

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 19.03.2014  
Date of Reporting : 20.03.2014

### 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
31978	1737	33715	49.96	28481	125	28606	0.00	751.4	26.21

\* 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	35.47	11.88		47.35	44.15	44.45	0.29	91.80	0.00
Haryana	30.13	0.52		30.65	71.89	74.15	2.26	104.80	1.87
Rajasthan	105.22	3.52	4.97	113.70	66.11	66.73	0.62	180.43	0.00
Delhi	15.32			15.32	40.85	41.83	0.98	57.15	0.12
UP	121.61	3.72	14.40	139.73	93.48	89.54	-3.94	229.28	22.33
Uttarakhand		11.82		11.82	16.33	17.87	1.54	29.69	0.20
HP		8.74		8.74	14.13	13.32	-0.80	22.06	0.00
J & K		9.30	0.00	9.30	25.53	23.59	-1.93	32.89	1.70
Chandigarh				0.00	3.46	3.29	-0.18	3.29	0.00
<b>Total</b>	<b>307.75</b>	<b>49.50</b>	<b>19.37</b>	<b>376.61</b>	<b>375.93</b>	<b>374.78</b>	<b>-1.15</b>	<b>751.39</b>	<b>26.21</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	
Punjab	4557	0	-15	-557	3102	0	53	-313	-11.50
Haryana	4926	67	116	142	3807	0	187	16	0.77
Rajasthan	6971	0	-40	634	6785	0	-8	701	23.04
Delhi	2987	0	148	-827	1479	0	-41	-1335	-23.61
UP	8629	1525	-812	847	10123	125	122	671	14.89
Uttarakhand	1517	45	192	298	1000	0	51	266	6.49
HP	912	0	-296	6	669	0	-28	106	2.50
J&K	1299	100	-301	124	1432	0	99	239	4.24
Chandigarh	179	0	-1	0	84	0	-13	0	0.00
<b>Total</b>	<b>31978</b>	<b>1737</b>	<b>-1009</b>	<b>668</b>	<b>28481</b>	<b>125</b>	<b>422</b>	<b>349</b>	<b>16.82</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	1435	1558	1553	34.46	1436	34.02	0.44
Rihand I STPS	1000	461	445	395	10.34	431	10.14	0.20
Rihand II STPS	1000	975	979	892	21.71	904	21.20	0.50
Rihand III STPS	1000	474	493	400	10.61	442	10.28	0.33
Dadri I STPS	840	815	724	624	14.82	618	15.11	-0.29
Dadri II STPS	980	980	956	713	19.36	807	20.06	-0.70
Unchahar I TPS	420	408	357	310	8.30	346	8.31	-0.01
Unchahar II TPS	420	406	330	306	7.87	328	7.86	0.01
Unchahar III TPS	210	203	161	150	3.69	154	3.69	0.00
ISTPP (Jhajjhar)	1500	1500	487	343	9.34	389	9.51	-0.17
Dadri GPS	830	825	329	199	6.42	268	6.84	-0.42
Anta GPS	419	408	0	0	0.00	0	0.00	0.00
Auraiya GPS	663	662	154	159	3.61	150	3.67	-0.07
<b>Sub Total (A)</b>	<b>11282</b>	<b>9553</b>	<b>6973</b>	<b>6044</b>	<b>150.53</b>	<b>6272</b>	<b>150.69</b>	<b>-0.17</b>
<b>B. NPC</b>								
NAPS	440	249	329	333	6.99	291	6.00	0.99
RAPS- B	440	414	456	459	9.96	415	9.94	0.02
RAPS- C	440	430	472	476	10.24	426	10.32	-0.09
<b>Sub Total (B)</b>	<b>1320</b>	<b>1093</b>	<b>1257</b>	<b>1268</b>	<b>27.18</b>	<b>1132</b>	<b>26.26</b>	<b>0.92</b>
<b>C. NHPC</b>								
Chamera I HPS	540	540	540	0	6.94	289	6.90	0.04
Chamera II HPS	300	300	299	0	3.03	126	2.95	0.08
Chamera III HPS	231	231	284	0	1.76	73	1.70	0.06
Bairasuil HPS	180	182	182	121	3.65	152	3.72	-0.07
Salal-HPS	690	405	409	448	9.95	415	9.71	0.24
Tanakpur-HPS	94	0	0	475	0.00	0	0.00	0.00
Uri-HPS	480	467	476	460	11.28	470	11.11	0.17
Uri-II HPS	180	175	187	192	4.29	179	4.20	0.09
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	403	126	4.16	173	4.00	0.16
Sewa-II HPS	120	122	127	118	3.06	128	2.93	0.13
Parbati 3	520	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (C)</b>	<b>4005</b>	<b>2808</b>	<b>2907</b>	<b>1940</b>	<b>48</b>	<b>2005</b>	<b>47</b>	<b>1</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	489	153	8.41	350	8.36	0.05
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>489</b>	<b>153</b>	<b>8.41</b>	<b>350</b>	<b>8.36</b>	<b>0.05</b>
<b>E. THDC</b>								
Tehri HPS	1000	612	612	0	7.88	328	7.80	0.08
Koteshwar HPS	400	125	99	99	3.02	126	3.00	0.02
<b>Sub Total (E)</b>	<b>1400</b>	<b>737</b>	<b>711</b>	<b>99</b>	<b>10.90</b>	<b>454</b>	<b>10.80</b>	<b>0.10</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	628	1034	371	15.94	664	15.06	0.88
Dehar HPS	990	429	495	495	10.90	454	10.30	0.60
Pong HPS	396	228	306	124	5.50	229	5.46	0.04
<b>Sub Total (F)</b>	<b>2883</b>	<b>1285</b>	<b>1835</b>	<b>990</b>	<b>32.34</b>	<b>1348</b>	<b>30.83</b>	<b>1.51</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	50	0	0.35	15	0.34	0.01
KWHEP HPS(IPP)	1000	0	370	0	4.35	181	4.08	0.28
Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
Shree Cement TPS	300	0	261	226	6.07	253	6.03	0.04
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>681</b>	<b>226</b>	<b>10.79</b>	<b>450</b>	<b>10.79</b>	<b>0.00</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24052</b>	<b>17081</b>	<b>14853</b>	<b>10720</b>	<b>288.27</b>	<b>12011</b>	<b>284.94</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	630	450	11.28	470	
	Guru Nanak Dev TPS(Bhatinda)	440	90	90	1.97	82	
	Guru Hargobind Singh TPS(L.mbt)	920	689	520	14.07	586	
	Goindwal(GVK)		0	0	0.00	0	
	Rajpura	700	458	264	8.14	339	
	Talwandi Saboo	660	0	0	0.00	0	
	Thermal (Total)	3980	1867	1324	35.47	1478	
	Total Hydro	1148	533	506	11.88	495	
	<b>Total Punjab</b>	<b>5128</b>	<b>2400</b>	<b>1830</b>	<b>47.35</b>	<b>1973</b>	
Haryana	Panipat TPS	1367	229	209	5.33	222	
	DCRTPP (Yamuna nagar)	600	280	251	6.39	266	
	Faridabad GPS (NTPC)	432	408	280	8.22	343	
	RGTPP (kheadar) (IPP)	1200	0	0	0.00	0	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	513	371	10.19	425	
	Thermal (Total)	4944	1430	1111	30.13	1255	
	Total Hydro	62	23	20	0.52	22	
	<b>Total Haryana</b>	<b>5006</b>	<b>1453</b>	<b>1131</b>	<b>30.65</b>	<b>1277</b>	
	Rajasthan	kota TPS	1240	888	726	19.52	813
suratgarh TPS		1500	1132	1241	29.84	1243	
Chabra TPS		750	221	385	9.07	378	
Dholpur GPS		330	87	92	2.23	93	
Ramgarh GPS		221	118	116	2.95	123	
RAPS A (NPC)		300	175	175	4.10	171	
Barsingsar (NLC)		250	200	201	4.74	197	
Giral LTPS		250	69	70	1.41	59	
Rajwest LTPS (IPP)		1080	204	194	4.48	187	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Kalisindh Thermal		600	0	0	0.00	0	
Kawai(Adani)		1320	1146	963	26.87	1120	
Thermal (Total)		7976	4240	4163	105.22	4384	
Total Hydro		550	182	160	3.52	147	
Wind power		2191	27	496	4.02	168	
Biomass		91	21	21	0.52	21	
Solar		201	0	0	0.43	18	
Renewable/Others (Total)		2483	48	517	4.97	207	
<b>Total Rajasthan</b>		<b>11009</b>	<b>4470</b>	<b>4840</b>	<b>113.70</b>	<b>4738</b>	
UP	Anpara TPS	1630	1463	1438	34.50	1438	
	Obra TPS	1288	380	306	8.60	358	
	Paricha TPS	1140	516	681	14.60	608	
	Panki TPS	210	95	81	2.10	88	
	Harduaganj TPS	665	171	415	8.10	338	
	Tanda TPS (NTPC)	440	313	400	8.95	373	
	Roza TPS (IPP)	1200	756	1008	18.40	767	
	Anpara-C (IPP)	1200	986	1060	24.43	1018	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	85	85	1.94	81	
	Thermal (Total)	8223	4765	5474	121.61	5067	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	127	156	3.72	155	
	Cogeneration	981	600	600	14.40	600	
	<b>Total UP</b>	<b>10131</b>	<b>5492</b>	<b>6230</b>	<b>139.73</b>	<b>5822</b>	
	Uttarakhand	Total Hydro	1303	540	482	11.82	493
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>540</b>	<b>482</b>	<b>11.82</b>	<b>493</b>
Delhi	Rajghat TPS	135	0	0	0.00	0	
	Delhi Gas Turbine	282	78	76	1.80	75	
	Pragati Gas Turbine	330	263	265	6.04	251	
	Rithala GPS	95	0	0	0.00	0	
	Bawana GPS	686	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	365	345	7.48	312	
	Thermal (Total)	2232	706	686	15.32	638	
	<b>Total Delhi</b>	<b>2232</b>	<b>706</b>	<b>686</b>	<b>15.32</b>	<b>638</b>	
HP	Baspa HPS (IPP)	330	28	0	0.72	30	
	Malana HPS (IPP)	86	61	0	0.33	14	
	Other Hydro	589	374	299	7.69	320	
	<b>Total HP</b>	<b>1005</b>	<b>463</b>	<b>299</b>	<b>8.74</b>	<b>364</b>	
J & K	Baqilhar HPS (IPP)	450	292	290	7.00	292	
	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>365</b>	<b>422</b>	<b>9.30</b>	<b>387</b>	
<b>Total State Control Area Generation</b>		<b>36770</b>	<b>15889</b>	<b>15920</b>	<b>376.61</b>	<b>15692</b>	
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>3519</b>	<b>2922</b>	<b>91.79</b>	<b>3825</b>	
<b>Total Regional Availability(Gross)</b>		<b>60823</b>	<b>34261</b>	<b>29562</b>	<b>756.68</b>	<b>31528</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	11080	6362	3182	104.48	4353
State Control Area Hydro	5368	2233	2045	49.50	2062
<b>Total Regional Hydro</b>	<b>16448</b>	<b>8595</b>	<b>5227</b>	<b>153.98</b>	<b>6416</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	7.39	0.85	6.54
Gwalior-Agra (D/C)	841	1285	1866	0	29.09	0.00	29.09
Zerda-Kankroli	-195	-370	0	389	0.00	5.39	-5.39
Zerda-Bhinmal	-113	-290	37	322	0.00	2.94	-2.94
Malanpur-Auraiya	-116	-81	0	116	0.00	2.04	-2.04
Badod-Kota/Morak	-87	-111	0	122	0.00	1.12	-1.12
Mundra-Mohinderghar(HVDC)	2003	2002	2005	0	43.33	0.00	43.33
<b>Sub Total WR</b>	<b>2833</b>	<b>2335</b>			<b>79.81</b>	<b>12.34</b>	<b>67.47</b>
Pusauli Bypass	400	300	400	0	8.57	0.00	8.57
MZP- GKP (D/C)	14	106	348	0	3.40	0.00	3.40
Patna-Balia(D/C)	340	296	563	0	9.77	0.00	9.77
B'Shafi-Balia (D/C)	138	82	337	0	4.37	0.00	4.37
Pusauli-Balia	-116	-104	103	139	0.00	2.10	-2.10
Gaya-Fatehpur (765 Kv)	-106	-88	44	131	0.00	1.52	-1.52
Pusauli-Sahupuri	112	71	156	0	3.13	0.00	3.13
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)	-68	-51	180	123	0.00	0.68	-0.68
<b>Sub Total ER</b>	<b>686</b>	<b>587</b>			<b>29.24</b>	<b>4.92</b>	<b>24.32</b>
<b>Total IR Exch</b>	<b>3519</b>	<b>2922</b>			<b>109.05</b>	<b>17.26</b>	<b>91.79</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
32.45	0.16	32.62	0.48	7.07	3.58	-2.68	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
36.67	68.69	105.37	24.32	67.47	91.79	-12.36	-1.22	-13.58

**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	0.70	9.70	42.20	56.80	19.70	13.80	0.60	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				
50.24	7.02	49.71	19.13	50.01	0.08	0.08	50.16	0.00

**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	408	23:47	401	10:02	0.0	0.0	0.0	0.0
Gorakhpur	400	426	18:02	413	12:16	0.0	0.0	20.0	0.0
Bareilly	400	422	20:51	408	18:53	0.0	0.0	3.5	0.0
Kanpur	400	418	18:02	406	18:57	0.0	0.0	0.0	0.0
Dadri	400	422	23:57	408	18:49	0.0	0.0	1.0	0.0
Ballabgarh	400	428	23:55	413	18:56	0.0	0.0	54.7	0.0
Bawana	400	428	23:57	412	18:50	0.0	0.0	36.3	0.0
Bassi	400	427	18:04	407	10:19	0.0	0.0	32.5	0.0
Hissar	400	415	21:23	401	10:19	0.0	0.0	0.0	0.0
Moga	400	417	23:57	403	10:19	0.0	0.0	0.0	0.0
Abdullapur	400	423	23:30	400	10:50	0.0	0.0	1.6	0.0
Nalagarh	400	426	23:58	405	10:20	0.0	0.0	11.6	0.0
Kishenpur	400	415	13:02	401	10:09	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	23:58	742	19:12	0.0	0.0	0.0	0.0
Balia	765	773	18:08	754	12:15	0.0	0.0	0.0	0.0
Moga	765	793	23:57	765	18:56	0.0	0.0	0.0	0.0
Agra	765	803	18:04	779	10:20	0.0	0.0	1.0	0.0
Bhiwani	765	800	13:01	781	10:28	0.0	0.0	0.0	0.0
Unnao	765	759	18:03	740	19:14	0.0	0.4	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 19.03.2014 :**

1. Wide spread rain in J&K ,Punjab,HP and UTT

**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 : 19.03.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER