

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 15.02.2014  
Date of Reporting : 16.02.2014

### 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
35404	1492	36896	50.05	24953	0	24953	50.46	742.4	31.45

\* 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	31.93	8.38		40.30	40.13	42.47	2.33	82.77	0.00
Haryana	41.99	0.53		42.52	52.89	51.01	-1.88	93.53	0.02
Rajasthan	94.61	4.57	3.87	103.04	86.06	83.55	-2.50	186.59	0.31
Delhi	20.06			20.06	44.17	42.76	-1.41	62.83	0.21
UP	117.77	2.36	16.80	136.93	80.99	81.39	0.40	218.32	29.05
Uttarakhand		9.44		9.44	20.99	22.22	1.23	31.66	0.16
HP		5.35		5.35	19.02	17.86	-1.16	23.21	0.00
J & K		6.18	0.00	6.18	34.07	33.68	-0.39	39.86	1.70
Chandigarh				0.00	3.21	3.66	0.45	3.66	0.00
<b>Total</b>	<b>306.36</b>	<b>36.80</b>	<b>20.67</b>	<b>363.83</b>	<b>381.52</b>	<b>378.60</b>	<b>-2.92</b>	<b>742.43</b>	<b>31.45</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	4629	0	72	-317	2976	0	91	24	-6.62	
Haryana	5234	0	-294	-199	2670	0	-522	-44	-7.35	
Rajasthan	7967	0	-361	1134	6812	0	-21	1164	40.51	
Delhi	3233	22	-43	-830	1471	0	22	-1477	-25.97	
UP	9918	1330	-128	445	7740	0	-96	470	7.08	
Uttarakhand	1621	40	117	494	907	0	-115	432	10.59	
HP	990	0	-346	403	672	0	-103	425	9.34	
J&K	1622	100	-206	621	1611	0	-77	689	14.35	
Chandigarh	190	0	-2	0	95	0	11	-20	-0.15	
<b>Total</b>	<b>35404</b>	<b>1492</b>	<b>-1192</b>	<b>1751</b>	<b>24953</b>	<b>0</b>	<b>-809</b>	<b>1661</b>	<b>41.78</b>	

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

### III. Regional Entities :

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

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
	Rihand I STPS	1000	945	986	683	20.19	841	20.33	-0.14
	Rihand II STPS	1000	975	1007	659	20.65	861	20.97	-0.32
	Rihand III STPS	1000	483	506	340	10.31	430	10.48	-0.17
	Dadri I STPS	840	815	835	713	17.06	711	17.37	-0.32
	Dadri II STPS	980	980	1001	718	20.69	862	21.25	-0.56
	Unchahar I TPS	420	408	437	309	8.42	351	8.54	-0.12
	Unchahar II TPS	420	405	424	302	8.26	344	8.35	-0.09
	Unchahar III TPS	210	202	213	153	4.07	170	4.13	-0.06
	ISTPP (Jhajjhar)	1500	1500	636	642	14.06	586	14.40	-0.34
	Dadri GPS	830	842	391	304	6.47	270	6.64	-0.17
	Anta GPS	419	425	279	201	5.79	241	5.53	0.26
	Auraiya GPS	663	673	162	155	3.60	150	3.53	0.08
	<b>Sub Total (A)</b>	<b>11282</b>	<b>10092</b>	<b>8446</b>	<b>6284</b>	<b>171.61</b>	<b>7150</b>	<b>173.52</b>	<b>-1.91</b>
<b>B. NPC</b>	NAPS	440	300	334	338	7.14	298	7.20	-0.06
	RAPS- B	440	410	463	464	10.00	417	9.84	0.16
	RAPS- C	440	430	474	474	10.29	429	10.32	-0.03
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1140</b>	<b>1271</b>	<b>1276</b>	<b>27.44</b>	<b>1143</b>	<b>27.36</b>	<b>0.08</b>
<b>C. NHPC</b>	Chamera I HPS	540	540	540	0	2.55	106	2.60	-0.05
	Chamera II HPS	300	200	204	0	1.29	54	1.26	0.03
	Chamera III HPS	231	154	151	0	0.60	25	0.60	0.00
	Bairasuil HPS	180	182	120	0	0.89	37	0.89	0.01
	Salal-HPS	690	146	228	94	3.32	139	3.51	-0.18
	Tanakpur-HPS	94	0	0	0	0.00	0	0.00	0.00
	Uri-HPS	480	218	322	133	5.20	216	5.34	-0.14
	Uri-II HPS	180	116	120	76	2.59	108	2.78	-0.19
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	258	268	0	2.90	121	2.88	0.03
	Sewa-II HPS	120	119	124	0	1.79	75	1.83	-0.04
	<b>Sub Total (C)</b>	<b>3485</b>	<b>1933</b>	<b>2077</b>	<b>303</b>	<b>21.13</b>	<b>880</b>	<b>21.68</b>	<b>-0.55</b>
<b>D. NJPC</b>	Nathpa Jhakri	1500	1605	1248	0	6.91	288	7.70	-0.79
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1248</b>	<b>0</b>	<b>6.91</b>	<b>288</b>	<b>7.70</b>	<b>-0.79</b>
<b>E. THDC</b>	Tehri HPS	1000	910	912	0	7.32	305	7.30	0.02
	Koteshwar HPS	400	116	301	0	2.74	114	2.80	-0.06
	<b>Sub Total (E)</b>	<b>1400</b>	<b>1026</b>	<b>1213</b>	<b>0</b>	<b>10.07</b>	<b>419</b>	<b>10.10</b>	<b>-0.03</b>
<b>F. BBMB</b>	Bhakra HPS	1497	653	1162	374	15.99	666	15.66	0.33
	Dehar HPS	990	127	330	0	3.20	133	3.05	0.16
	Pong HPS	396	167	312	60	4.33	180	4.01	0.32
	<b>Sub Total (F)</b>	<b>2883</b>	<b>947</b>	<b>1804</b>	<b>434</b>	<b>23.52</b>	<b>980</b>	<b>22.72</b>	<b>0.80</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	3.66	152	3.72	-0.06
	Malana Stg-II HPS	100	0	0	0	0.09	4	0.07	0.02
	Shree Cement TPS	300	0	261	142	5.32	222	5.33	0.00
	Budhil HPS(IPP)	70	0	8	0	0.12	5	0.24	-0.12
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>269</b>	<b>142</b>	<b>9.55</b>	<b>398</b>	<b>9.71</b>	<b>-0.16</b>
<b>H. Total Regional Entities (A-G)</b>		<b>23532</b>	<b>16743</b>	<b>16328</b>	<b>8439</b>	<b>270.22</b>	<b>11259</b>	<b>272.79</b>	<b>-2.57</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	600	600	13.87	578
	Guru Nanak Dev TPS(Bhatinda)	440	0	0	1.81	75
	Guru Hargobind Singh TPS(L.mbt)	920	682	697	16.24	677
	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	1282	1297	31.93	1330
	Total Hydro	1148	275	254	8.38	349
<b>Total Punjab</b>	<b>5128</b>	<b>1557</b>	<b>1551</b>	<b>40.30</b>	<b>1679</b>	
Haryana	Panipat TPS	1367	214	218	5.10	213
	DCRTPP (Yamuna nagar)	600	551	508	12.16	507
	Faridabad GPS (NTPC)	432	170	170	4.17	174
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	1180	737	20.56	857
	Thermal (Total)	4944	2115	1633	41.99	1750
	Total Hydro	62	22	21	0.53	22
<b>Total Haryana</b>	<b>5006</b>	<b>2137</b>	<b>1654</b>	<b>42.52</b>	<b>1772</b>	
Rajasthan	kota TPS	1240	1146	1091	26.83	1118
	suratgarh TPS	1500	1282	1258	30.62	1276
	Chabra TPS	750	433	393	8.99	374
	Dholpur GPS	330	115	113	2.81	117
	Ramgarh GPS	221	108	141	3.13	130
	RAPS A (NPC)	300	175	175	4.12	172
	Barsingsar (NLC)	250	209	210	4.91	204
	Giral LTPS	250	77	78	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	0	147	11.68	487
	Thermal (Total)	7976	3545	3606	94.61	3942
	Total Hydro	550	268	85	4.57	190
	Wind power	2191	252	147	2.58	108
	Biomass	91	28	28	0.67	28
	Solar	201	6	0	0.61	26
Renewable/Others (Total)	2483	280	175	3.87	161	
<b>Total Rajasthan</b>	<b>11009</b>	<b>4093</b>	<b>3866</b>	<b>103.04</b>	<b>4293</b>	
UP	Anpara TPS	1630	1132	888	22.70	946
	Obra TPS	1288	541	525	11.50	479
	Paricha TPS	1140	946	802	19.30	804
	Panki TPS	210	55	60	1.30	54
	Harduaganj TPS	665	201	363	7.50	313
	Tanda TPS (NTPC)	440	398	316	9.06	378
	Roza TPS (IPP)	1200	900	770	20.40	850
	Anpara-C (IPP)	1200	1074	612	21.46	894
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	196	196	4.56	190
	Thermal (Total)	8223	5443	4532	117.77	4907
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	104	60	2.36	98
	Cogeneration	981	700	700	16.80	700
<b>Total UP</b>	<b>10131</b>	<b>6247</b>	<b>5292</b>	<b>136.93</b>	<b>5705</b>	
Uttarakhand	Total Hydro	1303	510	284	9.44	393
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>510</b>	<b>284</b>	<b>9.44</b>	<b>393</b>
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	116	114	2.79	116
	Pragati Gas Turbine	330	321	266	7.06	294
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	430	430	10.22	426
	Thermal (Total)	2232	867	810	20.06	836
	<b>Total Delhi</b>	<b>2232</b>	<b>867</b>	<b>810</b>	<b>20.06</b>	<b>836</b>
HP	Baspa HPS (IPP)	330	29	0	0.99	41
	Malana HPS (IPP)	86	0	0	0.15	6
	Other Hydro	589	173	174	4.21	175
	<b>Total HP</b>	<b>1005</b>	<b>202</b>	<b>174</b>	<b>5.35</b>	<b>223</b>
J & K	Baglihar HPS (IPP)	450	150	120	3.54	147
	Other Hydro	323	89	129	2.65	110
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>239</b>	<b>249</b>	<b>6.18</b>	<b>258</b>
<b>Total State Control Area Generation</b>		<b>36770</b>	<b>15852</b>	<b>13880</b>	<b>363.83</b>	<b>15160</b>
<b>J. Net Inter Regional Exchange</b> (Import (+ve)/Export (-ve))			<b>5373</b>	<b>3318</b>	<b>120.79</b>	<b>5033</b>
<b>Total Regional Availability(Gross)</b>		<b>60303</b>	<b>37553</b>	<b>25637</b>	<b>754.84</b>	<b>31452</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10560	6342	737	65.74	2739
State Control Area Hydro	5368	1620	1127	36.80	1533
<b>Total Regional Hydro</b>	<b>15928</b>	<b>7962</b>	<b>1864</b>	<b>102.54</b>	<b>4273</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	50	500	500	9.24	0.00	9.24
Gwalior-Agra (D/C)	1730	1244	1976	0	35.86	0.00	35.86
Zerda-Kankroli	-100	-105	75	230	0.00	1.16	-1.16
Zerda-Bhinmal	19	60	260	52	2.52	0.00	2.52
Malanpur-Auraiya	-68	-42	0	84	0.00	1.34	-1.34
Badod-Kota/Morak	-38	-96	0	116	0.00	0.66	-0.66
Mundra-Mohinderghar(HVDC)	1999	901	2007	0	42.86	0.00	42.86
<b>Sub Total WR</b>	<b>4042</b>	<b>2012</b>			<b>90.47</b>	<b>3.16</b>	<b>87.32</b>
Pusauli Bypass	300	300	300	0	7.25	0.00	7.25
MZP- GKP (D/C)	81	197	308	0	3.84	0.00	3.84
Patna-Balia(D/C)	559	431	698	0	11.79	0.00	11.79
B'Sharif-Balia (D/C)	429	274	541	0	7.55	0.00	7.55
Pusauli-Balia	-23	-51	12	122	0.00	1.34	-1.34
Gaya-Fatehpur (765 Kv)	-92	18	139	177	0.00	0.53	-0.53
Pusauli-Sahupuri	149	131	203	0	3.78	0.00	3.78
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-31	-28	0	34	0.00	0.64	-0.64
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-41	34	250	196	1.78	0.00	1.78
<b>Sub Total ER</b>	<b>1331</b>	<b>1306</b>			<b>35.99</b>	<b>2.51</b>	<b>33.47</b>
<b>Total IR Exch</b>	<b>5373</b>	<b>3318</b>			<b>126.46</b>	<b>5.67</b>	<b>120.79</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
30.08	0.14	30.22	14.34	3.32	6.41	9.28	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
51.04	76.65	127.69	33.47	87.32	120.79	-17.57	10.67	-6.91

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

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7-49.8	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	0.00	0.00	69.40	0.00	69.40	73.50	30.60

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN
Freq	Time	Freq	Time	Hz				
50.53	2.02	49.81	18.42	50.12	0.37	0.15	50.52	49.97

**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	419	03:05	401	18:39	0.0	0.0	0.0	0.0
Gorakhpur	400	429	03:40	401	19:52	0.0	0.0	45.2	0.0
Bareilly	400	433	01:35	144	18:40	29.4	29.4	27.8	6.2
Kanpur	400	427	03:01	404	10:50	0.0	0.0	20.8	0.0
Dadri	400	429	02:55	409	10:46	0.0	0.0	28.6	0.0
Ballabgarh	400	437	03:01	415	10:47	0.0	0.0	73.6	21.9
Bawana	400	433	01:31	411	10:55	0.0	0.0	54.6	16.3
Bassi	400	430	03:34	402	09:14	0.0	0.0	38.2	0.0
Hissar	400	423	01:33	399	18:40	0.0	0.0	14.7	0.0
Moga	400	421	01:31	400	16:23	0.0	0.0	1.8	0.0
Abdullapur	400	427	02:02	401	14:14	0.0	0.0	20.7	0.0
Nalagarh	400	428	03:01	401	14:44	0.0	0.0	36.5	0.0
Kishenpur	400	416	02:55	393	18:13	0.0	0.0	0.0	0.0
Wagoora	400	403	13:01	374	18:14	9.2	65.2	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	782	03:01	735	18:46	0.0	1.0	0.0	0.0
Balia	765	794	03:01	732	18:42	0.0	4.7	0.0	0.0
Moga	765	802	03:01	763	18:40	0.0	0.0	0.6	0.0
Agra	765	817	22:00	768	06:54	0.0	0.0	42.2	0.0
Bhiwani	765	808	22:01	80	11:52	48.3	48.3	10.4	0.0
Unnao	765	779	03:01	732	18:45	0.0	25.9	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	492.03	848.04	486.93	644.48	162.77	489.46
Pong	426.72	384.05	407.10	407.15	405.49	352.07	94.83	269.80
Tehri	829.79	740.04	796.30	544.69	818.65	982.26	66.94	185.00
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	59.52	69.18
Rihand	268.22	252.98	259.84	296.30	259.78	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	508.74	148.00	510.66	150.00	99.99	116.98

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 15.02.2014 :**  
Normal weather in NR.

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

**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 : 15.02.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER