

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 13.03.2014

Date of Reporting : 14.03.2014

### 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
32267	1913	34180	49.98	27261	30	27291	50.05	725.1	41.25

\* 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	36.77	10.58		47.35	31.69	31.91	0.22	79.26	5.90
Haryana	28.49	0.55		29.05	62.33	64.98	2.65	94.02	1.82
Rajasthan	109.34	5.76	11.29	126.40	56.68	57.74	1.06	184.14	1.58
Delhi	14.92			14.92	41.63	43.12	1.49	58.04	0.08
UP	116.60	3.21	14.40	134.21	90.13	90.90	0.77	225.11	29.94
Uttarakhand		9.04		9.04	21.91	22.09	0.18	31.13	0.16
HP		5.83		5.83	16.85	17.17	0.32	23.00	0.08
J & K		7.13	0.00	7.13	22.90	19.99	-2.91	27.12	1.70
Chandigarh				0.00	3.21	3.31	0.10	3.31	0.00
<b>Total</b>	<b>306.13</b>	<b>42.10</b>	<b>25.69</b>	<b>373.92</b>	<b>347.33</b>	<b>351.21</b>	<b>3.88</b>	<b>725.13</b>	<b>41.25</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	3462	425	-124	-1236	3087	0	164	220	-11.29	
Haryana	4586	3	-90	133	3413	0	275	-200	-2.54	
Rajasthan	7465	0	-211	681	6796	0	82	692	22.86	
Delhi	3050	0	132	-606	1463	0	32	-1338	-20.67	
UP	9720	1345	-55	754	9679	30	210	666	14.04	
Uttarakhand	1573	40	98	460	1050	0	-3	401	11.62	
HP	909	0	-113	46	698	0	43	175	5.27	
J&K	1331	100	-100	276	991	0	-176	245	5.68	
Chandigarh	171	0	-16	0	85	0	7	0	0.00	
<b>Total</b>	<b>32267</b>	<b>1913</b>	<b>-480</b>	<b>508</b>	<b>27261</b>	<b>30</b>	<b>633</b>	<b>862</b>	<b>24.97</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	Net MU
<b>A. NTPC</b>									
Singrauli STPS	2000	1430	1542	1269	32.85	1369	32.78	0.07	
Rihand I STPS	1000	945	958	736	20.27	845	20.15	0.12	
Rihand II STPS	1000	975	1038	748	20.92	871	20.79	0.12	
Rihand III STPS	1000	478	490	282	10.70	446	10.49	0.21	
Dadri I STPS	840	815	681	626	14.48	603	14.92	-0.44	
Dadri II STPS	980	980	1007	691	19.73	822	20.36	-0.63	
Unchahar I TPS	420	408	426	347	8.63	360	8.79	-0.16	
Unchahar II TPS	420	406	432	310	8.28	345	8.29	-0.01	
Unchahar III TPS	210	203	210	155	4.07	169	4.09	-0.03	
ISTPP (Jhajjhar)	1500	1500	500	356	10.38	433	10.29	0.09	
Dadri GPS	830	833	195	204	4.56	190	4.78	-0.23	
Anta GPS	419	417	0	0	2.54	106	0.00	2.54	
Auraiya GPS	663	666	155	161	3.61	150	3.68	-0.07	
<b>Sub Total (A)</b>	<b>11282</b>	<b>10056</b>	<b>7634</b>	<b>5885</b>	<b>161.00</b>	<b>6709</b>	<b>159.41</b>	<b>1.60</b>	
<b>B. NPC</b>									
NAPS	440	141	158	158	3.22	134	3.38	-0.16	
RAPS- B	440	418	454	463	9.96	415	10.03	-0.07	
RAPS- C	440	430	471	477	10.24	427	10.32	-0.08	
<b>Sub Total (B)</b>	<b>1320</b>	<b>989</b>	<b>1083</b>	<b>1098</b>	<b>23.43</b>	<b>976</b>	<b>23.74</b>	<b>-0.31</b>	
<b>C. NHPC</b>									
Chamera I HPS	540	540	540	0	5.14	214	5.11	0.03	
Chamera II HPS	300	300	301	0	1.75	73	1.70	0.05	
Chamera III HPS	231	231	222	0	0.81	34	0.80	0.01	
Bairasuil HPS	180	182	180	120	2.93	122	2.91	0.02	
Salal-HPS	690	371	453	402	9.19	383	8.98	0.22	
Tanakpur-HPS	94	0	0	0	0.00	0	0.00	0.00	
Uri-HPS	480	443	455	450	10.87	453	10.62	0.25	
Uri-II HPS	180	180	187	187	4.42	184	4.32	0.10	
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00	
Dulhasti-HPS	390	387	397	0	2.47	103	2.40	0.07	
Sewa-II HPS	120	122	126	127	2.99	125	2.93	0.06	
Parbati 3	520	0	0	0	0.00	0	0.00	0.00	
<b>Sub Total (C)</b>	<b>4005</b>	<b>2755</b>	<b>2861</b>	<b>1286</b>	<b>41</b>	<b>1690</b>	<b>40</b>	<b>1</b>	
<b>D. NJPC</b>									
Nathpa Jhakri	1500	1605	767	0	6.12	255	6.10	0.01	
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>767</b>	<b>0</b>	<b>6.12</b>	<b>255</b>	<b>6.10</b>	<b>0.01</b>	
<b>E. THDC</b>									
Tehri HPS	1000	624	627	0	7.54	314	7.50	0.04	
Koteshwar HPS	400	125	302	0	3.04	127	3.00	0.04	
<b>Sub Total (E)</b>	<b>1400</b>	<b>749</b>	<b>929</b>	<b>0</b>	<b>10.58</b>	<b>441</b>	<b>10.50</b>	<b>0.08</b>	
<b>F. BBMB</b>									
Bhakra HPS	1497	597	1140	370	14.84	618	14.33	0.51	
Dehar HPS	990	174	330	0	4.69	195	4.17	0.52	
Pong HPS	396	196	308	124	4.94	206	4.71	0.23	
<b>Sub Total (F)</b>	<b>2883</b>	<b>967</b>	<b>1778</b>	<b>494</b>	<b>24.47</b>	<b>1020</b>	<b>23.20</b>	<b>1.27</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	3.39	141	3.36	0.02	
Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00	
Shree Cement TPS	300	0	258	226	6.10	254	6.08	0.02	
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>408</b>	<b>226</b>	<b>9.86</b>	<b>411</b>	<b>10.06</b>	<b>-0.20</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>24052</b>	<b>17121</b>	<b>15461</b>	<b>8989</b>	<b>276.03</b>	<b>11501</b>	<b>272.77</b>	<b>3.26</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	630	420	12.45	519
	Guru Nanak Dev TPS(Bhatinda)	440	120	90	1.83	76
	Guru Hargobind Singh TPS(L.mbt)	920	689	527	14.11	588
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	26	285	8.38	349
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	3980	1465	1322	36.77	1532
	Total Hydro	1148	465	431	10.58	441
	<b>Total Punjab</b>	<b>5128</b>	<b>1930</b>	<b>1753</b>	<b>47.35</b>	<b>1973</b>
<b>Haryana</b>	Panipat TPS	1367	0	0	0.25	11
	DCRTPP (Yamuna nagar)	600	281	279	6.51	271
	Faridabad GPS (NTPC)	432	406	286	8.82	368
	RGTPP (kheadar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	542	553	12.91	538
	Thermal (Total)	4944	1229	1118	28.49	1187
	Total Hydro	62	24	20	0.55	23
	<b>Total Haryana</b>	<b>5006</b>	<b>1253</b>	<b>1138</b>	<b>29.05</b>	<b>1210</b>
<b>Rajasthan</b>	kota TPS	1240	1069	1046	25.62	1068
	suratgarh TPS	1500	905	1028	23.84	993
	Chabra TPS	750	577	377	13.10	546
	Dholpur GPS	330	99	115	2.61	109
	Ramgarh GPS	221	129	120	3.14	131
	RAPS A (NPC)	300	175	175	4.09	170
	Barsingsar (NLC)	250	200	199	4.71	196
	Giral LTPS	250	10	0	0.10	4
	Rajwest LTPS (IPP)	1080	153	87	2.94	123
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	1320	1187	1170	29.20	1217
	Thermal (Total)	7976	4504	4317	109.34	4556
	Total Hydro	550	256	185	5.76	240
	Wind power	2191	183	737	9.98	416
	Biomass	91	27	27	0.64	27
	Solar	201	7	0	0.68	28
Renewable/Others (Total)	2483	210	764	11.29	470	
<b>Total Rajasthan</b>	<b>11009</b>	<b>4970</b>	<b>5266</b>	<b>126.40</b>	<b>5267</b>	
<b>UP</b>	Anpara TPS	1630	1020	1106	23.40	975
	Obra TPS	1288	529	520	11.10	463
	Paricha TPS	1140	537	527	11.30	471
	Panki TPS	210	100	90	2.10	88
	Harduaganj TPS	665	458	475	9.90	413
	Tanda TPS (NTPC)	440	396	398	9.21	384
	Roza TPS (IPP)	1200	1116	1098	22.78	949
	Anpara-C (IPP)	1200	1083	1080	24.88	1037
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	85	85	1.94	81
	Thermal (Total)	8223	5324	5379	116.60	4859
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	130	145	3.21	134
	Cogeneration	981	600	600	14.40	600
	<b>Total UP</b>	<b>10131</b>	<b>6054</b>	<b>6124</b>	<b>134.21</b>	<b>5592</b>
<b>Uttarakhand</b>	Total Hydro	1303	467	341	9.04	377
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>467</b>	<b>341</b>	<b>9.04</b>	<b>377</b>
<b>Delhi</b>	Rajghat TPS	135	54	53	1.20	50
	Delhi Gas Turbine	282	82	83	1.98	82
	Pragati Gas Turbine	330	171	170	4.36	182
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	345	340	7.38	308
	Thermal (Total)	2232	652	646	14.92	622
	<b>Total Delhi</b>	<b>2232</b>	<b>652</b>	<b>646</b>	<b>14.92</b>	<b>622</b>
<b>HP</b>	Baspa HPS (IPP)	330	30	0	1.03	43
	Malana HPS (IPP)	86	20	0	0.18	8
	Other Hydro	589	196	162	4.62	192
	<b>Total HP</b>	<b>1005</b>	<b>246</b>	<b>162</b>	<b>5.83</b>	<b>243</b>
<b>J &amp; K</b>	Baglihar HPS (IPP)	450	292	146	4.83	201
	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>365</b>	<b>278</b>	<b>7.13</b>	<b>297</b>
<b>Total State Control Area Generation</b>		<b>36770</b>	<b>15937</b>	<b>15708</b>	<b>373.92</b>	<b>15580</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>3739</b>	<b>2879</b>	<b>84.61</b>	<b>3526</b>
<b>Total Regional Availability(Gross)</b>		<b>60823</b>	<b>35137</b>	<b>27576</b>	<b>734.56</b>	<b>30607</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11080	6485	1780	85.47	3561
State Control Area Hydro	5368	1953	1562	42.10	1754
<b>Total Regional Hydro</b>	<b>16448</b>	<b>8438</b>	<b>3342</b>	<b>127.57</b>	<b>5315</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	-100	500	300	4.26	0.36	3.90
Gwallor-Agra (D/C)	1501	1435	1739	0	33.25	0.00	33.25
Zerda-Kankroli	-217	-420	0	420	0.00	7.27	-7.27
Zerda-Bhinmal	-104	-322	0	344	0.00	4.33	-4.33
Malanpur-Auraiya	-97	-87	0	124	0.00	2.18	-2.18
Badod-Kota/Morak	-22	-113	0	145	0.00	1.30	-1.30
Mundra-Mohinderghar(HVDC)	1802	1503	2003	0	37.07	0.00	37.07
<b>Sub Total WR</b>	<b>2963</b>	<b>1896</b>			<b>74.58</b>	<b>15.45</b>	<b>59.13</b>
Pusauli Bypass	300	300	300	0	7.25	0.00	7.25
MZP- GKP (D/C)	132	179	261	0	3.52	0.00	3.52
Patna-Balia(D/C)	359	388	506	0	9.28	0.00	9.28
B'Sharni-Balia (D/C)	128	152	282	0	3.74	0.00	3.74
Pusauli-Balia	-136	-90	0	153	0.00	2.09	-2.09
Gaya-Fatehpur (765 Kv)	3	-34	110	92	0.00	0.09	-0.09
Pusauli-Sahupuri	130	136	0	153	2.95	0.00	2.95
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-28	-25	0	32	0.00	0.62	-0.62
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-112	-23	196	37	1.54	0.00	1.54
<b>Sub Total ER</b>	<b>776</b>	<b>983</b>			<b>28.27</b>	<b>2.79</b>	<b>25.48</b>
<b>Total IR Exch</b>	<b>3739</b>	<b>2879</b>			<b>102.85</b>	<b>18.24</b>	<b>84.61</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
32.96	0.12	33.09	8.36	7.51	3.56	-1.53	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
45.00	45.08	90.08	25.48	59.13	84.61	-19.52	14.06	-5.47

**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	0.42	2.92	20.72	58.22	56.88	14.51	0.69	0.69	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				
50.27	13.02	49.65	18.57	49.98	0.09	0.09	50.23	49.91

**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	413	03:29	404	06:33	0.2	0.2	0.0	0.0
Gorakhpur	400	461	15:44	373	08:23	34.1	47.0	13.9	0.1
Bareilly	400	424	03:40	404	18:55	0.0	0.0	11.4	0.0
Kanpur	400	419	03:40	401	18:55	0.0	0.0	0.0	0.0
Dadri	400	428	03:33	410	06:28	0.0	0.0	39.9	0.0
Ballabgarh	400	434	03:34	412	18:58	0.0	0.0	81.6	6.6
Bawana	400	433	03:33	409	18:55	0.0	0.0	59.1	5.0
Bassi	400	430	03:34	400	07:35	0.0	0.0	19.7	0.0
Hissar	400	423	03:33	399	18:56	0.0	0.0	5.3	0.0
Moga	400	424	03:32	400	18:55	0.0	0.0	13.3	0.0
Abdullapur	400	429	01:59	408	18:55	0.0	0.0	47.3	0.0
Nalagarh	400	430	03:01	410	18:58	0.0	0.0	45.1	0.0
Kishenpur	400	422	03:01	399	18:56	0.0	0.0	7.1	0.0
Wagoora	400	418	03:20	388	18:40	0.0	0.0	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	773	13:02	732	06:45	0.0	3.0	0.0	0.0
Balia	765	778	16:05	746	18:55	0.0	0.0	0.0	0.0
Moga	765	805	03:34	761	18:57	0.0	0.0	5.2	0.0
Agra	765	812	03:40	771	06:29	0.0	0.0	28.1	0.0
Bhiwani	765	816	03:40	772	18:58	0.0	0.0	29.1	0.0
Unnao	765	758	13:07	746	16:46	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
Koteshwar	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 13.03.2014 :**

1. Normal Weather.

**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 : 13.03.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER