

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 10.02.2017

Date of Reporting : 11.02.2017



### 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
42027	580	42607	49.98	29706	488	30195	49.99	881.54	13.60

\* 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	46.10	8.53	0.15	54.78	45.55	46.91	1.36	101.69	0.00
Haryana	21.69	0.27	0.00	21.96	88.21	89.48	1.27	111.45	0.45
Rajasthan	117.48	5.02	13.19	135.69	66.15	69.31	3.16	205.00	0.69
Delhi	12.32		0.00	12.32	51.00	51.11	0.11	63.43	0.01
UP	183.82	5.39	0.00	189.21	99.54	101.19	1.65	290.40	1.09
Uttarakhand		6.38	0.00	13.41	21.71	21.50	-0.20	34.91	0.57
HP		7.60	2.43	7.60	19.96	20.48	0.52	28.08	0.00
J & K		7.48	0.00	7.48	36.86	35.70	-1.16	43.18	10.79
Chandigarh				0.00	3.36	3.40	0.05	3.40	0.00
<b>Total</b>	<b>381.41</b>	<b>40.66</b>	<b>15.77</b>	<b>442.44</b>	<b>432.33</b>	<b>439.10</b>	<b>6.77</b>	<b>881.54</b>	<b>13.60</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	5443	0	-15	-585	3074	0	144	-788	5443	19:00	0
Haryana	5729	81	52	-125	3086	0	-23	-352	5889	7:00	388
Rajasthan	8950	0	164	241	7358	0	195	326	10179	8:00	0
Delhi	2986	0	-152	-258	1475	0	14	-809	3781	11:00	0
UP	13856	0	-28	-184	10712	0	12	102	13856	19:00	0
Uttarakhand	1747	0	42	253	1204	0	-51	296	1906	8:00	0
HP	1163	6	-64	206	758	0	-41	507	1447	10:00	0
J&K	1970	492	-64	696	1953	488	223	517	2219	20:00	555
Chandigarh	184	0	3	-25	86	0	-7	0	209	9:00	0
<b>Total</b>	<b>42027</b>	<b>580</b>	<b>-62</b>	<b>220</b>	<b>29706</b>	<b>488</b>	<b>467</b>	<b>-201</b>	<b>42468</b>	<b>20:00</b>	<b>826</b>

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

Diversity is 1.06

### III. Regional Entities :

UI [OG:(+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	1845	1765	40.74	1698	40.51	0.24
Rihand I STPS (2*500)	1000	484	482	458	11.18	466	11.25	-0.07
Rihand II STPS (2*500)	1000	960	948	823	21.79	908	22.12	-0.33
Rihand III STPS (2*500)	1000	965	987	821	21.58	899	21.86	-0.28
Dadri I STPS (4*210)	840	815	361	302	7.98	332	8.65	-0.67
Dadri II STPS (2*490)	980	980	350	346	9.67	403	10.59	-0.92
Unchahar I TPS (2*210)	420	407	378	280	7.76	323	8.64	-0.89
Unchahar II TPS (2*210)	420	405	372	293	7.69	320	8.26	-0.57
Unchahar III TPS (1*210)	210	203	149	136	3.67	153	4.08	-0.42
ISTPP (Jhajjar) (3*500)	1500	1440	500	312	10.10	421	10.23	-0.13
Dadri GPS (4*130.19+2*154.51)	830	839	201	213	4.61	192	5.07	-0.46
Anta GPS (3*88.71+1*153.2)	419	419	0	0	0.00	0	0.00	0.00
Auraiya GPS (4*111.19+2*109.30)	663	644	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	0.06	2	0.05	0.00
Singrauli Solar(15)	15	3	0	0	0.05	2	0.06	-0.01
KHEP(4*200)	800	872	0	0	0.00	0	2.62	-2.62
<b>Sub Total (A)</b>	<b>12112</b>	<b>11129</b>	<b>6573</b>	<b>5749</b>	<b>147</b>	<b>6121</b>	<b>154</b>	<b>-7.12</b>
<b>B. NPC</b>								
NAPS (2*220)	440	415	454	456	10.00	417	9.96	0.04
RAPS- B (2*220)	440	383	427	432	9.24	385	9.19	0.05
RAPS- C (2*220)	440	410	452	454	9.77	407	9.84	-0.07
<b>Sub Total (B)</b>	<b>1320</b>	<b>1208</b>	<b>1333</b>	<b>1342</b>	<b>29.02</b>	<b>1209</b>	<b>28.99</b>	<b>0.03</b>
<b>C. NHPC</b>								
Chamera I HPS (3*180)	540	540	552	0	4.30	179	4.00	0.30
Chamera II HPS (3*100)	300	301	210	0	1.18	49	1.05	0.13
Chamera III HPS (3*77)	231	0	0	0	0.00	0	0.00	0.00
Bairasuli HPS(3*60)	180	120	0	0	0.00	0	1.38	-1.38
Salal-HPS (6*115)	690	184	340	175	5.20	217	4.42	0.78
Tanakpur-HPS (3*31.4)	94	17	31	20	0.50	21	0.40	0.10
Uri-I HPS (4*120)	480	351	357	360	8.69	362	8.42	0.27
Uri-II HPS (4*60)	240	178	187	121	4.31	179	4.27	0.04
Dhauliganga-HPS (4*70)	280	140	140	0	0.75	31	0.70	0.05
Dulhasti-HPS (3*130)	390	387	406	0	2.92	122	2.70	0.22
Sewa-II HPS (3*40)	120	119	125	119	2.85	119	2.85	0.00
Parbati 3 (4*130)	520	130	132	0	0.40	17	0.39	0.01
<b>Sub Total (C)</b>	<b>4065</b>	<b>2466</b>	<b>2481</b>	<b>795</b>	<b>31</b>	<b>1296</b>	<b>31</b>	<b>0.55</b>
<b>D.SJVNL</b>								
NJPC (6*250)	1500	1370	1082	0	5.62	234	6.20	-0.58
Rampur HEP (6*68.67)	412	300	295	0	1.59	66	1.57	0.02
<b>Sub Total (D)</b>	<b>1912</b>	<b>1670</b>	<b>1377</b>	<b>0</b>	<b>7.21</b>	<b>300</b>	<b>7.77</b>	<b>-0.56</b>
<b>E. THDC</b>								
Tehri HPS (4*250)	1000	880	884	0	7.13	297	7.00	0.13
Koteshwar HPS (4*100)	400	113	402	71	2.75	115	2.70	0.05
<b>Sub Total (E)</b>	<b>1400</b>	<b>993</b>	<b>1286</b>	<b>71</b>	<b>9.89</b>	<b>412</b>	<b>9.70</b>	<b>0.19</b>
<b>F. BBMB</b>								
Bhakra HPS (2*108+3*126+5*157)	1379	544	1005	374	13.65	569	13.05	0.60
Dehar HPS (6*165)	990	113	495	0	2.76	115	2.71	0.05
Pong HPS (6*66)	396	178	384	0	4.27	178	4.27	0.00
<b>Sub Total (F)</b>	<b>2765</b>	<b>834</b>	<b>1884</b>	<b>374</b>	<b>20.67</b>	<b>861</b>	<b>20.02</b>	<b>0.65</b>
<b>G. IPP(s)/JV(s)</b>								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.35	15	0.34	0.01
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	630	0	3.32	138	3.56	-0.23
Malana Stg-II HPS (2*50)	100	0	0	0	0.17	7	0.16	0.01
Shree Cement TPS (2*150)	300	0	297	167	6.13	255	6.17	-0.04
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>927</b>	<b>167</b>	<b>9.97</b>	<b>416</b>	<b>10.22</b>	<b>-0.25</b>
<b>H. Total Regional Entities (A-G)</b>	<b>25237</b>	<b>18300</b>	<b>15861</b>	<b>8498</b>	<b>254.77</b>	<b>10616</b>	<b>261.29</b>	<b>-6.51</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	-0.12	-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	-0.10	-4
	Goinawal(GVK) (2*270)	540	0	0	0.00	0

	Rajpura (2*700)	1400	1320	660	27.12	1130
	Talwandi Saboo (3*660)	1980	784	616	19.23	801
	<b>Thermal (Total)</b>	<b>6560</b>	<b>2104</b>	<b>1276</b>	<b>46.10</b>	<b>1921</b>
	Total Hydro	1000	482	202	8.53	355
	Wind Power	0	0	0	0.00	0
	Biomass	288	6	6	0.15	6
	Solar	560	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>848</b>	<b>6</b>	<b>6</b>	<b>0.15</b>	<b>6</b>
	<b>Total Punjab</b>	<b>8408</b>	<b>2592</b>	<b>1484</b>	<b>54.78</b>	<b>2282</b>
Haryana	Panipat TPS (2*210+2*250)	920	455	410	10.84	451
	DCRTPP (Yamuna nagar) (2*300)	600	276	234	6.36	265
	Faridabad GPS (NTPC)(2*137.75+1*156)	432	193	163	4.49	187
	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>924</b>	<b>807</b>	<b>21.69</b>	<b>904</b>
	Total Hydro	62	4	9	0.27	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>928</b>	<b>816</b>	<b>21.96</b>	<b>915</b>
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	434	397	10.75
suratgarh TPS (6*250)		1500	198	183	5.07	211
Chabra TPS (4*250)		1000	838	800	21.05	877
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	171	172	4.22	176
RAPS A (NPC) (1*100+1*200)		300	175	175	4.36	182
Barsingar (NLC) (2*125)		250	223	226	5.25	219
Giral LTPS (2*125)		250	0	0	0.00	0
Rajwest LTPS (IPP) (8*135)		1080	783	442	17.93	747
VS LIGNITE LTPS (IPP) (1*135)		135	0	0	0.00	0
Kalisindh Thermal(2*600)		1200	990	832	24.39	1016
Kawai(Adani) (2*660)		1320	1198	490	24.45	1019
<b>Thermal (Total)</b>		<b>8876</b>	<b>5010</b>	<b>3717</b>	<b>117.48</b>	<b>4895</b>
Total Hydro		550	157	214	5.02	209
Wind power		4017	404	844	12.57	524
Biomass		99	9	9	0.23	9
Solar		1295	7	0	0.39	16
Renewable/Others (Total)		5411	420	853	13.19	550
<b>Total Rajasthan</b>		<b>14837</b>	<b>5587</b>	<b>4784</b>	<b>135.69</b>	<b>5654</b>
UP	Anpara TPS (3*210+2*500)	1630	1210	915	29.30	1221
	Obra TPS (2*50+2*94+5*200)	1194	477	542	13.29	554
	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	90	99	2.29	96
	Tanda TPS (NTPC) (4*110)	440	273	270	6.36	265
	Roza TPS (IPP) (4*300)	1200	819	554	17.14	714
	Anpara-C (IPP) (2*600)	1200	1067	869	24.24	1010
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0
	Anpara-D(2*500)	1000	667	937	17.98	749
	Lalitpur TPS(3*660)	1980	1325	1077	29.27	1220
	Bara(2*660)	1320	1067	730	23.55	981
	<b>Thermal (Total)</b>	<b>12449</b>	<b>6995</b>	<b>5993</b>	<b>163.42</b>	<b>6809</b>
	Vishnuparyag HPS (IPP)(4*110)	440	63	63	1.55	65
	Alaknada(4*82.5)	330	76	0	0.92	38
	Other Hydro	527	223	16	2.92	122
	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>8207</b>	<b>6922</b>	<b>189.21</b>	<b>7884</b>
	Uttarakhand	Other Hydro	1250	425	181	6.38
Total Gas		225	289	299	6.97	290
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>714</b>	<b>480</b>	<b>13.41</b>	<b>559</b>
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	73	73	1.95	81
	Pragati Gas Turbine (2x104+ 1x122)	330	159	162	3.89	162
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	298	280	6.48	270
	Badarpur TPS (NTPC) (3*95+2*210)	705	0	0	0.00	0
	<b>Thermal (Total)</b>	<b>2917</b>	<b>530</b>	<b>515</b>	<b>12.32</b>	<b>513</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>530</b>	<b>515</b>	<b>12.32</b>	<b>513</b>
HP	Baspa HPS (IPP) (3*100)	300	0	0	0.88	37
	Malana HPS (IPP) (2*43)	86	0	0	0.18	8
	Other Hydro	372	218	103	4.10	171
	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	110	95	2.43	101
	<b>Renewable(Total)</b>	<b>486</b>	<b>110</b>	<b>95</b>	<b>2.43</b>	<b>101</b>
	<b>Total HP</b>	<b>1244</b>	<b>328</b>	<b>198</b>	<b>7.60</b>	<b>317</b>
	J & K	Baqilhar HPS (IPP) (3*150+3*150)	900	297	147	4.57
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>428</b>	<b>256</b>	<b>7</b>	<b>312</b>	

Total State Control Area Generation	50078	19313	15455	442.44	18435
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		8159	6815	205.74	8573
Total Regional Availability(Gross)	75315	43333	30768	902.96	37623

**IV. Total Hydro Generation:**

Regional Entities Hydro	12234	7658	1240	72.72	3030
State Control Area Hydro	7163	2475	1438	40.66	1987
Total Regional Hydro	19397	10132	2678	113.38	5017

**V. Total Renewable Generation:**

Regional Entities Renewable	30	0	0	0.13	6
State Control Area Renewable	7356	536	954	15.84	660
Total Regional Renewable	7386	536	954	15.97	666

**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)	300	-500	300	500	3.64	4.62	-0.98
765 KV Gwalior-Agra (D/C)	2229	2108	2909	0	59.66	0.00	59.66
400 KV Zerda-Kankroli	-75	-150	30	207	0.00	2.16	-2.16
400 KV Zerda-Bhimnal	-7	-64	130	127	0.06	0.00	0.06
220 KV Auraiya-Malanpur	-67	-42	0	69	0.00	0.93	-0.93
220 KV Badod-Kota/Morak	22	25	97	-10	0.94	0.00	0.94
Mundra-Mohinderghar(HVDC Bipole)	2498	2002	2506	0.00	56.77	0.00	56.77
400 KV RAPP-C-Sujalpur	316	200	420	0	6.66	0.00	6.66
400 KV Vindhychal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	1115	1297	1584	0	31.20	0.00	31.20
Champa-Kurushetra HVDC	0	0	0	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>6331</b>	<b>4876</b>			<b>158.92</b>	<b>7.71</b>	<b>151.21</b>
400 kV Sasaram - Varanasi	41	190	203	0	6.78	0.00	6.78
400 kV Sasaram - Allahabad	50	60	69	0	1.20	0.00	1.20
400 KV MZP- GKP (D/C)	139	290	351	0	5.94	0.00	5.94
400 KV Patna-Balia(D/C) X 2	615	553	717	0	14.33	0.00	14.33
400 KV B'Sharif-Balia (D/C)	78	123	223	0	3.37	0.00	3.37
765 KV Gaya-Balia	269	245	369	0	6.51	0.00	6.51
765 KV Gaya-Varanasi (D/C)	491	402	801	0	13.01	0.00	13.01
220 KV Pusauli-Sahupuri	101	161	206	0	3.63	0.00	3.63
132 KV K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
132 KV Son Ngr-Rihand	-22	-24	0	33	0.00	0.58	-0.58
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-5	-54	105	73	0.31	0.00	0.31
400 KV Barh -GKP (D/C)	542	470	560	0	11.33	0.00	11.33
400 kV B'Sharif - Varanasi (D/C)	34	23	138	43	0.80	0.00	0.80
<b>Sub Total ER</b>	<b>2333</b>	<b>2439</b>			<b>67.21</b>	<b>0.58</b>	<b>66.63</b>
+/- 800 KV Biswanath Chariali-Agra	-505	-500	0	500.00	0.00	12.10	-12.10
<b>Sub Total NER</b>	<b>-505</b>	<b>-500</b>			<b>0.00</b>	<b>12.10</b>	<b>-12.10</b>
<b>Total IR Exch</b>	<b>8159</b>	<b>6815</b>			<b>226.13</b>	<b>20.39</b>	<b>205.74</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
44.84	0.20	45.03	-2.18	1.19	8.90	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
51.75	145.31	197.06	54.53	151.21	205.74	2.78	5.90	8.68

**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	-15	-15	0	-17	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	0.00	2.90	44.28	73.47	18.83	4.32	0.56	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)		
50.26	22.01	49.82	21.08	50.01	0.035	0.058	0.00	0.00	26.53

**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	2:58	398	7:20	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	423	3:03	402	9:18	0.0	0.0	6.7	0.0	6.7
Bareilly(PG)400kV	400	421	3:00	388	12:00	0.0	0.0	0.3	0.0	0.3
Kanpur	400	418	0:44	398	9:17	0.0	0.0	0.0	0.0	0.0
Dadri	400	428	2:59	402	9:35	0.0	0.0	28.0	0.0	28.0
Ballabgarh	400	424	0:21	398	7:16	0.0	0.0	19.2	0.0	19.2
Bawana	400	428	3:03	403	7:15	0.0	0.0	35.9	0.0	35.9
Bassi	400	425	21:00	389	7:24	0.0	0.1	16.3	0.0	16.3
Hissar	400	423	0:01	400	7:15	0.0	0.0	15.3	0.0	15.3
Moga	400	423	0:03	403	7:24	0.0	0.0	18.0	0.0	18.0
Abdullapur	400	429	0:00	409	7:13	0.0	0.0	56.3	0.0	56.3
Nalagarh	400	430	0:24	412	7:18	0.0	0.0	69.4	0.0	69.4
Kishenpur	400	423	11:48	392	7:43	0.0	0.0	0.7	0.0	0.7
Wagoora	400	421	12:08	170	12:05	31.4	77.1	0.0	0.0	31.5
Amritsar	400	425	2:00	402	9:18	0.0	0.0	31.5	0.0	31.5
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	423	2:26	401	9:32	0.0	0.0	15.9	0.0	15.9
Rishikesh	400	424	0:03	396	9:18	0.0	0.0	22.0	0.0	22.0

**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	778	23:58	740	6:52	0.0	1.4	0.0	0.0	0.0
Balia	765	789	1:04	756	9:17	0.0	0.0	0.0	0.0	0.0

Moga	765	802	13:01	762	7:22	0.0	0.0	4.1	0.0	4.1
Agra	765	794	17:30	745	7:22	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	809	0:11	764	7:20	0.0	0.0	38.5	0.0	38.5
Unnao	765	775	2:59	737	9:13	0.0	5.8	0.0	0.0	0.0
Lucknow	765	796	2:59	756	9:17	0.0	0.0	0.0	0.0	0.0
Meerut	765	811	17:30	753	7:22	0.0	0.0	18.2	0.0	18.2
Jhatikara	765	807	0:22	760	7:22	0.0	0.0	23.2	0.0	23.2
Bareilly 765 kV	765	801	2:59	757	9:17	0.0	0.0	0.3	0.0	0.3
Anta	765	786	17:02	753	7:21	0.0	0.0	0.0	0.0	0.0
Phagi	765	798	16:02	747	7:35	0.0	0.0	0.0	0.0	0.0

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	479.88	454.47	493.05	838.00	159.99	427.36
Pong	426.72	384.05	403.68	304.55	403.08	288.96	76.06	302.51
Tehri	829.79	740.04	790.80	456.00	782.95	358.00	37.06	184.00
Koteshwar	612.50	598.50	610.66	4.95	610.77	4.95	184.00	181.35
Chamera-I	760.00	748.75	758.36	0.00	0.00	0.00	87.28	116.31
Rihand	268.22	252.98	860.40	433.70	847.20	212.40	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	504.30	1.72	495.52	0.05	142.03	74.94

\* 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	-178	-610	0	-178	-407	0	-8.43	-5.69	-14.12
Delhi	-167	-642	0	-299	41	0	-5.85	-1.25	-7.10
Haryana	-730	378	0	-420	295	0	-12.57	7.07	-5.50
HP	412	95	0	324	-118	0	11.96	-1.75	10.20
J&K	517	0	0	514	182	0	12.22	2.28	14.50
CHD	0	0	0	0	-25	0	0.00	-0.18	-0.18
Rajasthan	29	297	0	24	217	0	8.12	5.65	13.78
UP	102	0	0	-84	-100	0	-6.82	-1.80	-8.62
Uttarakhand	120	175	0	0	253	0	1.76	7.56	9.32
<b>Total</b>	<b>106</b>	<b>-307</b>	<b>0</b>	<b>-117</b>	<b>337</b>	<b>0</b>	<b>0.39</b>	<b>11.89</b>	<b>12.28</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-178	-767	0	-763	0	0
Delhi	-167	-345	583	-650	0	0
Haryana	-224	-730	380	-58	0	0
HP	770	115	95	-564	0	0
J&K	517	499	270	-86	0	0
CHD	0	0	20	-61	0	0
Rajasthan	918	15	297	164	0	0
UP	154	-784	0	-100	0	0
Uttarakhand	120	0	595	129	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	8.68%
ER	0.00%
Simultaneous	0.00%

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

WR	40.97%
ER	0.00%
Simultaneous	28.82%

(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	20
Haryana	2	23
Rajasthan	0	11
Delhi	3	22
UP	2	17
Uttarakhand	4	14
HP	1	23
J & K	1	16
Chandigarh	4	38

**XIII. System Constraints:**

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

**XV. Weather Conditions For 10.02.2017 :**

XVI. Synchronisation of new generating units :

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

0  
0.00  
0  
0  
0.00

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 : 10.02.2017

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER