

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 21.03.2014  
Date of Reporting : 22.03.2014

### 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
32735	1957	34692	49.85	29370	555	29925	50.04	772.6	36.90

\* 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	43.33	10.71		54.03	43.48	43.60	0.12	97.63	0.00
Haryana	35.27	0.57		35.84	69.95	69.97	0.02	105.81	0.05
Rajasthan	109.87	1.57	11.05	122.49	63.74	62.62	-1.11	185.12	0.05
Delhi	15.60			15.60	45.28	44.02	-1.26	59.63	0.07
UP	121.18	3.19	14.40	138.77	93.78	94.46	0.68	233.24	33.60
Uttarakhand		9.23		9.23	19.38	21.06	1.68	30.28	1.45
HP		9.67		9.67	15.43	14.85	-0.58	24.52	0.00
J & K		9.34	0.00	9.34	25.54	23.68	-1.87	33.02	1.70
Chandigarh				0.00	3.45	3.34	-0.11	3.34	0.00
<b>Total</b>	<b>325.25</b>	<b>44.28</b>	<b>25.45</b>	<b>394.98</b>	<b>380.03</b>	<b>377.61</b>	<b>-2.43</b>	<b>772.58</b>	<b>36.90</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	4718	0	7	-410	3506	0	118	-309	-9.61	
Haryana	4769	0	-53	168	3897	0	57	169	2.25	
Rajasthan	7026	0	-132	680	7414	0	1	991	24.91	
Delhi	3071	17	146	-838	1573	0	-226	-1093	-22.09	
UP	9093	1765	-603	698	9749	555	148	487	11.02	
Uttarakhand	1508	75	146	435	1099	0	76	303	8.14	
HP	992	0	-145	-56	835	0	76	-20	1.39	
J&K	1378	100	-40	119	1213	0	-119	234	4.13	
Chandigarh	181	0	-1	0	85	0	-8	0	0.00	
<b>Total</b>	<b>32735</b>	<b>1957</b>	<b>-675</b>	<b>798</b>	<b>29370</b>	<b>555</b>	<b>123</b>	<b>763</b>	<b>20.14</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	935	1057	1032	21.61	901	21.95	-0.34
Rihand I STPS	1000	933	882	931	21.30	887	21.08	0.22
Rihand II STPS	1000	975	921	961	22.60	942	22.02	0.58
Rihand III STPS	1000	483	491	422	10.66	444	10.27	0.39
Dadri I STPS	840	815	747	615	15.33	639	15.66	-0.33
Dadri II STPS	980	980	965	716	19.45	810	19.85	-0.40
Unchahar I TPS	420	408	426	351	8.54	356	8.57	-0.03
Unchahar II TPS	420	406	399	313	7.75	323	7.75	0.00
Unchahar III TPS	210	203	201	155	3.78	158	3.77	0.02
ISTPP (Jhajjhar)	1500	1500	459	340	8.21	342	8.45	-0.24
Dadri GPS	830	825	380	385	8.90	371	8.93	-0.03
Anta GPS	419	408	261	251	5.96	248	5.86	0.10
Auraiya GPS	663	659	189	161	3.59	150	3.61	-0.02
<b>Sub Total (A)</b>	<b>11282</b>	<b>9531</b>	<b>7378</b>	<b>6633</b>	<b>157.68</b>	<b>6570</b>	<b>157.76</b>	<b>-0.08</b>
<b>B. NPC</b>								
NAPS	440	291	322	336	6.95	290	6.00	0.95
RAPS- B	440	415	458	456	9.94	414	9.96	-0.02
RAPS- C	440	430	469	475	10.20	425	10.32	-0.13
<b>Sub Total (B)</b>	<b>1320</b>	<b>1136</b>	<b>1249</b>	<b>1267</b>	<b>27.09</b>	<b>1129</b>	<b>26.28</b>	<b>0.81</b>
<b>C. NHPC</b>								
Chamera I HPS	540	540	540	0	9.07	378	9.00	0.07
Chamera II HPS	300	300	299	0	2.40	100	2.35	0.05
Chamera III HPS	231	231	224	0	1.26	52	1.20	0.06
Bairasuil HPS	180	182	182	100	3.15	131	3.10	0.06
Salal-HPS	690	348	425	330	8.62	359	8.35	0.27
Tanakpur-HPS	94	0	0	475	0.00	0	0.00	0.00
Uri-HPS	480	467	473	476	11.35	473	11.21	0.14
Uri-II HPS	240	180	181	184	4.35	181	4.32	0.03
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	397	0	3.05	127	3.00	0.05
Sewa-II HPS	120	122	127	127	3.00	125	2.93	0.07
Parbati 3	260	0	0	0	0.82	34	0.82	0.00
<b>Sub Total (C)</b>	<b>3805</b>	<b>2757</b>	<b>2848</b>	<b>1692</b>	<b>47</b>	<b>1961</b>	<b>45</b>	<b>2</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	764	154	7.90	329	7.78	0.12
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>764</b>	<b>154</b>	<b>7.90</b>	<b>329</b>	<b>7.78</b>	<b>0.12</b>
<b>E. THDC</b>								
Tehri HPS	1000	635	614	0	7.40	308	7.30	0.10
Koteshwar HPS	400	125	304	0	3.02	126	3.00	0.02
<b>Sub Total (E)</b>	<b>1400</b>	<b>760</b>	<b>918</b>	<b>0</b>	<b>10.42</b>	<b>434</b>	<b>10.30</b>	<b>0.12</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	640	1138	396	16.03	668	15.35	0.68
Dehar HPS	990	250	495	140	6.24	260	6.01	0.24
Pong HPS	396	202	306	126	4.92	205	4.86	0.06
<b>Sub Total (F)</b>	<b>2883</b>	<b>1092</b>	<b>1939</b>	<b>662</b>	<b>27.19</b>	<b>1133</b>	<b>26.21</b>	<b>0.98</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	96	0	0.46	19	0.45	0.01
KWHEP HPS(IPP)	1000	0	408	0	4.00	167	3.96	0.05
Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
Shree Cement TPS	300	0	261	228	6.27	261	6.20	0.07
Budhil HPS(IPP)	70	0	0	0	0.02	1	0.38	-0.35
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>765</b>	<b>228</b>	<b>10.76</b>	<b>448</b>	<b>10.98</b>	<b>-0.23</b>
<b>H. Total Regional Entities (A-G)</b>	<b>23852</b>	<b>16881</b>	<b>15861</b>	<b>10636</b>	<b>288.09</b>	<b>12004</b>	<b>284.77</b>	<b>3.33</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	720	490	14.71	613
	Guru Nanak Dev TPS(Bhatinda)	440	90	90	1.98	83
	Guru Hargobind Singh TPS(L.mbt)	920	869	931	19.19	799
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	278	284	7.45	310
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	3980	1957	1795	43.33	1805
	Total Hydro	1148	502	383	10.71	446
<b>Total Punjab</b>	<b>5128</b>	<b>2459</b>	<b>2178</b>	<b>54.03</b>	<b>2251</b>	
Haryana	Panipat TPS	1367	210	199	5.05	210
	DCRTPP (Yamuna nagar)	600	526	507	12.10	504
	Faridabad GPS (NTPC)	432	364	280	7.69	320
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	406	369	10.44	435
	Thermal (Total)	4944	1506	1355	35.27	1470
	Total Hydro	62	24	24	0.57	24
	<b>Total Haryana</b>	<b>5006</b>	<b>1530</b>	<b>1379</b>	<b>35.84</b>	<b>1493</b>
	Rajasthan	kota TPS	1240	1126	1133	25.75
suratgarh TPS		1500	1083	1131	26.33	1097
Chabra TPS		750	423	407	9.86	411
Dholpur GPS		330	112	130	3.09	129
Ramgarh GPS		221	123	120	3.00	125
RAPS A (NPC)		300	175	175	4.13	172
Barsingsar (NLC)		250	200	301	4.70	196
Giral LTPS		250	65	63	1.38	57
Rajwest LTPS (IPP)		1080	120	106	2.62	109
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	60	0.34	14
Kawai(Adani)		1320	1187	1183	28.67	1195
Thermal (Total)		7976	4614	4809	109.87	4578
Total Hydro		550	78	72	1.57	66
Wind power		2191	67	739	9.78	407
Biomass		91	24	24	0.57	24
Solar		201	7	0	0.71	30
Renewable/Others (Total)		2483	91	763	11.05	460
<b>Total Rajasthan</b>	<b>11009</b>	<b>4783</b>	<b>5644</b>	<b>122.49</b>	<b>5104</b>	
UP	Anpara TPS	1630	1573	1623	34.10	1421
	Obra TPS	1288	422	384	8.70	363
	Paricha TPS	1140	711	728	15.40	642
	Panki TPS	210	0	0	0.00	0
	Harduaganj TPS	665	214	450	6.00	250
	Tanda TPS (NTPC)	440	301	297	7.70	321
	Roza TPS (IPP)	1200	1116	1116	26.82	1118
	Anpara-C (IPP)	1200	806	792	19.23	801
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	112	157	3.23	134
	Thermal (Total)	8223	5255	5547	121.18	5049
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	84	154	3.19	133
	Cogeneration	981	600	600	14.40	600
	<b>Total UP</b>	<b>10131</b>	<b>5939</b>	<b>6301</b>	<b>138.77</b>	<b>5782</b>
	Uttarakhand	Total Hydro	1303	399	305	9.23
<b>Total Uttarakhand</b>		<b>1303</b>	<b>399</b>	<b>305</b>	<b>9.23</b>	<b>384</b>
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	74	76	1.75	73
	Pragati Gas Turbine	330	264	264	6.42	267
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	345	320	7.43	310
	Thermal (Total)	2232	683	660	15.60	650
	<b>Total Delhi</b>	<b>2232</b>	<b>683</b>	<b>660</b>	<b>15.60</b>	<b>650</b>
HP	Baspa HPS (IPP)	330	52	26	1.03	43
	Malana HPS (IPP)	86	60	0	0.32	13
	Other Hydro	589	336	282	8.32	347
	<b>Total HP</b>	<b>1005</b>	<b>448</b>	<b>308</b>	<b>9.67</b>	<b>403</b>
J & K	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>16608</b>	<b>17199</b>	<b>394.98</b>	<b>16457</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>4206</b>	<b>3526</b>	<b>107.01</b>	<b>4459</b>
<b>Total Regional Availability(Gross)</b>		<b>60623</b>	<b>36675</b>	<b>31361</b>	<b>790.08</b>	<b>32920</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10880	6973	2508	97.04	4043
State Control Area Hydro	5368	1902	1670	44.28	1845
<b>Total Regional Hydro</b>	<b>16248</b>	<b>8875</b>	<b>4178</b>	<b>141.32</b>	<b>5888</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	100	11.79	0.00	11.79
Gwalior-Agra (D/C)	1420	1180	1809	0	34.58	0.00	34.58
Zerda-Kankroli	-154	-368	0	368	0.00	4.29	-4.29
Zerda-Bhinmal	-56	-275	58	289	0.00	1.79	-1.79
Malanpur-Auraiya	-85	-82	0	96	0.00	1.71	-1.71
Badod-Kota/Morak	-89	-151	0	151	0.00	2.05	-2.05
Mundra-Mohinderghar(HVDC)	2002	2002	2006	0	48.32	0.00	48.32
<b>Sub Total WR</b>	<b>3538</b>	<b>2806</b>			<b>94.69</b>	<b>9.84</b>	<b>84.85</b>
Pusauli Bypass	300	300	300	0	7.24	0.00	7.24
MZP- GKP (D/C)	44	152	276	0	3.10	0.00	3.10
Patna-Balia(D/C)	310	278	571	0	10.50	0.00	10.50
B'Shafi-Balia (D/C)	84	93	244	0	3.04	0.00	3.04
Pusauli-Balia	-117	-112	0	140	0.00	2.44	-2.44
Gaya-Fatehpur (765 Kv)	-21	-62	7	118	0.00	1.08	-1.08
Pusauli-Sahupuri	116	128	150	0	2.68	0.00	2.68
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)	-20	-32	76	123	0.00	0.32	-0.32
<b>Sub Total ER</b>	<b>668</b>	<b>720</b>			<b>26.56</b>	<b>4.39</b>	<b>22.16</b>
<b>Total IR Exch</b>	<b>4206</b>	<b>3526</b>			<b>121.24</b>	<b>14.24</b>	<b>107.01</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
30.16	0.21	30.38	-0.53	3.86	8.27	-0.12	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
38.11	70.50	108.61	22.16	84.85	107.01	-15.95	14.34	-1.61

**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	1.11	8.85	34.17	71.32	54.55	6.16	5.30	0.45	0.00

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN
Freq	Time	Freq	Time	Hz				
50.32	18.02	49.61	20.35	49.94	0.14	0.10	50.18	49.81

**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	04:10	402	14:53	0.0	0.0	0.0	0.0
Gorakhpur	400	426	16:03	409	00:10	0.0	0.0	14.6	0.0
Bareilly	400	421	21:47	404	05:56	0.0	0.0	1.2	0.0
Kanpur	400	418	04:03	403	09:09	0.0	0.0	0.0	0.0
Dadri	400	424	01:43	407	10:21	0.0	0.0	26.7	0.0
Ballabgarh	400	431	04:00	412	10:17	0.0	0.0	50.4	0.6
Bawana	400	429	02:59	410	09:46	0.0	0.0	37.4	0.0
Bassi	400	431	04:01	401	10:47	0.0	0.0	20.7	0.2
Hissar	400	417	04:04	396	09:45	0.0	0.0	0.0	0.0
Moga	400	420	02:58	398	09:46	0.0	0.0	0.0	0.0
Abdullapur	400	425	23:57	405	18:55	0.0	0.0	20.7	0.0
Nalagarh	400	425	23:57	401	10:39	0.0	0.0	26.9	0.0
Kishenpur	400	416	03:00	394	09:45	0.0	0.0	0.0	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	16:02	429	11:51	5.5	8.9	0.0	0.0
Balia	765	773	18:32	748	09:10	0.0	0.0	0.0	0.0
Moga	765	799	04:04	758	09:45	0.0	0.0	0.0	0.0
Agra	765	805	04:02	771	09:13	0.0	0.0	7.0	0.0
Bhiwani	765	803	21:46	770	10:17	0.0	0.0	3.7	0.0
Unnao	765	754	17:32	736	09:18	0.0	31.6	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	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 21.03.2014 :**

1. Normal Weather

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

0.00

1: Rampur (NJPC) unit - 2 of 68 MW, first time synchronized with grid at 21:49 -22:57 hrs of dt. 21.03.2014.  
( generation about : 0.017 MU)

**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 : 21.03.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER