

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 08.03.2014  
Date of Reporting : 09.03.2014

### 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
33402	2038	35440	49.97	26513	505	27018	49.98	736.5	35.72

\* 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	42.04	10.15		52.18	43.20	42.58	-0.62	94.77	0.79
Haryana	39.71	0.56		40.27	54.29	54.68	0.39	94.95	0.54
Rajasthan	106.41	4.69	5.25	116.35	70.57	70.03	-0.55	186.38	0.72
Delhi	18.87			18.87	37.12	37.03	-0.09	55.90	0.33
UP	112.10	2.75	14.40	129.26	82.96	77.83	-5.13	207.08	30.58
Uttarakhand		9.22		9.22	21.44	22.58	1.14	31.79	1.05
HP		5.17		5.17	18.78	19.38	0.60	24.55	0.01
J & K		5.84	0.00	5.84	29.23	31.94	2.71	37.78	1.70
Chandigarh				0.00	3.15	3.26	0.11	3.26	0.00
<b>Total</b>	<b>319.13</b>	<b>38.37</b>	<b>19.65</b>	<b>377.15</b>	<b>360.75</b>	<b>359.31</b>	<b>-1.43</b>	<b>736.46</b>	<b>35.72</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	4794	0	-49	-171	3153	0	44	246	-3.42	
Haryana	4484	0	-142	-156	3508	0	141	-144	-5.44	
Rajasthan	7767	13	8	959	6676	0	60	916	28.07	
Delhi	2921	0	115	-805	1403	0	43	-1466	-22.06	
UP	8937	1840	-114	747	8254	505	-197	659	13.73	
Uttarakhand	1537	85	-4	434	1040	0	102	380	11.23	
HP	1030	0	-33	14	788	0	39	293	5.59	
J&K	1762	100	79	382	1607	0	205	468	9.28	
Chandigarh	171	0	-17	0	84	0	-1	0	0.00	
<b>Total</b>	<b>33402</b>	<b>2038</b>	<b>-156</b>	<b>1403</b>	<b>26513</b>	<b>505</b>	<b>435</b>	<b>1352</b>	<b>36.98</b>	

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

### III. Regional Entities :

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

A. NTPC	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	380	446	0	8.90	371	8.72	0.17	
Rihand II STPS	1000	975	935	904	22.77	949	22.31	0.46	
Rihand III STPS	1000	467	447	457	10.87	453	10.53	0.33	
Dadri I STPS	840	815	642	607	14.05	586	14.40	-0.34	
Dadri II STPS	980	980	851	712	18.33	764	18.84	-0.51	
Unchahar I TPS	420	406	435	358	8.33	347	8.36	-0.03	
Unchahar II TPS	420	406	418	315	8.15	340	8.14	0.01	
Unchahar III TPS	210	203	199	157	4.05	169	4.05	0.00	
ISTPP (Jhajjhar)	1500	1500	370	329	8.37	349	8.61	-0.24	
Dadri GPS	830	833	396	409	9.12	380	9.24	-0.12	
Anta GPS	419	417	264	265	6.14	256	6.16	-0.02	
Auraiya GPS	663	668	164	164	3.65	152	3.72	-0.07	
<b>Sub Total (A)</b>	<b>11282</b>	<b>9480</b>	<b>7126.3</b>	<b>6238</b>	<b>156.76</b>	<b>6531</b>	<b>157.24</b>	<b>-0.48</b>	
B. NPC	NAPS	440	148	157	157	3.27	136	3.55	-0.29
	RAPS- B	440	418	456	459	9.94	414	10.03	-0.09
	RAPS- C	440	430	475	477	10.23	426	10.32	-0.09
<b>Sub Total (B)</b>	<b>1320</b>	<b>996</b>	<b>1088</b>	<b>1093</b>	<b>23.43</b>	<b>976</b>	<b>23.91</b>	<b>-0.47</b>	
C. NHPC	Chamera I HPS	540	540	360	0	4.01	167	3.96	0.05
	Chamera II HPS	300	300	300	0	1.33	56	1.30	0.03
	Chamera III HPS	231	231	159	0	0.65	27	0.62	0.03
	Bairasuil HPS	180	182	182	60	1.34	56	1.32	0.02
	Salal-HPS	690	133	230	103	3.31	138	3.22	0.09
	Tanakpur-HPS	94	0	0	0	0.00	0	0.00	0.00
	Uri-HPS	480	239	341	203	5.88	245	5.74	0.14
	Uri-II HPS	180	136	175	122	3.30	137	3.35	-0.05
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	257	267	0	2.53	105	2.40	0.13
	Sewa-II HPS	120	119	124	0	1.24	52	1.20	0.04
	Parbati 3	520	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (C)</b>	<b>4005</b>	<b>2138</b>	<b>2138</b>	<b>488</b>	<b>24</b>	<b>983</b>	<b>23</b>	<b>0</b>	
D. NJPC	Nathpa Jhakri	1500	1605	568	152	6.81	284	6.69	0.13
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>568</b>	<b>152</b>	<b>6.81</b>	<b>284</b>	<b>6.69</b>	<b>0.13</b>	
E. THDC	Tehri HPS	1000	640	645	0	7.59	316	7.50	0.09
	Koteshwar HPS	400	125	303	0	3.06	128	3.00	0.06
<b>Sub Total (E)</b>	<b>1400</b>	<b>765</b>	<b>948</b>	<b>0</b>	<b>10.66</b>	<b>444</b>	<b>10.50</b>	<b>0.15</b>	
F. BBMB	Bhakra HPS	1497	659	1159	496	16.39	683	15.82	0.57
	Dehar HPS	990	140	330	0	3.50	146	3.36	0.14
	Pong HPS	396	171	312	120	4.18	174	4.10	0.08
<b>Sub Total (F)</b>	<b>2883</b>	<b>970</b>	<b>1801</b>	<b>616</b>	<b>24.07</b>	<b>1003</b>	<b>23.29</b>	<b>0.78</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.34	14	0.33	0.01
	KWHEP HPS(IPP)	1000	0	303	0	3.51	146	3.48	0.03
	Malana Stg-II HPS	100	0	0	0	0.10	4	0.09	0.01
	Shree Cement TPS	300	0	286	225	6.51	271	6.52	-0.02
	Budhil HPS(IPP)	70	0	0	0	0.02	1	0.14	-0.11
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>589</b>	<b>225</b>	<b>10.48</b>	<b>436</b>	<b>10.56</b>	<b>-0.08</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>24052</b>	<b>15954</b>	<b>14258</b>	<b>8812</b>	<b>255.78</b>	<b>10658</b>	<b>255.29</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	630	510	13.80	575
	Guru Nanak Dev TPS(Bhatinda)	440	0	0	0.38	16
	Guru Hargobind Singh TPS(L.mbt)	920	966	733	20.40	850
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	403	280	7.45	310
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	3980	1999	1523	42.04	1752
	Total Hydro	1148	475	378	10.15	423
	<b>Total Punjab</b>	<b>5128</b>	<b>2474</b>	<b>1901</b>	<b>52.18</b>	<b>2174</b>
Haryana	Panipat TPS	1367	220	216	5.12	213
	DCRTPP (Yamuna nagar)	600	273	249	6.08	253
	Faridabad GPS (NTPC)	432	416	278	7.81	325
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	1217	740	20.71	863
	Thermal (Total)	4944	2126	1483	39.71	1655
	Total Hydro	62	19	20	0.56	23
	<b>Total Haryana</b>	<b>5006</b>	<b>2145</b>	<b>1503</b>	<b>40.27</b>	<b>1678</b>
	Rajasthan	kota TPS	1240	1139	1051	26.32
suratgarh TPS		1500	1058	1019	24.40	1017
Chabra TPS		750	651	570	14.69	612
Dholpur GPS		330	100	141	2.74	114
Ramgarh GPS		221	125	124	3.08	129
RAPS A (NPC)		300	175	175	4.13	172
Barsingar (NLC)		250	106	106	2.45	102
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	1176	941	28.59	1191
Thermal (Total)		7976	4530	4127	106.41	4434
Total Hydro		550	253	91	4.69	195
Wind power		2191	259	108	4.19	174
Biomass		91	20	20	0.48	20
Solar		201	6	0	0.59	24
Renewable/Others (Total)		2483	279	128	5.25	219
<b>Total Rajasthan</b>	<b>11009</b>	<b>5062</b>	<b>4346</b>	<b>116.35</b>	<b>4848</b>	
UP	Anpara TPS	1630	1065	1068	23.40	975
	Obra TPS	1288	524	471	11.10	463
	Paricha TPS	1140	641	817	15.20	633
	Panki TPS	210	80	85	1.80	75
	Harduaganj TPS	665	476	244	9.50	396
	Tanda TPS (NTPC)	440	400	322	9.21	384
	Roza TPS (IPP)	1200	756	756	18.71	780
	Anpara-C (IPP)	1200	1086	1079	23.18	966
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	0	0	0.00	0
	Thermal (Total)	8223	5028	4842	112.10	4671
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	107	105	2.75	115
	Cogeneration	981	600	600	14.40	600
	<b>Total UP</b>	<b>10131</b>	<b>5735</b>	<b>5547</b>	<b>129.26</b>	<b>5386</b>
	Uttarakhand	Total Hydro	1303	561	188	9.22
<b>Total Uttarakhand</b>		<b>1303</b>	<b>561</b>	<b>188</b>	<b>9.22</b>	<b>384</b>
Delhi	Rajghat TPS	135	50	53	1.20	50
	Delhi Gas Turbine	282	81	82	1.94	81
	Pragati Gas Turbine	330	282	268	6.52	272
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	386	374	9.22	384
	Thermal (Total)	2232	799	777	18.87	786
	<b>Total Delhi</b>	<b>2232</b>	<b>799</b>	<b>777</b>	<b>18.87</b>	<b>786</b>
HP	Baspa HPS (IPP)	330	0	0	0.77	32
	Malana HPS (IPP)	86	0	0	0.18	7
	Other Hydro	589	183	118	4.22	176
	<b>Total HP</b>	<b>1005</b>	<b>183</b>	<b>118</b>	<b>5.17</b>	<b>215</b>
J & K	Baglihar HPS (IPP)	450	148	148	3.54	148
	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>221</b>	<b>280</b>	<b>5.84</b>	<b>243</b>
<b>Total State Control Area Generation</b>		<b>36770</b>	<b>17180</b>	<b>14660</b>	<b>377.15</b>	<b>15714</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>5025</b>	<b>4470</b>	<b>128.23</b>	<b>5343</b>
<b>Total Regional Availability(Gross)</b>		<b>60823</b>	<b>36463</b>	<b>27942</b>	<b>761.16</b>	<b>31715</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11080	5758	1256	69.07	2878
State Control Area Hydro	5368	1819	1180	38.37	1599
<b>Total Regional Hydro</b>	<b>16448</b>	<b>7577</b>	<b>2436</b>	<b>107.43</b>	<b>4476</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	500	500	0	12.05	0.00	12.05
Gwalior-Agra (D/C)	1588	1309	2170	0	39.87	0.00	39.87
Zerda-Kankroli	-133	-258	40	298	0.00	3.08	-3.08
Zerda-Bhinmal	-6	-101	275	181	0.63	0.00	0.63
Malanpur-Auraiya	-102	-75	0	102	0.00	1.75	-1.75
Badod-Kota/Morak	-82	-100	25	127	0.00	1.01	-1.01
Mundra-Mohinderghar(HVDC)	1912	1916	1918	0	45.96	0.00	45.96
<b>Sub Total WR</b>	<b>3677</b>	<b>3191</b>			<b>98.51</b>	<b>5.84</b>	<b>92.67</b>
Pusauli Bypass	400	300	400	0	7.87	0.00	7.87
MZP- GKP (D/C)	27	234	435	0	5.09	0.00	5.09
Patna-Balia(D/C)	635	458	8	0	13.23	0.00	13.23
B'Sharif-Balia (D/C)	444	195	547	0	7.94	0.00	7.94
Pusauli-Balia	0	-95	36	104	0.00	0.80	-0.80
Gaya-Fatehpur (765 Kv)	-130	0	75	130	0.00	0.72	-0.72
Pusauli-Sahupuri	98	122	158	0	2.80	0.00	2.80
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)	-126	65	73	126	0.15	0.00	0.15
<b>Sub Total ER</b>	<b>1348</b>	<b>1279</b>			<b>37.08</b>	<b>1.52</b>	<b>35.56</b>
<b>Total IR Exch</b>	<b>5025</b>	<b>4470</b>			<b>135.59</b>	<b>7.36</b>	<b>128.23</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
33.16	0.24	33.40	10.55	7.54	9.88	1.78	0.00	0.00
<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
53.82	67.73	121.55	35.56	92.67	128.23	-18.26	24.94	6.68

**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	0.07	1.39	9.62	36.53	48.41	17.92	24.05	4.84	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				
50.36	5.04	49.69	21.05	50.03	0.11	0.10	50.20	49.80

**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	410	00:24	402	06:28	0.0	0.0	0.0	0.0
Gorakhpur	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Bareilly	400	422	03:28	407	06:44	0.0	0.0	4.7	0.0
Kanpur	400	419	03:59	403	18:55	0.0	0.0	0.0	0.0
Dadri	400	425	04:00	406	18:54	0.0	0.0	18.9	0.0
Ballabgarh	400	433	03:59	413	18:50	0.0	0.0	48.6	4.1
Bawana	400	429	03:23	410	18:49	0.0	0.0	32.9	0.0
Bassi	400	428	03:30	398	08:09	0.0	0.0	21.0	0.0
Hissar	400	418	21:24	398	08:34	0.0	0.0	0.0	0.0
Moga	400	419	13:05	400	06:28	0.0	0.0	0.0	0.0
Abdullapur	400	428	21:20	406	06:32	0.0	0.0	28.4	0.0
Nalagarh	400	426	21:19	408	14:18	0.0	0.0	21.4	0.0
Kishenpur	400	422	13:05	392	06:26	0.0	0.0	0.3	0.0
Wagoora	400	409	13:03	372	19:12	22.9	75.4	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	775	15:03	736	02:24	0.0	0.6	0.0	0.0
Balia	765	774	16:05	748	18:51	0.0	0.0	0.0	0.0
Moga	765	794	13:04	761	06:28	0.0	0.0	0.0	0.0
Agra	765	809	00:45	777	18:50	0.0	0.0	18.7	0.0
Bhiwani	765	807	03:59	773	18:55	0.0	0.0	13.8	0.0
Unnao	765	762	13:05	741	06:56	0.0	0.1	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	487.27	652.97	484.82	585.65	201.05	522.64
Pong	426.72	384.05	404.61	328.16	402.89	288.96	113.44	281.95
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 08.03.2014 :**

1. Normal Weather 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 :**

**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 : 08.03.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER