

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 20.02.2017

Date of Reporting : 21.02.2017



### 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
41340	499	41839	49.98	30276	429	30705	49.99	871.62	10.19

\* 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	44.93	9.34	0.26	54.53	57.15	56.32	-0.83	110.85	0.00
Haryana	26.43	0.26	0.00	26.69	92.61	91.81	-0.80	118.50	0.00
Rajasthan	116.40	4.97	19.54	140.91	61.51	63.51	1.99	204.42	0.00
Delhi	11.36	0.00	0.00	11.36	49.74	48.72	-1.02	60.08	0.04
UP	168.39	4.40	0.00	172.79	101.32	102.40	1.08	275.19	0.00
Uttarakhand	9.22	0.00	15.88	19.42	18.12	18.12	-1.30	34.00	0.00
HP	6.93	2.90	6.93	17.22	17.77	17.77	0.56	24.71	0.00
J & K	9.98	0.00	0.00	9.98	34.67	30.62	-4.05	40.59	10.15
Chandigarh	0.00	0.00	0.00	0.00	3.62	3.29	-0.33	3.29	0.00
<b>Total</b>	<b>367.51</b>	<b>45.09</b>	<b>22.71</b>	<b>439.07</b>	<b>437.26</b>	<b>432.56</b>	<b>-4.70</b>	<b>871.62</b>	<b>10.19</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	6541	0	21	-404	3476	0	117	-454	6541	19:00	0
Haryana	5955	0	-123	-30	2951	0	-40	-334	6050	7:00	0
Rajasthan	8427	0	435	242	8023	0	93	295	9701	8:00	0
Delhi	2889	51	-143	-319	1492	0	-55	-788	3303	11:00	0
UP	12670	0	369	-126	10716	0	-44	82	12670	19:00	0
Uttarakhand	1749	0	16	164	1119	0	-114	139	1817	8:00	0
HP	1143	0	52	98	702	0	-13	354	1361	8:00	0
J&K	1792	448	-197	677	1717	429	42	423	1896	21:00	474
Chandigarh	175	0	-25	-10	81	0	-19	0	186	8:00	0
<b>Total</b>	<b>41340</b>	<b>499</b>	<b>406</b>	<b>291</b>	<b>30276</b>	<b>429</b>	<b>-34</b>	<b>-284</b>	<b>41518</b>	<b>20:00</b>	<b>452</b>

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

Diversity is 1.05

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

### III. Regional Entities :

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	1725	1557	38.10	1587	37.73	0.37
Rihand I STPS (2*500)	1000	484	431	362	9.82	409	9.55	0.27
Rihand II STPS (2*500)	1000	960	839	752	19.41	809	18.86	0.55
Rihand III STPS (2*500)	1000	965	845	782	19.75	823	19.10	0.64
Dadri I STPS (4*210)	840	815	295	313	7.21	300	7.51	-0.30
Dadri II STPS (2*490)	980	980	345	341	8.94	373	9.41	-0.46
Unchahar I TPS (2*210)	420	407	306	293	6.96	290	7.26	-0.30
Unchahar II TPS (2*210)	420	405	302	273	6.51	271	6.82	-0.32
Unchahar III TPS (1*210)	210	203	158	138	3.22	134	3.41	-0.18
ISTPP (Jhajjar) (3*500)	1500	1440	646	599	14.67	611	14.94	-0.27
Dadri GPS (4*130.19+2*154.51)	830	817	180	204	4.21	175	4.48	-0.28
Anta GPS (3*88.71+1*153.2)	419	420	0	0	0.00	0	0.00	0.00
Auraiya GPS (4*111.19+2*109.30)	663	647	15	0	0.02	1	0.31	-0.29
Dadri Solar(5)	5	1	0	0	0.02	1	0.02	0.00
Unchahar Solar(10)	10	2	0	0	0.05	2	0.04	0.01
Singrauli Solar(15)	15	2	0	1	0.00	0	0.05	-0.05
KHEP(4*200)	800	655	652	0	1.95	81	1.97	-0.02
<b>Sub Total (A)</b>	<b>12112</b>	<b>10892</b>	<b>6739</b>	<b>5615</b>	<b>141</b>	<b>5868</b>	<b>141</b>	<b>-0.63</b>
<b>B. NPC</b>								
NAPS (2*220)	440	412	437	449	9.65	402	9.89	-0.24
RAPS- B (2*220)	440	381	422	421	9.08	378	9.14	-0.07
RAPS- C (2*220)	440	400	435	439	9.39	391	9.60	-0.21
<b>Sub Total (B)</b>	<b>1320</b>	<b>1193</b>	<b>1294</b>	<b>1309</b>	<b>28.12</b>	<b>1172</b>	<b>28.63</b>	<b>-0.52</b>
<b>C. NHPC</b>								
Chamera I HPS (3*180)	540	548	551	0	3.84	160	3.60	0.24
Chamera II HPS (3*100)	300	301	210	0	2.24	93	2.10	0.14
Chamera III HPS (3*77)	231	0	0	0	0.00	0	0.00	0.00
Bairasuli HPS(3*60)	180	179	184	0	3.17	132	2.97	0.20
Salal-HPS (6*115)	690	348	455	245	9.37	390	8.36	1.01
Tanakpur-HPS (3*31.4)	94	19	32	21	0.52	22	0.45	0.07
Uri-I HPS (4*120)	480	451	470	467	11.06	461	10.83	0.22
Uri-II HPS (4*60)	240	233	241	242	5.62	234	5.60	0.03
Dhauliganga-HPS (4*70)	280	140	142	0	0.94	39	0.90	0.04
Dulhasti-HPS (3*130)	390	387	391	0	3.68	153	3.50	0.18
Sewa-II HPS (3*40)	120	119	126	115	2.94	123	2.87	0.08
Parbati 3 (4*130)	520	130	131	0	0.41	17	0.39	0.02
<b>Sub Total (C)</b>	<b>4065</b>	<b>2856</b>	<b>2934</b>	<b>1089</b>	<b>44</b>	<b>1825</b>	<b>42</b>	<b>2.23</b>
<b>D.SJVNL</b>								
NJPC (6*250)	1500	1096	1087	0	7.17	299	6.99	0.18
Rampur HEP (6*68.67)	412	375	295	0	2.02	84	1.95	0.07
<b>Sub Total (D)</b>	<b>1912</b>	<b>1471</b>	<b>1382</b>	<b>0</b>	<b>9.19</b>	<b>383</b>	<b>8.94</b>	<b>0.25</b>
<b>E. THDC</b>								
Tehri HPS (4*250)	1000	852	842	0	8.44	352	8.40	0.04
Koteshwar HPS (4*100)	400	133	401	93	3.26	136	3.20	0.06
<b>Sub Total (E)</b>	<b>1400</b>	<b>985</b>	<b>1243</b>	<b>93</b>	<b>11.70</b>	<b>487</b>	<b>11.60</b>	<b>0.10</b>
<b>F. BBMB</b>								
Bhakra HPS (2*108+3*126+5*157)	1379	490	1104	361	12.24	510	11.75	0.49
Dehar HPS (6*165)	990	202	495	0	4.93	206	4.85	0.08
Pong HPS (6*66)	396	225	310	0	5.51	230	5.40	0.11
<b>Sub Total (F)</b>	<b>2765</b>	<b>917</b>	<b>1909</b>	<b>361</b>	<b>22.68</b>	<b>945</b>	<b>22.00</b>	<b>0.68</b>
<b>G. IPP(s)/JV(s)</b>								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	17	0	0.50	21	0.47	0.02
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	630	0	3.81	159	3.79	0.01
Malana Stg-II HPS (2*50)	100	0	0	0	0.27	11	0.25	0.01
Shree Cement TPS (2*150)	300	0	297	170	6.01	250	6.03	-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>944</b>	<b>170</b>	<b>10.58</b>	<b>441</b>	<b>10.55</b>	<b>0.03</b>
<b>H. Total Regional Entities (A-G)</b>	<b>25237</b>	<b>18314</b>	<b>16446</b>	<b>8637</b>	<b>266.89</b>	<b>11120</b>	<b>264.74</b>	<b>2.15</b>

I. State Entities	Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sentout MW)
Punjab	Guru Gobind Singh TPS (Ropar) (6*210)	1260	0	0	-0.11	-4
	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	-0.09	-4
	Goidwal(GVK) (2*270)	540	0	0	-0.02	-1

	Rajpura (2*700)	1400	1320	660	25.56	1065
	Talwandi Saboo (3*660)	1980	1228	616	19.60	817
	<b>Thermal (Total)</b>	<b>6560</b>	<b>2548</b>	<b>1276</b>	<b>44.93</b>	<b>1872</b>
	Total Hydro	1000	470	249	9.34	389
	Wind Power	0	0	0	0.00	0
	Biomass	288	9	9	0.22	9
	Solar	560	0	0	0.04	2
	<b>Renewable(Total)</b>	<b>848</b>	<b>9</b>	<b>9</b>	<b>0.26</b>	<b>11</b>
	<b>Total Punjab</b>	<b>8408</b>	<b>3027</b>	<b>1534</b>	<b>54.53</b>	<b>2272</b>
Haryana	Panipat TPS (2*210+2*250)	920	419	410	10.28	428
	DCRTPP (Yamuna nagar) (2*300)	600	462	465	11.78	491
	Faridabad GPS (NTPC)(2*137.75+1*156)	432	192	164	4.37	182
	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>1073</b>	<b>1039</b>	<b>26.43</b>	<b>1101</b>
	Total Hydro	62	4	6	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>1077</b>	<b>1045</b>	<b>26.69</b>	<b>1112</b>
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	951	871	21.36	890
	suratgarh TPS (6*250)	1500	181	184	4.53	189
	Chabra TPS (4*250)	1000	794	754	19.15	798
	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	167	170	3.81	159
	RAPS A (NPC) (1*100+1*200)	300	185	165	4.36	182
	Barsingar (NLC) (2*125)	250	208	214	4.97	207
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	427	684	13.44	560
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(2*600)	1200	825	824	20.59	858
	Kawai(Adani) (2*660)	1320	860	1179	24.20	1008
	<b>Thermal (Total)</b>	<b>8876</b>	<b>4598</b>	<b>5045</b>	<b>116.40</b>	<b>4850</b>
	Total Hydro	550	221	276	4.97	207
	Wind power	4017	1011	322	19.06	794
	Biomass	99	20	20	0.49	20
	Solar	1295	0	0	0.00	0
	Renewable/Others (Total)	5411	1031	342	19.54	814
	<b>Total Rajasthan</b>	<b>14837</b>	<b>5850</b>	<b>5663</b>	<b>140.91</b>	<b>5871</b>
UP	Anpara TPS (3*210+2*500)	1630	1328	1425	32.80	1367
	Obra TPS (2*50+2*94+5*200)	1194	504	546	13.50	563
	Paricha TPS (2*110+2*220+2*250)	1160	0	0	0.00	0
	Panki TPS (2*105)	210	0	0	0.00	0
	Harduaganj TPS (1*60+1*105+2*250)	665	160	144	4.00	167
	Tanda TPS (NTPC) (4*110)	440	294	280	6.69	279
	Roza TPS (IPP) (4*300)	1200	742	659	20.30	846
	Anpara-C (IPP) (2*600)	1200	536	495	12.40	517
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0
	Anpara-D(2*500)	1000	840	806	19.70	821
	Lalitpur TPS(3*660)	1980	1067	732	25.80	1075
	Bara(2*660)	1320	548	543	12.80	533
	<b>Thermal (Total)</b>	<b>12449</b>	<b>6019</b>	<b>5630</b>	<b>147.99</b>	<b>6166</b>
	Vishnuparyag HPS (IPP)(4*110)	440	63	63	1.50	63
	Alaknada(4*82.5)	330	76	0	1.00	42
	Other Hydro	527	39	39	1.90	79
	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>7047</b>	<b>6582</b>	<b>172.79</b>	<b>7200</b>	
Uttarakhand	Other Hydro	1250	489	347	9.22	384
	Total Gas	225	283	269	6.62	276
	Wind Power	0	0	0	0.00	0
	Biomass	127	0	0	0.00	0
	Solar	20	0	0	0.05	2
	Small Hydro (< 25 MW)	180	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>327</b>	<b>0</b>	<b>0</b>	<b>0.05</b>	<b>2</b>
	<b>Total Uttarakhand</b>	<b>1802</b>	<b>772</b>	<b>616</b>	<b>15.88</b>	<b>662</b>
Delhi	Rajghat TPS (2*67.5)	135	0	0	-0.01	0
	Delhi Gas Turbine (6x30 + 3x34)	282	71	73	1.82	76
	Pragati Gas Turbine (2x104+ 1x122)	330	149	158	3.70	154
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	249	280	6.02	251
	Badarpur TPS (NTPC) (3*95+2*210)	705	0	0	-0.16	-7
	<b>Thermal (Total)</b>	<b>2917</b>	<b>469</b>	<b>511</b>	<b>11.36</b>	<b>473</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>469</b>	<b>511</b>	<b>11.36</b>	<b>473</b>
HP	Baspa HPS (IPP) (3*100)	300	30	40	1.22	51
	Malana HPS (IPP) (2*43)	86	0	0	0.30	13
	Other Hydro	372	137	58	2.51	105
	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	121	111	2.90	121
	<b>Renewable(Total)</b>	<b>486</b>	<b>121</b>	<b>111</b>	<b>2.90</b>	<b>121</b>
	<b>Total HP</b>	<b>1244</b>	<b>288</b>	<b>209</b>	<b>6.93</b>	<b>289</b>
J & K	Baqilhar HPS (IPP) (3*150+3*150)	900	294	295	7.07	295
	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>425</b>	<b>404</b>	<b>10</b>	<b>416</b>	

Total State Control Area Generation	50078	18955	16564	439.07	18294
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		7951	6407.11	190.56	7940
Total Regional Availability(Gross)	75315	43352	31608	896.51	37355

**IV. Total Hydro Generation:**

Regional Entities Hydro	12234	8767	1543	93.88	3912
State Control Area Hydro	7163	2358	1862	45.09	2156
Total Regional Hydro	19397	11126	3405	138.97	6068

**V. Total Renewable Generation:**

Regional Entities Renewable	30	0	1	0.07	3
State Control Area Renewable	7356	1161	462	22.76	948
Total Regional Renewable	7386	1161	462	22.83	951

**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)	-400	-500	0	500	0.00	7.67	-7.67
765 KV Gwalior-Agra (D/C)	2520	2041	2711	0	57.80	0.00	57.80
400 KV Zerda-Kankroli	-138	-109	44	245	0.00	2.42	-2.42
400 KV Zerda-Bhimnal	5	-1	217	127	0.07	0.00	0.07
220 KV Auraiya-Malanpur	-85	-77	0	115	0.00	1.70	-1.70
220 KV Badod-Kota/Morak	47	-17	75	42	0.75	0.00	0.75
Mundra-Mohinderghar(HVDC Bipole)	2502	1602	2506	0.00	52.68	0.00	52.68
400 KV RAPP-C-Sujalpur	278	179	352	0	4.69	0.00	4.69
400 KV Vindhychal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	1003	969	1371	0	27.33	0.00	27.33
Champa-Kurushetra HVDC	0	150	1050	0	2.00	0.00	2.00
<b>Sub Total WR</b>	<b>5732</b>	<b>4087</b>			<b>143.31</b>	<b>11.78</b>	<b>131.52</b>
400 kV Sasaram - Varanasi	166	170	177	0	4.15	0.00	4.15
400 kV Sasaram - Allahabad	73	75	88	0	1.78	0.00	1.78
400 KV MZP- GKP (D/C)	222	338	366	0	4.95	0.00	4.95
400 KV Patna-Balia(D/C) X 2	668	693	786	0	16.13	0.00	16.13
400 KV B'Sharif-Balia (D/C)	111	178	212	0	4.03	0.00	4.03
765 KV Gaya-Balia	287	262	388	0	7.44	0.00	7.44
765 KV Gaya-Varanasi (D/C)	611	478	729	0	13.62	0.00	13.62
220 KV Pusauli-Sahupuri	93	194	218	0	4.15	0.00	4.15
132 KV K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
132 KV Son Ngr-Rihand	-20	-18	0	33	0.00	0.57	-0.57
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-79	-65	81	84	0.00	0.40	-0.40
400 KV Barh -GKP (D/C)	510	458	594	0	11.57	0.00	11.57
400 kV B'Sharif - Varanasi (D/C)	78	58	144	0	1.54	0.00	1.54
<b>Sub Total ER</b>	<b>2720</b>	<b>2821</b>			<b>69.35</b>	<b>0.97</b>	<b>68.38</b>
+/- 800 KV BiswanathChariali-Agra	-501	-501	0	501.00	0.00	9.35	-9.35
<b>Sub Total NER</b>	<b>-501</b>	<b>-501</b>			<b>0.00</b>	<b>9.35</b>	<b>-9.35</b>
<b>Total IR Exch</b>	<b>7951</b>	<b>6407</b>			<b>212.66</b>	<b>22.10</b>	<b>190.56</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
49.81	0.18	49.99	-2.93	1.22	2.85	0.00	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
49.91	141.75	191.66	59.03	131.52	190.56	9.12	-10.22	-1.10

**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	-34	0	40	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	0.42	9.63	52.80	73.48	13.01	3.91	0.00	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)		
50.19	18.02	49.78	6.24	49.99	0.044	0.065	50.07	49.88	26.52

**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	410	23:42	402	6:33	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	417	1:59	403	18:26	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	421	2:02	396	15:42	0.0	0.0	0.2	0.0	0.2
Kanpur	400	417	1:59	400	9:38	0.0	0.0	0.0	0.0	0.0
Dadri	400	426	1:51	406	9:36	0.0	0.0	32.5	0.0	32.5
Ballabgarh	400	423	2:02	401	9:37	0.0	0.0	7.6	0.0	7.6
Bawana	400	425	1:59	407	6:20	0.0	0.0	31.4	0.0	31.4
Bassi	400	425	17:02	401	9:38	0.0	0.0	10.6	0.0	10.6
Hissar	400	421	3:01	402	6:21	0.0	0.0	0.2	0.0	0.2
Moga	400	421	2:56	404	16:25	0.0	0.0	1.2	0.0	1.2
Abdullapur	400	428	3:02	410	16:25	0.0	0.0	33.0	0.0	33.0
Nalagarh	400	428	1:52	412	16:34	0.0	0.0	37.3	0.0	37.3
Kishenpur	400	420	1:59	401	18:39	0.0	0.0	0.0	0.0	0.0
Wagoora	400	395	3:23	371	18:43	22.5	83.2	0.0	0.0	22.5
Amritsar	400	423	0:44	405	16:25	0.0	0.0	14.1	0.0	14.1
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	422	2:01	404	16:13	0.0	0.0	1.2	0.0	1.2
Rishikesh	400	422	1:57	398	9:12	0.0	0.0	8.8	0.0	8.8

**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	780	17:03	744	6:20	0.0	0.0	0.0	0.0	0.0
Balia	765	785	1:38	760	9:19	0.0	0.0	0.0	0.0	0.0

Moga	765	799	23:58	767	6:22	0.0	0.0	0.0	0.0	0.0
Agra	765	792	17:03	750	6:20	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	806	20:59	774	9:18	0.0	0.0	17.0	0.0	17.0
Unnao	765	781	2:01	753	9:13	0.0	0.0	0.0	0.0	0.0
Lucknow	765	793	2:01	765	9:14	0.0	0.0	0.0	0.0	0.0
Meerut	765	806	20:29	762	6:20	0.0	0.0	5.6	0.0	5.6
Jhatikara	765	804	21:59	751	6:20	0.0	0.0	3.2	0.0	3.2
Bareilly 765 kV	765	800	2:02	768	9:12	0.0	0.0	0.0	0.0	0.0
Anta	765	791	17:03	765	9:08	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	476.65	387.82	490.13	738.95	105.31	416.77
Pong	426.72	384.05	401.85	259.17	400.45	230.85	77.53	390.94
Tehri	829.79	740.04	785.75	395.20	777.45	290.73	46.87	224.00
Koteshwar	612.50	598.50	610.31	4.70	610.99	4.95	224.00	214.59
Chamera-I	760.00	748.75	759.43	0.00	0.00	0.00	101.11	68.56
Rihand	268.22	252.98	0.00	0.00	0.00	0.00	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	504.54	1.76	495.89	0.16	65.14	56.51

\* 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	-353	0	-101	-303	0	-6.39	-3.89	-10.29
Delhi	-178	-611	0	-293	-26	0	-6.16	-3.48	-9.64
Haryana	-622	288	0	-314	283	0	-9.99	5.98	-4.01
HP	319	36	0	206	-108	0	9.13	-2.27	6.87
J&K	423	0	0	419	258	0	9.95	3.45	13.39
CHD	0	0	0	0	-10	0	0.00	-0.14	-0.14
Rajasthan	24	271	0	17	225	0	8.18	4.72	12.89
UP	82	0	0	-26	-100	0	-6.33	-1.79	-8.12
Uttarakhand	121	17	0	0	164	0	1.70	4.41	6.12
Total	69	-353	0	-91	382	0	0.08	6.99	7.07

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-101	-655	297	-656	0	0
Delhi	-176	-336	328	-642	0	0
Haryana	-314	-622	338	-43	0	0
HP	566	201	63	-626	0	0
J&K	423	404	446	-96	0	0
CHD	0	0	30	-61	0	0
Rajasthan	922	17	272	-317	0	0
UP	158	-739	0	-100	0	0
Uttarakhand	121	0	511	2	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	0.00%

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

WR	0.00%
ER	0.00%
Simultaneous	21.88%

(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	14
Haryana	0	9
Rajasthan	4	27
Delhi	3	26
UP	2	15
Uttarakhand	3	29
HP	2	19
J & K	6	38
Chandigarh	2	26

**XIII. System Constraints:**

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

**XV. Weather Conditions For 20.02.2017 :**

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 : 20.02.2017

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER