

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 10.03.2014  
Date of Reporting : 11.03.2014

### 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
27486	2313	29799	50.06	25289	200	25489	50.18	693.7	28.43

\* 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:

UI (OD:(+ve), UD: (-ve))

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	42.84	8.31		51.15	37.78	35.31	-2.47	86.46	0.00
Haryana	29.02	0.54		29.56	49.89	48.79	-1.09	78.35	0.15
Rajasthan	104.23	3.91	11.30	119.44	61.17	58.01	-3.15	177.46	0.00
Delhi	19.04			19.04	39.19	37.63	-1.56	56.67	0.26
UP	106.77	2.54	14.40	123.71	85.40	84.79	-0.61	208.50	25.44
Uttarakhand		9.11		9.11	21.56	23.31	1.75	32.42	0.88
HP		5.18		5.18	17.80	19.10	1.29	24.28	0.00
J & K		5.86	0.00	5.86	25.50	20.45	-5.06	26.31	1.70
Chandigarh				0.00	3.34	3.29	-0.05	3.29	0.00
<b>Total</b>	<b>301.90</b>	<b>35.45</b>	<b>25.70</b>	<b>363.05</b>	<b>341.63</b>	<b>330.68</b>	<b>-10.95</b>	<b>693.73</b>	<b>28.43</b>

\* Shortage furnished by the respective constituent.\$ Others include UP Co-generation and JK Diesel

### II. B. State's Demand Met in MWs:

UI/OA/PX (OD/Import: (+ve), UD/Export: (-ve))

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	STOA/PX transaction	
Punjab		0	-259	-225	3577	0	79	120	-5.70	
Haryana	4599	0	268	-153	2448	0	-280	-181	-4.59	
Rajasthan	6799	0	-295	659	6764	0	-10	1212	28.33	
Delhi	2980	38	43	-639	1347	0	-43	-1454	-21.91	
UP	8577	2135	56	742	8387	200	-4	653	13.81	
Uttarakhand	1639	40	169	281	1065	0	80	427	11.40	
HP	1072	0	63	43	711	0	64	202	5.45	
J&K	1649	100	162	146	913	0	-502	452	8.14	
Chandigarh	171	0	-20	0	78	0	-10	0	0.00	
<b>Total</b>	<b>27486</b>	<b>2313</b>	<b>187</b>	<b>853</b>	<b>25289</b>	<b>200</b>	<b>-626</b>	<b>1432</b>	<b>34.93</b>	

\* STOA figures are at sellers boundary & PX figures are at regional boundary.

### III. Regional Entities :

UI (OG:(+ve), UG: (-ve))

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
<b>A. NTPC</b>								
Singrauli STPS	2000	1430	1243	1176	28.83	1201	28.99	-0.16
Rihand I STPS	1000	945	870	742	18.32	764	18.48	-0.16
Rihand II STPS	1000	975	872	777	18.83	785	18.99	-0.16
Rihand III STPS	1000	478	430	372	9.65	402	9.60	0.05
Dadri I STPS	840	815	618	597	13.81	575	14.36	-0.55
Dadri II STPS	980	980	761	702	17.66	736	18.11	-0.46
Unchahar I TPS	420	408	309	311	7.32	305	7.44	-0.12
Unchahar II TPS	420	406	324	310	7.32	305	7.31	0.01
Unchahar III TPS	210	203	155	155	3.62	151	3.65	-0.03
ISTPP (Jhajjhar)	1500	1500	342	329	8.02	334	8.22	-0.20
Dadri GPS	830	833	308	258	7.43	310	7.51	-0.08
Anta GPS	419	417	215	195	5.41	225	5.46	-0.05
Auraiya GPS	663	668	128	115	3.08	128	3.05	0.03
<b>Sub Total (A)</b>	<b>11282</b>	<b>10057</b>	<b>6575</b>	<b>6039</b>	<b>149.30</b>	<b>6221</b>	<b>151.17</b>	<b>-1.87</b>
<b>B. NPC</b>								
NAPS	440	187	308	158	4.41	184	4.50	-0.09
RAPS- B	440	418	456	460	9.93	414	10.03	-0.10
RAPS- C	440	430	467	478	10.23	426	10.32	-0.09
<b>Sub Total (B)</b>	<b>1320</b>	<b>1035</b>	<b>1231</b>	<b>1096</b>	<b>24.57</b>	<b>1024</b>	<b>24.85</b>	<b>-0.28</b>
<b>C. NHPC</b>								
Chamera I HPS	540	540	540	0	3.06	127	3.05	0.01
Chamera II HPS	300	300	300	0	1.31	54	1.30	0.01
Chamera III HPS	231	231	159	0	0.59	25	0.60	-0.01
Bairasuil HPS	180	143	120	60	1.79	75	1.90	-0.11
Salal-HPS	690	278	434	100	6.74	281	6.81	-0.07
Tanakpur-HPS	94	0	0	0	0.00	0	0.00	0.00
Uri-HPS	480	277	442	200	6.65	277	6.65	-0.01
Uri-II HPS	180	168	184	149	4.12	172	4.09	0.03
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	269	0	2.01	84	2.30	-0.29
Sewa-II HPS	120	119	128	0	1.23	51	1.20	0.03
Parbati 3	520	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (C)</b>	<b>4005</b>	<b>2443</b>	<b>2576</b>	<b>509</b>	<b>27</b>	<b>1145</b>	<b>28</b>	<b>0</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	660	0	6.34	264	6.40	-0.06
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>660</b>	<b>0</b>	<b>6.34</b>	<b>264</b>	<b>6.40</b>	<b>-0.06</b>
<b>E. THDC</b>								
Tehri HPS	1000	640	641	0	7.49	312	7.50	-0.01
Koteshwar HPS	400	125	302	0	3.01	126	3.00	0.01
<b>Sub Total (E)</b>	<b>1400</b>	<b>765</b>	<b>943</b>	<b>0</b>	<b>10.50</b>	<b>437</b>	<b>10.50</b>	<b>0.00</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	692	1157	496	16.96	707	16.61	0.35
Dehar HPS	990	159	330	0	3.75	156	3.82	-0.06
Pong HPS	396	197	312	120	4.80	200	4.73	0.07
<b>Sub Total (F)</b>	<b>2883</b>	<b>1048</b>	<b>1799</b>	<b>616</b>	<b>25.51</b>	<b>1063</b>	<b>25.15</b>	<b>0.36</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.35	14	0.34	0.01
KWHEP HPS(IPP)	1000	0	150	0	3.35	140	3.36	-0.02
Malana Stg-II HPS	100	0	0	0	0.13	5	0.11	0.02
Shree Cement TPS	300	0	185	226	6.36	265	6.53	-0.17
Budhil HPS(IPP)	70	0	0	0	0.02	1	0.27	-0.25
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>335</b>	<b>226</b>	<b>10.20</b>	<b>425</b>	<b>10.61</b>	<b>-0.40</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24052</b>	<b>16953</b>	<b>14119</b>	<b>8486</b>	<b>253.90</b>	<b>10579</b>	<b>256.57</b>	<b>-2.67</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	720	720	16.03	668
	Guru Nanak Dev TPS(Bhatinda)	440	0	0	0.00	0
	Guru Hargobind Singh TPS(L.mbt)	920	716	699	16.65	694
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	531	284	10.16	423
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	3980	1967	1703	42.84	1785
	Total Hydro	1148	233	41	8.31	346
<b>Total Punjab</b>	<b>5128</b>	<b>2200</b>	<b>1744</b>	<b>51.15</b>	<b>2131</b>	
Haryana	Panipat TPS	1367	227	218	5.11	213
	DCRTPP (Yamuna nagar)	600	282	253	6.09	254
	Faridabad GPS (NTPC)	432	363	279	7.04	293
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	479	710	10.78	449
	Thermal (Total)	4944	1351	1460	29.02	1209
	Total Hydro	62	23	24	0.54	23
	<b>Total Haryana</b>	<b>5006</b>	<b>1374</b>	<b>1484</b>	<b>29.56</b>	<b>1232</b>
	Rajasthan	kota TPS	1240	1050	1080	25.81
suratgarh TPS		1500	1240	1226	29.20	1217
Chabra TPS		750	557	561	14.19	591
Dholpur GPS		330	96	100	2.37	99
Ramgarh GPS		221	115	120	2.84	118
RAPS A (NPC)		300	175	175	4.08	170
Barsingsar (NLC)		250	106	107	2.38	99
Giral LTPS		250	0	0	0.00	0
Rajwest LTPS (IPP)		1080	0	0	0.00	0
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		1320	856	952	23.36	973
Thermal (Total)		7976	4195	4321	104.23	4343
Total Hydro		550	90	135	3.91	163
Wind power		2191	719	164	10.11	421
Biomass		91	20	20	0.47	20
Solar		201	3	0	0.72	30
Renewable/Others (Total)	2483	739	184	11.30	471	
<b>Total Rajasthan</b>	<b>11009</b>	<b>5024</b>	<b>4640</b>	<b>119.44</b>	<b>4977</b>	
UP	Anpara TPS	1630	1459	1525	32.00	1333
	Obra TPS	1288	328	344	7.40	308
	Paricha TPS	1140	522	535	12.00	500
	Panki TPS	210	85	80	1.80	75
	Harduaganj TPS	665	409	393	8.80	367
	Tanda TPS (NTPC)	440	297	233	6.09	254
	Roza TPS (IPP)	1200	765	756	18.35	764
	Anpara-C (IPP)	1200	1026	757	20.34	848
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	0	0	0.00	0
	Thermal (Total)	8223	4891	4623	106.77	4449
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	101	90	2.54	106
	Cogeneration	981	600	600	14.40	600
	<b>Total UP</b>	<b>10131</b>	<b>5592</b>	<b>5313</b>	<b>123.71</b>	<b>5155</b>
	Uttarakhand	Total Hydro	1303	538	237	9.11
<b>Total Uttarakhand</b>		<b>1303</b>	<b>538</b>	<b>237</b>	<b>9.11</b>	<b>380</b>
Delhi	Rajghat TPS	135	53	53	1.18	49
	Delhi Gas Turbine	282	82	82	1.95	81
	Pragati Gas Turbine	330	269	266	6.50	271
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	435	435	9.41	392
	Thermal (Total)	2232	839	836	19.04	793
	<b>Total Delhi</b>	<b>2232</b>	<b>839</b>	<b>836</b>	<b>19.04</b>	<b>793</b>
HP	Baspa HPS (IPP)	330	32	0	0.84	35
	Malana HPS (IPP)	86	0	0	0.20	8
	Other Hydro	589	169	121	4.14	173
	<b>Total HP</b>	<b>1005</b>	<b>201</b>	<b>121</b>	<b>5.18</b>	<b>216</b>
J & K	Baglihar HPS (IPP)	450	150	146	3.57	149
	Other Hydro	323	73	132	2.30	96
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>223</b>	<b>278</b>	<b>5.86</b>	<b>244</b>
<b>Total State Control Area Generation</b>		<b>36770</b>	<b>15991</b>	<b>14653</b>	<b>363.05</b>	<b>15127</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>3918</b>	<b>3577</b>	<b>97.72</b>	<b>4072</b>
<b>Total Regional Availability(Gross)</b>		<b>60823</b>	<b>34028</b>	<b>26716</b>	<b>714.68</b>	<b>29778</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11080	6128	1125	73.66	3069
State Control Area Hydro	5368	1409	926	35.45	1477
<b>Total Regional Hydro</b>	<b>16448</b>	<b>7537</b>	<b>2051</b>	<b>109.11</b>	<b>4546</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	200	500	500	8.55	0.36	8.20
Gwalior-Agra (D/C)	1368	1336	1752	0	32.62	0.00	32.62
Zerda-Kankroli	-323	-271	0	419	0.00	6.06	-6.06
Zerda-Bhinmal	-243	-100	162	354	0.00	2.92	-2.92
Malanpur-Auraiya	-75	-71	0	166	0.00	1.92	-1.92
Badod-Kota/Morak	-122	-80	56	175	0.00	1.66	-1.66
Mundra-Mohindergarh(HVDC)	2003	1500	2005	0	44.43	0.00	44.43
<b>Sub Total WR</b>	<b>3108</b>	<b>2514</b>			<b>85.60</b>	<b>12.90</b>	<b>72.70</b>
Pusauli Bypass	300	300	300	0	7.25	0.00	7.25
MZP- GKP (D/C)	126	216	283	0	3.84	0.00	3.84
Patna-Balia(D/C)	314	393	709	0	10.24	0.00	10.24
B'Sharif-Balia (D/C)	84	163	418	0	4.22	0.00	4.22
Pusauli-Balia	-96	-125	0	139	0.00	1.58	-1.58
Gaya-Fatehpur (765 Kv)	-50	-15	117	133	0.00	0.03	-0.03
Pusauli-Sahupuri	38	130	157	0	2.88	0.00	2.88
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	0	0	0	0	0.00	0.00	0.00
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	94	1	94	143	0.00	1.80	-1.80
<b>Sub Total ER</b>	<b>810</b>	<b>1063</b>			<b>28.42</b>	<b>3.40</b>	<b>25.02</b>
<b>Total IR Exch</b>	<b>3918</b>	<b>3577</b>			<b>114.02</b>	<b>16.30</b>	<b>97.72</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
26.81	0.13	26.94	7.15	7.52	8.91	3.80	0.00	0.00

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
43.01	57.16	100.17	25.02	72.70	97.72	-17.99	15.54	-2.45

**VI. Frequency Profile** <----- % of Time Frequency ----->

<49.2	<49.7	<49.8	<49.9	<50.0	49.9-50.05	50.05-50.10	>50.10	>50.20	>50.50
0.00	0.00	0.00	5.76	80.87	52.99	18.18	24.07	4.83	0.00

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz				
50.37	20.29	49.83	6.10	50.09	0.17	0.09	50.33	49.98

**VII. Voltage profile 400 kV**

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	03:02	401	09:41	0.0	0.0	0.0	0.0
Gorakhpur	400	623	22:04	120	13:51	9.2	9.2	90.8	90.8
Bareilly	400	427	21:56	405	06:51	0.0	0.0	34.0	0.0
Kanpur	400	420	00:00	406	18:54	0.0	0.0	0.0	0.0
Dadri	400	427	22:00	411	18:54	0.0	0.0	34.0	0.0
Ballabgarh	400	435	21:57	416	18:56	0.0	0.0	79.5	25.5
Bawana	400	432	03:01	413	18:52	0.0	0.0	66.8	10.5
Bassi	400	428	03:54	403	09:54	0.0	0.0	49.7	0.0
Hissar	400	422	21:52	402	18:56	0.0	0.0	8.3	0.0
Moga	400	423	23:37	402	18:52	0.0	0.0	5.1	0.0
Abdullapur	400	427	02:35	410	06:52	0.0	0.0	52.7	0.0
Nalagarh	400	430	21:17	409	05:53	0.0	0.0	49.5	0.0
Kishenpur	400	426	04:03	398	18:59	0.0	0.0	10.5	0.0
Wagoora	400	420	04:03	385	19:00	0.0	3.1	0.0	0.0

**VIII. Voltage profile 765 kV**

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)			
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV
Fatehpur	765	778	03:02	729	06:52	0.0	1.8	0.0	0.0
Balia	765	777	15:15	739	06:51	0.0	0.6	0.0	0.0
Moga	765	805	23:39	766	18:52	0.0	0.0	3.3	0.0
Agra	765	809	03:01	767	05:54	0.0	0.0	12.2	0.0
Bhiwani	765	817	23:38	779	18:54	0.0	0.0	49.7	0.0
Unnao	765	758	00:00	758	00:00	0.0	0.0	0.0	0.0

**IX. 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	486.98	644.48	484.64	577.33	197.74	529.95
Pong	426.72	384.05	404.51	328.16	402.75	281.22	118.34	286.85
Tehri	829.79	740.04	788.45	425.58	818.65	982.26	48.18	195.00
Koteswar	612.50	598.50	610.35	4.69	609.60	4.21	195.00	198.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	81.53	107.03
Rihand	268.22	252.98	259.45	274.80	258.99	250.70	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	508.60	144.00	508.99	144.00	105.85	120.77

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 10.03.2014 :**

1. Partial rains in NR except UP.

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

0.00

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

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

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

Vishnuprayag (400MW) and Dhauliganga (280MW) are out of operation since 16.06.2013.

Civil construction is in progress for rectification of the major damages in Plants/Dam caused due to flood Vishnuprayag and Dhauliganga expected by Mar, 2014 .

Report for : 10.03.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER