

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 30.03.2014  
Date of Reporting : 31.03.2014

### 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
29398	1241	30639	49.98	29343	30	29373	50.09	713.9	22.76

\* 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	38.63	8.20		46.83	40.16	40.11	-0.05	86.94	0.00
Haryana	33.55	0.50		34.04	58.73	57.26	-1.47	91.30	0.04
Rajasthan	87.69	0.48	8.11	96.28	68.03	67.77	-0.26	164.05	0.00
Delhi	18.09			18.09	43.58	40.91	-2.67	59.00	0.00
UP	110.39	2.84	14.40	127.63	101.99	94.95	-7.05	222.57	21.02
Uttarakhand		8.80		8.80	20.65	21.37	0.72	30.18	0.00
HP		10.20		10.20	12.94	13.16	0.22	23.36	0.00
J & K		11.88	0.00	11.88	24.64	21.72	-2.92	33.59	1.70
Chandigarh				0.00	3.33	2.91	-0.42	2.91	0.00
<b>Total</b>	<b>288.35</b>	<b>42.89</b>	<b>22.51</b>	<b>353.74</b>	<b>374.07</b>	<b>360.16</b>	<b>-13.90</b>	<b>713.90</b>	<b>22.76</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	STOA/PX transaction	
Punjab	3793	0	-120	-102	3250	0	-3	-313	-4.59	
Haryana	4582	0	-113	-75	3508	0	86	126	-0.17	
Rajasthan	6133	0	-128	919	6556	0	79	967	23.73	
Delhi	2806	0	-76	-752	1780	0	-78	-1149	-21.48	
UP	8141	1141	-833	847	10795	30	-117	627	14.46	
Uttarakhand	1398	0	88	342	1145	0	75	323	8.14	
HP	902	0	-12	-212	814	0	13	-20	-1.25	
J&K	1502	100	-72	109	1407	0	-34	234	4.00	
Chandigarh	141	0	-41	0	88	0	-8	0	0.00	
<b>Total</b>	<b>29398</b>	<b>1241</b>	<b>-1307</b>	<b>1077</b>	<b>29343</b>	<b>30</b>	<b>12</b>	<b>796</b>	<b>22.84</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	Net MU
<b>A. NTPC</b>									
Singrauli STPS	2000	1758	1819	1903	40.89	1704	40.79	0.10	
Rihand I STPS	1000	934	715	930	18.46	769	18.15	0.31	
Rihand II STPS	1000	975	803	1039	20.13	839	19.98	0.15	
Rihand III STPS	1000	863	706	827	17.19	716	17.42	-0.23	
Dadri I STPS	840	815	625	599	14.24	593	14.13	0.11	
Dadri II STPS	980	980	723	705	17.41	726	17.09	0.33	
Unchahar I TPS	420	408	315	435	7.70	321	7.78	-0.07	
Unchahar II TPS	420	203	155	214	3.63	151	3.70	-0.07	
Unchahar III TPS	210	203	157	217	3.63	151	3.69	-0.06	
ISTPP (Jhajjhar)	1500	1500	338	336	7.53	314	7.72	-0.19	
Dadri GPS	830	817	250	388	8.08	337	8.14	-0.06	
Anta GPS	419	272	197	196	4.75	198	4.48	0.27	
Auraiya GPS	663	655	116	156	3.31	138	3.36	-0.05	
<b>Sub Total (A)</b>	<b>11282</b>	<b>10383</b>	<b>6919.36</b>	<b>7944.58</b>	<b>166.96</b>	<b>6957</b>	<b>166.42</b>	<b>0.54</b>	
<b>B. NPC</b>									
NAPS	440	287	328	330	6.97	290	6.00	0.97	
RAPS- B	440	410	452	456	9.88	412	9.84	0.04	
RAPS- C	440	430	466	471	10.12	422	10.32	-0.20	
<b>Sub Total (B)</b>	<b>1320</b>	<b>1127</b>	<b>1246</b>	<b>1257</b>	<b>26.97</b>	<b>1124</b>	<b>26.16</b>	<b>0.81</b>	
<b>C. NHPC</b>									
Chamera I HPS	540	540	540	0	7.96	332	8.00	-0.04	
Chamera II HPS	300	173	205	0	2.87	120	3.07	-0.20	
Chamera III HPS	231	231	224	0	1.62	68	1.60	0.02	
Bairasuil HPS	180	122	122	122	2.91	121	2.93	-0.02	
Salal-HPS	690	449	425	485	10.88	453	10.78	0.10	
Tanakpur-HPS	94	19	18	20	0.46	19	0.45	0.01	
Uri-HPS	480	469	475	477	11.18	466	11.21	-0.03	
Uri-II HPS	240	131	125	126	3.19	133	3.15	0.04	
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00	
Dulhasti-HPS	390	387	396	0	3.65	152	3.60	0.05	
Sewa-II HPS	120	122	127	127	3.01	125	2.93	0.08	
Parbati 3	260	129	0	0	0.00	0	0.19	-0.19	
<b>Sub Total (C)</b>	<b>3805</b>	<b>2772</b>	<b>2657</b>	<b>1357</b>	<b>48</b>	<b>1989</b>	<b>48</b>	<b>0</b>	
<b>D.NJPC</b>									
Nathpa Jhakri	1500	1605	756	153	8.33	347	8.39	-0.06	
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>756</b>	<b>153</b>	<b>8.33</b>	<b>347</b>	<b>8.39</b>	<b>-0.06</b>	
<b>E. THDC</b>									
Tehri HPS	1000	585	587	0	6.98	291	7.00	-0.02	
Koteshwar HPS	400	138	399	90	3.18	132	3.19	-0.01	
<b>Sub Total (E)</b>	<b>1400</b>	<b>723</b>	<b>986</b>	<b>90</b>	<b>10.16</b>	<b>423</b>	<b>10.19</b>	<b>-0.03</b>	
<b>F. BBMB</b>									
Bhakra HPS	1497	438	1170	335	10.80	450	10.51	0.29	
Dehar HPS	990	318	495	430	7.65	319	7.64	0.02	
Pong HPS	396	187	306	63	4.58	191	4.48	0.10	
<b>Sub Total (F)</b>	<b>2883</b>	<b>943</b>	<b>1971</b>	<b>828</b>	<b>23.03</b>	<b>960</b>	<b>22.62</b>	<b>0.41</b>	
<b>G. IPP(s)/JV(s)</b>									
ADHPL HPS(IPP)	192	0	0	0	0.30	13	0.29	0.01	
KWHEP HPS(IPP)	1000	0	256	0	4.48	187	4.44	0.03	
Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00	
Shree Cement TPS	300	0	261	225	6.22	259	5.48	0.74	
Budhil HPS(IPP)	70	0	35	0	0.03	1	0.31	-0.28	
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>552</b>	<b>225</b>	<b>11.03</b>	<b>459</b>	<b>10.53</b>	<b>0.50</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>23852</b>	<b>17552</b>	<b>15087</b>	<b>11855</b>	<b>294.20</b>	<b>12258</b>	<b>292.21</b>	<b>1.99</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	810	810	18.63	776
	Guru Nanak Dev TPS(Bhatinda)	440	90	90	1.91	80
	Guru Hargobind Singh TPS(L.mbt)	920	506	514	11.35	473
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	273	291	6.74	281
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	3980	1679	1705	38.63	1610
	Total Hydro	1148	285	405	8.20	342
	<b>Total Punjab</b>	<b>5128</b>	<b>1964</b>	<b>2110</b>	<b>46.83</b>	<b>1951</b>
Haryana	Panipat TPS	1367	210	211	5.12	213
	DCRTPP (Yamuna nagar)	600	513	500	12.01	501
	Faridabad GPS (NTPC)	432	276	279	7.10	296
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	504	368	9.32	388
	Thermal (Total)	4944	1503	1358	33.55	1398
	Total Hydro	62	22	21	0.50	21
	<b>Total Haryana</b>	<b>5006</b>	<b>1525</b>	<b>1379</b>	<b>34.04</b>	<b>1419</b>
Rajasthan	kota TPS	1240	1099	1133	26.35	1098
	suratgarh TPS	1500	839	1108	22.81	951
	Chabra TPS	750	366	359	8.74	364
	Dholpur GPS	330	0	0	0.00	0
	Ramgarh GPS	221	83	82	2.09	87
	RAPS A (NPC)	300	175	175	4.10	171
	Barsingsar (NLC)	250	152	98	2.98	124
	Giral LTPS	250	65	62	1.34	56
	Rajwest LTPS (IPP)	1080	193	130	4.47	186
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Kalisindh Thermal	600	0	0	0.00	0
	Kawai(Adani)	1320	606	615	14.81	617
	Thermal (Total)	7976	3578	3762	87.69	3654
	Total Hydro	550	22	22	0.48	20
	Wind power	2191	89	382	7.28	303
	Biomass	91	22	22	0.52	22
	Solar	201	3	0	0.31	13
Renewable/Others (Total)	2483	111	404	8.11	338	
<b>Total Rajasthan</b>	<b>11009</b>	<b>3711</b>	<b>4188</b>	<b>96.28</b>	<b>4011</b>	
UP	Anpara TPS	1630	1237	1622	30.80	1283
	Obra TPS	1288	299	330	6.70	279
	Paricha TPS	1140	685	824	15.90	663
	Panki TPS	210	90	80	1.90	79
	Harduaganj TPS	665	266	435	7.70	321
	Tanda TPS (NTPC)	440	310	397	8.80	367
	Roza TPS (IPP)	1200	774	1130	20.92	872
	Anpara-C (IPP)	1200	379	540	10.91	455
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	281	279	6.77	282
	Thermal (Total)	8223	4321	5637	110.39	4600
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	100	138	2.84	118
	Cogeneration	981	600	600	14.40	600
	<b>Total UP</b>	<b>10131</b>	<b>5021</b>	<b>6375</b>	<b>127.63</b>	<b>5318</b>
	Uttarakhand	Total Hydro	1303	338	313	8.80
<b>Total Uttarakhand</b>		<b>1303</b>	<b>338</b>	<b>313</b>	<b>8.80</b>	<b>367</b>
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	79	80	1.87	78
	Pragati Gas Turbine	330	287	265	8.59	358
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	1370	0	0	0.00	0
	Badarpur TPS (NTPC)	705	308	291	7.63	318
	Thermal (Total)	2917	674	636	18.09	754
	<b>Total Delhi</b>	<b>2917</b>	<b>674</b>	<b>636</b>	<b>18.09</b>	<b>754</b>
HP	Baspa HPS (IPP)	330	58	0	0.87	36
	Malana HPS (IPP)	86	10	0	0.37	16
	Other Hydro	589	381	350	8.95	373
	<b>Total HP</b>	<b>1005</b>	<b>449</b>	<b>350</b>	<b>10.20</b>	<b>425</b>
J & K	Baglihar HPS (IPP)	450	440	378	9.58	399
	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>510</b>	<b>11.88</b>	<b>495</b>
<b>Total State Control Area Generation</b>		<b>37555</b>	<b>14195</b>	<b>15861</b>	<b>353.74</b>	<b>14739</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>3205</b>	<b>3080</b>	<b>77.29</b>	<b>3221</b>
<b>Total Regional Availability(Gross)</b>		<b>61407</b>	<b>32487</b>	<b>30796</b>	<b>725.23</b>	<b>30218</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10880	6626	2428	94.03	3918
State Control Area Hydro	5442	1729	1759	42.89	1787
<b>Total Regional Hydro</b>	<b>16322</b>	<b>8355</b>	<b>4187</b>	<b>136.92</b>	<b>5705</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	-100	100	500	100	2.98	0.67	2.30
Gwallor-Agra (D/C)	1292	1324	1679	0	29.48	0.00	29.48
Zerda-Kankroli	-217	-375	0	393	0.00	7.39	-7.39
Zerda-Bhinmal	-135	-270	0	320	0.00	4.97	-4.97
Malanpur-Auraiya	-67	-68	0	98	0.00	1.72	-1.72
Badod-Kota/Morak	-24	-72	0	138	0.00	6.71	-6.71
Mundra-Mohinderghar(HVDC)	1999	2002	2006	0	48.36	0.00	48.36
<b>Sub Total WR</b>	<b>2748</b>	<b>2641</b>			<b>80.81</b>	<b>21.45</b>	<b>59.36</b>
Pusauli Bypass	100	300	300	0	5.14	0.00	5.14
MZP- GKP (D/C)	60	100	152	0	2.22	0.00	2.22
Patna-Balia(D/C)	198	180	340	0	6.07	0.00	6.07
B'Shafi-Balia (D/C)	118	47	171	0	3.19	0.00	3.19
Pusauli-Balia	-69	-100	0	122	0.00	1.58	-1.58
Gaya-Fatehpur (765 Kv)	-79	-113	219	153	0.00	0.36	-0.36
Pusauli-Sahupuri	175	159	192	0	3.74	0.00	3.74
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-28	-25	0	32	0.00	0.60	-0.60
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-18	-109	223	161	0.11	0.00	0.11
<b>Sub Total ER</b>	<b>457</b>	<b>439</b>			<b>20.48</b>	<b>2.54</b>	<b>17.93</b>
<b>Total IR Exch</b>	<b>3205</b>	<b>3080</b>			<b>101.29</b>	<b>23.99</b>	<b>77.29</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
24.18	0.18	24.37	2.59	8.02	4.78	-0.64	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
31.73	63.79	95.52	17.93	59.36	77.29	-13.79	-4.43	-18.23

**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	0.31	2.36	11.60	42.18	53.59	15.21	19.60	4.18	0.00

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN
Freq	Time	Freq	Time	Hz	Index			
50.39	18.04	49.62	0.05	50.02	0.11	0.10	50.38	49.87

**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	412	14:08	401	00:00	0.0	0.0	0.0	0.0
Gorakhpur	400	446	13:57	411	00:08	0.0	0.0	59.6	28.6
Bareilly	400	417	10:02	406	06:42	49.2	49.2	0.0	0.0
Kanpur	400	422	18:06	403	22:19	0.0	0.0	0.6	0.0
Dadri	400	424	15:04	412	19:11	0.0	0.0	28.6	0.0
Ballabgarh	400	433	18:04	417	19:10	0.0	0.0	93.7	2.9
Bawana	400	430	03:26	413	19:14	0.0	0.0	82.9	0.0
Bassi	400	432	03:59	408	08:40	0.0	0.0	48.8	2.4
Hissar	400	422	03:59	402	19:14	0.0	0.0	3.4	0.0
Moga	400	424	04:00	402	19:11	0.0	0.0	12.1	0.0
Abdullapur	400	426	03:28	409	19:10	0.0	0.0	42.3	0.0
Nalagarh	400	431	03:27	412	19:18	0.0	0.0	76.0	2.1
Kishenpur	400	419	13:41	397	19:11	0.0	0.0	0.0	0.0
Wagoora	400	401	10:47	364	19:26	26.7	63.9	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	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Balia	765	794	13:42	740	22:39	0.0	1.0	0.0	0.0
Moga	765	803	03:28	765	19:10	0.0	0.0	4.0	0.0
Agra	765	812	18:06	752	21:31	0.0	0.0	7.5	0.0
Bhiwani	765	812	04:00	779	19:14	0.0	0.0	50.3	0.0
Unnao	765	768	18:07	732	00:06	0.0	38.0	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	482.30	511.55	480.90	481.64	300.81	336.15
Pong	426.72	384.05	402.24	273.51	400.18	223.85	133.00	316.30
Tehri	829.79	740.04	777.50	291.30	818.65	982.26	70.58	194.00
Koteshwar	612.50	598.50	611.27	5.73	612.00	6.20	194.00	211.00
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 30.03.2014 :**  
Normal

**XIII. Synchronisation of new generating units :**  
0.00

**XIV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**  
1.400/220kv ICT-4 at ludhiyana charged at 22:20 hrs from 400kv side.  
2.400kv New Reactor bay along with 2\*50 MVAR Reactors charged at 22:04 hrs at Barailly.

**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 : 30.03.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER