

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 17.01.2012  
Date of Reporting : 18.01.2012

### 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
32011	3645	35656	49.89	23784	650	24434	50.21	665.8	48.58

\* 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	43.04	4.76		47.80	32.29	34.39	2.10	82.20	1.80
Haryana	59.94	0.75		60.69	24.09	27.56	3.47	88.25	4.72
Rajasthan	88.67	4.22	7.00	99.88	51.94	57.49	5.55	157.37	4.90
Delhi	28.60			28.60	40.51	35.46	-5.05	64.06	0.22
UP	77.50	5.92	15.60	99.02	85.71	84.26	-1.46	183.28	35.04
Uttarakhand		8.68		8.68	20.04	25.09	5.05	33.77	0.00
HP		5.00		5.00	19.88	17.40	-2.48	22.40	0.00
J & K		4.35	0.00	4.35	25.58	26.37	0.79	30.72	1.90
Chandigarh				0.00	3.56	3.77	0.22	3.77	0.00
<b>Total</b>	<b>297.75</b>	<b>33.69</b>	<b>22.60</b>	<b>354.03</b>	<b>303.61</b>	<b>311.80</b>	<b>8.19</b>	<b>665.83</b>	<b>48.58</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	4459	600	166	-333	2874	0	65	-581	-8.01
Haryana	4542	786	575	-201	3073	0	-177	-201	-4.49
Rajasthan	7012	412	541	160	6160	0	3	285	8.28
Delhi	3294	43	-120	-25	1404	0	-190	-340	-3.13
UP	8374	1705	-224	265	7228	650	461	265	6.36
Uttarakhand	1602	0	120	450	1191	0	193	450	10.80
HP	1077	0	-367	-38	689	0	-53	405	6.30
J&K	1439	100	-171	301	1070	0	-60	296	6.59
Chandigarh	212	0	1	0	96	0	-5	-30	-0.24
<b>Total</b>	<b>32011</b>	<b>3645</b>	<b>521</b>	<b>578</b>	<b>23784</b>	<b>650</b>	<b>237</b>	<b>548</b>	<b>22.47</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)]	
								Schedule Net MU	UI Net MU
A. NTPC	Singrauli STPS	2000	1755	1889	1675	41.86	1744	41.16	0.71
	Rihand I STPS	1000	795	886	703	18.57	774	18.17	0.40
	Rihand II STPS	1000	977	1033	839	22.73	947	22.27	0.45
	Dadri I STPS	840	793	870	611	17.22	718	17.19	0.03
	Dadri II STPS	980	957	955	712	21.20	883	21.36	-0.16
	Unchahar I TPS	440	402	437	303	9.00	375	8.92	0.08
	Unchahar II TPS	440	402	436	329	9.10	379	8.81	0.29
	Unchahar III TPS	210	201	218	153	4.50	188	4.44	0.07
	ISTPP (Jhajjar)	1000	475	361	354	9.04	377	9.10	-0.07
	Dadri GPS	830	846	635	401	12.91	538	13.43	-0.53
	Anta GPS	419	433	276	196	6.02	251	5.55	0.47
	Auraiya GPS	663	659	325	251	7.12	296	7.22	-0.11
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8696</b>	<b>8321</b>	<b>6527</b>	<b>179.27</b>	<b>7470</b>	<b>177.63</b>	<b>1.65</b>
	B. NPC	NAPS	440	240	278	278	5.78	241	5.76
RAPS- B		440	424	465	475	10.24	426	10.18	0.06
RAPS- C		440	420	473	473	10.09	420	10.08	0.01
<b>Sub Total (B)</b>		<b>1320</b>	<b>1084</b>	<b>1216</b>	<b>1226</b>	<b>26.10</b>	<b>1088</b>	<b>26.02</b>	<b>0.09</b>
C. NHPC	Chamera I HPS	540	356	180	0	1.09	46	1.07	0.02
	Chamera II HPS	300	297	272	0	1.36	57	1.32	0.04
	Bairasuil HPS	180	179	120	0	0.70	29	0.63	0.06
	Salal-HPS	690	161	120	149	4.01	167	3.87	0.14
	Tanakpur-HPS	94	31	32	25	0.71	30	0.71	0.01
	Uri-HPS	480	100	70	20	2.37	99	2.29	0.08
	Dhauliganga-HPS	280	210	139	0	0.93	39	0.99	-0.06
	Dulhasti-HPS	390	388	306	0	2.83	118	2.31	0.52
	Sewa-II HPS	120	119	65	64	1.39	58	1.44	-0.06
	<b>Sub Total (C)</b>	<b>3074</b>	<b>1840</b>	<b>1304</b>	<b>258</b>	<b>15.40</b>	<b>642</b>	<b>14.64</b>	<b>0.76</b>
D. NJPC	Nathpa Jhakri	1500	1133	1190	0	6.36	265	6.00	0.36
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1133</b>	<b>1190</b>	<b>0</b>	<b>6.36</b>	<b>265</b>	<b>6.00</b>	<b>0.36</b>
E. THDC	Tehri HPS	1000	1000	860	0	8.51	355	8.50	0.01
	Koteshwar HPS	200	119	203	0	2.82	118	2.80	0.02
	<b>Sub Total (E)</b>	<b>1200</b>	<b>1119</b>	<b>1063</b>	<b>0</b>	<b>11.34</b>	<b>472</b>	<b>11.30</b>	<b>0.04</b>
F. BBMB	Bhakra HPS	1480	648	945	572	15.97	665	15.55	0.42
	Dehar HPS	990	146	495	0	4.03	168	3.51	0.52
	Pong HPS	396	154	306	0	3.99	166	3.69	0.30
	<b>Sub Total (F)</b>	<b>2866</b>	<b>948</b>	<b>1746</b>	<b>572</b>	<b>23.99</b>	<b>1000</b>	<b>22.74</b>	<b>1.25</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.30	12	0.28	0.02
	KWHEP HPS(IPP)	1000	0	500	0	3.51	146	3.43	0.08
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	60	100	2.15	90	4.55	-2.40
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>560</b>	<b>100</b>	<b>5.96</b>	<b>248</b>	<b>8.27</b>	<b>-2.31</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21225</b>	<b>14820</b>	<b>15400</b>	<b>8683</b>	<b>268.41</b>	<b>11184</b>	<b>266.59</b>	<b>1.82</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	840	720	18.28	762	
	Guru Nanak Dev TPS(Bhatinda)	440	215	180	4.39	183	
	Guru Hargobind Singh TPS(L.mbt)	920	964	950	20.37	849	
	Thermal (Total)	2620	2019	1850	43.04	1793	
	Total Hydro	1148	480	234	4.76	198	
	<b>Total Punjab</b>	<b>3768</b>	<b>2499</b>	<b>2084</b>	<b>47.80</b>	<b>1992</b>	
Haryana	Panipat TPS	1360	1047	1056	25.14	1048	
	DCRTPP (Yamuna nagar)	600	0	275	5.11	213	
	Faridabad GPS (NTPC)	432	436	322	4.53	189	
	RGTPP (khedar) (IPP)	1200	985	955	25.16	1048	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	660	0	0	0.00	0	
	Thermal (Total)	4277	2468	2608	59.94	2498	
	Total Hydro	62	28	25	0.75	31	
	<b>Total Haryana</b>	<b>4339</b>	<b>2496</b>	<b>2633</b>	<b>60.69</b>	<b>2529</b>	
	Rajasthan	kota TPS	1240	1114	1138	26.86	1119
suratgarh TPS		1500	1166	1130	27.38	1141	
Chabra TPS		500	374	419	9.65	402	
Dholpur GPS		330	224	229	5.43	226	
Ramgarh GPS		113	31	67	0.72	30	
RAPS A (NPC)		300	181	184	4.51	188	
Barsingsar (NLC)		250	140	126	3.98	166	
Giral LTPS (IPP)		250	58	0	1.63	68	
Rajwest LTPS (IPP)		540	330	385	8.52	355	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5158	3618	3678	88.67	3694	
Total Hydro		550	146	165	4.22	176	
Wind power		1294	86	165	1.99	83	
Biomass		71	33	33	0.79	33	
Solar		50	0	0	0.00	0	
Renewable/Others (Total)		1365	119	198	7.00	292	
<b>Total Rajasthan</b>		<b>7073</b>	<b>3883</b>	<b>4041</b>	<b>99.88</b>	<b>4162</b>	
UP		Anpara TPS	1630	1544	1126	31.40	1308
		Obra TPS	1442	640	645	13.60	567
	Paricha TPS	640	173	170	3.60	150	
	Panki TPS	210	145	155	3.00	125	
	Harduaganj TPS	415	180	150	3.80	158	
	Tanda TPS (NTPC)	440	386	308	9.13	380	
	Roza TPS (IPP)	900	400	374	10.40	433	
	Anpara-C (IPP)	1200	0	0	0.00	0	
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	130	72	2.57	107	
	Thermal (Total)	7057	3598	3000	77.50	3229	
	Vishnuparyag HPS (IPP)	400	84	79	1.98	82	
	Other Hydro	527	248	0	3.95	164	
	Cogeneration	951	650	650	15.60	650	
	<b>Total UP</b>	<b>8935</b>	<b>4580</b>	<b>3729</b>	<b>99.02</b>	<b>4043</b>	
	Uttarakhand	Total Hydro	1303	473	305	8.68	362
<b>Total Uttarakhand</b>		<b>1303</b>	<b>473</b>	<b>305</b>	<b>8.68</b>	<b>362</b>	
Delhi	Rajghat TPS	135	54	48	1.32	55	
	Delhi Gas Turbine	282	79	78	1.91	80	
	Pragati Gas Turbine	330	315	267	7.51	313	
	Rithala GPS	108	19	33	0.39	16	
	Bawana GPS	440	139	0	3.27	136	
	Badarpur TPS (NTPC)	705	690	565	14.20	592	
	Thermal (Total)	2000	1296	1113	28.60	1192	
	<b>Total Delhi</b>	<b>2000</b>	<b>1296</b>	<b>1113</b>	<b>28.60</b>	<b>1192</b>	
HP	Baspa HPS (IPP)	330	0	0	1.21	51	
	Malana HPS (IPP)	101	0	0	0.21	9	
	Other Hydro	571	170	87	3.58	149	
	<b>Total HP</b>	<b>1002</b>	<b>170</b>	<b>87</b>	<b>5</b>	<b>208</b>	
J & K	Baglihar HPS (IPP)	450	128	124	2.98	124	
	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>155</b>	<b>249</b>	<b>4.35</b>	<b>181</b>	
<b>Total State Control Area Generation</b>		<b>29376</b>	<b>15552</b>	<b>14241</b>	<b>354.03</b>	<b>14669</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1927</b>	<b>1457</b>	<b>59.28</b>	<b>2470</b>	
<b>Total Regional Availability(Gross)</b>		<b>50601</b>	<b>32879</b>	<b>24381</b>	<b>681.72</b>	<b>28323</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	5863	930	63.04	2627
State Control Area Hydro	5365	1700	1065	31.71	1321
<b>Total Regional Hydro</b>	<b>15447</b>	<b>7563</b>	<b>1995</b>	<b>94.75</b>	<b>3948</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	300	-200	300	300	3.37	1.35	2.02
Gwalior-Agra (D/C)	220	746	1196	0	17.77	0.00	17.77
Zerda-Kankroli	45	-32	174	32	1.09	0.00	1.09
Zerda-Bhinmal	21	43	309	0	3.02	0.00	3.02
Malanpur-Auraiya	-127	-45	0	127	0.00	1.04	-1.04
Badod-Kota/Morak	-12	-16	45	69	0.10	0.00	0.10
<b>Sub Total WR</b>	<b>447</b>	<b>496</b>			<b>25.35</b>	<b>2.39</b>	<b>22.97</b>
Pusauli Bypass	-9	-157	180	275	0.50	2.65	-2.15
MZP- GKP (D/C)	512	318	814	0	13.43	0.00	13.43
Patna-Balia(D/C)	378	256	598	0	9.63	0.00	9.63
B'Sharif-Balia (D/C)	234	191	765	0	7.65	0.00	7.65
Barh - balia(D/C)	260	277	446	0	5.92	0.00	5.92
Pusauli-Sahupuri	135	108	155	0	2.64	0.00	2.64
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>1480</b>	<b>961</b>			<b>39.78</b>	<b>3.47</b>	<b>36.31</b>
<b>Total IR Exch</b>	<b>1927</b>	<b>1457</b>			<b>65.13</b>	<b>5.85</b>	<b>59.28</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
26.85	0.30	27.15	11.05	13.54	0.91	10.76	2.90	-2.90

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
42.02	15.82	57.84	36.31	22.97	59.28	-5.71	7.14	1.43

**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	4.30	29.70	93.50	68.10	19.30	2.20

<----- 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					
50.32	3.46	49.21	9.13	49.81	0.74	0.20	50.28	49.60

**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	414	01:59	396	14:05	0.0	0.0	0.0	0.0
Gorakhpur	400	432	20:12	408	06:25	0.0	0.0	70.2	1.4
Bareilly	400	426	02:04	399	06:38	0.0	0.0	9.8	0.0
Kanpur	400	421	02:18	398	10:06	0.0	0.0	0.7	0.0
Dadri	400	424	02:37	400	15:45	0.0	0.0	13.4	0.0
Ballabgarh	400	426	02:04	401	10:07	0.0	0.0	22.8	0.0
Bawana	400	427	02:02	403	15:46	0.0	0.0	26.3	0.0
Bassi	400	426	21:27	396	06:35	0.0	0.0	7.4	0.0
Hissar	400	415	02:03	393	16:22	0.0	0.0	0.0	0.0
Moga	400	427	00:32	407	16:38	0.0	0.0	25.6	0.0
Abdullapur	400	424	02:09	401	16:23	0.0	0.0	9.9	0.0
Nalagarh	400	429	02:02	409	09:13	0.0	0.0	40.2	0.0
Kishenpur	400	426	00:50	399	18:22	0.0	0.0	4.0	0.0
Wagoora	400	411	13:02	375	18:27	9.6	38.4	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	499.08	1053.16	501.93	1179.55	223.69	450.04
Pong	426.72	384.05	412.36	577.87	415.65	705.67	351.27	249.16
Tehri	829.79	740.04	803.85	685.04	818.65	982.26	59.58	204.00
Koteshwar	612.50	598.50	607.10	3.32	NA	NA	204.00	187.00
Chamera-I	760.00	748.75	751.07	NA	750.49	NA	67.55	28.65
Rihand	268.22	252.98	263.44	508.00	257.04	159.40	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	508.14	NA	511.12	NA	14.72	235.74

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 17.01.2012 :**

1. Clear weather

**XII. Synchronisation of new generating units :**

**XIII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus //substation :**

1. 765 KV Anpara-Unnao 1st time test charged at 765 kV Voltage level from Unnao end upto 200 KM at 18.42 hrs of 17.01.2012. Line was opened at 19.01 hrs.  
2. (3x63 ) MVAR Bus reactor ,1000 MVA ICT-II,Main bus I &II,(3x110) MVAR Line reactor were also Charged at 765 kV at Anpara before charging the line.

**XIV. Tripping of lines in pooling stations :**

**XV. Complete generation loss in a generating station :**

Report for : 17.01.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER