

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 23.01.2017

Date of Reporting : 24.01.2017



### 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
42803	517	43320	49.98	29314	493	29807	49.99	892.74	11.13

\* 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:

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	62.99	8.70	0.22	71.91	35.50	36.63	1.13	108.55	0.00
Haryana	54.81	0.26	0.00	55.07	61.57	60.93	-0.63	116.00	0.00
Rajasthan	128.83	4.31	15.18	148.32	57.46	60.34	2.89	208.66	0.00
Delhi	10.53		0.00	10.53	54.56	53.53	-1.03	64.06	0.02
UP	190.57	5.51	0.00	196.08	92.57	90.77	-1.81	286.84	0.00
Uttarakhand		8.43	0.00	12.35	22.59	22.78	0.19	35.12	0.00
HP		5.04	1.04	5.04	20.28	20.27	-0.01	25.31	0.01
J & K		4.15	0.00	4.15	41.45	40.24	-1.21	44.39	11.10
Chandigarh				0.00	3.90	3.80	-0.10	3.80	0.00
<b>Total</b>	<b>447.73</b>	<b>36.39</b>	<b>16.44</b>	<b>503.44</b>	<b>389.88</b>	<b>389.30</b>	<b>-0.58</b>	<b>892.74</b>	<b>11.13</b>

\* Shortage furnished by the respective constituent's Others include UP Co-generation and JK Diesel

### II. B. State's Demand Met in MWs:

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	5997	0	-48	-966	3236	0	134	-536	5997	19:00	0
Haryana	6426	0	102	-288	3038	0	159	-556	6426	19:00	0
Rajasthan	9280	0	90	110	7414	0	154	282	9886	9:00	0
Delhi	3129	0	-103	-129	1467	0	-98	-600	3777	11:00	0
UP	12536	0	46	-212	10684	0	54	83	13451	9:00	0
Uttarakhand	1855	0	81	254	1145	0	-47	353	1940	8:00	0
HP	1318	0	64	206	565	75	-151	510	1318	19:00	0
J&K	2068	517	148	783	1674	418	-175	728	2068	19:00	517
Chandigarh	195	0	-20	0	91	0	-5	0	228	9:00	0
<b>Total</b>	<b>42803</b>	<b>517</b>	<b>361</b>	<b>-241</b>	<b>29314</b>	<b>493</b>	<b>25</b>	<b>264</b>	<b>42803</b>	<b>19:00</b>	<b>517</b>

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

### 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	1890	2032	1466	42.89	1787	42.67	0.22
Rihand I STPS (2*500)	1000	473	478	359	10.02	418	10.28	-0.26
Rihand II STPS (2*500)	1000	958	1022	752	20.79	866	20.95	-0.17
Rihand III STPS (2*500)	1000	963	971	718	20.60	858	21.27	-0.67
Dadri I STPS (4*210)	840	815	326	298	7.46	311	7.67	-0.22
Dadri II STPS (2*490)	980	980	363	346	8.65	360	9.24	-0.59
Unchahar I TPS (2*210)	420	407	326	277	7.44	310	8.20	-0.76
Unchahar II TPS (2*210)	420	405	341	269	7.03	293	7.78	-0.75
Unchahar III TPS (1*210)	210	203	186	131	3.35	139	3.71	-0.37
ISTPP (Jhajjar) (3*500)	1500	1440	0	0	0.00	0	0.00	0.00
Dadri GPS (4*130.19+2*154.51)	830	822	149	159	3.68	153	4.12	-0.44
Anta GPS (3*88.71+1*153.2)	419	427	0	0	0.00	0	0.00	0.00
Auraiya GPS (4*111.19+2*109.30)	663	641	0	0	0.00	0	0.00	0.00
Dadri Solar(5)	5	1	0	0	0.02	1	0.02	0.00
Unchahar Solar(10)	10	2	0	0	0.04	2	0.04	0.00
Singrauli Solar(15)	15	1	0	0	0.01	0	0.03	-0.03
KHEP(4*200)	800	872	865	0	2.73	114	2.62	0.11
<b>Sub Total (A)</b>	<b>12112</b>	<b>11298</b>	<b>7059</b>	<b>4775</b>	<b>135</b>	<b>5613</b>	<b>139</b>	<b>-3.90</b>
<b>B. NPC</b>								
NAPS (2*220)	440	420	445	452	9.94	414	10.08	-0.14
RAPS- B (2*220)	440	408	446	449	9.66	403	9.79	-0.13
RAPS- C (2*220)	440	220	238	237	4.71	196	5.28	-0.57
<b>Sub Total (B)</b>	<b>1320</b>	<b>1048</b>	<b>1129</b>	<b>1138</b>	<b>24.31</b>	<b>1013</b>	<b>25.15</b>	<b>-0.84</b>
<b>C. NHPC</b>								
Chamera I HPS (3*180)	540	540	557	0	1.79	75	1.62	0.17
Chamera II HPS (3*100)	300	301	309	0	1.03	43	0.93	0.10
Chamera III HPS (3*77)	231	154	156	0	0.49	21	0.46	0.03
Bairasuli HPS(3*60)	180	120	125	0	0.52	21	0.43	0.09
Salal-HPS (6*115)	690	76	230	70	2.34	98	1.84	0.51
Tanakpur-HPS (3*31.4)	94	19	31	20	0.54	23	0.46	0.08
Uri-I HPS (4*120)	480	109	228	63	2.71	113	2.61	0.10
Uri-II HPS (4*60)	240	66	81	80	1.65	69	1.59	0.06
Dhauliganga-HPS (4*70)	280	140	142	0	0.81	34	0.74	0.07
Dulhasti-HPS (3*130)	390	257	271	0	2.64	110	2.50	0.14
Sewa-II HPS (3*40)	120	119	82	0	0.36	15	0.36	0.00
Parbati 3 (4*130)	520	130	133	0	0.03	1	0.33	-0.30
<b>Sub Total (C)</b>	<b>4065</b>	<b>2032</b>	<b>2346</b>	<b>233</b>	<b>15</b>	<b>621</b>	<b>14</b>	<b>1.05</b>
<b>D.SJVNL</b>								
NJPC (6*250)	1500	1370	1347	0	5.81	242	6.00	-0.19
Rampur HEP (6*88.67)	412	406	375	0	1.65	69	1.67	-0.02
<b>Sub Total (D)</b>	<b>1912</b>	<b>1776</b>	<b>1722</b>	<b>0</b>	<b>7.46</b>	<b>311</b>	<b>7.67</b>	<b>-0.20</b>
<b>E. THDC</b>								
Tehri HPS (4*250)	1000	958	946	0	9.03	376	9.00	0.03
Koteshwar HPS (4*100)	400	133	399	68	3.21	134	3.20	0.01
<b>Sub Total (E)</b>	<b>1400</b>	<b>1091</b>	<b>1345</b>	<b>68</b>	<b>12.24</b>	<b>510</b>	<b>12.20</b>	<b>0.04</b>
<b>F. BBMB</b>								
Bhakra HPS (2*108+3*126+5*157)	1379	537	1010	373	13.51	563	12.89	0.62
Dehar HPS (6*165)	990	83	330	0	2.06	86	1.98	0.08
Pong HPS (6*66)	396	179	330	0	4.23	176	4.29	-0.06
<b>Sub Total (F)</b>	<b>2765</b>	<b>798</b>	<b>1670</b>	<b>373</b>	<b>19.79</b>	<b>825</b>	<b>19.16</b>	<b>0.64</b>
<b>G. IPP(s)/JV(s)</b>								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.37	16	0.36	0.02
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	603	0	3.03	126	3.32	-0.29
Malana Stg-II HPS (2*50)	100	0	0	0	0.19	8	0.17	0.01
Shree Cement TPS (2*150)	300	0	288	162	5.93	247	6.28	-0.35
Budhil HPS(IPP) (2*35)	70	0	0	0	0.15	6	0.15	0.00
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>891</b>	<b>162</b>	<b>9.66</b>	<b>402</b>	<b>10.27</b>	<b>-0.62</b>
<b>H. Total Regional Entities (A-G)</b>	<b>25237</b>	<b>18043</b>	<b>16162</b>	<b>6750</b>	<b>223.09</b>	<b>9295</b>	<b>226.92</b>	<b>-3.83</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	-0.13	-5
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	0	0	-0.03	-1
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	379	383	9.13	380
	Goidwal(GVK) (2*270)	540	0	0	-0.02	-1

	Rajpura (2*700)	1400	1320	660	26.05	1085
	Talwandi Saboo (3*660)	1980	1370	924	27.99	1166
	<b>Thermal (Total)</b>	<b>6560</b>	<b>3069</b>	<b>1967</b>	<b>62.99</b>	<b>2625</b>
	Total Hydro	1000	331	201	8.70	362
	Wind Power	0	0	0	0.00	0
	Biomass	288	0	0	0.18	7
	Solar	560	0	0	0.05	2
	<b>Renewable(Total)</b>	<b>848</b>	<b>0</b>	<b>0</b>	<b>0.22</b>	<b>9</b>
	<b>Total Punjab</b>	<b>8408</b>	<b>3400</b>	<b>2168</b>	<b>71.91</b>	<b>2996</b>
Haryana	Panipat TPS (2*210+2*250)	920	0	0	0.00	0
	DCRTPP (Yamuna nagar) (2*300)	600	458	459	10.21	425
	Faridabad GPS (NTPC)(2*137.75+1*156)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	1153	763	23.34	972
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	989	741	21.27	886
	<b>Thermal (Total)</b>	<b>4497</b>	<b>2600</b>	<b>1963</b>	<b>54.81</b>	<b>2284</b>
	Total Hydro	62	10	8	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>2610</b>	<b>1971</b>	<b>55.07</b>	<b>2294</b>
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	1040	965	24.05	1002
	suratgarh TPS (6*250)	1500	184	181	4.57	191
	Chabra TPS (4*250)	1000	837	770	19.26	803
	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	141	152	3.48	145
	RAPS A (NPC) (1*100+1*200)	300	190	190	4.39	183
	Barsingar (NLC) (2*125)	250	225	194	5.10	212
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	916	505	18.32	763
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(2*600)	1200	1146	831	24.26	1011
	Kawai(Adani) (2*660)	1320	1190	810	25.41	1059
	<b>Thermal (Total)</b>	<b>8876</b>	<b>5869</b>	<b>4598</b>	<b>128.83</b>	<b>5368</b>
	Total Hydro	550	198	178	4.31	179
	Wind power	4017	152	901	14.86	619
	Biomass	99	7	7	0.16	7
	Solar	1295	3	0	0.17	7
	Renewable/Others (Total)	5411	162	908	15.18	633
	<b>Total Rajasthan</b>	<b>14837</b>	<b>6229</b>	<b>5684</b>	<b>148.32</b>	<b>6180</b>
	UP	Anpara TPS (3*210+2*500)	1630	1420	1096	32.05
Obra TPS (2*50+2*94+5*200)		1194	588	548	14.06	586
Paricha TPS (2*110+2*220+2*250)		1160	134	576	9.71	405
Panki TPS (2*105)		210	0	0	0.00	0
Harduaqanj TPS (1*60+1*105+2*250)		665	413	410	10.53	439
Tanda TPS (NTPC) (4*110)		440	305	202	6.64	277
Roza TPS (IPP) (4*300)		1200	747	756	19.89	829
Anpara-C (IPP) (2*600)		1200	1031	630	22.85	952
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	0	0	0.00	0
Anpara-D(2*500)		1000	426	294	9.63	401
Lalitpur TPS(3*660)		1980	734	731	22.10	921
Bara(2*660)		1320	806	734	22.71	946
<b>Thermal (Total)</b>		<b>12449</b>	<b>6604</b>	<b>5977</b>	<b>170.17</b>	<b>7090</b>
Vishnuparyag HPS (IPP)(4*110)		440	63	68	1.62	68
Alakanada(4*82.5)		330	77	68	1.08	45
Other Hydro		527	68	201	2.81	117
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>7662</b>	<b>7164</b>	<b>196.08</b>	<b>8170</b>
Uttarakhand		Other Hydro	1250	487	252	8.43
	Total Gas	225	159	167	3.92	163
	Wind Power	0	0	0	0.00	0
	Biomass	127	0	0	0.00	0
	Solar	20	0	0	0.00	0
	Small Hydro (< 25 MW)	180	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>327</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>
	<b>Total Uttarakhand</b>	<b>1802</b>	<b>646</b>	<b>419</b>	<b>12.35</b>	<b>514</b>
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	33	34	0.84	35
	Pragati Gas Turbine (2x104+ 1x122)	330	158	162	3.83	160
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	250	280	6.03	251
	Badarpur TPS (NTPC) (3*95+2*210)	705	-3	-4	-0.16	-7
	<b>Thermal (Total)</b>	<b>2917</b>	<b>438</b>	<b>472</b>	<b>10.53</b>	<b>439</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>438</b>	<b>472</b>	<b>10.53</b>	<b>439</b>
	HP	Baspa HPS (IPP) (3*100)	300	28	0	1.11
Malana HPS (IPP) (2*43)		86	0	0	0.18	7
Other Hydro		372	142	46	2.72	113
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	49	38	1.04	43
<b>Renewable(Total)</b>		<b>486</b>	<b>49</b>	<b>38</b>	<b>1.04</b>	<b>43</b>
<b>Total HP</b>		<b>1244</b>	<b>220</b>	<b>84</b>	<b>5.04</b>	<b>210</b>
J & K		Baqilhar HPS (IPP) (3*150+3*150)	900	117	117	2.83
	Other Hydro/IPP(including 98 MW Small Hydro)	308	94	39	1.32	55
	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>211</b>	<b>156</b>	<b>4</b>	<b>173</b>	

Total State Control Area Generation	50078	21416	18118	503.44	20977
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		7776	5710	188.09	7837
<b>Total Regional Availability(Gross)</b>	<b>75315</b>	<b>45354</b>	<b>30579</b>	<b>914.62</b>	<b>38109</b>

**IV. Total Hydro Generation:**

Regional Entities Hydro	12234	8551	675	60.72	2530
State Control Area Hydro	7163	1824	1383	36.39	1679
<b>Total Regional Hydro</b>	<b>19397</b>	<b>10375</b>	<b>2058</b>	<b>97.11</b>	<b>4210</b>

**V. Total Renewable Generation:**

Regional Entities Renewable	30	0	0	0.06	3
State Control Area Renewable	7356	211	946	16.44	685
<b>Total Regional Renewable</b>	<b>7386</b>	<b>211</b>	<b>946</b>	<b>16.51</b>	<b>688</b>

**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)	200	-500	200	500	0.57	6.73	-6.16
765 KV Gwalior-Agra (D/C)	2359	1819	2933	0	59.34	0.00	59.34
400 KV Zerda-Kankroli	-135	-206	0	228	0.00	2.42	-2.42
400 KV Zerda-Bhimnal	-49	-132	137	184	0.00	0.30	-0.30
220 KV Auraiya-Malanpur	-65	-67	0	84	0.00	1.27	-1.27
220 KV Badod-Kota/Morak	-60	-92	19	74	0.00	1.17	-1.17
Mundra-Mohinderghar(HVDC Bipole)	2518	2015	2015	2518.00	51.48	0.00	51.48
400 KV RAPP-Subalpur	289	80	381	0	5.92	0.00	5.92
400 KV Vindhychal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	964	823	1450	0	26.84	0.00	26.84
<b>Sub Total WR</b>	<b>6021</b>	<b>3740</b>			<b>144.14</b>	<b>11.88</b>	<b>132.26</b>
400 kV Sasaram - Varanasi	205	174	219	0	6.73	0.00	6.73
400 kV Sasaram - Allahabad	41	64	77	0	1.38	0.00	1.38
400 KV MZP- GKP (D/C)	120	370	549	82	8.08	0.00	8.08
400 KV Patna-Balia(D/C) X 2	681	626	788	0	16.00	0.00	16.00
400 KV B'Sharif-Balia (D/C)	19	144	232	0	3.10	0.00	3.10
765 KV Gaya-Balia	239	259	372	0	6.58	0.00	6.58
765 KV Gaya-Varanasi (D/C)	533	400	854	0	14.15	0.00	14.15
220 KV Pusaali-Sahupuri	89	102	145	0	2.74	0.00	2.74
132 KV K'nasa-Sahupuri	0	0	0	0	0.48	0.51	-0.51
132 KV Son Ngr-Rihand	-26	-33	0	-40	0.00	0.80	-0.80
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-86	-64	125	110	0.00	0.44	-0.44
400 KV Barh -GKP (D/C)	532	474	602	0	12.12	0.00	12.12
400 kV B'Sharif - Varanasi (D/C)	112	-43	146	120	1.12	0.00	1.12
<b>Sub Total ER</b>	<b>2459</b>	<b>2473</b>			<b>72.47</b>	<b>1.75</b>	<b>70.24</b>
+/- 800 KV BiswanathChariali-Agra	-704	-503	0	706.00	0.00	14.41	-14.41
<b>Sub Total NER</b>	<b>-704</b>	<b>-503</b>			<b>0.00</b>	<b>14.41</b>	<b>-14.41</b>
<b>Total IR Exch</b>	<b>7776</b>	<b>5710</b>			<b>216.61</b>	<b>28.04</b>	<b>188.09</b>

**VI(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
43.74	0.36	44.09	-2.47	-5.35	15.39	0.00	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(including NER)	Through WR	Total	Through ER (including NER)	Through WR	Total
57.00	129.95	186.95	55.83	132.26	188.09	-1.17	2.31	1.14

**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	-31	0	38	0	1	-0.85

**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	0.86	7.43	48.51	67.43	18.77	6.41	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)		
50.20	9.04	49.71	18.20	50.00	0.048	0.069	50.15	49.83	32.57

**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	408	0:45	399	18:11	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	422	2:41	402	9:47	0.0	0.0	2.8	0.0	2.8
Bareilly(PG)400kV	400	422	2:03	396	7:31	0.0	0.0	2.8	0.0	2.8
Kanpur	400	418	2:01	399	6:22	0.0	0.0	0.0	0.0	0.0
Dadri	400	427	2:57	405	6:39	0.1	0.1	19.0	0.0	19.1
Ballabgarh	400	431	2:43	405	6:40	0.0	0.0	34.8	1.0	34.8
Bawana	400	427	2:58	404	6:49	0.0	0.0	22.9	0.0	22.9
Bassi	400	427	4:02	396	6:26	0.0	0.0	12.5	0.0	12.5
Hissar	400	423	2:02	402	6:37	0.0	0.0	9.4	0.0	9.4
Moga	400	420	23:22	404	14:15	0.0	0.0	0.0	0.0	0.0
Abdullapur	400	429	3:00	411	6:43	0.0	0.0	28.0	0.0	28.0
Nalagarh	400	431	2:45	414	18:23	0.0	0.0	45.3	2.0	45.3
Kishenpur	400	418	2:01	397	13:48	0.0	0.0	0.0	0.0	0.0
Wagoora	400	391	3:45	366	13:47	46.3	96.6	0.0	0.0	46.3
Amritsar	400	456	1:12	405	14:15	0.0	0.0	23.1	2.5	23.1
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	416	0:00	404	14:16	0.0	0.0	0.0	0.0	0.0
Rishikesh	400	418	20:39	403	18:20	0.0	0.0	0.0	0.0	0.0

**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	770	2:01	731	6:25	0.0	3.9	0.0	0.0	0.0
Balia	765	792	3:00	754	6:24	0.0	0.0	0.0	0.0	0.0
Moga	765	799	20:41	766	7:23	0.0	0.0	0.0	0.0	0.0

Agra	765	789	2:59	746	6:24	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	800	20:30	768	7:13	0.0	0.0	0.0	0.0	0.0
Unnao	765	778	2:59	738	6:54	0.0	9.1	0.0	0.0	0.0
Lucknow	765	806	2:59	755	6:55	0.0	0.0	7.9	0.0	7.9
Meerut	765	808	20:39	759	6:40	0.0	0.0	7.3	0.0	7.3
Jhatikara	765	799	4:00	755	6:37	0.0	0.0	0.0	0.0	0.0
Bareilly 765 kV	765	805	2:42	760	6:54	0.0	0.0	5.7	0.0	5.7
Anta	765	790	4:00	761	6:24	0.0	0.0	0.0	0.0	0.0
Phagi	765	801	3:45	758	7:03	0.0	0.0	3.1	0.0	3.1

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	483.48	544.27	497.00	983.40	160.33	439.51
Pong	426.72	384.05	405.58	361.16	407.04	397.88	41.20	294.58
Tehri	829.79	740.04	798.70	582.74	791.95	483.10	36.41	223.00
Koteshwar	612.50	598.50	610.27	4.70	610.76	4.95	223.00	211.35
Chamera-I	760.00	748.75	758.90	0.00	0.00	0.00	44.60	48.12
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	502.73	1.84	496.06	0.90	47.75	80.37

\* 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	-537	1	0	-610	-356	0	-18.23	-1.95	-20.18
Delhi	-92	-507	0	-273	144	0	-3.82	1.32	-2.50
Haryana	-834	279	0	-504	216	0	-14.74	2.67	-12.07
HP	441	69	0	355	-149	0	11.88	-0.91	10.97
J&K	619	108	0	616	167	0	14.67	6.43	21.10
CHD	0	0	0	0	0	0	0.00	0.44	0.44
Rajasthan	25	257	0	-7	117	0	9.79	3.53	13.32
UP	83	0	0	-112	-100	0	-7.73	-1.83	-9.56
Uttarakhand	316	38	0	0	254	0	2.34	8.08	10.42
Total	21	243	0	-534	294	0	-5.84	17.78	11.94

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-527	-1248	1	-610	0	0
Delhi	-16	-285	708	-607	0	0
Haryana	-504	-834	305	-691	0	0
HP	707	341	95	-407	0	0
J&K	619	601	462	-15	0	0
CHD	0	0	59	0	0	0
Rajasthan	959	-7	472	-687	0	0
UP	165	-873	0	-100	0	0
Uttarakhand	316	0	611	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	1.39%

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

WR	3.47%
ER	0.00%
Simultaneous	17.01%

(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	2	21
Haryana	2	15
Rajasthan	2	21
Delhi	5	30
UP	0	9
Uttarakhand	3	27
HP	4	28
J & K	4	28
Chandigarh	3	34

**XIII. System Constraints:**

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

**XV. Weather Conditions For 23.01.2017 :**

XVI. Synchronisation of new generating units :

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

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 : 23.01.2017

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER