

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 10.04.2014  
Date of Reporting : 11.04.2014

### I. Regional Availability/Demand:

Evening Peak (20:00 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
34815	2023	36838	50.08	30618	0	30618	50.09	749.0	28.41

\* 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	43.75	6.49		50.24	50.71	50.67	-0.04	100.91	0.15
Haryana	28.67	0.48		29.14	65.06	62.87	-2.18	92.02	0.11
Rajasthan	117.96	0.99	7.04	125.98	32.94	34.59	1.65	160.58	0.18
Delhi	12.83			12.83	47.55	43.56	-3.99	56.39	0.00
UP	120.64	3.18	14.40	138.22	114.76	111.56	-3.20	249.78	24.90
Uttarakhand		9.47		9.47	20.52	21.59	1.07	31.06	1.24
HP		11.20		11.20	12.39	13.21	0.82	24.41	0.13
J & K		12.82	0.00	12.82	22.53	18.10	-4.44	30.91	1.70
Chandigarh				0.00	3.33	2.95	-0.38	2.95	0.00
<b>Total</b>	<b>323.85</b>	<b>44.62</b>	<b>21.44</b>	<b>389.90</b>	<b>369.79</b>	<b>359.11</b>	<b>-10.68</b>	<b>749.01</b>	<b>28.41</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 (20:00 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	4642	75	5	-417	3726	0	-3	-562	-8.85
Haryana	4938	0	-37	146	3472	0	97	-260	-3.51
Rajasthan	7003	0	132	-536	6141	0	-73	-988	-12.36
Delhi	2722	0	16	-253	2153	0	-126	-566	-7.53
UP	11164	1765	41	725	11767	0	153	1992	24.62
Uttarakhand	1528	75	115	278	1158	0	34	295	7.87
HP	1093	8	-78	-274	832	0	56	-148	-4.57
J&K	1563	100	-46	-42	1273	0	-101	-185	-3.96
Chandigarh	163	0	-26	0	97	0	11	0	0.00
<b>Total</b>	<b>34815</b>	<b>2023</b>	<b>121</b>	<b>-375</b>	<b>30618</b>	<b>0</b>	<b>48</b>	<b>-422</b>	<b>-8.30</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	1735	1863	1855	41.70	1738	41.38	0.32
Rihand I STPS	1000	925	1001	882	21.24	885	21.16	0.07
Rihand II STPS	1000	945	1028	934	21.93	914	21.90	0.03
Rihand III STPS	1000	836	956	667	19.03	793	19.22	-0.19
Dadri I STPS	840	800	781	698	14.51	605	14.91	-0.40
Dadri II STPS	980	470	439	364	8.72	363	9.08	-0.36
Unchahar I TPS	420	408	383	390	8.50	354	9.18	-0.68
Unchahar II TPS	420	408	373	397	7.87	328	8.54	-0.67
Unchahar III TPS	210	204	189	198	3.88	162	4.20	-0.32
ISTPP (Jhajjhar)	1500	1000	364	318	7.66	319	8.04	-0.38
Dadri GPS	830	806	345	387	8.79	366	8.92	-0.14
Anta GPS	419	266	237	192	4.96	207	4.83	0.14
Auraiya GPS	663	648	151	157	3.33	139	3.67	-0.34
Dadri Solar	5		0	0	0.00	0		0.00
Unchahar Solar	10		0	0	0.00	0		0.00
<b>Sub Total (A)</b>	<b>11297</b>	<b>9451</b>	<b>8110</b>	<b>7439</b>	<b>172</b>	<b>7171</b>	<b>175</b>	<b>-3</b>
<b>B. NPC</b>								
NAPS	440	289	331	332	7.07	295	6.00	1.07
RAPS- B	440	409	455	458	9.88	412	9.82	0.06
RAPS- C	440	430	463	469	9.28	387	10.32	-1.04
<b>Sub Total (B)</b>	<b>1320</b>	<b>1128</b>	<b>1249</b>	<b>1259</b>	<b>26.23</b>	<b>1093</b>	<b>26.14</b>	<b>0.10</b>
<b>C. NHPC</b>								
Chamera I HPS	540	540	540	0	8.51	354	8.50	0.00
Chamera II HPS	300	300	200	0	3.27	136	3.20	0.07
Chamera III HPS	231	231	146	0	1.91	80	1.90	0.01
Bairasuil HPS	180	126	182	122	3.03	126	3.03	0.00
Salal-HPS	690	440	456	450	10.75	448	10.57	0.18
Tanakpur-HPS	94	19	16	26	0.47	20	0.46	0.01
Uri-HPS	480	465	479	461	11.26	469	11.17	0.09
Uri-II HPS	240	180	187	182	4.42	184	4.32	0.10
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	405	0	4.12	172	4.00	0.12
Sewa-II HPS	120	122	128	129	3.04	126	2.93	0.11
Parbati 3	390	161	0	0	1.22	51	1.16	0.06
<b>Sub Total (C)</b>	<b>3935</b>	<b>2972</b>	<b>2739</b>	<b>1370</b>	<b>52</b>	<b>2167</b>	<b>51</b>	<b>1</b>
<b>D. SJVNL</b>								
NJPC	1500	1605	405	271	9.82	409	9.63	0.19
Rampur HEP	206		0	0	0.00	0		0.00
<b>Sub Total (D)</b>	<b>1706</b>	<b>1605</b>	<b>405</b>	<b>271</b>	<b>9.82</b>	<b>409</b>	<b>9.63</b>	<b>0.19</b>
<b>E. THDC</b>								
Tehri HPS	1000	690	500	131	8.08	337	8.00	0.08
Koteswar HPS	400	138	393	90	3.33	139	3.30	0.03
<b>Sub Total (E)</b>	<b>1400</b>	<b>827</b>	<b>893</b>	<b>221</b>	<b>11.41</b>	<b>475</b>	<b>11.30</b>	<b>0.11</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	442	984	357	11.61	484	10.61	1.00
Dehar HPS	990	328	495	300	8.34	348	7.88	0.47
Pong HPS	396	11	184	0	0.34	14	0.27	0.07
<b>Sub Total (F)</b>	<b>2883</b>	<b>782</b>	<b>1663</b>	<b>657</b>	<b>20.29</b>	<b>845</b>	<b>18.76</b>	<b>1.53</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	94	0	0.56	23	0.55	0.01
KWHEP HPS(IPP)	1000	0	278	150	4.64	193	4.68	-0.04
Malana Stg-II HPS	100	0	0	0	0.00	0	0.30	-0.30
Shree Cement TPS	300	0	129	128	2.95	123	2.97	-0.02
Budhil HPS(IPP)	70	0	35	0	0.04	2	0.58	-0.55
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>536</b>	<b>278</b>	<b>8.19</b>	<b>341</b>	<b>9.08</b>	<b>-0.89</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24203</b>	<b>16765</b>	<b>15595</b>	<b>11495</b>	<b>300.05</b>	<b>12502</b>	<b>301.18</b>	<b>-1.13</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	660	680	16.83	701
	Guru Nanak Dev TPS(Bhatinda)	440	120	120	2.57	107
	Guru Hargobind Singh TPS(L.mbt)	920	539	627	14.20	592
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	300	282	10.15	423
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	3980	1619	1709	43.75	1823
	Total Hydro	1148	265	263	6.49	270
	<b>Total Punjab</b>	<b>5128</b>	<b>1884</b>	<b>1972</b>	<b>50.24</b>	<b>2093</b>
Haryana	Panipat TPS	1367	210	216	5.22	218
	DCRTPP (Yamuna nagar)	600	256	225	5.50	229
	Faridabad GPS (NTPC)	432	392	283	7.60	317
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	415	370	10.35	431
	Thermal (Total)	4944	1273	1094	28.67	1195
	Total Hydro	62	20	18	0.48	20
	<b>Total Haryana</b>	<b>5006</b>	<b>1293</b>	<b>1112</b>	<b>29.14</b>	<b>1214</b>
	Rajasthan	kota TPS	1240	1162	1103	26.46
suratgarh TPS		1500	1105	1011	25.47	1061
Chabra TPS		750	155	373	6.25	260
Dholpur GPS		330	109	77	2.31	96
Ramgarh GPS		221	98	97	2.26	94
RAPS A (NPC)		300	175	175	4.10	171
Barsingar (NLC)		250	195	193	4.44	185
Giral LTPS		250	0	53	0.26	11
Rajwest LTPS (IPP)		1080	954	640	19.09	795
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	397	4.87	203
Kawai(Adani)		1320	808	1066	22.46	936
Thermal (Total)		7976	4761	5185	117.96	4915
Total Hydro		550	44	21	0.99	41
Wind power		2191	103	580	5.99	250
Biomass		91	22	22	0.54	22
Solar		201	0	0	0.50	21
Renewable/Others (Total)	2483	125	602	7.04	293	
<b>Total Rajasthan</b>	<b>11009</b>	<b>4930</b>	<b>5808</b>	<b>125.98</b>	<b>5249</b>	
UP	Anpara TPS	1630	1522	1070	24.90	1038
	Obra TPS	1288	372	367	8.00	333
	Paricha TPS	1140	578	542	12.10	504
	Panki TPS	210	80	80	1.70	71
	Harduaganj TPS	665	426	384	7.90	329
	Tanda TPS (NTPC)	440	382	386	9.10	379
	Roza TPS (IPP)	1200	1134	1137	24.58	1024
	Anpara-C (IPP)	1200	983	1080	24.05	1002
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	400	401	8.31	346
	Thermal (Total)	8223	5877	5447	120.64	5027
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	152	176	3.18	133
	Cogeneration	981	600	600	14.40	600
	<b>Total UP</b>	<b>10131</b>	<b>6629</b>	<b>6223</b>	<b>138.22</b>	<b>5759</b>
	Uttarakhand	Total Hydro	1303	481	352	9.47
<b>Total Uttarakhand</b>		<b>1303</b>	<b>481</b>	<b>352</b>	<b>9.47</b>	<b>395</b>
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	77	80	1.85	77
	Pragati Gas Turbine	330	146	148	3.55	148
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	0	0	0.00	0
	Badarpur TPS (NTPC)	705	291	292	7.43	310
	Thermal (Total)	2917	514	520	12.83	535
	<b>Total Delhi</b>	<b>2917</b>	<b>514</b>	<b>520</b>	<b>12.83</b>	<b>535</b>
HP	Baspa HPS (IPP)	330	111	0	1.12	47
	Malana HPS (IPP)	86	69	0	0.51	21
	Other Hydro	589	437	420	9.58	399
	<b>Total HP</b>	<b>1005</b>	<b>617</b>	<b>420</b>	<b>11.20</b>	<b>467</b>
J & K	Baglihar HPS (IPP)	450	440	436	10.52	438
	Other Hydro	397	73	132	2.30	96
	Gas/Diesel/Others	209	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>1056</b>	<b>513</b>	<b>568</b>	<b>12.82</b>	<b>534</b>
<b>Total State Control Area Generation</b>		<b>37555</b>	<b>16861</b>	<b>16975</b>	<b>389.90</b>	<b>16246</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>3573</b>	<b>3595</b>	<b>77.31</b>	<b>3221</b>
<b>Total Regional Availability(Gross)</b>		<b>61758</b>	<b>36029</b>	<b>32065</b>	<b>767.26</b>	<b>31969</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11216	6072	2669	98.72	4113
State Control Area Hydro	5442	2092	1818	44.62	1859
<b>Total Regional Hydro</b>	<b>16658</b>	<b>8164</b>	<b>4487</b>	<b>143.34</b>	<b>5972</b>

**V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(20:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal B/B	250	500	500	500	6.02	1.37	4.65
Gwallior-Agra (D/C)	1483	1706	1827	0	35.16	0.00	35.16
Zerda-Kankroli	-135	-356	0	393	0.00	6.57	-6.57
Zerda-Bhinmal	-100	-320	0	356	0.00	5.14	-5.14
Malanpur-Auraiya	-60	-22	0	73	0.00	1.07	-1.07
Badod-Kota/Morak	20	-228	0	240	0.00	3.45	-3.45
Mundra-Mohinderghar(HVDC)	2000	1998	2006	0	48.34	0.00	48.34
<b>Sub Total WR</b>	<b>3458</b>	<b>3278</b>			<b>89.52</b>	<b>17.61</b>	<b>71.91</b>
Pusauli Bypass	400	400	400	0	9.68	0.00	9.68
MZP- GKP (D/C)	-148	10	80	170	0.00	1.67	-1.67
Patna-Balia(D/C)	221	198	309	0	4.06	0.00	4.06
B'Sharni-Balia (D/C)	-78	60	0	161	0.00	0.79	-0.79
Pusauli-Balia	-171	-110	0	171	0.00	3.04	-3.04
Gaya-Fatehpur (765 Kv)	-146	-207	0	253	0.00	3.35	-3.35
Pusauli-Sahupuri	130	190	190	0	3.68	0.00	3.68
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)	-93	-224	0	280	0.00	3.17	-3.17
<b>Sub Total ER</b>	<b>115</b>	<b>317</b>			<b>17.42</b>	<b>12.02</b>	<b>5.40</b>
<b>Total IR Exch</b>	<b>3573</b>	<b>3595</b>			<b>106.93</b>	<b>29.62</b>	<b>77.31</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
31.27	0.29	31.57	4.37	-0.71	-16.82	-1.85	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
19.11	63.20	82.32	5.40	71.91	77.31	-13.71	8.71	-5.01

**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	0.58	11.63	48.76	58.03	18.55	11.79	0.98	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				
50.31	18.05	49.75	19.11	50.00	0.07	0.08	50.28	49.92

**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	13:33	399	23:20	0.0	0.0	0.0	0.0
Gorakhpur	400	438	13:59	403	19:10	0.0	0.0	68.9	14.5
Bareilly	400	424	14:00	399	19:12	0.0	0.0	5.8	0.0
Kanpur	400	422	13:59	396	12:42	0.0	0.0	2.0	0.0
Dadri	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Ballabgarh	400	433	13:58	410	19:27	0.0	0.0	76.3	4.1
Bawana	400	429	13:59	408	19:11	0.0	0.0	51.5	0.0
Bassi	400	430	18:04	414	10:20	0.0	0.0	67.1	0.0
Hissar	400	417	03:03	397	19:11	0.0	0.0	0.0	0.0
Moga	400	421	03:04	397	19:21	0.0	0.0	0.0	0.0
Abdullapur	400	427	00:00	404	19:21	0.0	0.0	23.6	0.0
Nalagarh	400	428	02:58	404	19:20	0.0	0.0	26.4	0.0
Kishenpur	400	421	03:01	400	07:08	0.0	0.0	0.7	0.0
Wagoora	400	413	13:01	383	07:08	0.0	12.1	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	781	13:01	735	19:09	0.0	1.4	0.0	0.0
Balia	765	772	14:03	723	19:10	0.8	14.5	0.0	0.0
Moga	765	799	03:01	758	19:21	0.0	0.0	0.0	0.0
Agra	765	810	13:04	769	19:27	0.0	0.0	7.6	0.0
Bhiwani	765	810	13:59	771	19:12	0.0	0.0	20.5	0.0
Unnao	765	775	14:01	732	19:10	0.0	3.6	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 (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	481.87	503.43	478.06	414.26	480.39	342.58
Pong	426.72	384.05	402.01	266.33	400.08	223.85	86.42	22.77
Tehri	829.79	740.04	772.90	238.00	818.65	982.26	77.02	216.00
Koteshwar	612.50	598.50	610.92	4.95	612.40	5.73	196.00	208.00
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	514.74	144.00	506.85	144.00	224.78	127.17

\* NA: Not Available

**X. System Constraints:**

**XI. Grid Disturbance / Any Other Significant Event:**

**XII. Weather Conditions For 10.04.2014 :**

1. Normal Weather in NR.

**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 April, 2014 .

Report for : 10.04.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER