

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 08.04.2014  
Date of Reporting : 09.04.2014

### 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
35277	2065	37342	50.14	29549	645	30194	49.95	748.1	29.36

\* 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	37.27	6.43		43.70	48.81	49.43	0.62	93.12	0.00
Haryana	29.36	0.46		29.82	66.90	66.62	-0.28	96.44	0.36
Rajasthan	113.18	0.68	3.95	117.80	35.65	34.86	-0.79	152.66	0.00
Delhi	14.06			14.06	52.54	51.09	-1.45	65.15	0.20
UP	123.24	3.32	14.40	140.96	109.05	109.09	0.04	250.05	27.07
Uttarakhand		10.87		10.87	19.88	20.94	1.07	31.81	0.00
HP		12.05		12.05	11.37	11.27	-0.10	23.32	0.03
J & K		13.30	0.00	13.30	22.57	18.86	-3.71	32.15	1.70
Chandigarh				0.00	3.33	3.40	0.07	3.40	0.00
<b>Total</b>	<b>317.10</b>	<b>47.10</b>	<b>18.35</b>	<b>382.55</b>	<b>370.07</b>	<b>365.55</b>	<b>-4.52</b>	<b>748.10</b>	<b>29.36</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	STOA/PX transaction	
Punjab	4858	0	28	-390	3267	0	40	-160	-5.89	
Haryana	5463	135	81	338	3563	0	-22	276	0.49	
Rajasthan	7039	0	-3	-306	6251	0	47	-667	-4.02	
Delhi	3184	0	-117	-24	2155	0	-155	-572	-6.80	
UP	10301	1830	2	762	11154	645	351	921	19.31	
Uttarakhand	1601	0	122	334	1145	0	-27	305	7.63	
HP	1038	0	-86	-236	754	0	0	-94	-3.84	
J&K	1613	100	-82	-59	1169	0	-208	-176	-3.97	
Chandigarh	181	0	9	0	91	0	-8	0	0.00	
<b>Total</b>	<b>35277</b>	<b>2065</b>	<b>-47</b>	<b>418</b>	<b>29549</b>	<b>645</b>	<b>20</b>	<b>-168</b>	<b>2.92</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	1734	1835	1879	40.79	1700	41.32	-0.52
Rihand I STPS	1000	907	971	981	20.75	865	20.58	0.17
Rihand II STPS	1000	945	974	1046	22.05	919	21.80	0.25
Rihand III STPS	1000	811	875	808	18.66	778	18.72	-0.06
Dadri I STPS	840	800	695	648	14.57	607	15.16	-0.59
Dadri II STPS	980	470	384	364	8.55	356	8.97	-0.42
Unchahar I TPS	420	408	381	433	8.23	343	8.75	-0.52
Unchahar II TPS	420	408	329	435	7.32	305	7.79	-0.48
Unchahar III TPS	210	204	149	153	3.43	143	3.63	-0.20
ISTPP (Jhajjhar)	1500	1000	378	312	7.47	311	7.68	-0.21
Dadri GPS	830	807	383	376	8.79	366	8.83	-0.04
Anta GPS	419	266	186	194	3.52	146	4.58	-1.07
Auraiya GPS	663	648	149	155	3.52	146	3.56	-0.04
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>9408</b>	<b>7689</b>	<b>7784</b>	<b>168</b>	<b>6985</b>	<b>171</b>	<b>-4</b>
<b>B. NPC</b>								
NAPS	440	289	324	327	6.97	290	6.00	0.97
RAPS- B	440	410	454	455	9.87	411	9.84	0.03
RAPS- C	440	430	464	464	10.40	433	10.32	0.08
<b>Sub Total (B)</b>	<b>1320</b>	<b>1129</b>	<b>1244</b>	<b>1246</b>	<b>27.24</b>	<b>1135</b>	<b>26.16</b>	<b>1.08</b>
<b>C. NHPC</b>								
Chamera I HPS	540	540	540	0	6.40	266	6.40	0.00
Chamera II HPS	300	300	299	0	3.88	162	3.80	0.08
Chamera III HPS	231	231	222	0	2.13	89	2.15	-0.02
Bairasuil HPS	180	182	182	182	4.30	179	4.29	0.00
Salal-HPS	690	438	458	447	10.58	441	10.52	0.06
Tanakpur-HPS	94	27	32	24	0.68	28	1.02	-0.34
Uri-HPS	480	467	478	472	11.27	469	11.22	0.05
Uri-II HPS	240	180	193	190	4.43	185	4.32	0.11
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	407	0	4.12	172	4.00	0.12
Sewa-II HPS	120	122	128	130	3.04	127	2.93	0.11
Parbati 3	390	257	134	0	1.10	46	1.03	0.07
<b>Sub Total (C)</b>	<b>3935</b>	<b>3132</b>	<b>3073</b>	<b>1445</b>	<b>52</b>	<b>2163</b>	<b>52</b>	<b>0</b>
<b>D. SJVNL</b>								
NJPC	1500	1605	1009	222	11.72	488	11.52	0.20
Rampur HEP	206		0	0	0.00	0		0.00
<b>Sub Total (D)</b>	<b>1706</b>	<b>1605</b>	<b>1009</b>	<b>222</b>	<b>11.72</b>	<b>488</b>	<b>11.52</b>	<b>0.20</b>
<b>E. THDC</b>								
Tehri HPS	1000	558	562	0	7.56	315	7.50	0.06
Koteswar HPS	400	138	394	0	3.52	147	3.50	0.02
<b>Sub Total (E)</b>	<b>1400</b>	<b>696</b>	<b>956</b>	<b>0</b>	<b>11.08</b>	<b>462</b>	<b>11.00</b>	<b>0.08</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	454	668	403	11.68	487	10.90	0.78
Dehar HPS	990	420	495	480	11.67	486	10.08	1.59
Pong HPS	396	23	62	0	0.63	26	0.56	0.08
<b>Sub Total (F)</b>	<b>2883</b>	<b>897</b>	<b>1225</b>	<b>883</b>	<b>23.98</b>	<b>999</b>	<b>21.54</b>	<b>2.44</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	94	0	0.49	21	0.48	0.01
KWHEP HPS(IPP)	1000	0	686	150	6.21	259	6.24	-0.03
Malana Stg-II HPS	100	0	0	0	0.00	0	0.31	-0.31
Shree Cement TPS	300	0	127	123	3.10	129	3.08	0.01
Budhil HPS(IPP)	70	0	35	0	0.04	2	0.55	-0.51
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>942</b>	<b>273</b>	<b>9.84</b>	<b>410</b>	<b>10.66</b>	<b>-0.82</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24203</b>	<b>16867</b>	<b>16138</b>	<b>11853</b>	<b>303.41</b>	<b>12642</b>	<b>303.91</b>	<b>-0.51</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	510	12.13	505
	Guru Nanak Dev TPS(Bhatinda)	440	110	118	2.41	100
	Guru Hargobind Singh TPS(L.mbt)	920	677	482	12.40	517
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	588	283	10.33	430
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	3980	2005	1393	37.27	1553
	Total Hydro	1148	256	295	6.43	268
	<b>Total Punjab</b>	<b>5128</b>	<b>2261</b>	<b>1688</b>	<b>43.70</b>	<b>1821</b>
Haryana	Panipat TPS	1367	229	211	5.26	219
	DCRTPP (Yamuna nagar)	600	276	245	6.07	253
	Faridabad GPS (NTPC)	432	392	295	7.52	313
	RGTPP (kheadar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	555	365	10.51	438
	Thermal (Total)	4944	1452	1116	29.36	1223
	Total Hydro	62	19	20	0.46	19
	<b>Total Haryana</b>	<b>5006</b>	<b>1471</b>	<b>1136</b>	<b>29.82</b>	<b>1243</b>
Rajasthan	kota TPS	1240	949	918	21.77	907
	suratgarh TPS	1500	994	1026	24.27	1011
	Chabra TPS	750	375	371	9.51	396
	Dholpur GPS	330	119	84	2.45	102
	Ramgarh GPS	221	89	101	2.41	100
	RAPS A (NPC)	300	175	175	4.11	171
	Barsingsar (NLC)	250	188	190	4.33	181
	Giral LTPS	250	78	97	1.76	73
	Rajwest LTPS (IPP)	1080	766	676	17.33	722
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	1320	1313	1189	25.24	1052
	Thermal (Total)	7976	5046	4827	113.18	4716
	Total Hydro	550	63	16	0.68	28
	Wind power	2191	69	236	2.93	122
	Biomass	91	16	16	0.39	16
	Solar	201	0	0	0.64	27
	Renewable/Others (Total)	2483	85	252	3.95	165
<b>Total Rajasthan</b>	<b>11009</b>	<b>5194</b>	<b>5095</b>	<b>117.80</b>	<b>4908</b>	
UP	Anpara TPS	1630	988	990	23.50	979
	Obra TPS	1288	369	364	8.70	363
	Paricha TPS	1140	511	558	12.90	538
	Panki TPS	210	72	63	1.60	67
	Harduaganj TPS	665	364	387	9.10	379
	Tanda TPS (NTPC)	440	383	385	9.45	394
	Roza TPS (IPP)	1200	851	1116	24.72	1030
	Anpara-C (IPP)	1200	1083	1083	25.60	1067
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	280	401	7.67	319
	Thermal (Total)	8223	4901	5347	123.24	5135
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	69	177	3.32	138
	Cogeneration	981	600	600	14.40	600
	<b>Total UP</b>	<b>10131</b>	<b>5570</b>	<b>6124</b>	<b>140.96</b>	<b>5873</b>
	Uttarakhand	Total Hydro	1303	474	408	10.87
<b>Total Uttarakhand</b>		<b>1303</b>	<b>474</b>	<b>408</b>	<b>10.87</b>	<b>453</b>
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	78	80	1.92	80
	Pragati Gas Turbine	330	141	259	4.65	194
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	0	0	0.00	0
	Badarpur TPS (NTPC)	705	350	350	7.49	312
	Thermal (Total)	2917	569	689	14.06	586
<b>Total Delhi</b>	<b>2917</b>	<b>569</b>	<b>689</b>	<b>14.06</b>	<b>586</b>	
HP	Baspa HPS (IPP)	330	0	0	1.10	46
	Malana HPS (IPP)	86	45	0	0.32	13
	Other Hydro	589	344	482	10.64	443
	<b>Total HP</b>	<b>1005</b>	<b>389</b>	<b>482</b>	<b>12.05</b>	<b>502</b>
J & K	Baglihar HPS (IPP)	450	440	436	11.00	458
	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>13.30</b>	<b>554</b>
<b>Total State Control Area Generation</b>		<b>37555</b>	<b>16441</b>	<b>16190</b>	<b>382.55</b>	<b>15940</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>3641</b>	<b>3060</b>	<b>81.56</b>	<b>3399</b>
<b>Total Regional Availability(Gross)</b>		<b>61758</b>	<b>36220</b>	<b>31103</b>	<b>767.52</b>	<b>31980</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11216	7043	2700	105.39	4391
State Control Area Hydro	5442	1783	1966	47.10	1962
<b>Total Regional Hydro</b>	<b>16658</b>	<b>8826</b>	<b>4666</b>	<b>152.49</b>	<b>6354</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	300	300	500	0	9.20	0.00	9.20
Gwalior-Agra (D/C)	1780	1539	1923	0	38.17	0.00	38.17
Zerda-Kankroli	-150	-269	0	331	0.00	5.82	-5.82
Zerda-Bhinmal	-111	-207	0	303	0.00	4.22	-4.22
Malanpur-Auraiya	-34	-46	0	51	0.00	0.82	-0.82
Badod-Kota/Morak	-215	-183	0	215	0.00	3.76	-3.76
Mundra-Mohindergarh(HVDC)	1900	2002	2005	0	47.42	0.00	47.42
<b>Sub Total WR</b>	<b>3470</b>	<b>3136</b>			<b>94.79</b>	<b>14.61</b>	<b>80.18</b>
Pusauli Bypass	200	400	400	0	6.02	0.00	6.02
MZP- GKP (D/C)	-94	-68	88	194	0.00	0.54	-0.54
Patna-Balia(D/C)	275	58	275	0	1.08	0.00	1.08
B'Sharif-Balia (D/C)	40	-50	40	82	0.00	0.24	-0.24
Pusauli-Balia	-91	-131	0	149	0.00	2.41	-2.41
Gaya-Fatehpur (765 Kv)	-152	-214	0	224	0.00	3.17	-3.17
Pusauli-Sahupuri	153	200	207	0	4.49	0.00	4.49
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)	-132	-246	54	260	0.00	3.27	-3.27
<b>Sub Total ER</b>	<b>171</b>	<b>-76</b>			<b>11.59</b>	<b>10.20</b>	<b>1.39</b>
<b>Total IR Exch</b>	<b>3641</b>	<b>3060</b>			<b>106.38</b>	<b>24.81</b>	<b>81.56</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
29.28	0.11	29.38	5.52	-0.51	-10.16	-0.34	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
24.74	57.48	82.22	1.39	80.18	81.56	-23.35	22.70	-0.65

**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	1.70	17.00	51.51	54.54	14.60	14.02	2.35	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				
50.38	18.01	49.74	4.18	50.00	0.10	0.10	50.28	49.88

**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	407	17:34	399	05:08	0.0	0.0	0.0	0.0
Gorakhpur	400	439	13:04	415	19:36	0.0	0.0	79.4	25.3
Bareilly	400	416	23:47	412	23:19	0.0	0.0	0.0	0.0
Kanpur	400	421	17:34	406	19:19	0.0	0.0	1.7	0.0
Dadri	400	424	00:41	406	19:19	0.0	0.0	2.3	0.0
Ballabgarh	400	431	00:42	413	19:18	0.0	0.0	70.2	0.0
Bawana	400	429	00:33	409	19:11	0.0	0.0	42.1	0.0
Bassi	400	427	00:01	414	09:24	0.0	0.0	60.4	0.0
Hissar	400	419	00:32	397	19:19	0.0	0.0	0.0	0.0
Moga	400	418	00:33	397	19:13	0.0	0.0	0.0	0.0
Abdullapur	400	428	00:31	403	05:44	0.0	0.0	18.0	0.0
Nalagarh	400	429	00:33	407	19:10	0.0	0.0	30.3	0.0
Kishenpur	400	419	03:02	394	19:35	0.0	0.0	0.0	0.0
Wagoora	400	411	03:21	371	19:57	11.0	22.6	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	17:34	748	19:38	0.0	0.0	0.0	0.0
Balia	765	770	17:33	735	10:15	0.0	21.9	0.0	0.0
Moga	765	798	00:42	758	19:17	0.0	0.0	0.0	0.0
Agra	765	814	18:00	784	10:23	0.0	0.0	22.9	0.0
Bhiwani	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Unnao	765	773	17:35	737	10:15	0.0	4.3	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	481.63	495.33	477.97	414.28	357.58	350.51
Pong	426.72	384.05	401.93	266.33	400.02	216.87	42.70	81.89
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 08.04.2014 :**

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 : 08.04.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER