

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 23.02.2017

Date of Reporting : 24.02.2017



### 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
42045	523	42569	49.95	32080	422	32501	50.02	886.87	11.27

\* 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	49.13	9.19	0.28	58.60	57.17	56.17	-1.00	114.77	0.00
Haryana	27.39	0.26	0.00	27.65	97.59	97.97	0.38	125.62	0.00
Rajasthan	123.34	4.61	11.75	139.70	71.49	73.20	1.71	212.90	0.00
Delhi	11.77		0.00	11.77	49.19	48.13	-1.06	59.90	0.00
UP	166.50	4.50	0.00	171.00	99.53	98.83	-0.69	269.83	0.00
Uttarakhand		9.18	0.00	13.93	19.55	19.27	-0.27	33.21	0.00
HP		6.05	3.09	6.05	18.05	18.69	0.64	24.74	0.61
J & K		10.00	0.00	10.00	33.77	32.63	-1.14	42.64	10.66
Chandigarh				0.00	3.40	3.27	-0.13	3.27	0.00
<b>Total</b>	<b>378.12</b>	<b>43.78</b>	<b>15.12</b>	<b>438.69</b>	<b>449.74</b>	<b>448.18</b>	<b>-1.56</b>	<b>886.87</b>	<b>11.27</b>

\* Shortage furnished by the respective constituent's 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				Maximum Demand Met (MW) and Time(Hrs)	Shortage (MW)	
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction			
Punjab	6295	0	-101	-198	3516	0	-63	-302	6295	19:00	0
Haryana	6167	0	-164	31	3672	0	10	-322	6378	7:00	0
Rajasthan	8698	0	2	332	8670	0	147	396	10031	8:00	0
Delhi	2887	0	-189	-274	1485	0	-77	-876	3335	11:00	0
UP	13070	40	102	-117	11071	0	-99	107	13070	19:00	40
Uttarakhand	1719	0	81	166	1133	0	-31	64	1848	7:00	0
HP	1102	0	-110	95	763	0	-8	399	1427	8:00	0
J&K	1934	483	-130	202	1687	422	-22	270	1962	20:00	490
Chandigarh	174	0	-15	-30	83	0	-5	-20	189	8:00	0
<b>Total</b>	<b>42045</b>	<b>523</b>	<b>-524</b>	<b>207</b>	<b>32080</b>	<b>422</b>	<b>-148</b>	<b>-284</b>	<b>43098</b>	<b>20:00</b>	<b>490</b>

\* STOA figures are at sellers boundary & PX figures are at regional boundary. # figures may not be at simultaneous hour.

Diversity is 1.03

### III. Regional Entities :

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

Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW	Off Peak MW	Energy	Average	Schedule	UI
			(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU
<b>A. NTPC</b>								
Singrauli STPS (5*200+2*500)	2000	1690	1829	1809	40.49	1687	40.41	0.08
Rihand I STPS (2*500)	1000	484	430	451	10.14	423	10.21	-0.06
Rihand II STPS (2*500)	1000	960	881	960	20.71	863	20.39	0.31
Rihand III STPS (2*500)	1000	980	885	930	20.80	867	20.81	-0.01
Dadri I STPS (4*210)	840	815	367	314	7.22	301	7.47	-0.25
Dadri II STPS (2*490)	980	980	389	355	9.04	377	9.62	-0.58
Unchahar I TPS (2*210)	420	407	387	298	7.64	318	8.26	-0.62
Unchahar II TPS (2*210)	420	405	324	298	7.33	305	7.78	-0.45
Unchahar III TPS (1*210)	210	203	153	148	3.45	144	3.66	-0.22
ISTPP (Jhajjar) (3*500)	1500	1440	784	611	16.72	697	17.06	-0.34
Dadri GPS (4*130.19+2*154.51)	830	615	0	0	0.00	0	0.01	-0.01
Anta GPS (3*88.71+1*153.2)	419	411	263	204	5.24	218	5.23	0.01
Auraiya GPS (4*111.19+2*109.30)	663	644	154	159	3.40	142	3.46	-0.06
Dadri Solar(5)	5	1	0	0	0.03	1	0.02	0.00
Unchahar Solar(10)	10	2	0	0	0.06	2	0.05	0.01
Singrauli Solar(15)	15	3	0	0	0.07	3	0.06	0.01
KHEP(4*200)	800	872	862	0	2.58	107	2.62	-0.04
<b>Sub Total (A)</b>	<b>12112</b>	<b>10911</b>	<b>7708</b>	<b>6537</b>	<b>155</b>	<b>6454</b>	<b>157</b>	<b>-2.22</b>
<b>B. NPC</b>								
NAPS (2*220)	440	408	457	463	10.06	419	9.79	0.26
RAPS- B (2*220)	440	381	424	427	9.17	382	9.14	0.03
RAPS- C (2*220)	440	397	445	448	9.60	400	9.53	0.08
<b>Sub Total (B)</b>	<b>1320</b>	<b>1186</b>	<b>1326</b>	<b>1338</b>	<b>28.83</b>	<b>1201</b>	<b>28.46</b>	<b>0.36</b>
<b>C. NHPC</b>								
Chamera I HPS (3*180)	540	548	559	0	5.30	221	5.00	0.30
Chamera II HPS (3*100)	300	301	308	0	1.49	62	1.40	0.09
Chamera III HPS (3*77)	231	0	0	0	0.00	0	0.00	0.00
Bairasuli HPS(3*60)	180	179	184	63	2.04	85	1.99	0.05
Salal-HPS (6*115)	690	272	445	305	7.39	308	6.54	0.85
Tanakpur-HPS (3*31.4)	94	18	16	18	0.51	21	0.44	0.08
Uri-I HPS (4*120)	480	475	475	472	11.40	475	11.40	0.00
Uri-II HPS (4*60)	240	240	243	242	5.76	240	5.76	0.00
Dhauliganga-HPS (4*70)	280	140	139	0	0.80	33	0.79	0.01
Dulhasti-HPS (3*130)	390	387	403	0	2.66	111	2.50	0.16
Sewa-II HPS (3*40)	120	124	128	129	3.03	126	2.98	0.05
Parbati 3 (4*130)	520	130	134	0	0.40	17	0.39	0.01
<b>Sub Total (C)</b>	<b>4065</b>	<b>2814</b>	<b>3033</b>	<b>1228</b>	<b>41</b>	<b>1700</b>	<b>39</b>	<b>1.61</b>
<b>D.SJVNL</b>								
NJPC (6*250)	1500	1605	1593	0	6.69	279	6.80	-0.11
Rampur HEP (6*68.67)	412	442	447	0	1.90	79	1.89	0.01
<b>Sub Total (D)</b>	<b>1912</b>	<b>2047</b>	<b>2040</b>	<b>0</b>	<b>8.59</b>	<b>358</b>	<b>8.69</b>	<b>-0.11</b>
<b>E. THDC</b>								
Tehri HPS (4*250)	1000	840	836	0	9.66	402	9.70	-0.04
Koteshwar HPS (4*100)	400	163	390	98	3.92	164	3.90	0.02
<b>Sub Total (E)</b>	<b>1400</b>	<b>1003</b>	<b>1226</b>	<b>98</b>	<b>13.58</b>	<b>566</b>	<b>13.60</b>	<b>-0.02</b>
<b>F. BBMB</b>								
Bhakra HPS (2*108+3*126+5*157)	1379	534	988	388	13.36	557	12.82	0.53
Dehar HPS (6*165)	990	151	495	0	3.61	150	3.63	-0.02
Pong HPS (6*66)	396	211	305	0	5.07	211	5.06	0.02
<b>Sub Total (F)</b>	<b>2765</b>	<b>896</b>	<b>1788</b>	<b>388</b>	<b>22.04</b>	<b>918</b>	<b>21.51</b>	<b>0.53</b>
<b>G. IPP(s)/JV(s)</b>								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.37	15	0.36	0.01
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	616	0	3.50	146	3.53	-0.03
Malana Stg-II HPS (2*50)	100	0	0	0	0.19	8	0.18	0.01
Shree Cement TPS (2*150)	300	0	249	172	5.82	243	5.80	0.02
Budhil HPS(IPP) (2*35)	70	0	0	0	0.00	0	0.00	0.00
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>865</b>	<b>172</b>	<b>9.88</b>	<b>411</b>	<b>9.86</b>	<b>0.01</b>
<b>H. Total Regional Entities (A-G)</b>	<b>25237</b>	<b>18857</b>	<b>17987</b>	<b>9761</b>	<b>278.60</b>	<b>11608</b>	<b>278.42</b>	<b>0.18</b>

I. State Entities	Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sentout MU)
Punjab	Guru Gobind Singh TPS (Ropar) (6*210)	1260	0	0	-0.11	-5
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	0	0	-0.02	-1
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	0	0	-0.08	-3
	Goidwal(GVK) (2*270)	540	0	0	-0.02	-1

	Rajpura (2*700)	1400	1320	720	26.17	1090
	Talwandi Saboo (3*660)	1980	1228	616	23.18	966
	<b>Thermal (Total)</b>	<b>6560</b>	<b>2548</b>	<b>1336</b>	<b>49.13</b>	<b>2047</b>
	Total Hydro	1000	463	231	9.19	383
	Wind Power	0	0	0	0.00	0
	Biomass	288	9	9	0.20	9
	Solar	560	0	0	0.08	3
	<b>Renewable(Total)</b>	<b>848</b>	<b>9</b>	<b>9</b>	<b>0.28</b>	<b>12</b>
	<b>Total Punjab</b>	<b>8408</b>	<b>3019</b>	<b>1576</b>	<b>58.60</b>	<b>2442</b>
Haryana	Panipat TPS (2*210+2*250)	920	466	412	10.84	452
	DCRTPP (Yamuna nagar) (2*300)	600	560	462	12.70	529
	Faridabad GPS (NTPC)(2*137.75+1*156)	432	158	166	3.85	161
	RGTPP (khedar) (IPP) (2*600)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	0	0	0.00	0
	<b>Thermal (Total)</b>	<b>4497</b>	<b>1184</b>	<b>1040</b>	<b>27.39</b>	<b>1141</b>
	Total Hydro	62	12	7	0.26	11
	Wind Power	0	0	0	0.00	0
	Biomass	40	0	0	0.00	0
	Solar	0	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>
	<b>Total Haryana</b>	<b>4599</b>	<b>1196</b>	<b>1047</b>	<b>27.65</b>	<b>1152</b>
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	877	868	21.50	896
	suratgarh TPS (6*250)	1500	184	182	4.55	189
	Chabra TPS (4*250)	1000	790	870	19.78	824
	Dholpur GPS (3*110)	330	0	0	0.00	0
	Ramgarh GPS(1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50)	271	160	168	3.93	164
	RAPS A (NPC) (1*100+1*200)	300	190	190	4.37	182
	Barsingar (NLC) (2*125)	250	210	209	4.90	204
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	582	701	14.80	617
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(2*600)	1200	904	908	21.88	912
	Kawai(Adani) (2*660)	1320	1198	1196	27.64	1152
	<b>Thermal (Total)</b>	<b>8876</b>	<b>5095</b>	<b>5292</b>	<b>123.34</b>	<b>5139</b>
	Total Hydro	550	174	184	4.61	192
	Wind power	4017	179	349	10.41	434
	Biomass	99	20	20	0.49	20
	Solar	1295	16	0	0.85	36
	Renewable/Others (Total)	5411	215	369	11.75	490
	<b>Total Rajasthan</b>	<b>14837</b>	<b>5484</b>	<b>5845</b>	<b>139.70</b>	<b>5821</b>
UP	Anpara TPS (3*210+2*500)	1630	1347	1431	33.00	1375
	Obra TPS (2*50+2*94+5*200)	1194	497	504	11.50	479
	Paricha TPS (2*110+2*220+2*250)	1160	0	0	0.00	0
	Panki TPS (2*105)	210	0	0	0.00	0
	Harduaqanj TPS (1*60+1*105+2*250)	665	187	160	4.20	175
	Tanda TPS (NTPC) (4*110)	440	375	276	8.10	337
	Roza TPS (IPP) (4*300)	1200	815	752	20.30	846
	Anpara-C (IPP) (2*600)	1200	531	486	12.20	508
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0
	Anpara-D(2*500)	1000	859	869	17.30	721
	Lalitpur TPS(3*660)	1980	1329	1064	28.50	1188
	Bara(2*660)	1320	537	380	11.00	458
	<b>Thermal (Total)</b>	<b>12449</b>	<b>6477</b>	<b>5922</b>	<b>146.10</b>	<b>6087</b>
	Vishnuparyag HPS (IPP)(4*110)	440	63	58	1.40	58
	Alakanada(4*82.5)	330	75	0	0.90	38
	Other Hydro	527	139	24	2.20	92
	Cogeneration	981	850	850	20.40	850
	Wind Power	0	0	0	0.00	0
	Biomass	26	0	0	0.00	0
	Solar	102	0	0	0.00	0
<b>Renewable(Total)</b>	<b>128</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	
<b>Total UP</b>	<b>14855</b>	<b>7604</b>	<b>6854</b>	<b>171.00</b>	<b>7125</b>	
Uttarakhand	Other Hydro	1250	563	286	9.18	382
	Total Gas	225	93	263	4.68	195
	Wind Power	0	0	0	0.00	0
	Biomass	127	0	0	0.00	0
	Solar	20	0	0	0.07	3
	Small Hydro (< 25 MW)	180	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>327</b>	<b>0</b>	<b>0</b>	<b>0.07</b>	<b>3</b>
<b>Total Uttarakhand</b>	<b>1802</b>	<b>656</b>	<b>549</b>	<b>13.93</b>	<b>581</b>	
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	73	73	1.93	80
	Pragati Gas Turbine (2x104+ 1x122)	330	157	160	3.83	159
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	249	280	6.01	251
	Badarpur TPS (NTPC) (3*95+2*210)	705	0	0	0.00	0
	<b>Thermal (Total)</b>	<b>2917</b>	<b>479</b>	<b>513</b>	<b>11.77</b>	<b>490</b>
	Wind Power	0	0	0	0.00	0
	Biomass	16	0	0	0.00	0
	Solar	2	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>
<b>Total Delhi</b>	<b>2935</b>	<b>479</b>	<b>513</b>	<b>11.77</b>	<b>490</b>	
HP	Baspa HPS (IPP) (3*100)	300	0	0	0.88	37
	Malana HPS (IPP) (2*43)	86	0	0	0.19	8
	Other Hydro	372	87	16	1.89	79
	Wind Power	0	0	0	0.00	0
	Biomass	0	0	0	0.00	0
	Solar	0	0	0	0.00	0
	Small Hydro (< 25 MW)	486	136	123	3.09	129
	<b>Renewable(Total)</b>	<b>486</b>	<b>136</b>	<b>123</b>	<b>3.09</b>	<b>129</b>
	<b>Total HP</b>	<b>1244</b>	<b>223</b>	<b>139</b>	<b>6.05</b>	<b>252</b>
J & K	Baqilhar HPS (IPP) (3*150+3*150)	900	296	295	7.10	296
	Other Hydro/IPP(including 98 MW Small Hydro)	308	131	109	2.91	121
	Gas/Diesel/Others	190	0	0	0.00	0
	Wind Power	0	0	0	0.00	0
	Biomass	0	0	0	0.00	0
	Solar	0	0	0	0.00	0
	Small Hydro (< 25 MW)Included in Other Hydro Above	98	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>98</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>
<b>Total J &amp; K</b>	<b>1398</b>	<b>427</b>	<b>404</b>	<b>10</b>	<b>417</b>	

Total State Control Area Generation	50078	19088	16927	438.69	18279
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		6841	7313	195.39	8141
Total Regional Availability(Gross)	75315	43916	34001	912.68	38028

**IV. Total Hydro Generation:**

Regional Entities Hydro	12234	9565	1714	91.63	3818
State Control Area Hydro	7163	2232	1596	43.78	2023
Total Regional Hydro	19397	11797	3310	135.42	5841

**V. Total Renewable Generation:**

Regional Entities Renewable	30	0	0	0.15	6
State Control Area Renewable	7356	360	500	15.19	633
Total Regional Renewable	7386	360	500	15.34	639

**VI(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(19:00 Hrs) MW	Off Peak(03:00 Hrs) MW	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
			Import	Export	Import	Export	
Vindhychal(HVDC B/B)	-500	-200	0	500	0.00	9.31	-9.31
765 KV Gwalior-Agra (D/C)	2015	2333	2761	0	57.24	0.00	57.24
400 KV Zerda-Kankroli	-83	-185	0	235	0.00	2.79	-2.79
400 KV Zerda-Bhimnal	78	-83	134	152	0.00	0.26	-0.26
220 KV Auraiya-Malanpur	-124	-103	0	134	0.00	2.47	-2.47
220 KV Badod-Kota/Morak	-50	-78	33	94	0.00	1.08	-1.08
Mundra-Mohinderghar(HVDC Bipole)	2503	2203	2505	0.00	58.20	0.00	58.20
400 KV RAPP-Subalpur	291	141	312	0	4.88	0.00	4.88
400 KV Vindhychal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	1047	1027	1487	0	29.39	0.00	29.39
+/- 800 kV HVDC Champa-Kurushetra	0	148	150	0	1.47	0.00	1.47
<b>Sub Total WR</b>	<b>5177</b>	<b>5055</b>			<b>149.70</b>	<b>15.90</b>	<b>133.81</b>
400 kV Sasaram - Varanasi	279	187	288	0	5.70	0.00	5.70
400 kV Sasaram - Allahabad	107	55	143	0	2.37	0.00	2.37
400 KV MZP- GKP (D/C)	-6	374	476	118	4.65	0.00	4.65
400 KV Patna-Balia(D/C) X 2	530	657	861	0	14.13	0.00	14.13
400 KV B'Sharif-Balia (D/C)	59	123	205	0	1.39	0.00	1.39
765 KV Gaya-Balia	164	196	301	0	5.35	0.00	5.35
765 KV Gaya-Varanasi (D/C)	561	501	788	0	14.66	0.00	14.66
220 KV Pusauli-Sahupuri	99	182	213	0	3.98	0.00	3.98
132 KV K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
132 KV Son Ngr-Rihand	-20	-24	0	33	0.00	0.55	-0.55
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-222	-45	123	222	0.00	0.22	-0.22
400 KV Barh -GKP (D/C)	560	470	560	0	11.74	0.00	11.74
400 kV B'Sharif - Varanasi (D/C)	53	82	209	0	2.41	0.00	2.41
<b>Sub Total ER</b>	<b>2164</b>	<b>2758</b>			<b>66.35</b>	<b>0.77</b>	<b>65.58</b>
+/- 800 KV HVDC BiswanathChariali-Agra	-500	-500	300	500.00	0.00	4.00	-4.00
<b>Sub Total NER</b>	<b>-500</b>	<b>-500</b>			<b>0.00</b>	<b>4.00</b>	<b>-4.00</b>
<b>Total IR Exch</b>	<b>6841</b>	<b>7313</b>			<b>216.06</b>	<b>20.67</b>	<b>195.39</b>

**VI(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]**

ER	ISGS/LT Schedule (MU)		Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
51.22	0.20	51.42	-2.74	-0.49	-1.65	-0.03	0.00	0.00

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Incls Mndra	Total	Through ER(including NER)	Through WR	Total	Through ER (including NER)	Through WR	Total
47.04	144.82	191.86	61.58	133.81	195.39	14.54	-11.01	3.53

**VI(C). Inter National Exchange with Nepal [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(19:00 Hrs) MW	Off Peak(03:00 Hrs) MW	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
			Import	Export	Import	Export	
132 KV Tanakpur - Mahendarnagar	-37	-38	0	38	0	1	-0.87

**VII. 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	>50.20	>50.50
0.00	0.00	0.24	7.43	50.01	70.28	17.27	4.83	0.31	0.00

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation	Std. Dev.	Frequency in 15 Min Block		Freq Dev Index (% of Time)
Maximum		Minimum					MAX	MIN	
Freq	Time	Freq	Time	Hz	Index	(Hz)	(Hz)		
50.24	6.02	49.76	11.09	50.00	0.045	0.067	50.09	49.86	29.72

**VIII(A). Voltage profile 400 kV**

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Volta ge Deviat
		Voltage(KV)	Time	Voltage (KV)	Time	<380 kV	<390 kV	>420 kV	>430 kV	
Rihand	400	411	16:00	404	9:19	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	418	13:46	398	18:28	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	417	20:59	400	18:44	0.0	0.0	0.0	0.0	0.0
Kanpur	400	416	4:03	397	9:18	0.0	0.0	0.0	0.0	0.0
Dadri	400	426	3:28	404	10:23	0.0	0.0	26.2	0.0	26.2
Ballabgarh	400	423	3:59	400	9:18	0.0	0.0	6.4	0.0	6.4
Bawana	400	425	3:59	403	9:18	0.0	0.0	19.5	0.0	19.5
Bassi	400	424	5:01	397	9:20	0.0	0.0	3.2	0.0	3.2
Hissar	400	419	4:00	397	9:18	0.0	0.0	0.0	0.0	0.0
Moga	400	420	3:59	404	9:19	0.0	0.0	0.0	0.0	0.0
Abdullapur	400	424	20:58	405	9:19	0.0	0.0	20.3	0.0	20.3
Nalagarh	400	428	21:02	410	18:52	0.0	0.0	41.8	0.0	41.8
Kishenpur	400	416	0:32	398	18:52	0.0	0.0	0.0	0.0	0.0
Wagoora	400	392	4:54	369	18:43	38.6	97.9	0.0	0.0	38.6
Amritsar	400	426	0:43	408	15:22	0.0	0.0	31.1	0.0	31.1
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	422	0:42	407	11:09	0.0	0.0	2.1	0.0	2.1
Rishikesh	400	422	3:29	398	9:20	0.0	0.0	5.6	0.0	5.6

**VIII(B). Voltage profile 765 kV**

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Volta ge Deviat
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV	
Fatehpur	765	778	3:58	738	9:19	0.0	1.0	0.0	0.0	0.0
Balia	765	785	3:59	755	9:20	0.0	0.0	0.0	0.0	0.0

Moga	765	801	20:59	766	9:19	0.0	0.0	0.1	0.0	0.1
Agra	765	791	18:03	747	9:19	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	804	4:00	767	9:20	0.0	0.0	1.1	0.0	1.1
Unnao	765	775	3:59	744	9:20	0.0	0.0	0.0	0.0	0.0
Lucknow	765	790	3:58	758	9:20	0.0	0.0	0.0	0.0	0.0
Meerut	765	808	20:59	766	9:18	0.0	0.0	4.2	0.0	4.2
Jhatikara	765	805	4:01	762	9:19	0.0	0.0	4.6	0.0	4.6
Bareilly 765 kV	765	797	4:00	761	9:19	0.0	0.0	0.0	0.0	0.0
Anta	765	788	14:06	762	19:32	0.0	0.0	0.0	0.0	0.0
Phagi	765	0	0:00	0	0:00	100.0	100.0	0.0	0.0	100.0

Note : '0' in Max / Min Col -> Telemetry Outage

**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	475.75	368.17	489.41	719.44	145.32	433.25
Pong	426.72	384.05	401.32	252.05	399.88	216.87	81.41	360.53
Tehri	829.79	740.04	783.90	370.68	775.75	274.18	36.85	259.00
Koteshwar	612.50	598.50	610.20	4.69	611.29	5.21	259.00	258.45
Chamera-I	760.00	748.75	0.00	0.00	0.00	0.00	110.00	143.00
Rihand	268.22	252.98	859.20	411.80	846.30	199.30	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	505.04	1.95	496.03	0.68	176.42	93.81

\* NA: Not Available

**X(A). Short-Term Open Access Details:**

State	Off- Peak Hours (03:00 Hrs)			Peak Hours (19:00 Hrs)			Day Energy (MU)		
	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MU)	IEX / PXIL (MU)	Total (MU)
Punjab	-101	-201	0	-101	-97	0	-6.39	-2.39	-8.78
Delhi	-185	-692	0	-299	25	0	-6.25	-3.72	-9.97
Haryana	-622	300	0	-314	345	0	-9.99	6.80	-3.19
HP	319	80	0	206	-111	0	9.07	-3.39	5.69
J&K	422	-151	0	418	-216	0	9.92	-2.33	7.59
CHD	0	-20	0	0	-30	0	0.00	-0.54	-0.54
Rajasthan	23	373	0	19	313	0	8.16	6.00	14.16
UP	107	0	0	-17	-100	0	-5.90	-2.19	-8.09
Uttarakhand	26	39	0	0	166	0	0.13	3.52	3.65
Total	-11	-273	0	-87	294	0	-1.24	1.78	0.54

**X(B). Short-Term Open Access Details:**

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-101	-655	1	-451	0	0
Delhi	-179	-342	319	-748	0	0
Haryana	-314	-622	398	-86	0	0
HP	554	201	80	-642	0	0
J&K	422	403	0	-303	0	0
CHD	0	0	0	-61	0	0
Rajasthan	923	19	374	-177	0	0
UP	157	-701	0	-100	0	0
Uttarakhand	26	0	380	-34	0	0

**XI. System Reliability Indices (Violation of TTC and ATC):**

(i)%age of times N-1 Criteria was violated in the inter - regional corridors

WR	0.00%
ER	0.00%
Simultaneous	0.35%

(ii)%age of times ATC violated on the inter-regional corridors

WR	1.74%
ER	0.00%
Simultaneous	11.46%

(iii)%age of times Angular Difference on Important Buses was beyond permissible limits(40 deg.)

Rihand - Dadri	0.00%
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**XII. Zero Crossing Violations**

State	No. of violations(Maximum 8 in a day)	Maximum number of continuous blocks without sign change
Punjab	1	16
Haryana	0	10
Rajasthan	1	14
Delhi	2	20
UP	0	12
Uttarakhand	4	27
HP	5	37
J & K	3	26
Chandigarh	5	25

**XIII. System Constraints:**

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

**XV. Weather Conditions For 23.02.2017 :**

XVI. Synchronisation of new generating units :

XVII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :

0  
0  
0  
0  
0

XVIII. Tripping of lines in pooling stations :

XIX. Complete generation loss in a generating station :

Note: Data(regarding drawal,generation, shortage , inter-regional flows and reservoir levels)of the constituents filled in the report are as per last furnished data by the respective state/constituent to NRLDC.

Report for : 23.02.2017

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER