

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 11.03.2014  
Date of Reporting : 12.03.2014

### 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
30925	1695	32620	50.19	23019	0	23019	50.21	665.2	27.47

\* 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	27.22	10.11		37.34	35.19	33.49	-1.70	70.83	0.00
Haryana	26.81	0.53		27.34	51.00	47.12	-3.88	74.45	0.00
Rajasthan	95.20	5.96	6.68	107.84	64.73	65.05	0.32	172.89	0.00
Delhi	16.99			16.99	40.38	40.33	-0.05	57.32	0.00
UP	96.16	2.69	14.40	113.26	89.74	93.53	3.79	206.79	25.48
Uttarakhand		7.71		7.71	23.08	22.96	-0.12	30.66	0.29
HP		5.83		5.83	16.45	16.78	0.33	22.61	0.00
J & K		5.86	0.00	5.86	23.11	20.45	-2.66	26.31	1.70
Chandigarh				0.00	3.46	3.32	-0.15	3.32	0.00
<b>Total</b>	<b>262.38</b>	<b>38.69</b>	<b>21.08</b>	<b>322.15</b>	<b>347.13</b>	<b>343.02</b>	<b>-4.11</b>	<b>665.18</b>	<b>27.47</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 transactio	Demand Met	Shortage	UI	STOA/PX transactio	STOA/PX transactio	
Punjab	3771	0	-77	-171	2261	0	-295	153	-4.13	
Haryana	3781	0	-539	117	2365	0	-451	120	1.60	
Rajasthan	7233	0	48	521	5820	0	-409	985	25.20	
Delhi	3037	0	192	-809	1380	0	-34	-1365	-22.41	
UP	8868	1520	164	737	8450	0	369	653	13.72	
Uttarakhand	1329	75	8	431	1063	0	68	438	11.72	
HP	1078	0	-15	43	688	0	28	269	5.95	
J&K	1649	100	477	366	913	0	-354	403	8.41	
Chandigarh	180	0	-7	0	80	0	-18	0	0.00	
<b>Total</b>	<b>30925</b>	<b>1695</b>	<b>250</b>	<b>1234</b>	<b>23019</b>	<b>0</b>	<b>-1097</b>	<b>1656</b>	<b>40.05</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	1430	1524	1108	29.87	1244	30.04	-0.17
Rihand I STPS	1000	945	842	670	17.64	735	17.82	-0.18
Rihand II STPS	1000	975	887	678	18.24	760	18.48	-0.24
Rihand III STPS	1000	473	376	336	8.58	358	9.11	-0.53
Dadri I STPS	840	815	619	598	14.00	583	14.65	-0.66
Dadri II STPS	980	980	810	696	17.89	745	18.70	-0.81
Unchahar I TPS	420	408	395	306	7.52	313	7.79	-0.27
Unchahar II TPS	420	406	370	310	6.88	287	7.06	-0.18
Unchahar III TPS	210	203	182	155	3.50	146	3.55	-0.05
ISTPP (Jhajjhar)	1500	1500	340	333	8.10	338	8.25	-0.15
Dadri GPS	830	830	257	235	6.71	280	6.86	-0.15
Anta GPS	419	417	210	166	4.85	202	4.95	-0.10
Auraiya GPS	663	667	124	99	2.87	120	2.91	-0.03
<b>Sub Total (A)</b>	<b>11282</b>	<b>10048</b>	<b>6936</b>	<b>5690</b>	<b>146.63</b>	<b>6110</b>	<b>150.16</b>	<b>-3.53</b>
<b>B. NPC</b>								
NAPS	440	297	326	323	6.06	253	7.13	-1.07
RAPS- B	440	418	456	460	9.93	414	10.03	-0.10
RAPS- C	440	430	236	239	10.23	426	10.32	-0.09
<b>Sub Total (B)</b>	<b>1320</b>	<b>1145</b>	<b>1018</b>	<b>1022</b>	<b>26.22</b>	<b>1093</b>	<b>27.48</b>	<b>-1.26</b>
<b>C. NHPC</b>								
Chamera I HPS	540	540	540	0	3.41	142	3.50	-0.09
Chamera II HPS	300	300	300	0	1.73	72	1.75	-0.02
Chamera III HPS	231	231	225	0	0.78	32	0.78	0.00
Bairasuil HPS	180	139	180	60	2.51	105	2.58	-0.06
Salal-HPS	690	444	562	342	10.48	437	10.63	-0.15
Tanakpur-HPS	94	0	0	0	0.00	0	0.00	0.00
Uri-HPS	480	377	442	200	9.06	378	9.06	0.00
Uri-II HPS	180	168	184	149	4.12	172	4.02	0.10
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	275	0	2.29	95	2.30	-0.01
Sewa-II HPS	120	119	127	0	2.20	92	2.54	-0.34
Parbati 3	520	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (C)</b>	<b>4005</b>	<b>2704</b>	<b>2835</b>	<b>751</b>	<b>37</b>	<b>1524</b>	<b>37</b>	<b>-1</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	664	0	6.27	261	6.50	-0.23
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>664</b>	<b>0</b>	<b>6.27</b>	<b>261</b>	<b>6.50</b>	<b>-0.23</b>
<b>E. THDC</b>								
Tehri HPS	1000	633	633	0	7.27	303	7.30	-0.03
Koteshwar HPS	400	125	299	0	2.98	124	3.00	-0.02
<b>Sub Total (E)</b>	<b>1400</b>	<b>758</b>	<b>932</b>	<b>0</b>	<b>10.25</b>	<b>427</b>	<b>10.30</b>	<b>-0.05</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	651	1134	497	15.82	659	15.63	0.19
Dehar HPS	990	156	330	0	3.77	157	3.76	0.02
Pong HPS	396	201	312	120	4.88	203	4.83	0.05
<b>Sub Total (F)</b>	<b>2883</b>	<b>1009</b>	<b>1776</b>	<b>617</b>	<b>24.47</b>	<b>1020</b>	<b>24.22</b>	<b>0.25</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	3.36	140	3.36	-0.01
Malana Stg-II HPS	100	0	0	0	0.13	5	0.00	0.13
Shree Cement TPS	300	0	264	225	6.53	272	6.56	-0.04
Budhil HPS(IPP)	70	0	0	0	0.02	1	0.24	-0.22
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>414</b>	<b>225</b>	<b>10.38</b>	<b>432</b>	<b>10.50</b>	<b>-0.13</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24052</b>	<b>17269</b>	<b>14575</b>	<b>8305</b>	<b>260.80</b>	<b>10867</b>	<b>266.31</b>	<b>-5.51</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	60	350	8.21	342	
	Guru Nanak Dev TPS(Bhatinda)	440	0	0	0.00	0	
	Guru Hargobind Singh TPS(L.mbt)	920	483	477	12.24	510	
	Goindwal(GVK)		0	0	0.00	0	
	Rajpura	700	282	276	6.77	282	
	Talwandi Saboo	660	0	0	0.00	0	
	Thermal (Total)	3980	825	1103	27.22	1134	
	Total Hydro	1148	417	314	10.11	421	
	<b>Total Punjab</b>	<b>5128</b>	<b>1242</b>	<b>1417</b>	<b>37.34</b>	<b>1556</b>	
Haryana	Panipat TPS	1367	209	220	4.50	188	
	DCRTPP (Yamuna nagar)	600	256	250	5.95	248	
	Faridabad GPS (NTPC)	432	361	277	7.52	313	
	RGTPP (kheadar) (IPP)	1200	0	0	0.00	0	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	368	374	8.83	368	
	Thermal (Total)	4944	1194	1121	26.81	1117	
	Total Hydro	62	22	23	0.53	22	
	<b>Total Haryana</b>	<b>5006</b>	<b>1216</b>	<b>1144</b>	<b>27.34</b>	<b>1139</b>	
	Rajasthan	kota TPS	1240	1157	1041	26.23	1093
suratgarh TPS		1500	1034	968	24.41	1017	
Chabra TPS		750	367	353	8.32	347	
Dholpur GPS		330	71	0	1.09	45	
Ramgarh GPS		221	122	88	2.82	118	
RAPS A (NPC)		300	175	175	4.07	170	
Barsingsar (NLC)		250	209	106	4.02	167	
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	1089	861	24.24	1010	
Thermal (Total)		7976	4224	3592	95.20	3967	
Total Hydro		550	122	180	5.96	248	
Wind power		2191	116	430	5.62	234	
Biomass		91	25	25	0.61	25	
Solar		201	3	0	0.46	19	
Renewable/Others (Total)		2483	141	455	6.68	279	
<b>Total Rajasthan</b>		<b>11009</b>	<b>4487</b>	<b>4227</b>	<b>107.84</b>	<b>4493</b>	
UP	Anpara TPS	1630	1101	1283	21.30	888	
	Obra TPS	1288	349	342	6.80	283	
	Paricha TPS	1140	511	560	11.00	458	
	Panki TPS	210	85	85	1.80	75	
	Harduaganj TPS	665	367	392	8.90	371	
	Tanda TPS (NTPC)	440	235	237	6.26	261	
	Roza TPS (IPP)	1200	756	765	18.33	764	
	Anpara-C (IPP)	1200	977	688	21.77	907	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	0	0	0.00	0	
	Thermal (Total)	8223	4381	4352	96.16	4007	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	105	112	2.69	112	
	Cogeneration	981	600	600	14.40	600	
	<b>Total UP</b>	<b>10131</b>	<b>5086</b>	<b>5064</b>	<b>113.26</b>	<b>4719</b>	
	Uttarakhand	Total Hydro	1303	289	175	7.71	321
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>289</b>	<b>175</b>	<b>7.71</b>	<b>321</b>
Delhi	Rajghat TPS	135	53	53	1.19	50	
	Delhi Gas Turbine	282	82	83	1.88	79	
	Pragati Gas Turbine	330	264	265	6.15	256	
	Rithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	385	350	7.77	324	
	Thermal (Total)	2232	784	751	16.99	708	
	<b>Total Delhi</b>	<b>2232</b>	<b>784</b>	<b>751</b>	<b>16.99</b>	<b>708</b>	
HP	Baspa HPS (IPP)	330	30	0	0.97	40	
	Malana HPS (IPP)	86	37	0	0.19	8	
	Other Hydro	589	215	169	4.67	195	
	<b>Total HP</b>	<b>1005</b>	<b>282</b>	<b>169</b>	<b>5.83</b>	<b>243</b>	
J & K	Baglihar HPS (IPP)	450	150	146	3.57	149	
	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>223</b>	<b>278</b>	<b>5.86</b>	<b>244</b>	
<b>Total State Control Area Generation</b>		<b>36770</b>	<b>13609</b>	<b>13225</b>	<b>322.15</b>	<b>13423</b>	
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>3784</b>	<b>1868</b>	<b>89.93</b>	<b>3747</b>	
<b>Total Regional Availability(Gross)</b>		<b>60823</b>	<b>31968</b>	<b>23398</b>	<b>672.88</b>	<b>28037</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	11080	6357	1368	81.40	3392
State Control Area Hydro	5368	1460	1251	38.69	1612
<b>Total Regional Hydro</b>	<b>16448</b>	<b>7817</b>	<b>2619</b>	<b>120.09</b>	<b>5004</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	400	-500	500	500	5.92	2.85	3.07
Gwalior-Agra (D/C)	1070	1181	1731	0	31.15	0.00	31.15
Zerda-Kankroli	-204	-390	0	390	0.00	5.87	-5.87
Zerda-Bhinmal	-93	-246	93	278	0.00	2.22	-2.22
Malanpur-Auraiya	-106	-71	0	105	0.00	1.64	-1.64
Badod-Kota/Morak	-60	-139	15	140	0.00	1.19	-1.19
Mundra-Mohindergarh(HVDC)	2000	1200	2011	0	43.00	0.00	43.00
<b>Sub Total WR</b>	<b>3007</b>	<b>1035</b>			<b>80.07</b>	<b>13.77</b>	<b>66.30</b>
Pusauli Bypass	300	300	300	0	7.22	0.00	7.22
MZP- GKP (D/C)	53	138	283	0	3.51	0.00	3.51
Patna-Balia(D/C)	400	363	515	0	9.47	0.00	9.47
B'Sharif-Balia (D/C)	234	156	340	0	4.42	0.00	4.42
Pusauli-Balia	-122	-71	0	122	0.00	1.85	-1.85
Gaya-Fatehpur (765 Kv)	-111	-99	26	129	0.00	1.52	-1.52
Pusauli-Sahupuri	109	125	140	0	2.96	0.00	2.96
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)	-86	-79	79	108	0.00	0.58	-0.58
<b>Sub Total ER</b>	<b>777</b>	<b>833</b>			<b>27.58</b>	<b>3.95</b>	<b>23.63</b>
<b>Total IR Exch</b>	<b>3784</b>	<b>1868</b>			<b>107.65</b>	<b>17.72</b>	<b>89.93</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
24.15	0.13	24.28	8.26	7.43	13.09	3.63	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
45.63	50.83	96.45	23.63	66.30	89.93	-22.00	15.48	-6.53

**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	0.61	2.37	17.45	35.92	23.90	37.89	7.64	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				
50.37	21.45	49.68	6.12	50.08	0.14	0.09	50.33	49.96

**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	414	05:02	405	07:18	0.0	0.0	0.0	0.0
Gorakhpur	400	615	02:36	589	08:26	0.0	0.0	100.0	100.0
Bareilly	400	430	21:44	408	14:13	0.0	0.0	47.1	0.0
Kanpur	400	422	21:43	408	06:35	0.0	0.0	1.9	0.0
Dadri	400	429	21:37	410	06:41	0.0	0.0	45.2	0.0
Ballabgarh	400	437	21:39	416	06:25	0.0	0.0	82.6	24.7
Bawana	400	434	21:23	412	06:28	0.0	0.0	73.7	8.4
Bassi	400	434	04:05	404	06:28	0.0	0.0	37.8	4.3
Hissar	400	425	21:27	400	06:25	0.0	0.0	16.5	0.0
Moga	400	425	21:25	403	06:25	0.0	0.0	17.2	0.0
Abdullapur	400	428	21:23	400	06:25	0.0	0.0	32.5	0.0
Nalagarh	400	433	21:23	413	05:47	0.0	0.0	65.7	0.9
Kishenpur	400	429	13:01	404	18:53	0.0	0.0	27.0	0.0
Wagoora	400	423	12:58	403	18:29	0.0	0.0	2.0	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	776	00:00	742	06:33	0.0	0.0	0.0	0.0
Balia	765	782	20:01	755	08:21	0.0	0.0	0.0	0.0
Moga	765	808	21:39	764	06:25	0.0	0.0	13.0	0.0
Agra	765	819	21:45	762	06:35	0.0	0.0	16.8	0.0
Bhiwani	765	820	21:39	773	06:26	0.0	0.0	51.7	0.0
Unnao	765	758	00:00	758	00:00	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 11.03.2014 :**

1. Partial rains in NR and snow fall in J&K.

**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 : 11.03.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER