

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 30.01.2013  
Date of Reporting : 31.01.2013

### 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
33786	3146	36932	50.10	27050	935	27985	50.17	740.1	66.17

\* 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	47.82	10.64		58.46	36.88	37.19	0.31	95.65	6.57
Haryana	62.84	0.53		63.36	35.10	33.46	-1.64	96.82	0.10
Rajasthan	86.70	4.69	4.40	95.79	82.40	83.44	1.04	179.23	1.09
Delhi	31.20			31.20	33.85	30.58	-3.27	61.78	0.00
UP	113.16	6.34	19.20	138.71	68.95	69.97	1.02	208.67	54.41
Uttarakhand		6.63		6.63	23.81	24.43	0.63	31.06	1.58
HP		4.08		4.08	19.46	19.48	0.03	23.56	0.72
J & K		6.54	0.00	6.54	30.79	33.10	2.31	39.64	1.70
Chandigarh				0.00	3.51	3.67	0.17	3.67	0.00
<b>Total</b>	<b>341.72</b>	<b>39.45</b>	<b>23.60</b>	<b>404.76</b>	<b>334.74</b>	<b>335.33</b>	<b>0.59</b>	<b>740.09</b>	<b>66.17</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	4858	643	52	-138	3400	0	105	281	-2.46
Haryana	4980	0	-86	23	3202	0	14	-334	-5.39
Rajasthan	7307	0	-158	1101	6901	120	55	1510	39.47
Delhi	3224	0	-65	-873	1368	0	-51	-1825	-28.38
UP	8776	2323	-201	-126	8537	815	-105	-161	-6.56
Uttarakhand	1474	80	-63	576	1169	0	26	552	13.39
HP	1142	0	-54	247	779	0	26	395	8.25
J&K	1824	100	-77	409	1606	0	32	487	9.65
Chandigarh	202	0	-15	0	89	0	-2	-31	-0.25
<b>Total</b>	<b>33786</b>	<b>3146</b>	<b>-668</b>	<b>1219</b>	<b>27050</b>	<b>935</b>	<b>99</b>	<b>875</b>	<b>27.73</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	2107	2107	47.41	1975	47.04	0.37
	Rihand I STPS	1000	925	987	930	21.97	916	22.01	-0.04
	Rihand II STPS	1000	975	1038	916	23.05	961	22.89	0.17
	Rihand III STPS	500	470	503	490	11.35	473	11.19	0.17
	Dadri I STPS	840	810	850	750	16.60	692	16.80	-0.20
	Dadri II STPS	980	975	940	650	21.51	896	21.91	-0.40
	Unchahar I TPS	420	402	441	335	9.19	383	9.19	0.00
	Unchahar II TPS	420	405	441	311	9.04	377	9.02	0.01
	Unchahar III TPS	210	202	213	155	4.50	188	4.53	-0.03
	ISTPP (Jhajjar)	1500	980	365	340	8.97	374	9.55	-0.58
	Dadri GPS	830	848	392	342	8.96	373	9.03	-0.07
	Anta GPS	419	426	0	0	0.00	0	0.00	0.00
	Auraiva GPS	663	671	310	299	6.75	281	6.81	-0.06
	<b>Sub Total (A)</b>	<b>10782</b>	<b>10050</b>	<b>8587</b>	<b>7625</b>	<b>189.31</b>	<b>7888</b>	<b>189.96</b>	<b>-0.65</b>
B. NPC	NAPS	440	142	164	164	3.39	141	3.41	-0.02
	RAPS- B	440	428	468	470	10.24	427	10.27	-0.03
	RAPS- C	440	430	472	476	10.23	426	10.32	-0.09
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1000</b>	<b>1104</b>	<b>1110</b>	<b>23.86</b>	<b>994</b>	<b>24.00</b>	<b>-0.14</b>
C. NHPC	Chamera I HPS	540	365	360	0	2.38	99	2.25	0.12
	Chamera II HPS	300	204	159	0	1.09	45	1.06	0.03
	Chamera III HPS	231	231	70	0	0.56	23	0.55	0.01
	Bairasuil HPS	180	182	120	0	0.50	21	0.36	0.14
	Salal-HPS	690	107	230	31	3.10	129	2.56	0.54
	Tanakpur-HPS	94	25	31	20	0.62	26	0.59	0.03
	Uri-HPS	480	159	225	39	3.66	152	3.54	0.12
	Dhauliganga-HPS	280	210	210	0	1.27	53	1.29	-0.02
	Dulhasti-HPS	390	0	0	0	0.00	0	0.00	0.00
	Sewa-II HPS	120	120	61	0	0.37	15	0.32	0.05
	<b>Sub Total (C)</b>	<b>3305</b>	<b>1602</b>	<b>1466</b>	<b>90</b>	<b>13.54</b>	<b>564</b>	<b>12.53</b>	<b>1.01</b>
D.NJPC	Nathpa Jhakri	1500	1350	1037	0	5.90	246	5.60	0.30
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1350</b>	<b>1037</b>	<b>0</b>	<b>5.90</b>	<b>246</b>	<b>5.60</b>	<b>0.30</b>
E. THDC	Tehri HPS	1000	930	929	0	9.14	381	9.20	-0.06
	Koteshwar HPS	400	400	403	89	3.62	151	3.60	0.02
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1330</b>	<b>1332</b>	<b>89</b>	<b>12.76</b>	<b>532</b>	<b>12.80</b>	<b>-0.04</b>
F. BBMB	Bhakra HPS	1480	604	1106	419	15.05	627	14.48	0.57
	Dehar HPS	990	121	495	0	3.21	134	2.89	0.32
	Pong HPS	396	227	372	66	5.55	231	5.01	0.54
	<b>Sub Total (F)</b>	<b>2866</b>	<b>951</b>	<b>1973</b>	<b>485</b>	<b>23.81</b>	<b>992</b>	<b>22.38</b>	<b>1.43</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.39	16	0.37	0.01
	KWHEP HPS(IPP)	1000	0	0	0	0.00	0	0.00	0.00
	Malana Stg-II HPS	100	0	30	0	0.13	5	0.11	0.01
	Shree Cement TPS	300	0	244	138	3.91	163	4.40	-0.49
	Budhil HPS(IPP)	70	0	6	0	0.05	2	0.00	0.05
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>280</b>	<b>138</b>	<b>4.46</b>	<b>186</b>	<b>4.88</b>	<b>-0.42</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>16283</b>	<b>15779</b>	<b>9537</b>	<b>273.64</b>	<b>11402</b>	<b>272.15</b>	<b>1.48</b>	

I. State Entities	Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sent out MW)
<b>Punjab</b>	Guru Gobind Singh TPS (Ropar)	1260	1265	1040	26.49	1104
	Guru Nanak Dev TPS(Bhatinda)	440	340	295	7.03	293
	Guru Hargobind Singh TPS(L.mbt)	920	701	523	14.30	596
	Thermal (Total)	2620	2306	1858	47.82	1992
	Total Hydro	1148	420	396	10.64	443
	<b>Total Punjab</b>	<b>3768</b>	<b>2726</b>	<b>2254</b>	<b>58.46</b>	<b>2436</b>
<b>Haryana</b>	Panipat TPS	1367	788	708	18.62	776
	DCRTPP (Yamuna nagar)	600	281	282	6.64	277
	Faridabad GPS (NTPC)	432	180	277	5.40	225
	RGTPP (khedar) (IPP)	1200	1116	467	18.70	779
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	584	352	13.49	562
	Thermal (Total)	4944	2949	2086	62.84	2618
	Total Hydro	62	22	21	0.53	22
	<b>Total Haryana</b>	<b>5006</b>	<b>2971</b>	<b>2107</b>	<b>63.36</b>	<b>2640</b>
	<b>Rajasthan</b>	kota TPS	1240	1149	1150	27.89
suratgarh TPS		1500	1076	1085	26.14	1089
Chabra TPS		500	455	423	10.69	445
Dholpur GPS		330	125	0	1.23	51
Ramgarh GPS		111	43	43	1.07	45
RAPS A (NPC)		300	197	197	4.87	203
Barsingsar (NLC)		250	220	219	5.21	217
Giral LTTPS		250	75	75	1.62	67
Rajwest LTTPS (IPP)		675	361	360	7.99	333
VSLP LTTPS (IPP)		135	0	0	0.00	0
Thermal (Total)		5291	3701	3552	86.70	3613
Total Hydro		550	122	167	4.69	195
Wind power		2191	51	96	3.60	150
Biomass		91	28	28	0.66	28
Solar		201	3	0	0.14	6
Renewable/Others (Total)		2483	79	124	4.40	183
<b>Total Rajasthan</b>		<b>8324</b>	<b>3902</b>	<b>3843</b>	<b>95.79</b>	<b>3991</b>
<b>UP</b>		Anpara TPS	1630	1154	1194	27.60
	Obra TPS	1382	491	493	11.80	492
	Paricha TPS	890	601	503	14.20	592
	Panki TPS	210	108	122	2.80	117
	Harduaganj TPS	665	231	249	5.00	208
	Tanda TPS (NTPC)	440	403	404	9.95	414
	Roza TPS (IPP)	1200	810	801	19.74	822
	Anpara-C (IPP)	1200	524	494	12.40	517
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	405	403	9.69	404
	Thermal (Total)	8067	4727	4663	113.16	4715
	Vishnuparyag HPS (IPP)	400	69	71	1.69	70
	Other Hydro	527	189	198	4.65	194
	Cogeneration	981	800	800	19.20	800
	<b>Total UP</b>	<b>9975</b>	<b>5785</b>	<b>5732</b>	<b>138.71</b>	<b>5709</b>
	<b>Uttarakhand</b>	Total Hydro	1303	376	232	6.63
<b>Total Uttarakhand</b>		<b>1303</b>	<b>376</b>	<b>232</b>	<b>6.63</b>	<b>276</b>
<b>Delhi</b>	Rajghat TPS	135	105	104	2.50	104
	Delhi Gas Turbine	282	118	120	2.83	118
	Pragati Gas Turbine	330	310	267	7.32	305
	Rithala GPS	108	21	0	0.32	13
	Bawana GPS	677	210	219	5.26	219
	Badarpur TPS (NTPC)	705	575	575	12.98	541
	Thermal (Total)	2237	1339	1285	31.20	1300
	<b>Total Delhi</b>	<b>2237</b>	<b>1339</b>	<b>1285</b>	<b>31.20</b>	<b>1300</b>
	<b>HP</b>	Baspa HPS (IPP)	330	0	0	0.96
Malana HPS (IPP)		86	32	0	0.16	7
Other Hydro		589	142	69	2.96	124
<b>Total HP</b>		<b>1005</b>	<b>174</b>	<b>69</b>	<b>4</b>	<b>170</b>
<b>J &amp; K</b>	Baglihar HPS (IPP)	450	150	150	3.14	131
	Other Hydro	323	120	170	3.40	142
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>270</b>	<b>320</b>	<b>6.54</b>	<b>273</b>
<b>Total State Control Area Generation</b>		<b>32574</b>	<b>17543</b>	<b>15842</b>	<b>404.76</b>	<b>16795</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>3176</b>	<b>2611</b>	<b>81.54</b>	<b>3398</b>
<b>Total Regional Availability(Gross)</b>		<b>55410</b>	<b>36498</b>	<b>27990</b>	<b>759.94</b>	<b>31594</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	5838	664	56.52	2355
State Control Area Hydro	5368	1573	1403	39.45	1573
<b>Total Regional Hydro</b>	<b>15731</b>	<b>7411</b>	<b>2067</b>	<b>95.96</b>	<b>3928</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	150	250	0	3.21	0.00	3.21
Gwalior-Agra (D/C)	239	489	697	0	11.79	0.00	11.79
Zerda-Kankroli	5	-88	190	112	0.81	0.00	0.81
Zerda-Bhinmal	70	18	354	51	3.41	0.00	3.41
Malanpur-Auraiya	-71	-111	0	150	0.00	2.39	-2.39
Badod-Kota/Morak	-46	-74	35	95	0.00	0.46	-0.46
Mundra-Mohindergarh(HVDC)	1226	1115	1230	0	29.03	0.00	29.03
<b>Sub Total WR</b>	<b>1523</b>	<b>1499</b>			<b>48.25</b>	<b>2.85</b>	<b>45.40</b>
Pusauli Bypass	280	100	100	280	1.03	1.94	-0.91
MZP- GKP (D/C)	204	216	556	0	8.09	0.00	8.09
Patna-Balia(D/C)	588	580	822	0	16.43	0.00	16.43
B'Sharif-Balia (D/C)	236	147	404	0	6.44	0.00	6.44
Barh - Balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Balia	75	-92	113	118	0.23	0.00	0.23
Gaya-Fatehpur (765 Kv)	164	76	258	0	4.06	0.00	4.06
Pusauli-Sahupuri	138	122	150	0	2.89	0.00	2.89
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-32	-37	0	48	0.00	1.09	-1.09
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1653</b>	<b>1112</b>			<b>39.17</b>	<b>3.03</b>	<b>36.14</b>
<b>Total IR Exch</b>	<b>3176</b>	<b>2611</b>			<b>87.42</b>	<b>5.88</b>	<b>81.54</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
34.75	0.10	34.85	-1.94	8.31	1.86	16.39	-2.95	3.05
<b>Total IR Schedule (MU)</b>			<b>Total IR Actual (MU)</b>			<b>Net IR UI (MU)</b>		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
31.81	52.09	83.91	36.14	45.40	81.54	4.33	-6.70	-2.37

**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	0.30	5.40	97.50	92.40	33.90	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					
50.44	17.05	49.45	8.41	49.93	0.24	0.14	50.31	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	402	2:24	396	6:39	0.0	0.0	0.0	0.0
Gorakhpur	400	0	0:00	9999	0:00	0.0	0.0	0.0	0.0
Bareilly	400	424	4:02	403	9:11	0.0	0.0	7.4	0.0
Kanpur	400	419	4:03	398	9:08	0.0	0.0	0.0	0.0
Dadri	400	420	4:01	401	11:34	0.0	0.0	0.0	0.0
Ballabgarh	400	426	4:01	404	9:08	0.0	0.0	15.2	0.0
Bawana	400	424	3:58	405	11:37	0.0	0.0	14.1	0.0
Bassi	400	428	4:04	388	8:35	0.0	0.5	10.9	0.0
Hissar	400	411	4:00	392	8:39	0.0	0.0	0.0	0.0
Moga	400	413	4:00	394	8:39	0.0	0.0	0.0	0.0
Abdullapur	400	424	17:03	300	15:11	0.0	0.0	10.7	0.0
Nalagarh	400	422	0:28	405	11:49	0.0	0.0	4.7	0.0
Kishenpur	400	415	4:00	389	19:32	0.0	0.1	0.0	0.0
Wagoora	400	400	4:01	365	19:33	47.4	73.3	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	489.10	709.72	496.82	971.87	126.63	408.98
Pong	426.72	384.05	407.17	407.15	411.72	555.85	90.50	380.10
Tehri	829.79	740.04	797.85	568.00	818.65	982.26	NA	225.00
Koteswar	612.50	598.50	610.70	4.95	NA	NA	225.00	231.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	36.69	63.07
Rihand	268.22	252.98	260.30	500.10	262.98	617.70	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	512.11	NA	504.77	NA	61.19	35.65

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 30.01.2013 :**

1. Light fog in some part of Eastern UP.

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

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

1. 765/400 KV ( 3\*500 MVA) ICT AT MEERUT FIRST TIME CHAGED FROM 400 KV SIDE AT 14.24 HRS/30.01.2013.

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

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

Report for : 30.01.2013

पारी प्रभाती अजियंता / SHIFT CHARGE ENGINEER