

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 12.03.2014  
Date of Reporting : 13.03.2014

### 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
31091	2559	33650	50.02	22484	0	22484	50.22	681.4	24.81

\* 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	30.66	9.78		40.44	44.46	43.68	-0.79	84.12	0.00
Haryana	24.03	0.58		24.62	57.65	56.71	-0.94	81.33	0.61
Rajasthan	101.26	4.39	10.61	116.27	61.47	60.35	-1.11	176.62	0.05
Delhi	14.62			14.62	42.08	42.98	0.90	57.60	0.31
UP	103.78	2.79	14.40	120.97	86.03	82.16	-3.88	203.13	22.07
Uttarakhand		10.12		10.12	20.62	19.19	-1.44	29.31	0.07
HP		5.77		5.77	17.05	17.26	0.21	23.02	0.00
J & K		7.54	0.00	7.54	22.90	15.36	-7.53	22.90	1.70
Chandigarh				0.00	3.37	3.35	-0.02	3.35	0.00
<b>Total</b>	<b>274.36</b>	<b>40.97</b>	<b>25.01</b>	<b>340.34</b>	<b>355.63</b>	<b>341.03</b>	<b>-14.60</b>	<b>681.37</b>	<b>24.81</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	4182	0	-35	-334	2638	0	-200	217	-4.14	
Haryana	4231	0	71	120	2222	0	-500	124	2.18	
Rajasthan	7160	0	-50	627	6506	0	-30	964	24.54	
Delhi	3024	14	218	-690	1377	0	95	-1388	-21.43	
UP	8615	2445	2	748	7646	0	-37	660	13.58	
Uttarakhand	1630	0	224	443	475	0	-331	457	11.98	
HP	985	0	8	43	681	0	36	225	5.70	
J&K	1087	100	-217	292	856	0	-565	256	6.05	
Chandigarh	178	0	0	0	84	0	-18	0	0.00	
<b>Total</b>	<b>31091</b>	<b>2559</b>	<b>221</b>	<b>1250</b>	<b>22484</b>	<b>0</b>	<b>-1551</b>	<b>1515</b>	<b>38.45</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	1362	1107	31.29	1304	30.63	0.66
Rihand I STPS	1000	945	842	661	18.41	767	18.51	-0.10
Rihand II STPS	1000	975	854	941	18.46	769	18.59	-0.13
Rihand III STPS	1000	485	471	324	9.22	384	9.29	-0.06
Dadri I STPS	840	815	607	610	14.11	588	14.50	-0.39
Dadri II STPS	980	980	799	725	18.44	768	18.88	-0.44
Unchahar I TPS	420	408	334	312	7.10	296	7.11	-0.01
Unchahar II TPS	420	406	343	308	6.96	290	6.95	0.01
Unchahar III TPS	210	203	165	154	3.44	143	3.45	-0.01
ISTPP (Jhajjhar)	1500	1500	381	375	8.79	366	8.93	-0.14
Dadri GPS	830	830	196	150	4.07	170	4.21	-0.14
Anta GPS	419	417	0	161	2.54	106	2.56	-0.02
Auraiya GPS	663	669	155	159	3.63	151	3.79	-0.16
<b>Sub Total (A)</b>	<b>11282</b>	<b>10062</b>	<b>6509</b>	<b>5986.6</b>	<b>146.46</b>	<b>6103</b>	<b>147.39</b>	<b>-0.93</b>
<b>B. NPC</b>								
NAPS	440	234	153	162	3.24	135	5.62	-2.38
RAPS- B	440	418	456	463	10.00	416	10.03	-0.04
RAPS- C	440	430	235	238	10.21	425	10.32	-0.11
<b>Sub Total (B)</b>	<b>1320</b>	<b>1082</b>	<b>844</b>	<b>863</b>	<b>23.44</b>	<b>977</b>	<b>25.97</b>	<b>-2.53</b>
<b>C. NHPC</b>								
Chamera I HPS	540	540	540	0	4.95	206	4.90	0.05
Chamera II HPS	300	300	303	0	2.68	112	2.70	-0.02
Chamera III HPS	231	231	222	0	1.13	47	1.13	0.01
Bairasuil HPS	180	182	180	120	3.31	138	3.52	-0.20
Salal-HPS	690	486	494	560	11.95	498	11.77	0.18
Tanakpur-HPS	94	0	0	0	0.00	0	0.00	0.00
Uri-HPS	480	441	458	43	4.44	185	8.76	-4.33
Uri-II HPS	180	159	122	50	1.45	60	3.25	-1.80
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	271	0	2.34	97	2.30	0.04
Sewa-II HPS	120	119	127	119	2.93	122	2.88	0.05
Parbati 3	520	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (C)</b>	<b>4005</b>	<b>2845</b>	<b>2717</b>	<b>892</b>	<b>35</b>	<b>1465</b>	<b>41</b>	<b>-6</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	648	0	6.54	273	6.50	0.04
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>648</b>	<b>0</b>	<b>6.54</b>	<b>273</b>	<b>6.50</b>	<b>0.04</b>
<b>E. THDC</b>								
Tehri HPS	1000	624	626	0	7.55	315	7.50	0.05
Koteshwar HPS	400	125	300	0	3.01	125	3.00	0.01
<b>Sub Total (E)</b>	<b>1400</b>	<b>749</b>	<b>926</b>	<b>0</b>	<b>10.56</b>	<b>440</b>	<b>10.50</b>	<b>0.06</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	566	1013	366	14.12	588	13.58	0.54
Dehar HPS	990	197	330	0	5.16	215	4.73	0.44
Pong HPS	396	192	308	186	5.03	210	4.61	0.42
<b>Sub Total (F)</b>	<b>2883</b>	<b>955</b>	<b>1651</b>	<b>552</b>	<b>24.31</b>	<b>1013</b>	<b>22.92</b>	<b>1.39</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.34	14	0.34	0.01
KWHEP HPS(IPP)	1000	0	150	0	3.37	140	3.36	0.01
Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
Shree Cement TPS	300	0	287	226	6.51	271	6.53	-0.02
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>437</b>	<b>226</b>	<b>10.24</b>	<b>427</b>	<b>10.47</b>	<b>-0.23</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24052</b>	<b>17298</b>	<b>13731</b>	<b>8520</b>	<b>256.73</b>	<b>10697</b>	<b>264.95</b>	<b>-8.22</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	210	360	6.66	278
	Guru Nanak Dev TPS(Bhatinda)	440	120	90	2.23	93
	Guru Hargobind Singh TPS(L.mbt)	920	684	482	13.36	557
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	477	282	8.40	350
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	3980	1491	1214	30.66	1277
	Total Hydro	1148	474	308	9.78	408
	<b>Total Punjab</b>	<b>5128</b>	<b>1965</b>	<b>1522</b>	<b>40.44</b>	<b>1685</b>
Haryana	Panipat TPS	1367	0	0	0.00	0
	DCRTPP (Yamuna nagar)	600	269	248	6.08	253
	Faridabad GPS (NTPC)	432	342	277	7.77	324
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	405	371	10.19	424
	Thermal (Total)	4944	1016	896	24.03	1001
	Total Hydro	62	25	23	0.58	24
	<b>Total Haryana</b>	<b>5006</b>	<b>1041</b>	<b>919</b>	<b>24.62</b>	<b>1026</b>
	Rajasthan	kota TPS	1240	1101	998	25.12
suratgarh TPS		1500	1055	1044	25.03	1043
Chabra TPS		750	452	378	9.70	404
Dholpur GPS		330	57	81	1.83	76
Ramgarh GPS		221	121	121	3.02	126
RAPS A (NPC)		300	175	175	4.11	171
Barsingsar (NLC)		250	202	201	4.63	193
Giral LTTPS		250	0	0	0.00	0
Rajwest LTTPS (IPP)		1080	48	0	1.07	45
VSLP LTTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		1320	1194	858	26.75	1115
Thermal (Total)		7976	4405	3856	101.26	4219
Total Hydro		550	250	97	4.39	183
Wind power		2191	219	438	9.48	395
Biomass		91	25	25	0.60	25
Solar		201	5	0	0.54	22
Renewable/Others (Total)	2483	244	463	10.61	442	
<b>Total Rajasthan</b>	<b>11009</b>	<b>4899</b>	<b>4416</b>	<b>116.27</b>	<b>4845</b>	
UP	Anpara TPS	1630	1103	868	22.90	954
	Obra TPS	1288	540	387	11.00	458
	Paricha TPS	1140	503	517	11.30	471
	Panki TPS	210	90	95	2.00	83
	Harduaganj TPS	665	350	400	8.50	354
	Tanda TPS (NTPC)	440	325	233	7.45	310
	Roza TPS (IPP)	1200	756	766	19.14	798
	Anpara-C (IPP)	1200	756	720	20.10	837
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	58	58	1.40	58
	Thermal (Total)	8223	4481	4044	103.78	4324
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	115	135	2.79	116
	Cogeneration	981	600	600	14.40	600
	<b>Total UP</b>	<b>10131</b>	<b>5196</b>	<b>4779</b>	<b>120.97</b>	<b>5041</b>
	Uttarakhand	Total Hydro	1303	435	82	10.12
<b>Total Uttarakhand</b>		<b>1303</b>	<b>435</b>	<b>82</b>	<b>10.12</b>	<b>422</b>
Delhi	Rajghat TPS	135	54	53	1.18	49
	Delhi Gas Turbine	282	83	80	1.98	82
	Pragati Gas Turbine	330	165	102	3.95	165
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	345	340	7.51	313
	Thermal (Total)	2232	647	575	14.62	609
	<b>Total Delhi</b>	<b>2232</b>	<b>647</b>	<b>575</b>	<b>14.62</b>	<b>609</b>
HP	Baspa HPS (IPP)	330	30	0	1.04	43
	Malana HPS (IPP)	86	37	0	0.18	8
	Other Hydro	589	197	157	4.54	189
	<b>Total HP</b>	<b>1005</b>	<b>264</b>	<b>157</b>	<b>5.77</b>	<b>240</b>
J & K	Baglihar HPS (IPP)	450	148	288	5.24	218
	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>420</b>	<b>7.54</b>	<b>314</b>
<b>Total State Control Area Generation</b>		<b>36770</b>	<b>14668</b>	<b>12870</b>	<b>340.34</b>	<b>14181</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>5264</b>	<b>1974</b>	<b>99.08</b>	<b>4128</b>
<b>Total Regional Availability(Gross)</b>		<b>60823</b>	<b>33663</b>	<b>23364</b>	<b>696.15</b>	<b>29006</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11080	6092	1444	80.30	3346
State Control Area Hydro	5368	1784	1222	40.97	1707
<b>Total Regional Hydro</b>	<b>16448</b>	<b>7876</b>	<b>2666</b>	<b>121.27</b>	<b>5053</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	0	9.27	0.00	9.27
Gwalior-Agra (D/C)	1715	1036	1855	0	33.64	0.00	33.64
Zerda-Kankroli	-91	-302	0	405	0.00	5.40	-5.40
Zerda-Bhinmal	18	-188	73	328	0.00	2.68	-2.68
Malanpur-Auraiya	-110	-75	0	113	0.00	2.09	-2.09
Badod-Kota/Morak	-40	-115	56	149	0.00	1.50	-1.50
Mundra-Mohinderghar(HVDC)	2001	1000	2005	0	40.79	0.00	40.79
<b>Sub Total WR</b>	<b>3993</b>	<b>1406</b>			<b>83.71</b>	<b>11.67</b>	<b>72.04</b>
Pusauli Bypass	300	300	300	0	7.25	0.00	7.25
MZP- GKP (D/C)	127	106	365	0	4.43	0.00	4.43
Patna-Balia(D/C)	533	283	602	0	10.12	0.00	10.12
B'Shafi-Balia (D/C)	374	95	394	0	5.05	0.00	5.05
Pusauli-Balia	-13	-89	0	121	0.00	1.53	-1.53
Gaya-Fatehpur (765 Kv)	-51	-126	103	155	0.00	0.86	-0.86
Pusauli-Sahupuri	33	129	159	0	2.88	0.00	2.88
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-28	-25	0	32	0.00	0.62	-0.62
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-4	-105	221	137	0.31	0.00	0.31
<b>Sub Total ER</b>	<b>1271</b>	<b>568</b>			<b>30.04</b>	<b>3.00</b>	<b>27.04</b>
<b>Total IR Exch</b>	<b>5264</b>	<b>1974</b>			<b>113.75</b>	<b>14.67</b>	<b>99.08</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
31.43	0.12	31.55	8.36	7.19	12.16	3.12	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
52.07	53.75	105.82	27.04	72.04	99.08	-25.03	18.29	-6.74

**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	0.72	4.76	20.03	45.53	42.75	13.30	23.95	6.33	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				
50.33	1.40	49.28	19.25	50.00	0.16	0.03	50.35	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	415	00:26	402	09:24	0.0	0.0	0.0	0.0
Gorakhpur	400	416	19:06	376	23:05	41.6	84.3	0.0	0.0
Bareilly	400	431	04:02	404	06:35	0.0	0.0	42.0	0.1
Kanpur	400	424	03:31	399	06:32	0.0	0.0	16.6	0.0
Dadri	400	431	03:04	407	18:41	0.0	0.0	30.5	1.6
Ballabgarh	400	438	04:01	410	06:32	0.0	0.0	74.2	21.6
Bawana	400	434	03:05	406	06:32	0.0	0.0	53.1	19.0
Bassi	400	434	04:01	393	07:40	0.0	0.0	25.7	4.1
Hissar	400	423	04:02	391	06:32	0.0	0.0	5.6	0.0
Moga	400	422	03:04	393	06:41	0.0	0.0	6.5	0.0
Abdullapur	400	429	00:07	396	06:34	0.0	0.0	38.6	0.0
Nalagarh	400	428	02:26	407	19:25	0.0	0.0	35.1	0.0
Kishenpur	400	425	03:48	374	03:22	0.0	0.0	8.1	0.0
Wagoora	400	0	00:00	9999	00:00	0.0	0.0	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	770	12:23	726	16:51	0.2	4.7	0.0	0.0
Balia	765	781	05:05	742	06:33	0.0	0.0	0.0	0.0
Moga	765	802	03:16	748	06:33	0.0	0.0	2.1	0.0
Agra	765	815	04:02	759	06:32	0.0	0.0	35.0	0.0
Bhiwani	765	812	04:01	757	06:32	0.0	0.0	33.9	0.0
Unnao	765	764	16:07	744	18:42	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 12.03.2014 :**

1. Partial rain 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 : 12.03.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER