

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.01.2012  
Date of Reporting : 22.01.2012

### 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
31172	3401	34573	49.77	24684	650	25334	50.10	693.3	46.51

\* 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	44.88	10.16		55.03	32.27	32.95	0.68	87.98	3.00
Haryana	68.91	0.68		69.59	23.68	24.15	0.47	93.73	5.04
Rajasthan	90.26	2.92	14.11	107.29	47.75	52.43	4.68	159.72	2.77
Delhi	30.81			30.81	42.50	35.58	-6.92	66.39	0.19
UP	90.11	6.09	15.60	111.80	84.06	80.50	-3.56	192.30	33.61
Uttarakhand		7.63		7.63	19.78	23.93	4.15	31.56	0.00
HP		4.22		4.22	20.57	18.66	-1.91	22.88	0.00
J & K		4.70	0.00	4.70	25.21	30.27	5.06	34.97	1.90
Chandigarh				0.00	3.55	3.73	0.19	3.73	0.00
<b>Total</b>	<b>324.98</b>	<b>36.38</b>	<b>29.71</b>	<b>391.06</b>	<b>299.37</b>	<b>302.20</b>	<b>2.83</b>	<b>693.27</b>	<b>46.51</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	4470	650	56	-333	2919	0	35	-481	-7.41
Haryana	4244	734	108	-202	3158	0	-287	-202	-4.51
Rajasthan	6514	327	152	160	6325	0	124	285	8.28
Delhi	3356	0	-363	-25	1573	0	-29	-340	-3.13
UP	8195	1590	-699	265	7366	650	-324	265	6.36
Uttarakhand	1561	0	99	450	1097	0	165	450	10.80
HP	1113	0	-264	-38	759	0	55	405	6.30
J&K	1513	100	-89	304	1389	0	260	299	6.67
Chandigarh	206	0	-3	0	98	0	0	-30	-0.24
<b>Total</b>	<b>31172</b>	<b>3401</b>	<b>-1003</b>	<b>580</b>	<b>24684</b>	<b>650</b>	<b>-1</b>	<b>650</b>	<b>23.12</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	1588	1665	1774	38.19	1591	37.76	0.44
	Rihand I STPS	1000	800	900	685	18.81	784	18.34	0.47
	Rihand II STPS	1000	977	1048	809	22.77	949	22.46	0.31
	Dadri I STPS	840	793	860	609	17.66	736	17.88	-0.23
	Dadri II STPS	980	869	872	725	19.17	799	20.83	-1.66
	Unchahar I TPS	440	375	440	288	8.71	363	8.64	0.07
	Unchahar II TPS	440	375	443	289	8.65	360	8.38	0.26
	Unchahar III TPS	210	187	219	143	4.32	180	4.19	0.13
	ISTPP (Jhajjar)	1000	475	510	499	10.79	450	10.72	0.06
	Dadri GPS	830	846	724	586	15.95	665	16.07	-0.12
	Anta GPS	419	433	324	328	8.18	341	7.97	0.21
	Auraiya GPS	663	661	327	306	7.42	309	7.79	-0.37
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8379</b>	<b>8332</b>	<b>7041</b>	<b>180.61</b>	<b>7526</b>	<b>181.03</b>	<b>-0.42</b>
	B. NPC	NAPS	440	128	146	144	3.01	125	3.07
RAPS- B		440	425	470	471	10.20	425	10.19	0.01
RAPS- C		440	420	468	469	10.70	446	10.08	0.62
<b>Sub Total (B)</b>		<b>1320</b>	<b>973</b>	<b>1084</b>	<b>1084</b>	<b>23.91</b>	<b>996</b>	<b>23.35</b>	<b>0.56</b>
C. NHPC	Chamera I HPS	540	356	360	0	2.65	110	2.72	-0.06
	Chamera II HPS	300	297	199	0	1.21	50	1.13	0.07
	Bairasuil HPS	180	179	120	0	0.60	25	0.58	0.02
	Salal-HPS	690	129	226	106	3.07	128	2.99	0.08
	Tanakpur-HPS	94	30	32	25	0.66	27	0.66	-0.01
	Uri-HPS	480	129	240	106	3.09	129	3.17	-0.08
	Dhauliganga-HPS	280	210	138	0	0.87	36	0.88	-0.01
	Dulhasti-HPS	390	388	295	0	2.58	108	1.55	1.03
	Sewa-II HPS	120	119	121	0	0.66	27	0.60	0.06
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1836</b>	<b>1731</b>	<b>237</b>	<b>15.38</b>	<b>641</b>	<b>14.28</b>	<b>1.10</b>
D. NJPC	Nathpa Jhakri	1500	956	1343	0	6.86	286	6.77	0.08
	<b>Sub Total (D)</b>	<b>1500</b>	<b>956</b>	<b>1343</b>	<b>0</b>	<b>6.86</b>	<b>286</b>	<b>6.77</b>	<b>0.08</b>
E. THDC	Tehri HPS	1000	990	988	0	8.51	354	8.75	-0.24
	Koteshwar HPS	200	119	201	0	2.81	117	2.80	0.01
	<b>Sub Total (E)</b>	<b>1200</b>	<b>1109</b>	<b>1189</b>	<b>0</b>	<b>11.32</b>	<b>471</b>	<b>11.55</b>	<b>-0.24</b>
F. BBMB	Bhakra HPS	1480	684	944	572	16.85	702	16.41	0.44
	Dehar HPS	990	113	330	0	2.84	118	2.70	0.14
	Pong HPS	396	121	240	0	3.17	132	2.91	0.26
	<b>Sub Total (F)</b>	<b>2866</b>	<b>917</b>	<b>1514</b>	<b>572</b>	<b>22.86</b>	<b>953</b>	<b>22.02</b>	<b>0.84</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.27	11	0.25	0.02
	KWHEP HPS(IPP)	1000	0	485	0	3.82	159	3.84	-0.02
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	144	146	3.47	144	3.45	0.02
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>629</b>	<b>146</b>	<b>7.55</b>	<b>315</b>	<b>7.54</b>	<b>0.01</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21225</b>	<b>14170</b>	<b>15822</b>	<b>9080</b>	<b>268.48</b>	<b>11187</b>	<b>266.53</b>	<b>1.95</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	890	740	19.16	798	
	Guru Nanak Dev TPS(Bhatinda)	440	216	215	4.67	195	
	Guru Hargobind Singh TPS(L.mbt)	920	957	846	21.04	877	
	Thermal (Total)	2620	2063	1801	44.88	1870	
	Total Hydro	1148	729	156	10.16	423	
	<b>Total Punjab</b>	<b>3768</b>	<b>2792</b>	<b>1957</b>	<b>55.03</b>	<b>2293</b>	
Haryana	Panipat TPS	1360	1042	1039	25.28	1053	
	DCRTPP (Yamuna nagar)	600	279	279	6.53	272	
	Faridabad GPS (NTPC)	432	432	286	9.60	400	
	RGTPP (kheadar) (IPP)	1200	1066	1063	27.51	1146	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	660	0	0	0.00	0	
	Thermal (Total)	4277	2819	2667	68.91	2871	
	Total Hydro	62	23	29	0.68	28	
	<b>Total Haryana</b>	<b>4339</b>	<b>2842</b>	<b>2696</b>	<b>69.59</b>	<b>2900</b>	
	Rajasthan	kota TPS	1240	986	988	23.21	967
suratgarh TPS		1500	1385	1360	32.04	1335	
Chabra TPS		500	372	374	9.33	389	
Dholpur GPS		330	232	245	5.46	228	
Ramgarh GPS		113	43	39	1.12	47	
RAPS A (NPC)		300	175	186	4.42	184	
Barsingsar (NLC)		250	168	156	4.34	181	
Giral LTPS (IPP)		250	90	90	0.97	40	
Rajwest LTPS (IPP)		540	360	375	9.37	391	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5158	3811	3813	90.26	3761	
Total Hydro		550	117	83	2.92	122	
Wind power		1294	186	624	10.16	423	
Biomass		71	54	54	1.03	43	
Solar		50	0	0	0.00	0	
Renewable/Others (Total)		1365	240	678	14.11	588	
<b>Total Rajasthan</b>		<b>7073</b>	<b>4168</b>	<b>4574</b>	<b>107.29</b>	<b>4470</b>	
UP		Anpara TPS	1630	1376	1321	30.50	1271
		Obra TPS	1442	538	505	11.10	463
		Paricha TPS	640	224	229	4.60	192
	Panki TPS	210	185	160	4.00	167	
	Harduaganj TPS	415	299	290	5.50	229	
	Tanda TPS (NTPC)	440	399	399	9.82	409	
	Roza TPS (IPP)	900	450	446	10.80	450	
	Anpara-C (IPP)	1200	445	451	10.70	446	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	103	77	3.10	129	
	Thermal (Total)	7057	4019	3878	90.11	3755	
	Vishnuparyag HPS (IPP)	400	84	79	1.90	79	
	Other Hydro	527	266	0	4.19	175	
	Cogeneration	951	650	650	15.60	650	
	<b>Total UP</b>	<b>8935</b>	<b>5019</b>	<b>4607</b>	<b>111.80</b>	<b>4579</b>	
	Uttarakhand	Total Hydro	1303	471	230	7.63	318
<b>Total Uttarakhand</b>		<b>1303</b>	<b>471</b>	<b>230</b>	<b>7.63</b>	<b>318</b>	
Delhi	Rajghat TPS	135	59	54	1.52	63	
	Delhi Gas Turbine	282	202	113	4.21	175	
	Pragati Gas Turbine	330	315	269	7.49	312	
	Rithala GPS	108	19	33	0.37	15	
	Bawana GPS	440	135	31	3.03	126	
	Badarpur TPS (NTPC)	705	675	560	14.19	591	
	Thermal (Total)	2000	1405	1069	30.81	1284	
	<b>Total Delhi</b>	<b>2000</b>	<b>1405</b>	<b>1069</b>	<b>30.81</b>	<b>1284</b>	
HP	Baspa HPS (IPP)	330	0	0	0.99	41	
	Malana HPS (IPP)	101	0	0	0.22	9	
	Other Hydro	571	164	52	3.02	126	
	<b>Total HP</b>	<b>1002</b>	<b>164</b>	<b>52</b>	<b>4</b>	<b>176</b>	
J & K	Baglihar HPS (IPP)	450	140	138	3.32	138	
	Other Hydro	323	27	125	1.38	57	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>167</b>	<b>263</b>	<b>4.70</b>	<b>196</b>	
<b>Total State Control Area Generation</b>		<b>29376</b>	<b>17028</b>	<b>15448</b>	<b>391.06</b>	<b>16215</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>841</b>	<b>1549</b>	<b>42.85</b>	<b>1786</b>	
<b>Total Regional Availability(Gross)</b>		<b>50601</b>	<b>33691</b>	<b>26077</b>	<b>702.39</b>	<b>29187</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	6406	955	63.96	2665
State Control Area Hydro	5365	1937	813	34.48	1437
<b>Total Regional Hydro</b>	<b>15447</b>	<b>8343</b>	<b>1768</b>	<b>98.44</b>	<b>4102</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	100	0	300	100	1.34	0.69	0.65
Gwalior-Agra (D/C)	122	790	1118	0	17.87	0.00	17.87
Zerda-Kankroli	-159	-65	153	159	0.20	0.00	0.20
Zerda-Bhinmal	-68	-3	269	105	2.00	0.00	2.00
Malanpur-Auraiya	-86	-48	0	134	0.00	9.46	-9.46
Badod-Kota/Morak	-56	-42	49	57	0.00	0.35	-0.35
<b>Sub Total WR</b>	<b>-147</b>	<b>632</b>			<b>21.41</b>	<b>10.50</b>	<b>10.91</b>
Pusauli Bypass	-52	-24	198	81	1.96	0.23	1.73
MZP- GKP (D/C)	430	286	662	0	11.72	0.00	11.72
Patna-Balia(D/C)	301	334	543	0	10.15	0.00	10.15
B'Sharif-Balia (D/C)	191	232	413	0	6.23	0.00	6.23
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	148	121	187	0	2.94	0.00	2.94
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-32	0	48	0.00	0.82	-0.82
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>988</b>	<b>917</b>			<b>33.00</b>	<b>1.05</b>	<b>31.95</b>
<b>Total IR Exch</b>	<b>841</b>	<b>1549</b>			<b>54.40</b>	<b>11.55</b>	<b>42.85</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
27.32	0.32	27.63	11.11	14.12	-0.31	9.22	2.77	-2.77

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
41.20	12.15	53.35	31.95	10.91	42.85	-9.26	-1.24	-10.50

**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	8.10	34.10	90.00	64.00	12.90	1.90

<----- 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					
50.29	3.58	49.28	20.02	49.79	0.84	0.20	50.25	49.54

**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	412	02:52	399	00:04	0.0	0.0	0.0	0.0
Gorakhpur	400	431	19:26	407	06:42	0.0	0.0	52.1	0.1
Bareilly	400	422	03:08	401	09:59	28.6	28.6	1.1	0.0
Kanpur	400	420	04:12	398	10:40	0.0	0.0	0.0	0.0
Dadri	400	420	03:08	395	11:25	0.0	0.0	0.0	0.0
Ballabgarh	400	425	04:12	397	11:23	0.0	0.0	10.8	0.0
Bawana	400	426	04:12	398	11:24	0.0	0.0	16.3	0.0
Bassi	400	422	19:27	390	10:16	0.0	0.0	0.8	0.0
Hissar	400	415	04:12	393	09:21	0.0	0.0	0.0	0.0
Moga	400	424	03:06	407	10:05	0.0	0.0	14.4	0.0
Abdullapur	400	422	03:54	401	09:20	0.0	0.0	4.0	0.0
Nalagarh	400	427	03:06	409	09:20	0.0	0.0	26.7	0.0
Kishenpur	400	420	02:58	400	22:20	0.0	0.0	0.0	0.0
Wagoora	400	401	02:58	374	22:20	7.5	72.2	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	498.57	1041.47	501.40	1153.36	198.33	476.74
Pong	426.72	384.05	412.31	577.87	415.55	693.24	94.04	182.53
Tehri	829.79	740.04	803.05	665.65	818.65	982.26	68.98	216.00
Koteshwar	612.50	598.50	607.10	3.32	NA	NA	204.00	187.00
Chamera-I	760.00	748.75	754.55	NA	753.15	1.20	59.83	28.65
Rihand	268.22	252.98	263.14	490.00	256.76	147.70	NA	NA
RPS	352.80	343.81	349.83	NA	348.47	NA	NA	157.92
Jawahar Sagar	298.70	295.78	297.55	NA	297.85	NA	NA	200.14
RSD	527.91	487.91	506.17	NA	509.57	NA	14.72	235.74

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 21.01.2012 :**

1. Mild fog IN Some part of Punjab, Haryana , NCR , UP, Uttaranchal.

**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 : 21.01.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER