

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 26.02.2014  
Date of Reporting : 27.02.2014

### 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
35227	1380	36607	50.13	27488	750	28238	50.10	768.4	34.56

\* 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	44.79	11.09		55.89	41.94	42.19	0.25	98.07	0.24
Haryana	43.35	0.38		43.73	63.86	62.61	-1.26	106.34	0.36
Rajasthan	93.01	4.57	8.89	106.47	76.71	74.36	-2.35	180.83	1.52
Delhi	18.55			18.55	39.70	40.40	0.70	58.95	0.68
UP	117.81	2.77	16.80	137.38	93.22	90.39	-2.82	227.77	29.40
Uttarakhand		8.32		8.32	21.61	23.24	1.63	31.55	0.66
HP		5.16		5.16	18.20	18.74	0.55	23.90	0.01
J & K		5.29	0.00	5.29	33.38	32.31	-1.07	37.60	1.70
Chandigarh				0.00	3.41	3.41	0.00	3.41	0.00
<b>Total</b>	<b>317.51</b>	<b>37.59</b>	<b>25.69</b>	<b>380.78</b>	<b>392.03</b>	<b>387.65</b>	<b>-4.38</b>	<b>768.43</b>	<b>34.56</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	5200	0	15	-547	3235	0	78	69	-7.36
Haryana	5084	0	-748	-139	3473	0	-59	-251	-6.10
Rajasthan	7032	0	-185	948	6947	0	-20	1042	30.45
Delhi	3118	0	55	-807	1366	0	-14	-1504	-24.06
UP	9974	1205	-243	381	9002	750	-311	476	7.40
Uttarakhand	1621	75	165	338	1085	0	35	459	9.96
HP	1084	0	11	176	716	0	32	303	7.16
J&K	1929	100	132	521	1581	0	7	609	11.28
Chandigarh	186	0	-4	0	83	0	-11	0	0.00
<b>Total</b>	<b>35227</b>	<b>1380</b>	<b>-802</b>	<b>871</b>	<b>27488</b>	<b>750</b>	<b>-263</b>	<b>1203</b>	<b>28.74</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	2058	1632	44.61	1859	44.59	0.02
Rihand I STPS	1000	945	1016	830	20.36	848	20.38	-0.03
Rihand II STPS	1000	962	998	728	20.75	865	20.72	0.03
Rihand III STPS	1000	485	516	348	10.55	440	10.64	-0.09
Dadri I STPS	840	605	592	595	13.01	542	13.45	-0.45
Dadri II STPS	980	877	782	678	17.65	736	17.71	-0.05
Unchahar I TPS	420	406	404	329	8.51	355	8.60	-0.09
Unchahar II TPS	420	403	366	310	7.99	333	8.03	-0.05
Unchahar III TPS	210	203	174	155	4.01	167	4.03	-0.02
ISTPP (Jhajjhar)	1500	1500	642	596	14.18	591	14.40	-0.22
Dadri GPS	830	837	534	520	12.75	531	12.94	-0.20
Anta GPS	419	423	197	253	6.04	252	6.16	-0.12
Auraiya GPS	663	674	141	161	3.64	152	3.69	-0.06
<b>Sub Total (A)</b>	<b>11282</b>	<b>10250</b>	<b>8420</b>	<b>7135</b>	<b>184.03</b>	<b>7668</b>	<b>185.35</b>	<b>-1.32</b>
<b>B. NPC</b>								
NAPS	440	293	326	331	7.00	292	7.03	-0.03
RAPS- B	440	417	461	462	9.96	415	10.01	-0.05
RAPS- C	440	430	476	472	10.30	429	10.32	-0.03
<b>Sub Total (B)</b>	<b>1320</b>	<b>1140</b>	<b>1263</b>	<b>1265</b>	<b>27.25</b>	<b>1135</b>	<b>27.36</b>	<b>-0.11</b>
<b>C. NHPC</b>								
Chamera I HPS	540	540	540	0	3.09	129	3.05	0.04
Chamera II HPS	300	200	204	0	1.42	59	1.30	0.12
Chamera III HPS	231	154	152	0	0.69	29	0.68	0.00
Bairasuil HPS	180	182	182	50	1.56	65	1.60	-0.04
Salal-HPS	690	146	150	110	3.70	154	3.61	0.10
Tanakpur-HPS	94	0	0	0	0.00	0	0.00	0.00
Uri-HPS	480	193	251	152	4.67	195	4.64	0.04
Uri-II HPS	180	102	158	62	2.80	116	2.45	0.35
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	257	271	0	2.52	105	2.50	0.01
Sewa-II HPS	120	119	126	0	2.23	93	2.20	0.03
Parbati 3	520	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (C)</b>	<b>4005</b>	<b>1894</b>	<b>2034</b>	<b>374</b>	<b>23</b>	<b>945</b>	<b>22</b>	<b>1</b>
<b>D.NJPC</b>								
Nathpa Jhakri	1500	1605	776	0	6.57	274	6.54	0.03
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>776</b>	<b>0</b>	<b>6.57</b>	<b>274</b>	<b>6.54</b>	<b>0.03</b>
<b>E. THDC</b>								
Tehri HPS	1000	876	885	0	7.01	292	7.00	0.01
Koteshwar HPS	400	116	300	0	2.82	118	2.80	0.02
<b>Sub Total (E)</b>	<b>1400</b>	<b>992</b>	<b>1185</b>	<b>0</b>	<b>9.83</b>	<b>410</b>	<b>9.80</b>	<b>0.03</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	770	1159	512	18.63	776	18.47	0.16
Dehar HPS	990	139	330	0	3.57	149	3.33	0.25
Pong HPS	396	223	306	180	5.60	233	5.35	0.25
<b>Sub Total (F)</b>	<b>2883</b>	<b>1131</b>	<b>1795</b>	<b>692</b>	<b>27.80</b>	<b>1158</b>	<b>27.15</b>	<b>0.65</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	90	0	0.36	15	0.35	0.00
KWHEP HPS(IPP)	1000	0	0	0	3.35	140	3.36	-0.01
Malana Stg-II HPS	100	0	0	0	0.11	4	0.10	0.01
Shree Cement TPS	300	0	287	142	3.63	151	3.87	-0.24
Budhil HPS(IPP)	70	0	0	0	0.02	1	0.21	-0.18
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>377</b>	<b>142</b>	<b>7.46</b>	<b>311</b>	<b>7.88</b>	<b>-0.42</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24052</b>	<b>17012</b>	<b>15850</b>	<b>9608</b>	<b>285.61</b>	<b>11901</b>	<b>286.11</b>	<b>-0.49</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	1035	810	21.00	875
	Guru Nanak Dev TPS(Bhatinda)	440	232	170	4.25	177
	Guru Hargobind Singh TPS(L.mbt)	920	968	704	19.54	814
	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	2235	1684	44.79	1866
	Total Punjab	5128	2746	2167	55.89	2329
Haryana	Panipat TPS	1367	227	211	5.12	213
	DCRTPP (Yamuna nagar)	600	544	503	11.99	500
	Faridabad GPS (NTPC)	432	354	277	7.70	321
	RGTPP (khedar) (IPP)	1200	589	0	8.65	360
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	570	371	9.89	412
	Thermal (Total)	4944	2284	1362	43.35	1806
	Total Hydro	62	17	16	0.38	16
	Total Haryana	5006	2301	1378	43.73	1822
	Rajasthan	kota TPS	1240	1083	1080	26.48
suratgarh TPS		1500	1078	1075	26.03	1085
Chabra TPS		750	407	556	13.82	576
Dholpur GPS		330	129	125	3.27	136
Ramgarh GPS		221	103	76	2.64	110
RAPS A (NPC)		300	175	175	4.11	171
Barsingsar (NLC)		250	204	204	4.83	201
Giral LTPS		250	76	76	1.55	64
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	400	431	10.28	429
Thermal (Total)		7976	3655	3798	93.01	3875
Total Hydro		550	153	86	4.57	191
Wind power		2191	159	727	7.96	332
Biomass		91	27	27	0.64	27
Solar		201	3	0	0.28	12
Renewable/Others (Total)		2483	186	754	8.89	370
Total Rajasthan	11009	3994	4638	106.47	4436	
UP	Anpara TPS	1630	1013	1002	24.00	1000
	Obra TPS	1288	330	296	7.40	308
	Paricha TPS	1140	654	635	15.60	650
	Panki TPS	210	81	63	1.70	71
	Harduaganj TPS	665	282	221	6.40	267
	Tanda TPS (NTPC)	440	401	401	9.66	403
	Roza TPS (IPP)	1200	1071	756	22.48	937
	Anpara-C (IPP)	1200	107	1079	25.04	1043
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	266	195	5.54	231
	Thermal (Total)	8223	4205	4648	117.81	4909
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	115	99	2.77	115
	Cogeneration	981	700	700	16.80	700
	Total UP	10131	5020	5447	137.38	5724
	Uttarakhand	Total Hydro	1303	483	162	8.32
Total Uttarakhand		1303	483	162	8.32	347
Delhi	Rajghat TPS	135	52	52	1.19	49
	Delhi Gas Turbine	282	81	84	1.94	81
	Pragati Gas Turbine	330	151	143	4.14	172
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	284	0	1.90	79
	Badarpur TPS (NTPC)	705	425	425	9.38	391
	Thermal (Total)	2232	993	704	18.55	773
	Total Delhi	2232	993	704	18.55	773
HP	Baspa HPS (IPP)	330	32	0	0.83	34
	Malana HPS (IPP)	86	45	0	0.20	8
	Other Hydro	589	235	103	4.13	172
	Total HP	1005	312	103	5.16	215
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
	Total J & K	956	240	278	5.29	220
Total State Control Area Generation		36770	16089	14877	380.78	15866
J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))			4089	4107	113.32	4722
Total Regional Availability(Gross)		60823	36028	28592	779.71	32488

#### IV. Total Hydro Generation:

Regional Entities Hydro	11080	5880	1066	70.69	2945
State Control Area Hydro	5368	1831	1227	37.59	1566
Total Regional Hydro	16448	7711	2293	108.27	4511

**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	500	500	0	9.76	0.00	9.76
Gwalior-Agra (D/C)	1175	1407	1835	0	35.15	0.00	35.15
Zerda-Kankroli	-130	-356	0	377	0.00	4.34	-4.34
Zerda-Bhinmal	20	-265	181	307	0.00	0.92	-0.92
Malanpur-Auraiya	-77	-60	0	84	0.00	1.39	-1.39
Badod-Kota/Morak	-29	-78	99	96	0.09	0.00	0.09
Mundra-Mohinderghar(HVDC)	1999	1998	2006	0	48.33	0.00	48.33
<b>Sub Total WR</b>	<b>3458</b>	<b>3146</b>			<b>93.33</b>	<b>6.65</b>	<b>86.68</b>
Pusauli Bypass	300	300	300	0	7.25	0.00	7.25
MZP- GKP (D/C)	42	95	277	0	2.50	0.00	2.50
Patna-Balia(D/C)	229	319	580	0	8.82	0.00	8.82
B'Sharif-Balia (D/C)	72	200	437	0	4.58	0.00	4.58
Pusauli-Balia	-136	-76	0	153	0.00	2.08	-2.08
Gaya-Fatehpur (765 Kv)	-19	-5	230	116	0.89	0.00	0.89
Pusauli-Sahupuri	144	115	159	0	3.00	0.00	3.00
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)	29	41	367	112	2.34	0.00	2.34
<b>Sub Total ER</b>	<b>631</b>	<b>961</b>			<b>29.38</b>	<b>2.74</b>	<b>26.64</b>
<b>Total IR Exch</b>	<b>4089</b>	<b>4107</b>			<b>122.71</b>	<b>9.39</b>	<b>113.32</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
33.81	0.13	33.94	15.60	2.78	3.63	2.56	0.07	-0.07
<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
53.24	71.09	124.33	26.64	86.68	113.32	-26.60	15.59	-11.01

**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	0.83	5.00	22.68	34.18	31.05	29.77	16.92	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	Index			
50.49	23.56	49.72	9.22	50.09	0.24	0.11	50.43	49.86

**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	412	02:01	397	09:10	0.0	0.0	0.0	0.0
Gorakhpur	400	423	18:31	409	08:47	0.0	0.0	9.2	0.0
Bareilly	400	425	04:02	400	09:20	0.0	0.0	22.6	0.0
Kanpur	400	421	03:58	395	09:59	0.0	0.0	0.4	0.0
Dadri	400	427	04:00	400	09:51	0.0	0.0	25.2	0.0
Ballabgarh	400	434	03:58	406	09:50	0.0	0.0	54.4	9.5
Bawana	400	431	04:00	404	09:50	0.0	0.0	38.2	0.3
Bassi	400	434	03:59	393	09:58	0.0	0.0	51.4	4.2
Hissar	400	419	04:02	392	09:50	0.0	0.0	0.0	0.0
Moga	400	419	01:31	393	09:45	0.0	0.0	0.0	0.0
Abdullapur	400	428	01:02	407	06:22	0.0	0.0	61.5	0.0
Nalagarh	400	424	01:23	396	12:50	0.0	0.0	19.3	0.0
Kishenpur	400	421	01:24	393	19:40	26.5	26.5	0.0	0.0
Wagoora	400	409	21:21	371	19:18	9.8	38.1	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	779	23:50	729	09:56	0.0	13.2	0.0	0.0
Balia	765	777	23:57	748	14:23	0.0	0.0	0.0	0.0
Moga	765	799	01:23	749	09:51	0.0	0.0	0.0	0.0
Agra	765	814	23:48	759	09:51	0.0	0.0	33.0	0.0
Bhiwani	765	810	04:00	760	09:50	0.0	0.0	26.5	0.0
Unnao	765	770	04:00	730	09:21	0.0	16.0	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	490.08	738.95	485.56	602.35	166.87	594.40
Pong	426.72	384.05	405.75	361.16	403.87	312.39	89.91	373.47
Tehri	829.79	740.04	791.65	483.00	818.65	982.26	67.20	180.00
Koteshwar	612.50	598.50	610.40	4.69	610.00	4.69	185.00	188.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	89.30	83.14
Rihand	268.22	252.98	259.51	296.30	259.35	292.90	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:**  
NIL

**XII. Weather Conditions For 26.02.2014 :**  
Rains/Thunder Shower in Some Part of 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 :**

**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 : 26.02.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER