

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 20.02.2012  
Date of Reporting : 21.02.2012

### 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
31453	1929	33382	50.00	25132	650	25782	50.08	705.5	41.79

\* 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	49.54	11.25		60.78	37.98	35.45	-2.53	96.23	1.80
Haryana	58.01	0.53		58.55	24.20	37.41	13.21	95.96	6.56
Rajasthan	89.02	4.72	12.94	106.68	46.23	55.03	8.79	161.71	1.17
Delhi	25.36			25.36	40.39	30.74	-9.66	56.09	0.00
UP	95.97	5.90	14.40	116.27	82.15	90.82	8.67	207.10	27.89
Uttarakhand		9.15		9.15	18.23	17.38	-0.85	26.54	1.91
HP		4.22		4.22	19.52	18.28	-1.24	22.50	0.16
J & K		4.58	0.00	4.58	24.93	31.38	6.46	35.97	2.30
Chandigarh				0.00	3.50	3.38	-0.13	3.38	0.00
<b>Total</b>	<b>317.89</b>	<b>40.36</b>	<b>27.34</b>	<b>385.60</b>	<b>297.15</b>	<b>319.87</b>	<b>22.72</b>	<b>705.47</b>	<b>41.79</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	4509	150	-16	-287	3445	0	266	-407	-6.66
Haryana	4821	200	1081	-129	3086	0	28	-129	-3.10
Rajasthan	5974	0	74	12	6675	0	932	62	4.27
Delhi	2877	0	-137	-117	1278	0	-331	-419	-5.36
UP	9168	1260	466	265	7552	650	72	265	6.36
Uttarakhand	1356	150	24	350	948	0	-49	350	8.40
HP	981	19	-412	223	692	0	58	323	7.25
J&K	1586	150	225	255	1364	0	225	261	5.83
Chandigarh	181	0	-14	0	92	0	6	-41	-0.33
<b>Total</b>	<b>31453</b>	<b>1929</b>	<b>1290</b>	<b>572</b>	<b>25132</b>	<b>650</b>	<b>1207</b>	<b>265</b>	<b>16.66</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	1765	1891	1887	42.01	1751	42.10	-0.08
	Rihand I STPS	1000	920	997	895	21.54	897	21.29	0.25
	Rihand II STPS	1000	776	517	810	17.95	748	17.70	0.24
	Dadri I STPS	840	759	620	455	13.60	567	14.33	-0.73
	Dadri II STPS	980	976	980	690	21.40	892	22.01	-0.61
	Unchahar I TPS	440	401	437	315	9.08	378	9.03	0.04
	Unchahar II TPS	440	404	440	314	9.23	384	9.08	0.15
	Unchahar III TPS	210	202	217	156	4.61	192	4.57	0.04
	ISTPP (Jhajjar)	1000	0	0	0	0.00	0	0.00	0.00
	Dadri GPS	830	648	430	409	11.00	459	11.07	-0.07
	Anta GPS	419	429	286	285	7.49	312	6.99	0.50
	Auraiya GPS	663	652	393	390	10.07	420	10.01	0.06
	<b>Sub Total (A)</b>	<b>9822</b>	<b>7932</b>	<b>7208</b>	<b>6606</b>	<b>167.96</b>	<b>6998</b>	<b>168.17</b>	<b>-0.21</b>
B. NPC	NAPS	440	139	159	162	3.34	139	3.34	0.00
	RAPS- B	440	425	465	469	10.15	423	10.20	-0.05
	RAPS- C	440	420	469	478	10.24	427	10.08	0.16
	<b>Sub Total (B)</b>	<b>1320</b>	<b>984</b>	<b>1093</b>	<b>1109</b>	<b>23.74</b>	<b>989</b>	<b>23.62</b>	<b>0.12</b>
C. NHPC	Chamera I HPS	540	356	360	0	3.09	129	3.19	-0.09
	Chamera II HPS	300	297	203	0	1.33	55	1.33	0.00
	Bairasuil HPS	180	179	120	0	1.51	63	1.37	0.13
	Salal-HPS	690	136	322	111	3.85	161	3.69	0.16
	Tanakpur-HPS	94	27	30	14	0.50	21	0.53	-0.04
	Uri-HPS	480	234	324	209	5.69	237	5.71	-0.02
	Dhauliganga-HPS	280	165	208	0	0.83	35	0.84	-0.01
	Dulhasti-HPS	390	0	0	0	0.00	0	0.00	0.00
	Sewa-II HPS	120	119	110	0	1.38	57	1.33	0.05
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1513</b>	<b>1677</b>	<b>334</b>	<b>18.17</b>	<b>757</b>	<b>17.99</b>	<b>0.18</b>
D. NJPC	Nathpa Jhakri	1500	1133	1582	0	6.14	256	6.28	-0.14
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1133</b>	<b>1582</b>	<b>0</b>	<b>6.14</b>	<b>256</b>	<b>6.28</b>	<b>-0.14</b>
E. THDC	Tehri HPS	1000	737	665	0	8.34	348	8.40	-0.06
	Koteshwar HPS	200	146	200	80	2.98	124	2.90	0.08
	<b>Sub Total (E)</b>	<b>1200</b>	<b>883</b>	<b>865</b>	<b>80</b>	<b>11.32</b>	<b>472</b>	<b>11.30</b>	<b>0.02</b>
F. BBMB	Bhakra HPS	1480	763	971	416	18.76	782	18.31	0.45
	Dehar HPS	990	122	495	0	3.11	130	2.92	0.19
	Pong HPS	396	205	306	66	5.20	217	4.93	0.27
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1090</b>	<b>1772</b>	<b>482</b>	<b>27.07</b>	<b>1128</b>	<b>26.15</b>	<b>0.92</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.25	10	0.23	0.01
	KWHEP HPS(IPP)	1000	0	551	0	3.42	142	3.36	0.05
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	146	145	3.46	144	3.46	0.00
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>697</b>	<b>145</b>	<b>7.12</b>	<b>297</b>	<b>7.05</b>	<b>0.07</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21225</b>	<b>13534</b>	<b>14894</b>	<b>8756</b>	<b>261.52</b>	<b>10897</b>	<b>260.56</b>	<b>0.96</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	1045	900	23.36	973	
	Guru Nanak Dev TPS(Bhatinda)	440	218	218	4.76	198	
	Guru Hargobind Singh TPS(L.mbt)	920	949	925	21.43	893	
	Thermal (Total)	2620	2212	2043	49.54	2064	
	Total Hydro	1148	526	302	11.25	469	
	<b>Total Punjab</b>	<b>3768</b>	<b>2738</b>	<b>2345</b>	<b>60.78</b>	<b>2533</b>	
Haryana	Panipat TPS	1360	853	862	20.83	868	
	DCRTPP (Yamuna nagar)	600	277	270	6.60	275	
	Faridabad GPS (NTPC)	432	409	325	9.83	410	
	RGTPP (kheldar) (IPP)	1200	869	757	20.76	865	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	660	0	0	0.00	0	
	Thermal (Total)	4277	2408	2214	58.01	2417	
	Total Hydro	62	24	23	0.53	22	
	<b>Total Haryana</b>	<b>4339</b>	<b>2432</b>	<b>2237</b>	<b>58.55</b>	<b>2439</b>	
	Rajasthan	kota TPS	1240	1091	1168	27.64	1152
suratgarh TPS		1500	1028	1358	29.78	1241	
Chabra TPS		500	374	428	10.34	431	
Dholpur GPS		330	225	225	5.47	228	
Ramgarh GPS		113	42	45	1.06	44	
RAPS A (NPC)		300	184	185	4.45	185	
Barsingsar (NLC)		250	116	116	2.56	107	
Giral LTPS (IPP)		250	0	0	0.00	0	
Rajwest LTPS (IPP)		540	320	320	7.72	322	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5158	3380	3845	89.02	3709	
Total Hydro		550	86	193	4.72	197	
Wind power		1294	513	65	7.30	304	
Biomass		71	51	51	0.92	38	
Solar		50	0	0	0.00	0	
Renewable/Others (Total)		1365	564	116	12.94	539	
<b>Total Rajasthan</b>		<b>7073</b>	<b>4030</b>	<b>4154</b>	<b>106.68</b>	<b>4445</b>	
UP		Anpara TPS	1630	1413	1411	33.40	1392
		Obra TPS	1442	582	521	13.00	542
		Paricha TPS	640	211	203	5.10	213
	Panki TPS	210	186	171	4.40	183	
	Harduaganj TPS	415	258	268	6.20	258	
	Tanda TPS (NTPC)	440	399	318	9.45	394	
	Roza TPS (IPP)	900	549	390	12.34	514	
	Anpara-C (IPP)	1200	374	383	8.99	375	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	148	140	3.09	129	
	Thermal (Total)	7057	4120	3805	95.97	3999	
	Vishnuparyag HPS (IPP)	400	74	69	1.66	69	
	Other Hydro	527	173	42	4.24	177	
	Cogeneration	951	600	600	14.40	600	
	<b>Total UP</b>	<b>8935</b>	<b>4967</b>	<b>4516</b>	<b>116.27</b>	<b>4776</b>	
	Uttarakhand	Total Hydro	1303	518	298	9.15	381
<b>Total Uttarakhand</b>		<b>1303</b>	<b>518</b>	<b>298</b>	<b>9.15</b>	<b>381</b>	
Delhi	Rajghat TPS	135	104	105	2.45	102	
	Delhi Gas Turbine	282	84	82	1.93	81	
	Pragati Gas Turbine	330	302	265	7.18	299	
	Rithala GPS	108	27	13	0.62	26	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	565	565	13.17	549	
	Thermal (Total)	2000	1082	1030	25.36	1057	
	<b>Total Delhi</b>	<b>2000</b>	<b>1082</b>	<b>1030</b>	<b>25.36</b>	<b>1057</b>	
HP	Baspa HPS (IPP)	330	45	0	0.98	41	
	Malana HPS (IPP)	101	0	0	0.19	8	
	Other Hydro	571	150	59	3.05	127	
	<b>Total HP</b>	<b>1002</b>	<b>195</b>	<b>59</b>	<b>4</b>	<b>176</b>	
J & K	Baglihar HPS (IPP)	450	66	130	2.82	118	
	Other Hydro	323	70	92	1.76	73	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>136</b>	<b>222</b>	<b>4.58</b>	<b>191</b>	
<b>Total State Control Area Generation</b>		<b>29376</b>	<b>16098</b>	<b>14861</b>	<b>385.60</b>	<b>15997</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2066</b>	<b>2761</b>	<b>73.58</b>	<b>3066</b>	
<b>Total Regional Availability(Gross)</b>		<b>50601</b>	<b>33058</b>	<b>26378</b>	<b>720.69</b>	<b>29960</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	6593	1041	69.82	2909
State Control Area Hydro	5365	1658	1139	38.70	1612
<b>Total Regional Hydro</b>	<b>15447</b>	<b>8251</b>	<b>2180</b>	<b>108.52</b>	<b>4522</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	500	100	500	0	6.25	0.00	6.25
Gwalior-Agra (D/C)	398	892	1050	0	19.08	0.00	19.08
Zerda-Kankroli	-63	-100	55	125	1.02	0.00	1.02
Zerda-Bhinmal	-7	32	226	102	1.47	0.00	1.47
Malanpur-Auraiya	-135	-54	0	166	0.00	1.77	-1.77
Badod-Kota/Morak	-7	11	82	33	0.74	0.00	0.74
<b>Sub Total WR</b>	<b>686</b>	<b>881</b>			<b>28.57</b>	<b>1.77</b>	<b>26.80</b>
Pusauli Bypass	34	250	300	0	4.09	0.07	4.03
MZP- GKP (D/C)	580	479	728	0	12.76	0.00	12.76
Patna-Balia(D/C)	213	369	566	0	8.59	0.00	8.59
B'Sharif-Balia (D/C)	171	358	701	0	10.76	0.00	10.76
Barh - balia(D/C)	237	388	444	0	8.79	0.00	8.79
Pusauli-Sahupuri	175	68	175	0	2.85	0.00	2.85
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	1.00	-1.00
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1380</b>	<b>1880</b>			<b>47.84</b>	<b>1.06</b>	<b>46.78</b>
<b>Total IR Exch</b>	<b>2066</b>	<b>2761</b>			<b>76.41</b>	<b>2.83</b>	<b>73.58</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
23.91	0.14	24.05	8.50	10.30	0.01	9.82	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
35.40	14.97	50.37	46.78	26.80	73.58	11.38	11.82	23.20

**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	2.70	16.50	95.50	81.70	27.80	1.80

<----- 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	17.07	49.26	6.38	49.88	0.46	0.18	50.33	49.59

**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	410	02:11	395	15:47	0.0	0.0	0.0	0.0
Gorakhpur	400	434	20:48	404	09:40	0.0	0.0	43.0	1.4
Bareilly	400	421	21:41	395	08:38	0.0	0.0	0.1	0.0
Kanpur	400	414	03:42	396	08:42	0.0	0.0	0.0	0.0
Dadri	400	420	21:38	398	09:48	0.0	0.0	0.0	0.0
Ballabgarh	400	423	03:13	398	09:47	0.0	0.0	9.3	0.0
Bawana	400	425	03:30	400	09:35	0.0	0.0	18.4	0.0
Bassi	400	425	21:43	393	09:45	0.0	0.0	4.8	0.0
Hissar	400	416	21:43	393	08:41	0.0	0.0	0.0	0.0
Moga	400	426	21:44	402	10:23	0.0	0.0	14.8	0.0
Abdullapur	400	425	03:47	300	20:38	0.0	0.0	17.8	0.0
Nalagarh	400	427	06:46	405	09:33	0.0	0.0	27.9	0.0
Kishenpur	400	420	05:01	396	09:33	0.0	0.0	0.0	0.0
Wagoora	400	404	05:01	364	15:44	5.1	63.9	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 20.02.2012 :**

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 : 20.02.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER