

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 27.02.2014  
Date of Reporting : 28.02.2014

### 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
34347	1541	35888	50.13	25914	0	25914	50.28	744.5	24.07

\* 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	44.56	10.87		55.43	45.08	45.28	0.20	100.72	0.00
Haryana	36.65	0.38		37.02	66.19	65.91	-0.29	102.93	0.11
Rajasthan	88.66	4.50	8.97	102.12	72.07	70.77	-1.30	172.89	0.43
Delhi	16.59			16.59	41.18	39.20	-1.99	55.78	0.22
UP	112.70	1.77	16.80	131.27	87.84	84.65	-3.19	215.92	21.40
Uttarakhand		8.16		8.16	22.18	23.34	1.16	31.49	0.21
HP		5.20		5.20	18.37	18.96	0.59	24.16	0.00
J & K		5.29	0.00	5.29	34.30	32.13	-2.17	37.42	1.70
Chandigarh				0.00	3.32	3.19	-0.13	3.19	0.00
<b>Total</b>	<b>299.15</b>	<b>36.17</b>	<b>25.77</b>	<b>361.08</b>	<b>390.52</b>	<b>383.42</b>	<b>-7.10</b>	<b>744.49</b>	<b>24.07</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	
Punjab	5167	0	-85	-722	3506	0	94	83	-4.63
Haryana	5068	0	-344	-143	3491	0	284	-351	-6.96
Rajasthan	6945	0	-177	939	6405	0	-100	1042	30.35
Delhi	2988	1	95	-808	1384	0	-111	-1549	-24.14
UP	9438	1405	-357	450	7807	0	-252	476	8.15
Uttarakhand	1622	35	193	416	1054	0	51	439	10.52
HP	1090	0	51	125	737	0	19	323	6.68
J&K	1862	100	4	521	1448	0	-179	609	11.28
Chandigarh	168	0	-14	0	83	0	-17	0	0.00
<b>Total</b>	<b>34347</b>	<b>1541</b>	<b>-634</b>	<b>778</b>	<b>25914</b>	<b>0</b>	<b>-211</b>	<b>1072</b>	<b>31.25</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	1930	1795	1478	41.54	1731	41.41	0.13
Rihand I STPS	1000	945	954	698	19.77	824	20.04	-0.27
Rihand II STPS	1000	975	935	693	20.29	845	20.58	-0.29
Rihand III STPS	1000	485	500	343	10.20	425	10.40	-0.19
Dadri I STPS	840	798	608	583	13.45	560	13.76	-0.31
Dadri II STPS	980	958	793	672	18.07	753	18.44	-0.37
Unchahar I TPS	420	406	411	307	8.17	340	8.37	-0.20
Unchahar II TPS	420	406	363	311	8.06	336	8.16	-0.10
Unchahar III TPS	210	203	184	154	4.05	169	4.10	-0.05
ISTPP (Jhajjhar)	1500	1500	956	643	14.95	623	15.14	-0.19
Dadri GPS	830	838	559	523	12.90	538	13.08	-0.18
Anta GPS	419	421	196	248	6.10	254	6.21	-0.11
Auraiya GPS	663	674	136	163	3.66	153	3.70	-0.04
<b>Sub Total (A)</b>	<b>11282</b>	<b>10539</b>	<b>8390</b>	<b>6816</b>	<b>181.22</b>	<b>7551</b>	<b>183.40</b>	<b>-2.18</b>
<b>B. NPC</b>								
NAPS	440	292	328	338	7.00	292	7.01	-0.01
RAPS- B	440	417	455	461	9.96	415	10.01	-0.05
RAPS- C	440	430	474	476	10.18	424	10.32	-0.14
<b>Sub Total (B)</b>	<b>1320</b>	<b>1139</b>	<b>1257</b>	<b>1275</b>	<b>27.14</b>	<b>1131</b>	<b>27.34</b>	<b>-0.19</b>
<b>C. NHPC</b>								
Chamera I HPS	540	540	540	0	3.38	141	3.45	-0.07
Chamera II HPS	300	200	200	0	1.39	58	1.35	0.04
Chamera III HPS	231	154	149	0	0.71	29	0.72	-0.01
Bairasuil HPS	180	182	180	0	1.46	61	1.54	-0.08
Salal-HPS	690	156	225	120	3.71	155	3.70	0.01
Tanakpur-HPS	94	0	0	0	0.00	0	0.00	0.00
Uri-HPS	480	195	304	119	4.81	200	4.90	-0.09
Uri-II HPS	180	110	158	100	3.09	129	2.59	0.50
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	257	266	0	2.47	103	2.50	-0.03
Sewa-II HPS	120	119	118	0	2.19	91	2.20	-0.01
Parbati 3	520	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (C)</b>	<b>4005</b>	<b>1913</b>	<b>2140</b>	<b>339</b>	<b>23</b>	<b>967</b>	<b>23</b>	<b>0</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	762	0	6.54	273	6.54	0.00
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>762</b>	<b>0</b>	<b>6.54</b>	<b>273</b>	<b>6.54</b>	<b>0.00</b>
<b>E. THDC</b>								
Tehri HPS	1000	876	882	0	6.92	288	7.00	-0.08
Koteshwar HPS	400	116	303	0	2.75	115	2.80	-0.05
<b>Sub Total (E)</b>	<b>1400</b>	<b>992</b>	<b>1185</b>	<b>0</b>	<b>9.67</b>	<b>403</b>	<b>9.80</b>	<b>-0.13</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	775	1161	503	18.68	778	18.61	0.07
Dehar HPS	990	137	330	0	3.62	151	3.29	0.33
Pong HPS	396	218	306	120	5.23	218	5.24	-0.01
<b>Sub Total (F)</b>	<b>2883</b>	<b>1131</b>	<b>1797</b>	<b>623</b>	<b>27.53</b>	<b>1147</b>	<b>27.14</b>	<b>0.39</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.36	15	0.35	0.01
KWHEP HPS(IPP)	1000	0	0	0	3.33	139	3.36	-0.03
Malana Stg-II HPS	100	0	0	0	0.12	5	0.11	0.01
Shree Cement TPS	300	0	139	144	3.44	143	3.56	-0.13
Budhil HPS(IPP)	70	0	0	0	0.02	1	0.10	-0.08
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>139</b>	<b>144</b>	<b>7.27</b>	<b>303</b>	<b>7.49</b>	<b>-0.22</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24052</b>	<b>17319</b>	<b>15670</b>	<b>9197</b>	<b>282.57</b>	<b>11774</b>	<b>284.65</b>	<b>-2.08</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	1050	810	21.08	878
	Guru Nanak Dev TPS(Bhatinda)	440	170	170	4.30	179
	Guru Hargobind Singh TPS(L.mbt)	920	959	710	19.19	799
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	0	0	0.00	0
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	3980	2179	1690	44.56	1857
	Total Hydro	1148	386	485	10.87	453
<b>Total Punjab</b>	<b>5128</b>	<b>2565</b>	<b>2175</b>	<b>55.43</b>	<b>2310</b>	
Haryana	Panipat TPS	1367	231	214	5.12	213
	DCRTPP (Yamuna nagar)	600	523	507	11.99	500
	Faridabad GPS (NTPC)	432	360	279	7.70	321
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	615	366	11.83	493
	Thermal (Total)	4944	1729	1366	36.65	1527
	Total Hydro	62	19	18	0.38	16
<b>Total Haryana</b>	<b>5006</b>	<b>1748</b>	<b>1384</b>	<b>37.02</b>	<b>1543</b>	
Rajasthan	kota TPS	1240	916	1068	23.38	974
	suratgarh TPS	1500	1049	1087	24.01	1001
	Chabra TPS	750	565	555	14.69	612
	Dholpur GPS	330	120	126	3.20	133
	Ramgarh GPS	221	104	49	2.06	86
	RAPS A (NPC)	300	205	175	4.13	172
	Barsingsar (NLC)	250	204	203	4.74	198
	Giral LTPS	250	76	76	1.52	63
	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	429	426	10.92	455
	Thermal (Total)	7976	3668	3765	88.66	3694
	Total Hydro	550	75	92	4.50	187
	Wind power	2191	504	363	8.07	336
	Biomass	91	32	32	0.78	32
	Solar	201	0	0	0.12	5
Renewable/Others (Total)	2483	536	395	8.97	374	
<b>Total Rajasthan</b>	<b>11009</b>	<b>4279</b>	<b>4252</b>	<b>102.12</b>	<b>4255</b>	
UP	Anpara TPS	1630	1125	883	23.30	971
	Obra TPS	1288	328	343	7.40	308
	Paricha TPS	1140	859	893	18.70	779
	Panki TPS	210	90	90	1.90	79
	Harduaganj TPS	665	475	428	10.10	421
	Tanda TPS (NTPC)	440	399	328	8.59	358
	Roza TPS (IPP)	1200	567	685	15.48	645
	Anpara-C (IPP)	1200	1080	785	21.67	903
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	222	224	5.56	232
	Thermal (Total)	8223	5145	4659	112.70	4696
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	86	34	1.77	74
	Cogeneration	981	700	700	16.80	700
	<b>Total UP</b>	<b>10131</b>	<b>5931</b>	<b>5393</b>	<b>131.27</b>	<b>5469</b>
Uttarakhand	Total Hydro	1303	382	152	8.16	340
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>382</b>	<b>152</b>	<b>8.16</b>	<b>340</b>
Delhi	Rajghat TPS	135	52	52	1.19	49
	Delhi Gas Turbine	282	61	84	1.94	81
	Pragati Gas Turbine	330	262	265	4.14	172
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	425	420	9.32	388
	Thermal (Total)	2232	800	821	16.59	691
	<b>Total Delhi</b>	<b>2232</b>	<b>800</b>	<b>821</b>	<b>16.59</b>	<b>691</b>
HP	Baspa HPS (IPP)	330	31	0	0.93	39
	Malana HPS (IPP)	86	0	0	0.16	7
	Other Hydro	589	179	109	4.11	171
	<b>Total HP</b>	<b>1005</b>	<b>210</b>	<b>109</b>	<b>5.20</b>	<b>217</b>
J & K	Baglihar HPS (IPP)	450	150	148	3.00	125
	Other Hydro	323	90	130	2.30	96
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>240</b>	<b>278</b>	<b>5.29</b>	<b>220</b>
<b>Total State Control Area Generation</b>		<b>36770</b>	<b>16155</b>	<b>14564</b>	<b>361.08</b>	<b>15045</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>4756</b>	<b>3129</b>	<b>110.64</b>	<b>4610</b>
<b>Total Regional Availability(Gross)</b>		<b>60823</b>	<b>36581</b>	<b>26890</b>	<b>754.28</b>	<b>31428</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11080	5884	962	70.75	2948
State Control Area Hydro	5368	1398	1168	36.17	1507
<b>Total Regional Hydro</b>	<b>16448</b>	<b>7282</b>	<b>2130</b>	<b>106.92</b>	<b>4455</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	250	300	500	0	8.51	0.00	8.51
Gwalior-Agra (D/C)	1711	958	1857	0	35.09	0.00	35.09
Zerda-Kankroli	-45	-373	56	426	0.00	3.49	-3.49
Zerda-Bhinmal	1	-241	276	312	0.00	0.10	-0.10
Malanpur-Auraiya	-28	-56	0	68	0.00	1.16	-1.16
Badod-Kota/Morak	31	-80	125	127	0.30	0.00	0.30
Mundra-Mohindergarh(HVDC)	2003	1802	2005	0	47.50	0.00	47.50
<b>Sub Total WR</b>	<b>3923</b>	<b>2310</b>			<b>91.39</b>	<b>4.75</b>	<b>86.64</b>
Pusauli Bypass	300	300	300	0	7.29	0.00	7.29
MZP- GKP (D/C)	16	100	271	0	2.78	0.00	2.78
Patna-Balia(D/C)	346	320	503	0	8.23	0.00	8.23
B'Sharif-Balia (D/C)	154	178	307	0	4.11	0.00	4.11
Pusauli-Balia	-117	-50	0	-122	0.00	1.79	-1.79
Gaya-Fatehpur (765 Kv)	-18	-44	154	112	0.22	0.00	0.22
Pusauli-Sahupuri	135	80	135	0	2.54	0.00	2.54
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-28	0	0	0.00	0.66	-0.66
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	47	-37	246	111	1.28	0.00	1.28
<b>Sub Total ER</b>	<b>833</b>	<b>819</b>			<b>26.45</b>	<b>2.45</b>	<b>24.00</b>
<b>Total IR Exch</b>	<b>4756</b>	<b>3129</b>			<b>117.84</b>	<b>7.20</b>	<b>110.64</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
31.73	0.19	31.92	15.59	4.38	3.31	4.25	0.07	-0.07

  

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
50.89	73.38	124.27	24.00	86.64	110.64	-26.90	13.26	-13.63

**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	4.20	20.50	30.10	20.80	44.90	23.20	3.09

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				
50.61	23.59	49.80	8.21	50.11	0.32	0.14	50.60	49.99

**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	01:58	395	08:08	0.0	0.0	0.0	0.0
Gorakhpur	400	427	02:00	408	13:37	0.0	0.0	31.1	0.0
Bareilly	400	429	21:56	404	12:39	0.0	0.0	37.1	0.0
Kanpur	400	421	00:50	400	09:43	0.0	0.0	3.8	0.0
Dadri	400	425	01:36	403	12:31	0.0	0.0	32.4	0.0
Ballabgarh	400	433	01:38	410	09:49	0.0	0.0	52.1	12.6
Bawana	400	431	23:34	405	12:40	0.0	0.0	40.8	0.3
Bassi	400	432	04:01	395	10:55	0.0	0.0	45.3	1.1
Hissar	400	421	23:29	389	12:26	0.0	0.1	0.5	0.0
Moga	400	418	00:03	387	12:23	0.0	1.7	0.0	0.0
Abdullapur	400	429	22:49	401	12:31	0.0	0.0	23.3	0.0
Nalagarh	400	429	23:33	397	12:16	0.0	0.0	29.3	0.0
Kishenpur	400	418	00:04	389	12:26	16.0	16.0	0.0	0.0
Wagoora	400	409	03:52	373	19:24	8.9	41.1	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	781	21:52	737	10:40	0.0	5.2	0.0	0.0
Balia	765	785	23:32	745	12:39	0.0	0.0	0.0	0.0
Moga	765	799	23:36	742	12:26	0.0	0.0	0.0	0.0
Agra	765	818	21:54	766	10:43	0.0	0.0	28.6	0.0
Bhiwani	765	816	01:57	759	12:42	0.0	0.0	19.0	0.0
Unnao	765	771	02:39	738	14:34	0.0	11.9	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	489.75	729.18	485.57	602.35	168.20	599.75
Pong	426.72	384.05	405.62	361.16	403.82	312.39	80.84	352.32
Tehri	829.79	740.04	791.30	472.43	818.65	982.26	67.16	178.00
Koteshwar	612.50	598.50	609.96	4.44	609.60	4.21	178.00	183.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	79.77	92.09
Rihand	268.22	252.98	259.51	278.10	259.32	268.30	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:**

Due to bad weather conditions in NR, load crash of 8850 MW was occurred in the Night.

**XII. Weather Conditions For 27.02.2014 :**

Rains/Thunder storm in NR.

**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 :**

Lines at Karcham HEP tripped on over voltage, however parallel circuits was already opened on H/V condition.

**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 : 27.02.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER