

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 28.04.2014  
Date of Reporting : 29.04.2014

### 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
37490	1883	39373	50.04	34113	1909	36022	0.00	828.5	47.15

\* 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	51.99	7.66		59.65	57.22	56.26	-0.96	115.91	0.00
Haryana	49.18	0.63		49.81	61.56	60.87	-0.69	110.69	0.00
Rajasthan	108.12	0.00	2.06	110.18	57.44	58.51	1.07	168.70	0.00
Delhi	16.05			16.05	68.39	68.34	-0.05	84.39	0.00
UP	133.30	6.13	7.20	146.64	112.26	114.68	2.42	261.31	44.80
Uttarakhand		10.87		10.87	22.88	23.12	0.24	33.99	0.51
HP		13.22		13.22	10.36	10.44	0.07	23.65	0.14
J & K		10.51	0.00	10.51	19.36	15.33	-4.04	25.83	1.70
Chandigarh				0.00	3.33	4.00	0.67	4.00	0.00
<b>Total</b>	<b>358.65</b>	<b>49.02</b>	<b>9.26</b>	<b>416.93</b>	<b>412.80</b>	<b>411.54</b>	<b>-1.26</b>	<b>828.47</b>	<b>47.15</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	5262	0	-111	81	5168	0	102	80	-1.83
Haryana	5883	53	90	311	4794	0	-71	214	-1.20
Rajasthan	7270	0	198	259	6522	0	-21	67	5.62
Delhi	3854	0	-17	-199	3052	0	-95	-529	-8.10
UP	10971	1645	-325	683	11431	1890	322	1484	20.72
Uttarakhand	1618	85	85	420	1264	0	12	415	10.72
HP	1016	0	-72	-501	780	19	54	-310	-6.50
J&K	1411	100	-95	-231	970	0	-216	-232	-5.52
Chandigarh	205	0	-1	0	132	0	-3	0	0.00
<b>Total</b>	<b>37490</b>	<b>1883</b>	<b>-247</b>	<b>823</b>	<b>34113</b>	<b>1909</b>	<b>84</b>	<b>1189</b>	<b>13.91</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	1472	1570	1564	35.68	1487	35.33	0.35
Rihand I STPS	1000	836	886	926	20.36	848	19.88	0.48
Rihand II STPS	1000	950	1042	1025	22.89	954	22.74	0.15
Rihand III STPS	1000	896	968	929	21.30	887	21.28	0.02
Dadri I STPS	840	813	860	798	18.72	780	19.18	-0.46
Dadri II STPS	980	756	658	727	16.68	695	17.11	-0.43
Unchahar I TPS	420	408	403	420	9.14	381	9.55	-0.41
Unchahar II TPS	420	204	188	185	4.38	182	4.62	-0.25
Unchahar III TPS	210	204	176	185	4.27	178	4.45	-0.19
ISTPP (Jhajihar)	1500	1000	423	504	10.05	419	10.31	-0.26
Dadri GPS	830	804	180	178	4.15	173	4.51	-0.36
Anta GPS	419	392	194	227	5.88	245	5.87	0.00
Auraiya GPS	663	643	154	145	3.43	143	3.55	-0.12
Dadri Solar	5		0	0	0.03	1		0.03
Unchahar Solar	10		0	0	0.00	0		0.00
<b>Sub Total (A)</b>	<b>11297</b>	<b>9378</b>	<b>7702</b>	<b>7813</b>	<b>177</b>	<b>7372</b>	<b>178</b>	<b>-1</b>
<b>B. NPC</b>								
NAPS	440	211	317	319	6.65	277	5.07	1.58
RAPS- B	440	410	447	446	9.70	404	9.84	-0.14
RAPS- C	440	420	420	420	9.20	383	10.08	-0.88
<b>Sub Total (B)</b>	<b>1320</b>	<b>1041</b>	<b>1184</b>	<b>1185</b>	<b>25.55</b>	<b>1064</b>	<b>24.99</b>	<b>0.56</b>
<b>C. NHPC</b>								
Chamera I HPS	540	537	180	540	8.04	335	7.95	0.09
Chamera II HPS	300	300	103	302	4.92	205	4.78	0.14
Chamera III HPS	231	231	80	230	3.15	131	3.08	0.07
Bairasui HPS	180	122	122	122	2.93	122	2.93	0.00
Salal-HPS	690	522	455	565	12.73	530	12.36	0.37
Tanakpur-HPS	94	26	28	23	0.66	28	0.63	0.03
Uri-HPS	480	475	474	475	11.52	480	11.40	0.12
Uri-II HPS	240	240	248	242	5.86	244	5.76	0.10
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	124	394	6.76	282	6.50	0.26
Sewa-II HPS	120	122	130	130	3.08	129	2.93	0.16
Parbati 3	390	260	0	0	0.16	7	1.50	-1.34
<b>Sub Total ©</b>	<b>3935</b>	<b>3222</b>	<b>1944</b>	<b>3023</b>	<b>60</b>	<b>2492</b>	<b>60</b>	<b>0</b>
<b>D. SJVNL</b>								
NJPC	1500	1605	363	1048	14.14	589	13.65	0.49
Rampur HEP	206		0	0	0.00	0		0.00
<b>Sub Total (D)</b>	<b>1706</b>	<b>1605</b>	<b>363</b>	<b>1048</b>	<b>14.14</b>	<b>589</b>	<b>13.65</b>	<b>0.49</b>
<b>E. THDC</b>								
Tehri HPS	1000	490	305	490	7.58	316	7.50	0.08
Koteshwar HPS	400	150	91	302	3.74	156	3.70	0.04
<b>Sub Total (E)</b>	<b>1400</b>	<b>640</b>	<b>396</b>	<b>792</b>	<b>11.32</b>	<b>472</b>	<b>11.20</b>	<b>0.12</b>
<b>F. BBMB</b>								
Bhakra HPS	1514	540	487	1065	14.98	624	12.96	2.02
Dehar HPS	990	320	330	330	7.92	330	7.68	0.24
Pong HPS	396	25	0	186	0.62	26	0.60	0.02
<b>Sub Total (F)</b>	<b>2900</b>	<b>885</b>	<b>817</b>	<b>1581</b>	<b>23.52</b>	<b>980</b>	<b>21.24</b>	<b>2.28</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	106	1.02	43	0.96	0.07
KWHEP HPS(IPP)	1000	0	250	810	6.94	289	6.96	-0.01
Malana Stg-II HPS	100	0	0	111	0.67	28	0.64	0.03
Shree Cement TPS	300	0	286	271	6.83	285	6.77	0.06
Budhil HPS(IPP)	70	0	69	70	0.68	28	0.77	-0.09
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>605</b>	<b>1368</b>	<b>16.15</b>	<b>673</b>	<b>16.09</b>	<b>0.06</b>
<b>H. Total Regional Entities (A-G)</b>	<b>24221</b>	<b>16772</b>	<b>13011</b>	<b>16810</b>	<b>327.42</b>	<b>13643</b>	<b>325.37</b>	<b>2.06</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	850	860	19	794
	Guru Nanak Dev TPS(Bhatinda)	440	180	180	4	166
	Guru Hargobind Singh TPS(L.mbt)	920	547	663	13	550
	Goindwal(GVK)		0	0	0	0
	Rajpura	700	660	653	16	656
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	<b>3980</b>	<b>2237</b>	<b>2356</b>	<b>52</b>	<b>2166</b>
	Total Hydro	1148	290	320	7.66	319
<b>Total Punjab</b>	<b>5128</b>	<b>2527</b>	<b>2676</b>	<b>59.65</b>	<b>2486</b>	
Haryana	Panipat TPS	1367	438	218	7.76	323
	DCRTPP (Yamuna nagar)	600	567	576	12.37	515
	Faridabad GPS (NTPC)	432	196	183	4.55	190
	RGTPP (khedar) (IPP)	1200	480	561	12.69	529
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	613	608	11.82	492
	Thermal (Total)	4944	2294	2146	49	2049
	Total Hydro	62	23	27	0.63	26
<b>Total Haryana</b>	<b>5006</b>	<b>2317</b>	<b>2173</b>	<b>49.81</b>	<b>2076</b>	
Rajasthan	kota TPS	1240	1163	1162	27.13	1130
	suratgarh TPS	1500	1006	1120	25.59	1066
	Chabra TPS	750	416	407	10.18	424
	Dholpur GPS	330	136	137	3.22	134
	Ramgarh GPS	221	101	87	2.37	99
	RAPS A (NPC)	300	0	0	0.00	0
	Barsingsar (NLC)	250	0	84	0.49	20
	Giral LTPS	250	91	84	1.94	81
	Rajwest LTPS (IPP)	1080	949	930	22.86	953
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	1320	617	638	14.34	597
	Thermal (Total)	7976	4479	4649	108	4505
	Total Hydro	550	0	0	0.00	0
	Wind power	2191	37	49	1.08	45
	Biomass	91	32	32	0.76	32
	Solar	201	0	0	0.22	9
Renewable/Others (Total)	2483	69	81	2.06	86	
<b>Total Rajasthan</b>	<b>11009</b>	<b>4548</b>	<b>4730</b>	<b>110.18</b>	<b>4591</b>	
UP	Anpara TPS	1630	1254	1241	29.30	1221
	Obra TPS	1288	259	390	7.40	308
	Paricha TPS	1140	765	730	18.30	763
	Panki TPS	210	72	81	1.80	75
	Harduaganj TPS	665	374	349	8.60	358
	Tanda TPS (NTPC)	440	268	372	8.32	347
	Roza TPS (IPP)	1200	1134	1130	27.05	1127
	Anpara-C (IPP)	1200	896	1079	24.17	1007
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	360	360	8.37	349
	Thermal (Total)	8223	5382	5732	133	5554
	Vishnuparyag HPS (IPP)	400	114	137	2.86	119
	Other Hydro	527	152	138	3.28	136
	Cogeneration	981	300	300	7.20	300
	<b>Total UP</b>	<b>10131</b>	<b>5948</b>	<b>6307</b>	<b>146.64</b>	<b>5991</b>
Uttarakhand	Total Hydro	1303	391	510	10.87	453
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>391</b>	<b>510</b>	<b>10.87</b>	<b>453</b>
Delhi	Rajghat TPS	135	53	52	1.12	47
	Delhi Gas Turbine	282	148	145	3.45	144
	Pragati Gas Turbine	330	93	88	2.20	92
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	0	0	0.00	0
	Badarpur TPS (NTPC)	705	420	435	9.28	386
	Thermal (Total)	2917	714	720	16.05	669
<b>Total Delhi</b>	<b>2917</b>	<b>714</b>	<b>720</b>	<b>16.05</b>	<b>669</b>	
HP	Baspa HPS (IPP)	300	83	83	1.56	65
	Malana HPS (IPP)	86	44	55	0.83	34
	Other Hydro	728	426	437	10.83	451
	<b>Total HP</b>	<b>1114</b>	<b>553</b>	<b>575</b>	<b>13.22</b>	<b>551</b>
J & K	Baglihar HPS (IPP)	450	438	429	10.51	438
	Other Hydro/IPP	436	0	0	0.00	0
	Gas/Diesel/Others	209	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>1094</b>	<b>438</b>	<b>429</b>	<b>10.51</b>	<b>438</b>
<b>Total State Control Area Generation</b>		<b>37702</b>	<b>17436</b>	<b>18120</b>	<b>416.93</b>	<b>17253</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>4953</b>	<b>4830</b>	<b>107.53</b>	<b>4481</b>
<b>Total Regional Availability(Gross)</b>		<b>61923</b>	<b>35400</b>	<b>39760</b>	<b>851.89</b>	<b>35376</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	11233	3770	7471	117.43	4893
State Control Area Hydro	5589	1847	1999	49.02	1923
<b>Total Regional Hydro</b>	<b>16823</b>	<b>5617</b>	<b>9470</b>	<b>166.45</b>	<b>6816</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	500	200	500	0	7.01	0.00	7.01
Gwalior-Agra (D/C)	2022	1667	2085	0	41.29	0.00	41.29
Zerda-Kankroli	-173	-228	0	327	0.00	5.28	-5.28
Zerda-Bhinmal	-75	-175	0	299	0.00	3.75	-3.75
Malanpur-Auraiya	-54	-26	0	54	0.00	0.61	-0.61
Badod-Kota/Morak	-32	-77	0	105	0.00	1.74	-1.74
Mundra-Mohindergarh(HVDC)	2003	1999	2005	0	48.33	0.00	48.33
<b>Sub Total WR</b>	<b>4191</b>	<b>3360</b>			<b>96.63</b>	<b>11.38</b>	<b>85.25</b>
Pusauli Bypass	400	400	400	0	9.73	0.00	9.73
MZP- GKP (D/C)	72	398	398	0	3.14	0.00	3.14
Patna-Balia(D/C)	227	560	571	0	8.09	0.00	8.09
B Sharif-Balia (D/C)	102	222	237	0	2.07	0.00	2.07
Pusauli-Balia	-90	-85	0	155	0.00	2.30	-2.30
Gaya-Fatehpur (765 Kv)	-70	-58	42	151	0.00	1.27	-1.27
Pusauli-Sahupuri	150	84	192	0	3.77	0.00	3.77
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)	-29	-51	84	136	0.00	0.95	-0.95
<b>Sub Total ER</b>	<b>762</b>	<b>1470</b>			<b>26.80</b>	<b>4.52</b>	<b>22.28</b>
<b>Total IR Exch</b>	<b>4953</b>	<b>4830</b>			<b>123.44</b>	<b>15.90</b>	<b>107.53</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
37.78	0.16	37.94	3.74	0.36	-16.13	12.58	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
25.55	79.37	104.92	22.28	85.25	107.53	-3.27	5.89	2.62

**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	1.92	10.77	35.01	70.92	50.41	6.97	7.73	1.23	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				
50.30	18.02	49.58	22.22	49.94	0.17	0.11	50.19	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	405	12:28	395	21:04	0.0	0.0	0.0	0.0
Gorakhpur	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Bareilly	400	414	18:02	398	14:52	0.0	0.0	0.0	0.0
Kanpur	400	415	12:32	400	22:13	0.0	0.0	0.0	0.0
Dadri	400	412	18:01	399	22:18	0.0	0.0	0.0	0.0
Ballabgarh	400	420	18:00	407	22:07	0.0	0.0	0.0	0.0
Bawana	400	416	13:00	402	22:09	0.0	0.0	0.0	0.0
Bassi	400	427	18:03	408	10:51	0.0	0.0	25.2	0.0
Hissar	400	410	13:00	394	19:28	0.0	0.0	0.0	0.0
Moga	400	412	13:31	396	22:17	0.0	0.0	0.0	0.0
Abdullapur	400	419	12:57	405	19:28	0.0	0.0	0.0	0.0
Nalagarh	400	415	13:00	405	19:35	0.0	0.0	0.0	0.0
Kishenpur	400	414	13:04	399	19:38	0.0	0.0	0.0	0.0
Wagoora	400	411	13:02	390	20:47	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	772	13:34	741	22:17	0.0	0.2	0.0	0.0
Balia	765	780	17:35	747	22:09	0.0	0.0	0.0	0.0
Moga	765	784	13:34	754	22:16	0.0	0.0	0.0	0.0
Agra	765	802	18:03	768	22:19	0.0	0.0	0.1	0.0
Bhiwani	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Unnao	765	756	18:01	734	22:17	0.0	26.3	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	483.15	536.06	479.75	454.47	343.65	495.63
Pong	426.72	384.05	402.54	281.22	400.34	223.85	79.40	42.53
Tehri	829.79	740.04	759.70	116.00	0.00	0.00	83.53	237.00
Koteshwar	612.50	598.50	610.00	4.95	599.67	0.30	287.00	248.00
Chamera-I	760.00	748.75	0.00	0.00	0.00	0.00	255.46	217.64
Rihand	268.22	252.98	258.47	224.00	257.00	159.40	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	516.00	0.00	507.00	0.00	7133.00	4867.00

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 28.04.2014 :**  
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 : 28.04.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER