

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 20.03.2014  
Date of Reporting : 21.03.2014

### 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
33476	1918	35394	49.95	29149	229	29378	50.06	765.9	30.50

\* 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	40.90	11.59		52.49	42.24	43.09	0.85	95.58	0.00
Haryana	36.31	0.52		36.83	70.95	71.17	0.22	108.00	0.52
Rajasthan	104.63	3.48	5.34	113.45	69.65	69.45	-0.20	182.90	1.15
Delhi	15.30			15.30	42.61	42.39	-0.21	57.69	0.28
UP	123.69	3.56	14.40	141.65	92.73	90.50	-2.23	232.14	25.14
Uttarakhand		10.18		10.18	17.91	20.18	2.27	30.35	1.31
HP		9.71		9.71	14.94	14.64	-0.30	24.36	0.40
J & K		9.34	0.00	9.34	25.72	22.26	-3.46	31.60	1.70
Chandigarh				0.00	3.45	3.28	-0.17	3.28	0.00
<b>Total</b>	<b>320.83</b>	<b>48.38</b>	<b>19.74</b>	<b>388.95</b>	<b>380.19</b>	<b>376.96</b>	<b>-3.23</b>	<b>765.91</b>	<b>30.50</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	4575	0	-30	-416	3239	0	56	-314	-11.20	
Haryana	4882	58	120	157	4314	0	71	-40	1.67	
Rajasthan	7076	0	34	623	7150	79	136	987	24.42	
Delhi	2854	190	163	-827	1549	0	-64	-1205	-22.45	
UP	9952	1420	-125	854	9960	150	-29	660	14.77	
Uttarakhand	1541	150	232	305	1085	0	106	263	6.67	
HP	955	0	-200	6	789	0	63	-15	1.79	
J&K	1466	100	-52	124	978	0	-366	239	4.23	
Chandigarh	176	0	-2	0	85	0	-3	0	0.00	
<b>Total</b>	<b>33476</b>	<b>1918</b>	<b>140</b>	<b>825</b>	<b>29149</b>	<b>229</b>	<b>-30</b>	<b>574</b>	<b>19.90</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	1155	1051	1551	27.90	1163	27.71	0.19
Rihand I STPS	1000	641	862	504	14.83	618	14.56	0.27
Rihand II STPS	1000	975	985	1048	23.00	958	22.73	0.27
Rihand III STPS	1000	468	506	513	11.33	472	11.07	0.26
Dadri I STPS	840	815	738	632	14.96	623	15.32	-0.36
Dadri II STPS	980	980	983	710	19.59	816	20.06	-0.47
Unchahar I TPS	420	408	401	344	8.82	368	8.80	0.02
Unchahar II TPS	420	406	342	313	8.51	355	8.50	0.02
Unchahar III TPS	210	203	168	155	3.89	162	3.87	0.02
ISTPP (Jhajjhar)	1500	1500	487	336	9.80	408	10.13	-0.33
Dadri GPS	830	825	391	386	8.82	368	8.91	-0.09
Anta GPS	419	410	251	0	1.90	79	1.97	-0.07
Auraiya GPS	663	663	153	159	3.62	151	3.62	-0.01
<b>Sub Total (A)</b>	<b>11282</b>	<b>9450</b>	<b>7317.88</b>	<b>6651</b>	<b>156.97</b>	<b>6540</b>	<b>157.25</b>	<b>-0.28</b>
<b>B. NPC</b>								
NAPS	440	249	327	335	7.05	294	6.00	1.05
RAPS- B	440	414	458	461	9.96	415	9.94	0.02
RAPS- C	440	430	473	477	10.20	425	10.32	-0.12
<b>Sub Total (B)</b>	<b>1320</b>	<b>1093</b>	<b>1258</b>	<b>1273</b>	<b>27.20</b>	<b>1133</b>	<b>26.26</b>	<b>0.94</b>
<b>C. NHPC</b>								
Chamera I HPS	540	540	540	0	9.27	386	9.20	0.07
Chamera II HPS	300	300	300	0	3.15	131	3.10	0.05
Chamera III HPS	231	231	223	0	1.51	63	1.45	0.06
Bairasuil HPS	180	182	182	100	3.25	136	3.20	0.05
Salal-HPS	690	359	408	318	8.92	371	8.58	0.33
Tanakpur-HPS	94	0	0	475	0.00	0	0.00	0.00
Uri-HPS	480	466	478	471	11.27	469	11.19	0.08
Uri-II HPS	180	180	182	187	4.39	183	4.32	0.07
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	130	0	3.18	132	3.00	0.18
Sewa-II HPS	120	122	127	127	3.01	126	2.93	0.09
Parbati 3	520	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (C)</b>	<b>4005</b>	<b>2767</b>	<b>2570</b>	<b>1678</b>	<b>48</b>	<b>1997</b>	<b>47</b>	<b>1</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	785	152	7.70	321	7.50	0.20
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>785</b>	<b>152</b>	<b>7.70</b>	<b>321</b>	<b>7.50</b>	<b>0.20</b>
<b>E. THDC</b>								
Tehri HPS	1000	612	616	0	7.89	329	7.80	0.09
Koteshwar HPS	400	125	297	0	3.02	126	3.00	0.02
<b>Sub Total (E)</b>	<b>1400</b>	<b>737</b>	<b>913</b>	<b>0</b>	<b>10.91</b>	<b>455</b>	<b>10.80</b>	<b>0.11</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	635	1144	374	15.88	662	15.23	0.65
Dehar HPS	990	280	495	320	7.03	293	6.72	0.31
Pong HPS	396	198	306	126	4.83	201	4.76	0.07
<b>Sub Total (F)</b>	<b>2883</b>	<b>1113</b>	<b>1945</b>	<b>820</b>	<b>27.74</b>	<b>1156</b>	<b>26.71</b>	<b>1.03</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	50	0	0.47	20	0.46	0.01
KWHEP HPS(IPP)	1000	0	588	0	4.09	170	4.08	0.01
Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
Shree Cement TPS	300	0	272	263	6.50	271	6.45	0.05
Budhil HPS(IPP)	70	0	0	0	0.02	1	0.34	-0.32
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>910</b>	<b>263</b>	<b>11.08</b>	<b>462</b>	<b>11.33</b>	<b>-0.25</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24052</b>	<b>16765</b>	<b>15699</b>	<b>10837</b>	<b>289.54</b>	<b>12064</b>	<b>286.82</b>	<b>2.73</b>

I. State Entities	Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sent out MW)
<b>Punjab</b>	Guru Gobind Singh TPS (Ropar)	1260	450	450	11.65	485
	Guru Nanak Dev TPS(Bhatinda)	440	90	95	1.94	81
	Guru Hargobind Singh TPS(L.mbt)	920	827	539	17.71	738
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	497	280	9.60	400
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	3980	1864	1364	40.90	1704
	Total Hydro	1148	502	503	11.59	483
<b>Total Punjab</b>	<b>5128</b>	<b>2366</b>	<b>1867</b>	<b>52.49</b>	<b>2187</b>	
<b>Haryana</b>	Panipat TPS	1367	224	229	5.34	223
	DCRTPP (Yamuna nagar)	600	536	281	8.24	343
	Faridabad GPS (NTPC)	432	404	409	9.61	400
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	555	597	13.12	547
	Thermal (Total)	4944	1719	1516	36.31	1513
	Total Hydro	62	23	23	0.52	22
<b>Total Haryana</b>	<b>5006</b>	<b>1742</b>	<b>1539</b>	<b>36.83</b>	<b>1535</b>	
<b>Rajasthan</b>	kota TPS	1240	1061	915	24.84	1035
	suratgarh TPS	1500	977	967	22.37	932
	Chabra TPS	750	427	403	10.18	424
	Dholpur GPS	330	128	89	2.58	107
	Ramgarh GPS	221	112	117	2.98	124
	RAPS A (NPC)	300	175	175	4.11	171
	Barsingsar (NLC)	250	201	204	4.74	197
	Giral LTPS	250	63	65	1.38	57
	Rajwest LTPS (IPP)	1080	120	100	2.66	111
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	1320	1193	1197	28.80	1200
	Thermal (Total)	7976	4457	4232	104.63	4360
	Total Hydro	550	117	59	3.48	145
	Wind power	2191	271	0	4.20	175
	Biomass	91	26	26	0.61	26
	Solar	201	0	0	0.53	22
Renewable/Others (Total)	2483	297	26	5.34	223	
<b>Total Rajasthan</b>	<b>11009</b>	<b>4871</b>	<b>4317</b>	<b>113.45</b>	<b>4727</b>	
<b>UP</b>	Anpara TPS	1630	1602	1592	34.30	1429
	Obra TPS	1288	375	361	8.10	338
	Paricha TPS	1140	744	731	16.30	679
	Panki TPS	210	0	100	0.80	33
	Harduaganj TPS	665	452	469	9.80	408
	Tanda TPS (NTPC)	440	403	281	9.30	387
	Roza TPS (IPP)	1200	1116	1116	23.63	985
	Anpara-C (IPP)	1200	801	1049	18.09	754
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	140	193	3.38	141
	Thermal (Total)	8223	5633	5892	123.69	5154
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	123	157	3.56	148
	Cogeneration	981	600	600	14.40	600
	<b>Total UP</b>	<b>10131</b>	<b>6356</b>	<b>6649</b>	<b>141.65</b>	<b>5902</b>
	<b>Uttarakhand</b>	Total Hydro	1303	505	346	10.18
<b>Total Uttarakhand</b>		<b>1303</b>	<b>505</b>	<b>346</b>	<b>10.18</b>	<b>424</b>
<b>Delhi</b>	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	77	77	1.82	76
	Pragati Gas Turbine	330	262	263	6.42	267
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	200	355	7.06	294
	Thermal (Total)	2232	539	695	15.30	637
<b>Total Delhi</b>	<b>2232</b>	<b>539</b>	<b>695</b>	<b>15.30</b>	<b>637</b>	
<b>HP</b>	Baspa HPS (IPP)	330	29	29	1.09	45
	Malana HPS (IPP)	86	64	0	0.30	12
	Other Hydro	589	355	285	8.33	347
	<b>Total HP</b>	<b>1005</b>	<b>448</b>	<b>314</b>	<b>9.71</b>	<b>405</b>
<b>J &amp; K</b>	Baglihar HPS (IPP)	450	294	292	7.04	294
	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>367</b>	<b>424</b>	<b>9.34</b>	<b>389</b>
<b>Total State Control Area Generation</b>		<b>36770</b>	<b>17194</b>	<b>16151</b>	<b>388.95</b>	<b>16206</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>3438</b>	<b>3015</b>	<b>102.76</b>	<b>4282</b>
<b>Total Regional Availability(Gross)</b>		<b>60823</b>	<b>36331</b>	<b>30003</b>	<b>781.25</b>	<b>32552</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11080	6851	2650	98.85	4119
State Control Area Hydro	5368	2085	1826	48.38	2016
<b>Total Regional Hydro</b>	<b>16448</b>	<b>8936</b>	<b>4476</b>	<b>147.23</b>	<b>6135</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	-100	500	100	7.35	0.61	6.75
Gwalior-Agra (D/C)	718	1479	1658	0	32.68	0.00	32.68
Zerda-Kankroli	-301	-217	0	301	0.00	4.29	-4.29
Zerda-Bhinmal	-214	-93	98	236	0.00	1.66	-1.66
Malanpur-Auraiya	-131	-80	0	132	0.00	1.92	-1.92
Badod-Kota/Morak	-72	-49	0	151	0.00	1.46	-1.46
Mundra-Mohinderghar(HVDC)	2003	1998	2005	0	44.87	0.00	44.87
<b>Sub Total WR</b>	<b>2503</b>	<b>2938</b>			<b>84.90</b>	<b>9.93</b>	<b>74.97</b>
Pusauli Bypass	300	-337	300	0	5.32	2.19	3.13
MZP- GKP (D/C)	60	120	352	36	4.13	0.00	4.13
Patna-Balia(D/C)	494	297	742	0	12.44	0.00	12.44
B'Shafi-Balia (D/C)	164	60	463	0	6.01	0.00	6.01
Pusauli-Balia	-87	-128	98	140	0.00	0.64	-0.64
Gaya-Fatehpur (765 Kv)	-81	-42	52	152	0.00	0.78	-0.78
Pusauli-Sahupuri	113	141	150	0	3.00	0.00	3.00
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-28	-25	0	32	0.00	0.56	-0.56
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	0	-9	235	134	1.06	0.00	1.06
<b>Sub Total ER</b>	<b>935</b>	<b>77</b>			<b>31.96</b>	<b>4.17</b>	<b>27.78</b>
<b>Total IR Exch</b>	<b>3438</b>	<b>3015</b>			<b>116.86</b>	<b>14.10</b>	<b>102.76</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
33.74	0.14	33.88	0.30	7.24	3.93	-0.53	0.00	0.00

  

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
38.12	69.67	107.78	27.78	74.97	102.76	-10.33	5.31	-5.02

**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	0.40	7.50	30.80	70.50	56.60	8.90	13.80	0.00	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				
50.21	6.02	49.63	18.39	49.95	0.12	0.09	50.15	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	05:04	403	09:18	0.0	0.0	0.0	0.0
Gorakhpur	400	434	01:13	407	23:16	0.0	0.0	13.1	1.5
Bareilly	400	422	00:00	406	16:12	0.0	0.0	1.4	0.0
Kanpur	400	419	04:30	404	09:24	0.0	0.0	0.0	0.0
Dadri	400	424	00:55	407	16:08	0.0	0.0	22.0	0.0
Ballabgarh	400	431	04:03	411	09:24	0.0	0.0	42.5	0.1
Bawana	400	428	00:01	409	09:25	0.0	0.0	31.5	0.0
Bassi	400	427	04:01	403	09:14	0.0	0.0	18.0	0.0
Hissar	400	417	02:45	394	09:23	0.0	0.0	0.0	0.0
Moga	400	420	02:49	399	09:15	0.0	0.0	0.0	0.0
Abdullapur	400	422	23:58	404	05:58	0.0	0.0	0.3	0.0
Nalagarh	400	428	03:02	403	16:13	0.0	0.0	23.8	0.0
Kishenpur	400	413	00:21	393	18:38	0.0	0.0	0.0	0.0
Wagoora	400	409	01:00	388	21:00	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	00:01	742	06:23	0.0	0.0	0.0	0.0
Balia	765	771	05:04	743	18:41	0.0	0.0	0.0	0.0
Moga	765	797	03:02	758	09:14	0.0	0.0	0.0	0.0
Agra	765	804	05:03	772	09:19	0.0	0.0	5.6	0.0
Bhiwani	765	797	13:01	775	16:16	0.0	0.0	0.0	0.0
Unnao	765	757	00:00	742	15:50	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	484.60	577.33	483.04	536.06	126.09	550.17
Pong	426.72	384.05	403.52	304.55	401.39	252.05	89.20	315.65
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 20.03.2014 :**

1. Normal Weather

**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 : 20.03.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER