

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 26.03.2014  
Date of Reporting : 27.03.2014

### 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
32402	1833	34235	49.91	28344	190	28534	50.17	761.3	28.21

\* 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	56.48	7.64		64.13	38.57	38.66	0.09	102.78	0.00
Haryana	34.45	0.62		35.07	59.52	59.61	0.09	94.67	0.00
Rajasthan	100.58	0.51	6.76	107.85	62.88	62.53	-0.35	170.37	0.00
Delhi	15.60			15.60	46.00	45.87	-0.13	61.46	0.13
UP	121.76	3.53	14.40	139.69	99.72	100.93	1.21	240.62	25.69
Uttarakhand		9.18		9.18	20.76	22.66	1.90	31.84	0.69
HP		10.71		10.71	14.26	13.84	-0.42	24.55	0.00
J & K		9.33	0.00	9.33	25.79	22.40	-3.40	31.72	1.70
Chandigarh				0.00	3.33	3.32	-0.01	3.32	0.00
<b>Total</b>	<b>328.87</b>	<b>41.52</b>	<b>21.16</b>	<b>391.54</b>	<b>370.83</b>	<b>369.81</b>	<b>-1.03</b>	<b>761.35</b>	<b>28.21</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	
Punjab	4061	0	-154	-369	3046	0	-31	-188	-8.55
Haryana	4841	0	186	53	3317	0	-45	-140	-3.55
Rajasthan	6860	0	116	876	6453	0	73	784	21.99
Delhi	3138	23	168	-742	1735	0	-201	-1122	-21.05
UP	9292	1635	-247	776	10561	190	325	661	13.59
Uttarakhand	1514	75	133	365	1155	0	106	348	8.75
HP	998	0	-43	-92	798	0	57	5	1.03
J&K	1529	100	-110	126	1192	0	-223	244	4.28
Chandigarh	170	0	170	0	86	0	86	0	0.00
<b>Total</b>	<b>32402</b>	<b>1833</b>	<b>220</b>	<b>993</b>	<b>28344</b>	<b>190</b>	<b>147</b>	<b>593</b>	<b>16.49</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	1435	1537	1547	33.89	1412	34.25	-0.37
Rihand I STPS	1000	945	887	850	20.36	848	20.25	0.11
Rihand II STPS	1000	975	922	1017	22.01	917	21.76	0.25
Rihand III STPS	1000	409	426	451	9.13	380	8.78	0.35
Dadri I STPS	840	815	760	600	15.29	637	15.79	-0.49
Dadri II STPS	980	980	812	715	18.58	774	19.10	-0.52
Unchahar I TPS	420	408	421	325	8.01	334	8.13	-0.12
Unchahar II TPS	420	406	343	310	7.17	299	7.24	-0.07
Unchahar III TPS	210	203	160	154	3.52	147	3.56	-0.04
ISTPP (Jhajjhar)	1500	1500	503	368	9.69	404	7.91	1.78
Dadri GPS	830	822	377	386	8.93	372	9.09	-0.16
Anta GPS	419	271	212	196	4.79	200	4.72	0.07
Auraiya GPS	663	657	151	158	3.56	148	3.61	-0.04
<b>Sub Total (A)</b>	<b>11282</b>	<b>9826</b>	<b>7511</b>	<b>7077</b>	<b>164.94</b>	<b>6873</b>	<b>164.20</b>	<b>0.74</b>
<b>B. NPC</b>								
NAPS	440	289	320	329	6.92	288	6.00	0.92
RAPS- B	440	414	455	456	9.94	414	9.94	0.00
RAPS- C	440	430	472	474	10.20	425	10.32	-0.12
<b>Sub Total (B)</b>	<b>1320</b>	<b>1133</b>	<b>1247</b>	<b>1259</b>	<b>27.06</b>	<b>1128</b>	<b>26.26</b>	<b>0.80</b>
<b>C. NHPC</b>								
Chamera I HPS	540	540	540	0	6.51	271	6.60	-0.09
Chamera II HPS	300	288	300	0	3.51	146	3.50	0.01
Chamera III HPS	231	231	227	0	1.87	78	1.90	-0.03
Bairasuil HPS	180	122	122	122	2.85	119	2.93	-0.07
Salal-HPS	690	405	454	418	9.87	411	9.71	0.16
Tanakpur-HPS	94	0	0	0	0.00	0	0.00	0.00
Uri-HPS	480	475	475	475	11.50	479	11.40	0.10
Uri-II HPS	240	157	119	182	3.67	153	3.75	-0.08
Dhauliganga-HPS	280	0	0	0	0.00	0	0.00	0.00
Dulhasti-HPS	390	387	397	0	2.97	124	3.00	-0.04
Sewa-II HPS	120	122	127	126	3.00	125	2.93	0.08
Parbati 3	260	0	0	0	0.35	15	0.35	0.00
<b>Sub Total (C)</b>	<b>3805</b>	<b>2727</b>	<b>2761</b>	<b>1323</b>	<b>46</b>	<b>1921</b>	<b>46</b>	<b>0</b>
<b>D. NJPC</b>								
Nathpa Jhakri	1500	1605	800	154	7.59	316	7.55	0.04
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>800</b>	<b>154</b>	<b>7.59</b>	<b>316</b>	<b>7.55</b>	<b>0.04</b>
<b>E. THDC</b>								
Tehri HPS	1000	600	601	0	7.99	333	8.00	-0.01
Koteshwar HPS	400	138	303	89	3.31	138	3.30	0.01
<b>Sub Total (E)</b>	<b>1400</b>	<b>738</b>	<b>904</b>	<b>89</b>	<b>11.30</b>	<b>471</b>	<b>11.30</b>	<b>0.00</b>
<b>F. BBMB</b>								
Bhakra HPS	1497	439	903	369	11.42	476	10.54	0.88
Dehar HPS	990	312	495	300	8.26	344	7.49	0.77
Pong HPS	396	129	243	0	3.22	134	3.11	0.12
<b>Sub Total (F)</b>	<b>2883</b>	<b>881</b>	<b>1641</b>	<b>669</b>	<b>22.90</b>	<b>954</b>	<b>21.14</b>	<b>1.76</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	153	0	3.98	166	3.97	0.01
Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
Shree Cement TPS	300	0	260	225	6.16	257	6.17	-0.01
Budhil HPS(IPP)	70	0	0	0	0.02	1	0.38	-0.35
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>413</b>	<b>225</b>	<b>10.46</b>	<b>436</b>	<b>10.81</b>	<b>-0.35</b>
<b>H. Total Regional Entities (A-G)</b>	<b>23852</b>	<b>16909</b>	<b>15277</b>	<b>10796</b>	<b>290.35</b>	<b>12098</b>	<b>286.96</b>	<b>3.39</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	870	19.16	798
	Guru Nanak Dev TPS(Bhatinda)	440	90	90	19.15	798
	Guru Hargobind Singh TPS(L.mbt)	920	525	480	11.60	483
	Goindwal(GVK)		0	0	0.00	0
	Rajpura	700	276	274	6.58	274
	Talwandi Saboo	660	0	0	0.00	0
	Thermal (Total)	3980	1701	1714	56.48	2353
	Total Hydro	1148	346	337	7.64	318
	<b>Total Punjab</b>	<b>5128</b>	<b>2047</b>	<b>2051</b>	<b>64.13</b>	<b>2672</b>
Haryana	Panipat TPS	1367	207	210	5.05	210
	DCRTPP (Yamuna nagar)	600	503	505	11.94	498
	Faridabad GPS (NTPC)	432	360	279	7.71	321
	RGTPP (khedar) (IPP)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	469	371	9.74	406
	Thermal (Total)	4944	1539	1365	34.45	1435
	Total Hydro	62	25	25	0.62	26
	<b>Total Haryana</b>	<b>5006</b>	<b>1564</b>	<b>1390</b>	<b>35.07</b>	<b>1461</b>
	Rajasthan	kota TPS	1240	891	727	20.63
suratgarh TPS		1500	1022	1014	24.56	1023
Chabra TPS		750	555	572	14.12	589
Dholpur GPS		330	114	119	2.89	120
Ramgarh GPS		221	78	104	2.33	97
RAPS A (NPC)		300	175	175	4.09	170
Barsingsar (NLC)		250	93	92	2.05	85
Giral LTPS		250	50	15	0.81	34
Rajwest LTPS (IPP)		1080	131	97	2.65	111
VSLP LTPS (IPP)		135	0	0	0.00	0
Kalisindh Thermal		600	0	0	0.00	0
Kawai(Adani)		1320	1189	953	26.44	1102
Thermal (Total)		7976	4298	3868	100.58	4191
Total Hydro		550	0	22	0.51	21
Wind power		2191	131	373	5.93	247
Biomass		91	21	21	0.51	21
Solar		201	3	0	0.32	13
Renewable/Others (Total)		2483	152	394	6.76	281
<b>Total Rajasthan</b>	<b>11009</b>	<b>4450</b>	<b>4284</b>	<b>107.85</b>	<b>4494</b>	
UP	Anpara TPS	1630	1606	1582	33.80	1408
	Obra TPS	1288	344	414	8.00	333
	Paricha TPS	1140	637	792	16.50	688
	Panki TPS	210	65	70	1.50	63
	Harduaganj TPS	665	199	220	4.80	200
	Tanda TPS (NTPC)	440	323	397	9.51	396
	Roza TPS (IPP)	1200	756	1125	22.62	942
	Anpara-C (IPP)	1200	791	776	18.91	788
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	200	322	6.12	255
	Thermal (Total)	8223	4921	5698	121.76	5073
	Vishnuparyag HPS (IPP)	400	0	0	0.00	0
	Other Hydro	527	150	163	3.53	147
	Cogeneration	981	600	600	14.40	600
	<b>Total UP</b>	<b>10131</b>	<b>5671</b>	<b>6461</b>	<b>139.69</b>	<b>5820</b>
	Uttarakhand	Total Hydro	1303	432	298	9.18
<b>Total Uttarakhand</b>		<b>1303</b>	<b>432</b>	<b>298</b>	<b>9.18</b>	<b>382</b>
Delhi	Rajghat TPS	135	0	0	0.00	0
	Delhi Gas Turbine	282	77	75	1.82	76
	Pragati Gas Turbine	330	292	286	6.68	278
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	0	0	0.00	0
	Badarpur TPS (NTPC)	705	300	350	7.10	296
	Thermal (Total)	2232	669	711	15.60	650
	<b>Total Delhi</b>	<b>2232</b>	<b>669</b>	<b>711</b>	<b>15.60</b>	<b>650</b>
HP	Baspa HPS (IPP)	330	30	40	1.19	50
	Malana HPS (IPP)	86	2	0	0.40	16
	Other Hydro	589	350	315	9.12	380
	<b>Total HP</b>	<b>1005</b>	<b>382</b>	<b>355</b>	<b>10.71</b>	<b>446</b>
J & K	Baglihar HPS (IPP)	450	296	292	7.03	293
	Other Hydro	323	73	132	2.30	96
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>369</b>	<b>424</b>	<b>9.33</b>	<b>389</b>
<b>Total State Control Area Generation</b>		<b>36770</b>	<b>15584</b>	<b>15974</b>	<b>391.54</b>	<b>16314</b>
<b>J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))</b>			<b>4445</b>	<b>3040</b>	<b>96.46</b>	<b>4019</b>
<b>Total Regional Availability(Gross)</b>		<b>60623</b>	<b>35306</b>	<b>29810</b>	<b>778.34</b>	<b>32431</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10880	6259	2235	92.16	3840
State Control Area Hydro	5368	1704	1624	41.52	1730
<b>Total Regional Hydro</b>	<b>16248</b>	<b>7963</b>	<b>3859</b>	<b>133.68</b>	<b>5570</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	500	100	500	0	9.78	0.00	9.78
Gwalior-Agra (D/C)	1345	1158	1846	0	30.44	0.00	30.44
Zerda-Kankroli	-152	-343	0	376	0.00	5.07	-5.07
Zerda-Bhinmal	-55	-237	34	305	0.00	2.23	-2.23
Malanpur-Auraiya	-76	-71	-97	78	0.00	1.68	-1.68
Badod-Kota/Morak	-51	-107	0	143	0.00	1.53	-1.53
Mundra-Mohinderghar(HVDC)	2002	2002	2005	0	48.33	0.00	48.33
<b>Sub Total WR</b>	<b>3513</b>	<b>2502</b>			<b>88.56</b>	<b>10.50</b>	<b>78.05</b>
Pusauli Bypass	300	300	300	0	7.21	0.00	7.21
MZP- GKP (D/C)	76	110	208	0	2.61	0.00	2.61
Patna-Balia(D/C)	377	243	451	0	7.39	0.00	7.39
B'Sharni-Balia (D/C)	70	71	216	0	1.95	0.00	1.95
Pusauli-Balia	-23	-101	0	144	0.00	2.38	-2.38
Gaya-Fatehpur (765 Kv)	-18	-116	16	135	0.00	1.21	-1.21
Pusauli-Sahupuri	118	141	155	0	3.23	0.00	3.23
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)	60	-85	102	114	0.16	0.00	0.16
<b>Sub Total ER</b>	<b>932</b>	<b>538</b>			<b>22.55</b>	<b>4.15</b>	<b>18.41</b>
<b>Total IR Exch</b>	<b>4445</b>	<b>3040</b>			<b>111.11</b>	<b>14.65</b>	<b>96.46</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
25.99	0.17	26.15	2.67	5.33	1.47	-1.41	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
30.29	67.09	97.38	18.41	78.05	96.46	-11.88	10.96	-0.92

**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	0.12	2.49	11.23	41.11	52.59	15.75	20.95	3.29	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	Index			
50.31	5.06	49.68	18.48	50.02	0.11	0.10	50.32	49.86

**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	04:06	398	21:54	0.0	0.0	0.0	0.0
Gorakhpur	400	424	17:23	408	14:14	0.0	0.0	5.4	0.0
Bareilly	400	421	04:06	403	19:08	0.0	0.0	0.5	0.0
Kanpur	400	416	04:15	400	19:20	0.0	0.0	0.0	0.0
Dadri	400	424	02:45	406	19:20	0.0	0.0	20.1	0.0
Ballabgarh	400	431	02:42	412	19:06	0.0	0.0	53.1	1.8
Bawana	400	430	04:12	409	19:08	0.0	0.0	41.0	0.0
Bassi	400	428	03:37	404	06:16	0.0	0.0	24.7	0.0
Hissar	400	421	02:44	400	19:05	0.0	0.0	0.4	0.0
Moga	400	423	04:12	401	18:59	0.0	0.0	8.9	0.0
Abdullapur	400	427	00:02	408	06:13	0.0	0.0	61.5	0.0
Nalagarh	400	427	02:43	407	19:04	0.0	0.0	28.0	0.0
Kishenpur	400	421	04:18	391	19:08	0.0	0.0	0.4	0.0
Wagoora	400	412	04:15	362	19:08	18.0	29.8	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	768	13:09	433	06:16	15.9	27.3	0.0	0.0
Balia	765	770	17:32	745	15:53	0.0	0.0	0.0	0.0
Moga	765	803	04:16	761	19:07	0.0	0.0	2.1	0.0
Agra	765	804	02:44	768	19:23	0.0	0.0	0.5	0.0
Bhiwani	765	811	02:44	772	19:22	0.0	0.0	27.5	0.0
Unnao	765	754	04:05	729	19:21	0.0	54.1	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 (m³/s)	Usage (m³/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 26.03.2014 :**

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

**XIV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / substation :**  
400kv Bassi-Kalisind charged first time at 18.05 hrs. on 26.03.2014

**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 Mar, 2014 .

Report for : 26.03.2014

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER