

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 28.03.2014

Date of Reporting : 29.03.2014

### 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
29952	1308	31260	49.86	28934	0	28934	50.06	728.0	26.57

\* 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	39.40	7.77		47.17	38.96	37.95	-1.01	85.12	0.00
Haryana	31.39	0.59		31.98	55.79	53.98	-1.81	85.96	0.06
Rajasthan	98.05	0.73	6.02	104.79	64.39	63.17	-1.22	167.96	0.00
Delhi	16.34			16.34	46.47	45.08	-1.38	61.43	0.96
UP	114.95	2.27	14.40	131.61	106.19	103.01	-3.17	234.63	23.33
Uttarakhand		8.76		8.76	21.69	22.51	0.82	31.27	0.53
HP		10.96		10.96	14.13	13.52	-0.60	24.49	0.00
J & K		10.47	0.00	10.47	26.10	23.39	-2.71	33.86	1.70
Chandigarh				0.00	3.33	3.32	-0.02	3.32	0.00
<b>Total</b>	<b>300.13</b>	<b>41.54</b>	<b>20.42</b>	<b>362.09</b>	<b>377.04</b>	<b>365.93</b>	<b>-11.11</b>	<b>728.02</b>	<b>26.57</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	4007	0	51	-664	3170	0	-141	-314	-11.01	
Haryana	3830	0	-649	189	3221	0	55	-225	-3.12	
Rajasthan	6248	0	155	707	6737	0	67	269	19.14	
Delhi	3026	47	-118	-762	1769	0	-53	-1139	-21.14	
UP	8686	1136	-586	780	10563	0	-337	1476	21.04	
Uttarakhand	1529	25	147	357	1133	0	36	338	9.61	
HP	956	0	-79	-161	791	0	-13	-20	-0.42	
J&K	1502	100	-156	108	1460	0	37	237	4.11	
Chandigarh	169	0	-14	0	91	0	3	0	0.00	
<b>Total</b>	<b>29952</b>	<b>1308</b>	<b>-1249</b>	<b>553</b>	<b>28934</b>	<b>0</b>	<b>-347</b>	<b>622</b>	<b>18.21</b>	

\* STOA figures are at sellers boundary & PX figures are at regional boundary.

### III. Regional Entities :

UI [OG:(+ve), UG: (-ve)]

A. NTPC	Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule	UI
								Net MU	Net MU
	Singrauli STPS	2000	1427	1478	1576	33.91	1413	33.90	0.01
	Rihand I STPS	1000	945	1016	957	21.97	915	21.30	0.67
	Rihand II STPS	1000	975	920	947	21.83	910	21.31	0.52
	Rihand III STPS	1000	808	751	828	17.78	741	17.44	0.34
	Dadri I STPS	840	642	479	322	11.09	462	12.12	-1.03
	Dadri II STPS	980	980	885	727	18.76	782	19.27	-0.51
	Unchahar I TPS	420	408	322	337	7.53	314	7.48	0.05
	Unchahar II TPS	420	406	318	313	7.09	296	7.03	0.06
	Unchahar III TPS	210	203	179	155	3.68	153	3.65	0.02
	ISTPP (Jhajjhar)	1500	1500	504	375	9.86	411	8.78	1.08
	Dadri GPS	830	817	384	388	9.04	377	9.13	-0.09
	Anta GPS	419	276	222	197	4.93	206	4.74	0.19
	Auraiya GPS	663	655	149	157	3.56	148	3.59	-0.03
	<b>Sub Total (A)</b>	<b>11282</b>	<b>10041</b>	<b>7607</b>	<b>7279</b>	<b>171.02</b>	<b>7126</b>	<b>169.74</b>	<b>1.28</b>
B. NPC	NAPS	440	289	316	334	6.85	286	6.00	0.85
	RAPS- B	440	414	454	458	9.84	410	9.94	-0.10
	RAPS- C	440	430	467	474	10.09	420	10.32	-0.23
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1133</b>	<b>1237</b>	<b>1266</b>	<b>26.78</b>	<b>1116</b>	<b>26.26</b>	<b>0.52</b>
C. NHPC	Chamera I HPS	540	540	540	0	8.01	334	7.95	0.06
	Chamera II HPS	300	292	200	0	2.86	119	2.90	-0.04
	Chamera III HPS	231	231	226	0	1.45	61	1.40	0.05
	Bairasuil HPS	180	122	122	122	2.84	118	2.93	-0.09
	Salal-HPS	690	427	424	557	10.56	440	10.21	0.36
	Tanakpur-HPS	94	4	15	0	0.11	4	0.11	0.00
	Uri-HPS	480	475	465	478	11.53	480	11.40	0.13
	Uri-II HPS	240	120	113	123	2.91	121	2.88	0.03
	Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
	Dulhasti-HPS	390	387	405	0	3.80	158	3.40	0.40
	Sewa-II HPS	120	122	127	127	3.02	126	2.93	0.09
	Parbati 3	260	0	0	0	0.00	0	0.00	0.00
	<b>Sub Total (C)</b>	<b>3805</b>	<b>2720</b>	<b>2637</b>	<b>1407</b>	<b>47</b>	<b>1962</b>	<b>46</b>	<b>1</b>
D. NJPC	Nathpa Jhakri	1500	1605	799	155	8.49	354	8.28	0.22
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>799</b>	<b>155</b>	<b>8.49</b>	<b>354</b>	<b>8.28</b>	<b>0.22</b>
E. THDC	Tehri HPS	1000	594	591	0	7.55	314	7.50	0.05
	Koteshwar HPS	400	138	202	91	3.15	131	3.10	0.05
	<b>Sub Total (E)</b>	<b>1400</b>	<b>732</b>	<b>793</b>	<b>91</b>	<b>10.70</b>	<b>446</b>	<b>10.60</b>	<b>0.10</b>
F. BBMB	Bhakra HPS	1497	438	888	332	10.44	435	10.50	-0.06
	Dehar HPS	990	312	495	280	8.24	343	7.49	0.75
	Pong HPS	396	167	306	0	4.17	174	4.00	0.17
	<b>Sub Total (F)</b>	<b>2883</b>	<b>916</b>	<b>1689</b>	<b>612</b>	<b>22.85</b>	<b>952</b>	<b>21.99</b>	<b>0.86</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	2	0	0.37	15	0.35	0.01
	KWHEP HPS(IPP)	1000	0	170	0	4.31	179	4.25	0.05
	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	6.18	0.04
	Budhil HPS(IPP)	70	0	35	0	0.03	1	0.27	-0.25
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>468</b>	<b>225</b>	<b>10.92</b>	<b>455</b>	<b>11.07</b>	<b>-0.15</b>
<b>H. Total Regional Entities (A-G)</b>		<b>23852</b>	<b>17146</b>	<b>15230</b>	<b>11035</b>	<b>297.85</b>	<b>12410</b>	<b>294.03</b>	<b>3.81</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	810	18.78	783	
	Guru Nanak Dev TPS(Bhatinda)	440	90	90	1.97	82	
	Guru Hargobind Singh TPS(L.mbt)	920	541	478	11.86	494	
	Goindwal(GVK)		0	0	0.00	0	
	Rajpura	700	285	274	6.80	283	
	Talwandi Saboo	660	0	0	0.00	0	
	Thermal (Total)	3980	1766	1652	39.40	1642	
	Total Hydro	1148	393	339	7.77	324	
	<b>Total Punjab</b>	<b>5128</b>	<b>2159</b>	<b>1991</b>	<b>47.17</b>	<b>1966</b>	
Haryana	Panipat TPS	1367	212	0	3.78	157	
	DCRTPP (Yamuna nagar)	600	502	512	11.30	471	
	Faridabad GPS (NTPC)	432	284	310	7.18	299	
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	372	364	9.13	381	
	Thermal (Total)	4944	1370	1186	31.39	1308	
	Total Hydro	62	21	21	0.59	25	
	<b>Total Haryana</b>	<b>5006</b>	<b>1391</b>	<b>1207</b>	<b>31.98</b>	<b>1332</b>	
	Rajasthan	kota TPS	1240	1080	1129	26.57	1107
suratgarh TPS		1500	1024	1136	25.56	1065	
Chabra TPS		750	379	642	12.88	537	
Dholpur GPS		330	87	123	2.41	100	
Ramgarh GPS		221	123	122	3.04	127	
RAPS A (NPC)		300	175	175	4.08	170	
Barsingsar (NLC)		250	94	94	2.19	91	
Giral LTPS		250	58	53	1.28	53	
Rajwest LTPS (IPP)		1080	129	240	5.18	216	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Kalisindh Thermal		600	0	0	0.00	0	
Kawai(Adani)		1320	632	632	14.86	619	
Thermal (Total)		7976	3781	4346	98.05	4085	
Total Hydro		550	21	22	0.73	30	
Wind power		2191	206	320	4.92	205	
Biomass		91	24	24	0.58	24	
Solar		201	5	0	0.53	22	
Renewable/Others (Total)		2483	230	344	6.02	251	
<b>Total Rajasthan</b>		<b>11009</b>	<b>4032</b>	<b>4712</b>	<b>104.79</b>	<b>4366</b>	
UP		Anpara TPS	1630	1591	1615	34.50	1438
	Obra TPS	1288	258	403	7.40	308	
	Paricha TPS	1140	764	742	15.80	658	
	Panki TPS	210	90	80	1.80	75	
	Harduaganj TPS	665	414	447	9.00	375	
	Tanda TPS (NTPC)	440	307	399	8.99	374	
	Roza TPS (IPP)	1200	761	936	19.73	822	
	Anpara-C (IPP)	1200	405	534	11.41	476	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	280	279	6.32	263	
	Thermal (Total)	8223	4870	5435	114.95	4789	
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0	
	Other Hydro	527	85	108	2.27	94	
	Cogeneration	981	600	600	14.40	600	
	<b>Total UP</b>	<b>10131</b>	<b>5555</b>	<b>6143</b>	<b>131.61</b>	<b>5484</b>	
	Uttarakhand	Total Hydro	1303	419	299	8.76	365
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>419</b>	<b>299</b>	<b>8.76</b>	<b>365</b>
Delhi	Rajghat TPS	135	0	0	0.00	0	
	Delhi Gas Turbine	282	267	80	1.86	77	
	Pragati Gas Turbine	330	296	80	6.84	285	
	Rithala GPS	95	0	0	0.00	0	
	Bawana GPS	1370	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	360	345	7.65	319	
	Thermal (Total)	2917	923	505	16.34	681	
	<b>Total Delhi</b>	<b>2917</b>	<b>923</b>	<b>505</b>	<b>16.34</b>	<b>681</b>	
HP	Baspa HPS (IPP)	330	48	0	1.21	50	
	Malana HPS (IPP)	86	0	0	0.25	11	
	Other Hydro	589	426	335	9.51	396	
	<b>Total HP</b>	<b>1005</b>	<b>474</b>	<b>335</b>	<b>10.96</b>	<b>457</b>	
J & K	Baglihar HPS (IPP)	450	442	292	8.18	341	
	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>515</b>	<b>424</b>	<b>10.47</b>	<b>436</b>	
<b>Total State Control Area Generation</b>		<b>37555</b>	<b>15468</b>	<b>15616</b>	<b>362.09</b>	<b>15087</b>	
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>3864</b>	<b>4397</b>	<b>100.91</b>	<b>4204</b>	
<b>Total Regional Availability(Gross)</b>		<b>61407</b>	<b>34562</b>	<b>31048</b>	<b>760.84</b>	<b>31702</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10880	6090	2265	93.80	3908
State Control Area Hydro	5442	1928	1548	41.54	1731
<b>Total Regional Hydro</b>	<b>16322</b>	<b>8018</b>	<b>3813</b>	<b>135.34</b>	<b>5639</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	300	500	500	0	10.00	0.00	10.00
Gwalior-Agra (D/C)	1487	1625	2094	0	37.20	0.00	37.20
Zerda-Kankroli	-125	-285	0	288	0.00	4.78	-4.78
Zerda-Bhinmal	52	189	45	226	0.00	2.41	-2.41
Malanpur-Auraiya	-72	-40	0	91	0.00	1.24	-1.24
Badod-Kota/Morak	-98	-127	0	134	0.00	2.08	-2.08
Mundra-Mohindergarh(HVDC)	2002	2002	2016	0	48.35	0.00	48.35
<b>Sub Total WR</b>	<b>3546</b>	<b>3864</b>			<b>95.55</b>	<b>10.51</b>	<b>85.04</b>
Pusauli Bypass	300	300	300	0	7.25	0.00	7.25
MZP- GKP (D/C)	108	136	120	108	2.02	0.00	2.02
Patna-Balia(D/C)	63	244	494	0	5.76	0.00	5.76
B'Sharif-Balia (D/C)	7	101	397	0	2.75	0.00	2.75
Pusauli-Balia	-111	-84	16	131	0.00	1.78	-1.78
Gaya-Fatehpur (765 Kv)	-59	-157	88	182	0.00	1.62	-1.62
Pusauli-Sahupuri	160	161	197	0	3.81	0.00	3.81
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-28	-25	0	32	0.00	0.57	-0.57
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-122	-143	58	182	0.00	1.75	-1.75
<b>Sub Total ER</b>	<b>318</b>	<b>533</b>			<b>21.59</b>	<b>5.72</b>	<b>15.87</b>
<b>Total IR Exch</b>	<b>3864</b>	<b>4397</b>			<b>117.14</b>	<b>16.23</b>	<b>100.91</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
24.19	0.25	24.44	2.59	6.22	3.09	-2.04	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
30.11	67.06	97.17	15.87	85.04	100.91	-14.24	17.98	3.74

**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	2.09	9.18	34.21	73.29	54.45	22.53	26.71	0.87	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				
50.28	6.04	49.62	19.15	49.94	0.14	0.08	50.21	49.80

**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	409	17:54	400	01:58	0.0	0.0	0.0	0.0
Gorakhpur	400	437	16:04	416	23:18	0.0	0.0	82.6	26.1
Bareilly	400	422	17:04	405	11:19	0.0	0.0	1.3	0.0
Kanpur	400	417	04:01	402	11:18	0.0	0.0	0.0	0.0
Dadri	400	425	04:02	408	19:11	0.0	0.0	22.2	0.0
Ballabgarh	400	433	03:29	414	11:18	0.0	0.0	72.3	10.3
Bawana	400	431	03:29	410	19:12	0.0	0.0	58.1	0.8
Bassi	400	430	03:50	409	09:15	0.0	0.0	48.2	0.0
Hissar	400	420	23:58	400	19:11	0.0	0.0	0.0	0.0
Moga	400	423	03:43	400	19:11	0.0	0.0	8.1	0.0
Abdullapur	400	430	03:30	405	19:10	0.0	0.0	40.3	0.0
Nalagarh	400	428	03:01	407	19:11	0.0	0.0	28.8	0.0
Kishenpur	400	416	03:44	388	19:16	0.0	0.9	0.0	0.0
Wagoora	400	402	03:48	360	19:21	37.6	80.5	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	17:04	745	21:50	0.0	0.0	0.0	0.0
Balia	765	778	16:20	743	22:06	0.0	0.0	0.0	0.0
Moga	765	803	03:44	760	19:11	0.0	0.0	4.3	0.0
Agra	765	804	04:02	769	19:13	0.0	0.0	9.9	0.0
Bhiwani	765	809	23:57	713	11:18	33.2	34.4	13.1	0.0
Unnao	765	758	17:06	731	11:18	0.0	32.6	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	482.47	519.70	480.90	481.64	275.13	420.02
Pong	426.72	384.05	402.72	281.22	400.18	223.85	155.52	229.25
Tehri	829.79	740.04	788.45	425.58	818.65	982.26	48.18	195.00
Koteshwar	612.50	598.50	610.35	4.69	609.60	4.21	195.00	198.00
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 28.03.2014 :**  
Scattered rain

**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 : 28.03.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER