

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

**Power Supply Position in Northern Region for 27.04.2014**  
Date of Reporting : 28.04.2014

### 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
36216	1470	37686	0.00	34305	744	35049	0.00	804.7	38.50

\* 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	52.14	6.29		58.43	52.79	51.04	-1.76	109.47	0.00
Haryana	53.54	0.55		54.09	53.10	52.82	-0.27	106.91	0.19
Rajasthan	102.05	0.04	0.19	102.28	60.12	60.25	0.14	162.54	0.39
Delhi	16.98			16.98	62.63	59.35	-3.28	76.34	0.16
UP	130.69	5.94	7.20	143.83	117.67	117.10	-0.56	260.93	35.53
Uttarakhand		9.93		9.93	22.61	22.77	0.16	32.70	0.40
HP		12.57		12.57	10.15	10.03	-0.13	22.60	0.14
J & K		13.70	0.00	13.70	18.85	15.54	-3.31	29.24	1.70
Chandigarh				0.00	3.33	4.00	0.67	4.00	0.00
<b>Total</b>	<b>355.41</b>	<b>49.02</b>	<b>7.39</b>	<b>411.82</b>	<b>401.24</b>	<b>392.91</b>	<b>-8.33</b>	<b>804.73</b>	<b>38.50</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 (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	5102	0	15	374	5186	0	44	-18	-1.48
Haryana	5542	0	47	251	4889	0	67	242	5.42
Rajasthan	6749	0	-111	29	6346	0	-45	-40	6.59
Delhi	3532	0	-10	36	3030	0	-179	-363	-4.71
UP	11154	1295	-310	933	11583	690	74	1717	23.48
Uttarakhand	1538	75	84	449	1305	35	-5	416	10.04
HP	977	0	-28	-506	796	19	8	-263	-6.61
J&K	1417	100	-26	-232	1038	0	-194	-232	-5.47
Chandigarh	205	0	15	0	132	0	3	0	0.00
<b>Total</b>	<b>36216</b>	<b>1470</b>	<b>-325</b>	<b>1335</b>	<b>34305</b>	<b>744</b>	<b>-227</b>	<b>1460</b>	<b>27.25</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	Declared	Peak MW	Off Peak MW	Energy	Average	Schedule	UI
	(Effective) MW	Capacity(MW)	(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU
<b>A. NTPC</b>								
Singrauli STPS	2000	1923	2084	2076	45.09	1879	44.69	0.40
Rihand I STPS	1000	800	876	849	18.86	786	18.69	0.17
Rihand II STPS	1000	950	1040	989	22.38	932	22.05	0.33
Rihand III STPS	1000	899	983	928	21.08	878	20.97	0.10
Dadri I STPS	840	813	790	621	15.96	665	16.39	-0.42
Dadri II STPS	980	750	790	621	18.07	753	15.66	2.41
Unchahar I TPS	420	408	439	404	9.07	378	9.52	-0.45
Unchahar II TPS	420	204	201	201	4.27	178	4.60	-0.32
Unchahar III TPS	210	204	205	200	4.43	184	4.65	-0.23
ISTPP (Jhajihar)	1500	1000	325	487	9.16	382	9.41	-0.25
Dadri GPS	830	805	184	176	4.13	172	4.44	-0.31
Anta GPS	419	390	153	253	5.11	213	5.18	-0.07
Auraiya GPS	663	645	152	146	3.44	144	3.60	-0.15
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>9791</b>	<b>8222</b>	<b>7951</b>	<b>181</b>	<b>7544</b>	<b>180</b>	<b>1</b>
<b>B. NPC</b>								
NAPS	440	250	173	309	4.18	174	6.00	-1.82
RAPS- B	440	410	455	445	9.72	405	9.84	-0.12
RAPS- C	440	420	456	445	9.79	408	10.08	-0.29
<b>Sub Total (B)</b>	<b>1320</b>	<b>1080</b>	<b>1084</b>	<b>1199</b>	<b>23.70</b>	<b>987</b>	<b>25.92</b>	<b>-2.22</b>
<b>C. NHPC</b>								
Chamera I HPS	540	537	360	540	8.25	344	8.00	0.25
Chamera II HPS	300	300	103	302	4.71	196	4.70	0.01
Chamera III HPS	231	231	94	254	2.79	116	2.70	0.09
Bairasui HPS	180	113	122	123	2.79	116	2.72	0.07
Salal-HPS	690	460	490	566	11.66	486	11.31	0.35
Tanakpur-HPS	94	26	31	31	0.66	27	0.63	0.03
Uri-HPS	480	475	475	477	11.54	481	11.40	0.14
Uri-II HPS	240	240	249	249	5.90	246	5.76	0.14
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	0	405	2.85	119	2.80	0.05
Sewa-II HPS	120	122	130	130	3.09	129	2.93	0.16
Parbati 3	390	251	0	250	1.30	54	1.20	0.10
<b>Sub Total ©</b>	<b>3935</b>	<b>3142</b>	<b>2054</b>	<b>3327</b>	<b>56</b>	<b>2314</b>	<b>54</b>	<b>1</b>
<b>D. SJVNL</b>								
NJPC	1500	1605	399	1013	13.62	568	13.36	0.26
Rampur HEP	206		0	70	1.58	66		1.58
<b>Sub Total (D)</b>	<b>1706</b>	<b>1605</b>	<b>399</b>	<b>1083</b>	<b>15.20</b>	<b>633</b>	<b>13.36</b>	<b>1.84</b>
<b>E. THDC</b>								
Tehri HPS	1000	490	160	497	7.58	316	7.50	0.08
Koteshwar HPS	400	150	91	302	3.64	152	3.60	0.04
<b>Sub Total (E)</b>	<b>1400</b>	<b>640</b>	<b>251</b>	<b>799</b>	<b>11.22</b>	<b>468</b>	<b>11.10</b>	<b>0.12</b>
<b>F. BBMB</b>								
Bhakra HPS	1514	367	324	637	9.18	383	8.81	0.37
Dehar HPS	990	320	330	330	7.92	330	7.68	0.24
Pong HPS	396	25	0	186	0.63	26	0.60	0.03
<b>Sub Total (F)</b>	<b>2900</b>	<b>712</b>	<b>654</b>	<b>1153</b>	<b>17.73</b>	<b>739</b>	<b>17.09</b>	<b>0.64</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	59	105	1.03	43	1.01	0.02
KWHEP HPS(IPP)	1000	0	238	799	6.91	288	6.96	-0.05
Malana Stg-II HPS	100	0	0	112	0.43	18	0.46	-0.03
Shree Cement TPS	300	0	285	276	6.92	288	6.93	-0.01
Budhil HPS(IPP)	70	0	7	15	0.70	29	0.77	-0.07
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>589</b>	<b>1307</b>	<b>15.99</b>	<b>666</b>	<b>16.13</b>	<b>-0.14</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24221</b>	<b>16970</b>	<b>13253</b>	<b>16819</b>	<b>320.42</b>	<b>13351</b>	<b>317.60</b>	<b>2.82</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	1050	840	20.75	865
	Guru Nanak Dev TPS(Bhatinda)	440	95	180	3.64	152
	Guru Hargobind Singh TPS(L.mbt)	920	684	586	12.75	531
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	663	661	15.00	625
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>3980</b>	<b>2492</b>	<b>2267</b>	<b>52</b>	<b>2173</b>
	Total Hydro	1148	405	415	6.29	262
	<b>Total Punjab</b>	<b>5128</b>	<b>2897</b>	<b>2682</b>	<b>58.43</b>	<b>2435</b>
Haryana	Panipat TPS	1367	616	446	12.47	520
	DCRTPP (Yamuna nagar)	600	555	567	12.56	523
	Faridabad GPS (NTPC)	432	193	185	4.55	190
	RGTPP (khedar) (IPP)	1200	505	571	12.74	531
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	469	549	11.23	468
	Thermal (Total)	4944	2338	2318	54	2231
	Total Hydro	62	27	25	0.55	23
	<b>Total Haryana</b>	<b>5006</b>	<b>2365</b>	<b>2343</b>	<b>54.09</b>	<b>2254</b>
Rajasthan	kota TPS	1240	1156	1120	26.76	1115
	suratgarh TPS	1500	901	859	20.66	861
	Chabra TPS	750	427	388	10.40	433
	Dholpur GPS	330	132	132	3.30	137
	Ramgarh GPS	221	84	41	2.09	87
	RAPS A (NPC)	300	0	0	0.00	0
	Barsingsar (NLC)	250	0	0	0.00	0
	Giral LTPS	250	91	91	1.89	79
	Rajwest LTPS (IPP)	1080	940	888	22.06	919
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	1320	614	641	14.90	621
	Thermal (Total)	7976	4345	4160	102	4252
	Total Hydro	550	0	0	0.04	2
	Wind power	2191	46	25	0.97	40
	Biomass	91	30	30	0.72	30
	Solar	201	0	0	0.24	10
	Renewable/Others (Total)	2483	76	55	0.19	8
	<b>Total Rajasthan</b>	<b>11009</b>	<b>4421</b>	<b>4215</b>	<b>102.28</b>	<b>4262</b>
UP	Anpara TPS	1630	1412	1409	33.20	1383
	Obra TPS	1288	229	247	5.80	242
	Paricha TPS	1140	780	727	18.30	763
	Panki TPS	210	68	72	1.70	71
	Harduaganj TPS	665	326	352	8.20	342
	Tanda TPS (NTPC)	440	273	272	6.85	285
	Roza TPS (IPP)	1200	1134	1134	27.04	1127
	Anpara-C (IPP)	1200	900	888	21.23	885
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	360	361	8.38	349
	Thermal (Total)	8223	5482	5462	131	5445
	Vishnuparyag HPS (IPP)	400	109	114	2.61	109
	Other Hydro	527	152	152	3.33	139
	Cogeneration	981	300	300	7.20	300
	<b>Total UP</b>	<b>10131</b>	<b>6043</b>	<b>6028</b>	<b>143.83</b>	<b>5884</b>
	Uttarakhand	Total Hydro	1303	438	391	9.93
<b>Total Uttarakhand</b>		<b>1303</b>	<b>438</b>	<b>391</b>	<b>9.93</b>	<b>414</b>
Delhi	Rajghat TPS	135	107	55	2.28	95
	Delhi Gas Turbine	282	140	145	3.40	142
	Pragati Gas Turbine	330	79	94	2.35	98
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	0	0	0.00	0
	Badarpur TPS (NTPC)	705	430	420	8.96	373
	Thermal (Total)	2917	756	714	16.98	708
	<b>Total Delhi</b>	<b>2917</b>	<b>756</b>	<b>714</b>	<b>16.98</b>	<b>708</b>
HP	Baspa HPS (IPP)	300	0	66	1.39	58
	Malana HPS (IPP)	86	21	72	0.58	24
	Other Hydro	728	423	419	10.60	442
	<b>Total HP</b>	<b>1114</b>	<b>444</b>	<b>557</b>	<b>12.57</b>	<b>524</b>
J & K	Baglihar HPS (IPP)	450	440	440	10.50	438
	Other Hydro/IPP	436	132	128	3.20	133
	Gas/Diesel/Others	209	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>1094</b>	<b>572</b>	<b>568</b>	<b>13.70</b>	<b>571</b>
<b>Total State Control Area Generation</b>		<b>37702</b>	<b>17936</b>	<b>17498</b>	<b>411.82</b>	<b>17050</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>4666</b>	<b>5114</b>	<b>100.60</b>	<b>4192</b>
<b>Total Regional Availability(Gross)</b>		<b>61923</b>	<b>35855</b>	<b>39431</b>	<b>832.84</b>	<b>34593</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11233	3655	7378	108.04	4502
State Control Area Hydro	5589	2038	2108	49.02	1934
<b>Total Regional Hydro</b>	<b>16823</b>	<b>5693</b>	<b>9486</b>	<b>157.06</b>	<b>6435</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	200	400	400	300	5.15	0.57	4.59
Gwalior-Agra (D/C)	1868	1781	2118	0	36.62	0.00	36.62
Zerda-Kankroli	-104	-256	0	313	0.00	5.66	-5.66
Zerda-Bhinmal	-62	-196	0	247	0.00	4.02	-4.02
Malanpur-Auraiya	-72	-26	0	72	0.00	0.96	-0.96
Badod-Kota/Morak	-44	-93	0	138	0.00	2.08	-2.08
Mundra-Mohindergarh(HVDC)	1998	2002	2005	0	48.33	0.00	48.33
<b>Sub Total WR</b>	<b>3784</b>	<b>3612</b>			<b>90.10</b>	<b>13.29</b>	<b>76.82</b>
Pusauli Bypass	400	400	400	0	9.64	0.00	9.64
MZP- GKP (D/C)	152	318	322	0	3.38	0.00	3.38
Patna-Balia(D/C)	454	572	603	0	10.79	0.00	10.79
B Sharif-Balia (D/C)	107	177	220	0	1.57	0.00	1.57
Pusauli-Balia	-187	-136	0	196	0.00	3.78	-3.78
Gaya-Fatehpur (765 Kv)	-90	-11	50	166	0.00	0.88	-0.88
Pusauli-Sahupuri	138	180	207	0	3.86	0.00	3.86
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-30	-25	0	35	0.00	0.64	-0.64
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-62	27	110	163	0.00	0.15	-0.15
<b>Sub Total ER</b>	<b>882</b>	<b>1502</b>			<b>29.24</b>	<b>5.45</b>	<b>23.79</b>
<b>Total IR Exch</b>	<b>4666</b>	<b>5114</b>			<b>119.34</b>	<b>18.73</b>	<b>100.60</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
34.72	0.17	34.89	4.00	3.70	-4.80	10.51	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
34.09	65.14	99.23	23.79	76.82	100.60	-10.30	11.68	1.38

**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	4.33	16.31	39.26	73.06	44.63	8.11	8.06	1.30	0.00

Frequency (Hz)				Average Frequency	Frequency Variation	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz	Index	(Hz)	(Hz)	
50.42	18.03	49.59	1.32	49.93	0.22	0.13	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	401	04:07	397	02:46	0.0	0.0	0.0	0.0
Gorakhpur	400	405	00:00	401	00:00	0.0	0.0	0.0	0.0
Bareilly	400	411	02:45	402	04:48	0.0	0.0	0.0	0.0
Kanpur	400	409	02:49	405	00:10	0.0	0.0	0.0	0.0
Dadri	400	412	02:44	406	00:11	0.0	0.0	0.0	0.0
Ballabgarh	400	418	02:38	414	00:00	0.0	0.0	0.0	0.0
Bawana	400	416	02:54	409	00:11	0.0	0.0	0.0	0.0
Bassi	400	426	03:36	414	00:10	0.0	0.0	64.1	0.0
Hissar	400	407	02:53	400	00:08	0.0	0.0	0.0	0.0
Moga	400	409	02:44	403	00:00	0.0	0.0	0.0	0.0
Abdullapur	400	415	02:46	410	00:09	0.0	0.0	0.0	0.0
Nalagarh	400	416	02:53	410	00:00	0.0	0.0	0.0	0.0
Kishenpur	400	413	02:57	407	00:05	0.0	0.0	0.0	0.0
Wagoora	400	408	03:20	401	00:05	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	760	02:54	747	00:10	0.0	0.0	0.0	0.0
Balia	765	757	03:58	747	01:19	0.0	0.0	0.0	0.0
Moga	765	779	02:54	766	00:10	0.0	0.0	0.0	0.0
Agra	765	795	02:57	781	00:10	0.0	0.0	0.0	0.0
Bhiwani	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Unnao	765	746	02:59	736	04:53	0.0	62.5	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	483.28	544.27	479.64	454.47	326.12	269.58
Pong	426.72	384.05	402.52	281.22	74.50	42.90	400.32	223.85
Tehri	829.79	740.04	760.30	123.00	0.00	0.00	83.98	236.00
Koteshwar	612.50	598.50	611.10	5.20	599.70	5.20	236.00	242.00
Chamera-I	760.00	748.75	755.00	8.00	0.00	0.00	258.53	218.06
Rihand	268.22	252.98	0.00	0.00	257.10	16.28	0.00	0.00
RPS	352.80	343.81	0.00	0.00	0.00	0.00	0.00	0.00
Jawahar Sagar	298.70	295.78	0.00	0.00	0.00	0.00	0.00	0.00
RSD	527.91	487.91	516.75	144.00	507.28	144.00	226.99	152.32

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 27.04.2014 :**  
Normal

**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 :**  
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  
Dhauliganga expected by April, 2014 .

Report for : 27.04.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER