>	<b>477</b>	<b>27.34</b>	<b>1139</b>	<b>26.44</b>	<b>0.90</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.24	10	0.23	0.01
	KWHEP HPS(IPP)	1000	0	552	0	3.36	140	3.36	0.00
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	144	145	3.37	140	3.47	-0.10
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>696</b>	<b>145</b>	<b>6.97</b>	<b>290</b>	<b>7.06</b>	<b>-0.09</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21225</b>	<b>13981</b>	<b>15755</b>	<b>8867</b>	<b>266.75</b>	<b>11115</b>	<b>265.59</b>	<b>1.16</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	960	1045	22.93	956	
	Guru Nanak Dev TPS(Bhatinda)	440	218	218	4.75	198	
	Guru Hargobind Singh TPS(L.mbt)	920	970	959	21.48	895	
	Thermal (Total)	2620	2148	2222	49.16	2048	
	Total Hydro	1148	388	315	11.76	490	
	<b>Total Punjab</b>	<b>3768</b>	<b>2536</b>	<b>2537</b>	<b>60.92</b>	<b>2538</b>	
Haryana	Panipat TPS	1360	855	857	20.97	874	
	DCRTPP (Yamuna nagar)	600	279	278	6.59	274	
	Faridabad GPS (NTPC)	432	417	325	9.80	408	
	RGTPP (kheldar) (IPP)	1200	690	921	20.71	863	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	660	0	0	0.00	0	
	Thermal (Total)	4277	2241	2381	58.06	2419	
	Total Hydro	62	17	23	0.56	23	
	<b>Total Haryana</b>	<b>4339</b>	<b>2258</b>	<b>2404</b>	<b>58.62</b>	<b>2443</b>	
	Rajasthan	kota TPS	1240	1132	1170	27.80	1158
suratgarh TPS		1500	1276	1358	31.69	1320	
Chabra TPS		500	366	221	10.48	437	
Dholpur GPS		330	229	195	5.44	227	
Ramgarh GPS		113	42	45	1.08	45	
RAPS A (NPC)		300	184	185	4.58	191	
Barsingsar (NLC)		250	116	116	2.62	109	
Giral LTPS (IPP)		250	0	0	0.00	0	
Rajwest LTPS (IPP)		540	303	281	7.55	315	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5158	3648	3571	91.24	3802	
Total Hydro		550	171	149	4.30	179	
Wind power		1294	120	207	3.40	142	
Biomass		71	47	47	0.88	37	
Solar		50	0	0	0.00	0	
Renewable/Others (Total)		1365	167	254	8.58	358	
<b>Total Rajasthan</b>		<b>7073</b>	<b>3986</b>	<b>3974</b>	<b>104.12</b>	<b>4338</b>	
UP		Anpara TPS	1630	1404	1389	33.30	1388
		Obra TPS	1442	499	620	12.50	521
	Paricha TPS	640	203	209	5.00	208	
	Panki TPS	210	158	162	3.80	158	
	Harduaganj TPS	415	226	266	6.10	254	
	Tanda TPS (NTPC)	440	400	320	9.36	390	
	Roza TPS (IPP)	900	549	383	12.54	523	
	Anpara-C (IPP)	1200	376	377	9.05	377	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	129	97	2.41	100	
	Thermal (Total)	7057	3944	3823	94.06	3919	
	Vishnuparyag HPS (IPP)	400	74	69	1.66	69	
	Other Hydro	527	120	0	3.70	154	
	Cogeneration	951	600	600	14.40	600	
	<b>Total UP</b>	<b>8935</b>	<b>4738</b>	<b>4492</b>	<b>113.81</b>	<b>4673</b>	
	Uttarakhand	Total Hydro	1303	516	301	9.44	393
<b>Total Uttarakhand</b>		<b>1303</b>	<b>516</b>	<b>301</b>	<b>9.44</b>	<b>393</b>	
Delhi	Rajghat TPS	135	102	103	2.47	103	
	Delhi Gas Turbine	282	83	81	1.93	80	
	Pragati Gas Turbine	330	307	266	7.21	300	
	Rithala GPS	108	17	13	0.62	26	
	Bawana GPS	440	120	12	1.20	50	
	Badarpur TPS (NTPC)	705	550	560	13.30	554	
	Thermal (Total)	2000	1179	1036	26.72	1113	
	<b>Total Delhi</b>	<b>2000</b>	<b>1179</b>	<b>1036</b>	<b>26.72</b>	<b>1113</b>	
HP	Baspa HPS (IPP)	330	73	0	0.93	39	
	Malana HPS (IPP)	101	0	0	0.07	3	
	Other Hydro	571	118	54	2.90	121	
	<b>Total HP</b>	<b>1002</b>	<b>191</b>	<b>54</b>	<b>4</b>	<b>162</b>	
J & K	Baglihar HPS (IPP)	450	116	130	2.82	118	
	Other Hydro	323	82	124	1.76	73	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>198</b>	<b>254</b>	<b>4.58</b>	<b>191</b>	
<b>Total State Control Area Generation</b>		<b>29376</b>	<b>15602</b>	<b>15052</b>	<b>382.11</b>	<b>15852</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1163</b>	<b>2799</b>	<b>67.23</b>	<b>2801</b>	
<b>Total Regional Availability(Gross)</b>		<b>50601</b>	<b>32520</b>	<b>26718</b>	<b>716.09</b>	<b>29768</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	6656	853	69.36	2890
State Control Area Hydro	5365	1601	1096	38.23	1593
<b>Total Regional Hydro</b>	<b>15447</b>	<b>8257</b>	<b>1949</b>	<b>107.59</b>	<b>4483</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	-100	0	200	0.00	2.49	-2.49
Gwalior-Agra (D/C)	328	856	1192	0	19.70	0.00	19.70
Zerda-Kankroli	-169	-18	130	169	0.10	0.00	0.10
Zerda-Bhinmal	-73	72	276	138	2.53	0.00	2.53
Malanpur-Auraiya	-135	-54	0	166	0.00	1.65	-1.65
Badod-Kota/Morak	-7	11	82	33	0.50	0.00	0.50
<b>Sub Total WR</b>	<b>-256</b>	<b>767</b>			<b>22.82</b>	<b>4.14</b>	<b>18.68</b>
Pusauli Bypass	250	150	250	0	3.52	0.00	3.52
MZP- GKP (D/C)	310	612	884	0	14.99	0.00	14.99
Patna-Balia(D/C)	259	641	870	0	12.55	0.00	12.55
B'Sharif-Balia (D/C)	176	591	685	0	10.62	0.00	10.62
Barh - balia(D/C)	284	0	395	0	4.91	0.00	4.91
Pusauli-Sahupuri	170	70	170	0	2.61	0.00	2.61
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	0.66	-0.66
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1419</b>	<b>2032</b>			<b>49.20</b>	<b>0.66</b>	<b>48.55</b>
<b>Total IR Exch</b>	<b>1163</b>	<b>2799</b>			<b>72.03</b>	<b>4.80</b>	<b>67.23</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
23.83	0.28	24.11	8.61	10.32	2.05	7.37	2.84	-2.84

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
37.61	12.51	50.12	48.55	18.68	67.23	10.94	6.17	17.11

**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	1.50	14.00	95.00	82.50	24.90	3.50

<----- 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					
50.49	17.03	49.41	18.48	49.89	0.43	0.17	50.47	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	409	21:50	397	06:36	0.0	0.0	0.0	0.0
Gorakhpur	400	436	04:02	405	09:48	0.0	0.0	59.7	17.1
Bareilly	400	424	03:05	400	09:11	0.0	0.0	9.3	0.0
Kanpur	400	417	03:06	398	06:33	0.0	0.0	0.0	0.0
Dadri	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Ballabgarh	400	426	04:01	402	12:50	0.0	0.0	18.4	0.0
Bawana	400	427	04:00	404	10:22	0.0	0.0	26.8	0.0
Bassi	400	423	04:04	397	06:28	0.0	0.0	3.0	0.0
Hissar	400	416	21:00	394	12:23	0.0	0.0	0.0	0.0
Moga	400	427	21:00	403	12:49	0.0	0.0	21.6	0.0
Abdullapur	400	426	04:00	403	10:23	0.0	0.0	25.5	0.0
Nalagarh	400	426	20:28	406	10:03	0.0	0.0	33.9	0.0
Kishenpur	400	421	05:02	394	10:21	0.0	0.0	0.7	0.0
Wagoora	400	406	05:32	377	10:22	7.3	42.8	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	490.87	758.57	495.77	937.45	145.94	585.62
Pong	426.72	384.05	409.35	474.29	412.89	600.05	51.00	309.95
Tehri	829.79	740.04	789.40	439.29	818.65	982.26	50.60	216.00
Koteshwar	612.50	598.50	607.40	3.32	NA	NA	216.00	206.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	88.85	109.96
Rihand	268.22	252.98	261.95	415.40	256.15	122.50	NA	NA
RPS	352.80	343.81	348.65	NA	NA	NA	NA	264.22
Jawahar Sagar	298.70	295.78	298.03	NA	NA	NA	NA	243.16
RSD	527.91	487.91	499.90	NA	504.01	NA	140.45	190.35

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 19.02.2012 :**

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 : 19.02.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER