

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 15.02.2017  
Date of Reporting : 16.02.2017



### 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
41808	1504	43313	49.98	30656	414	31069	49.99	878.05	39.42

\* 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	46.81	9.27	0.20	56.28	50.68	52.21	1.53	108.49	0.00
Haryana	27.57	0.25	0.00	27.82	92.57	92.58	0.01	120.40	15.76
Rajasthan	116.47	4.26	9.56	130.28	71.49	77.04	5.56	207.32	8.11
Delhi	11.72	0.00	0.00	11.72	49.78	49.63	-0.15	61.35	0.02
UP	180.70	5.77	0.00	186.47	91.08	94.40	3.32	280.86	4.88
Uttarakhand		7.28	0.00	14.02	16.30	13.96	-2.33	27.98	0.00
HP		5.59	2.48	5.59	19.68	19.95	0.27	25.53	0.00
J & K		5.74	0.00	5.74	37.58	36.88	-0.70	42.62	10.65
Chandigarh				0.00	3.46	3.49	0.04	3.49	0.00
<b>Total</b>	<b>383.27</b>	<b>38.14</b>	<b>12.24</b>	<b>437.91</b>	<b>432.59</b>	<b>440.14</b>	<b>7.54</b>	<b>878.05</b>	<b>39.42</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	5914	0	-9	-329	3349	0	79	-580	5914	19:00	0
Haryana	6055	0	-105	-155	3437	0	40	-340	6336	7:00	0
Rajasthan	8843	867	292	194	7967	0	101	342	9683	8:00	355
Delhi	2963	0	-96	-456	1430	0	-3	-906	3614	11:00	0
UP	13293	150	214	-174	10876	0	353	103	13293	19:00	150
Uttarakhand	1438	0	48	161	1123	0	-71	208	1633	8:00	0
HP	1170	0	-127	215	734	0	-65	530	1465	9:00	0
J&K	1949	487	-42	703	1654	414	-53	523	2004	7:00	501
Chandigarh	185	0	-3	0	86	0	-4	0	210	8:00	0
<b>Total</b>	<b>41808</b>	<b>1504</b>	<b>170</b>	<b>158</b>	<b>30656</b>	<b>414</b>	<b>377</b>	<b>-121</b>	<b>41808</b>	<b>19:00</b>	<b>1504</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 [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	1315	1305	1790	31.04	1293	30.66	0.38
Rihand I STPS (2*500)	1000	484	515	494	10.79	450	11.17	-0.37
Rihand II STPS (2*500)	1000	960	1004	856	22.12	922	22.44	-0.32
Rihand III STPS (2*500)	1000	965	1009	853	21.73	905	22.26	-0.54
Dadri I STPS (4*210)	840	815	346	293	7.50	313	8.13	-0.62
Dadri II STPS (2*490)	980	980	448	350	9.78	407	10.55	-0.78
Unchahar I TPS (2*210)	420	407	373	288	7.47	311	8.13	-0.66
Unchahar II TPS (2*210)	420	405	389	301	7.71	321	8.03	-0.32
Unchahar III TPS (1*210)	210	203	188	144	3.66	152	4.00	-0.34
ISTPP (Jhajjar) (3*500)	1500	1440	875	600	17.55	731	17.89	-0.34
Dadri GPS (4*130.19+2*154.51)	830	817	168	210	4.37	182	4.77	-0.40
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	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	0.05	2	0.06	-0.01
Singrauli Solar(15)	15	2	0	0	0.06	3	0.05	0.01
KHEP(4*200)	800	655	435	0	1.74	72	1.97	-0.23
<b>Sub Total (A)</b>	<b>12112</b>	<b>10515</b>	<b>7055</b>	<b>6179</b>	<b>146</b>	<b>6066</b>	<b>150</b>	<b>-4.53</b>
<b>B. NPC</b>								
NAPS (2*220)	440	412	446	449	9.83	410	9.89	-0.05
RAPS- B (2*220)	440	384	384	384	9.22	384	9.22	0.00
RAPS- C (2*220)	440	410	446	449	9.57	399	9.84	-0.27
<b>Sub Total (B)</b>	<b>1320</b>	<b>1206</b>	<b>1276</b>	<b>1282</b>	<b>28.62</b>	<b>1193</b>	<b>28.94</b>	<b>-0.32</b>
<b>C. NHPC</b>								
Chamera I HPS (3*180)	540	548	556	0	2.39	99	2.20	0.19
Chamera II HPS (3*100)	300	301	310	0	1.39	58	1.30	0.09
Chamera III HPS (3*77)	231	0	0	0	0.00	0	0.00	0.00
Bairasuli HPS(3*60)	180	120	124	0	1.40	58	1.36	0.04
Salal-HPS (6*115)	690	141	318	290	4.09	171	3.38	0.71
Tanakpur-HPS (3*31.4)	94	17	30	20	0.48	20	0.40	0.08
Uri-I HPS (4*120)	480	351	357	360	8.70	363	8.42	0.28
Uri-II HPS (4*60)	240	184	187	187	4.45	185	4.41	0.04
Dhauliganga-HPS (4*70)	280	140	138	0	0.74	31	0.67	0.08
Dulhasti-HPS (3*130)	390	387	399	0	2.90	121	2.70	0.20
Sewa-II HPS (3*40)	120	119	125	0	2.00	83	2.00	0.00
Parbati 3 (4*130)	520	130	131	0	0.41	17	0.39	0.02
<b>Sub Total (C)</b>	<b>4065</b>	<b>2438</b>	<b>2677</b>	<b>857</b>	<b>29</b>	<b>1206</b>	<b>27</b>	<b>1.71</b>
<b>D.SJVNL</b>								
NJPC (6*250)	1500	1615	1356	0	5.60	233	5.60	0.00
Rampur HEP (6*68.67)	412	307	375	0	1.52	63	1.50	0.02
<b>Sub Total (D)</b>	<b>1912</b>	<b>1922</b>	<b>1731</b>	<b>0</b>	<b>7.12</b>	<b>297</b>	<b>7.10</b>	<b>0.02</b>
<b>E. THDC</b>								
Tehri HPS (4*250)	1000	872	863	0	7.64	318	7.59	0.05
Koteshwar HPS (4*100)	400	125	397	69	3.03	126	3.00	0.03
<b>Sub Total (E)</b>	<b>1400</b>	<b>997</b>	<b>1260</b>	<b>69</b>	<b>10.66</b>	<b>444</b>	<b>10.59</b>	<b>0.08</b>
<b>F. BBMB</b>								
Bhakra HPS (2*108+3*126+5*157)	1379	556	988	393	13.78	574	13.34	0.44
Dehar HPS (6*165)	990	118	495	0	2.95	123	2.83	0.12
Pong HPS (6*66)	396	225	315	0	5.33	222	5.40	-0.07
<b>Sub Total (F)</b>	<b>2765</b>	<b>899</b>	<b>1798</b>	<b>393</b>	<b>22.06</b>	<b>919</b>	<b>21.57</b>	<b>0.49</b>
<b>G. IPP(s)/JV(s)</b>								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.40	17	0.38	0.02
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	539	0	3.04	127	3.08	-0.04
Malana Stg-II HPS (2*50)	100	0	0	0	0.21	9	0.19	0.01
Shree Cement TPS (2*150)	300	0	299	168	6.09	254	6.12	-0.03
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>838</b>	<b>168</b>	<b>9.74</b>	<b>406</b>	<b>9.78</b>	<b>-0.05</b>
<b>H. Total Regional Entities (A-G)</b>	<b>25237</b>	<b>17977</b>	<b>16634</b>	<b>8948</b>	<b>252.71</b>	<b>10530</b>	<b>255.32</b>	<b>-2.61</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	-0.14	-6
	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	-0.13	-5
	Goinawal(GVK) (2*270)	540	0	0	-0.02	-1

	Rajpura (2*700)	1400	1320	660	26.78	1116
	Talwandi Saboo (3*660)	1980	1067	616	20.34	848
	<b>Thermal (Total)</b>	<b>6560</b>	<b>2387</b>	<b>1276</b>	<b>46.81</b>	<b>1950</b>
	Total Hydro	1000	355	249	9.27	386
	Wind Power	0	0	0	0.00	0
	Biomass	288	0	0	0.16	7
	Solar	560	0	0	0.04	2
	<b>Renewable(Total)</b>	<b>848</b>	<b>0</b>	<b>0</b>	<b>0.20</b>	<b>9</b>
	<b>Total Punjab</b>	<b>8408</b>	<b>2742</b>	<b>1525</b>	<b>56.28</b>	<b>2345</b>
Haryana	Panipat TPS (2*210+2*250)	920	466	411	10.81	451
	DCRTPP (Yamuna nagar) (2*300)	600	554	463	12.39	516
	Faridabad GPS (NTPC)(2*137.75+1*156)	432	197	162	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>1217</b>	<b>1036</b>	<b>27.57</b>	<b>1149</b>
	Total Hydro	62	3	6	0.25	10
	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>1220</b>	<b>1042</b>	<b>27.82</b>	<b>1159</b>
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	986	593	19.58
suratgarh TPS (6*250)		1500	216	185	4.91	205
Chabra TPS (4*250)		1000	900	906	21.95	915
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	174	3.57	149
RAPS A (NPC) (1*100+1*200)		300	170	170	4.41	184
Barsingar (NLC) (2*125)		250	221	219	5.20	217
Giral LTPS (2*125)		250	0	0	0.00	0
Rajwest LTPS (IPP) (8*135)		1080	780	810	19.37	807
VS LIGNITE LTPS (IPP) (1*135)		135	0	0	0.00	0
Kalisindh Thermal(2*600)		1200	786	1093	22.79	950
Kawai(Adani) (2*660)		1320	611	609	14.70	612
<b>Thermal (Total)</b>		<b>8876</b>	<b>4837</b>	<b>4759</b>	<b>116.47</b>	<b>4853</b>
Total Hydro		550	235	97	4.26	177
Wind power		4017	105	303	6.42	267
Biomass		99	19	19	0.46	19
Solar		1295	0	0	2.68	112
Renewable/Others (Total)		5411	124	322	9.56	398
<b>Total Rajasthan</b>		<b>14837</b>	<b>5196</b>	<b>5178</b>	<b>130.28</b>	<b>5428</b>
UP	Anpara TPS (3*210+2*500)	1630	1416	1079	32.39	1350
	Obra TPS (2*50+2*94+5*200)	1194	680	581	15.49	645
	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	223	162	4.35	181
	Tanda TPS (NTPC) (4*110)	440	375	280	8.50	354
	Roza TPS (IPP) (4*300)	1200	542	374	11.34	472
	Anpara-C (IPP) (2*600)	1200	1071	665	24.39	1016
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0
	Anpara-D(2*500)	1000	756	704	19.04	793
	Lalitpur TPS(3*660)	1980	1227	1059	27.86	1161
	Bara(2*660)	1320	554	724	16.95	706
	<b>Thermal (Total)</b>	<b>12449</b>	<b>6844</b>	<b>5628</b>	<b>160.30</b>	<b>6679</b>
	Vishnuparyag HPS (IPP)(4*110)	440	63	63	1.53	64
	Alaknada(4*82.5)	330	76	0	0.97	41
	Other Hydro	527	97	148	3.27	136
	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>7930</b>	<b>6689</b>	<b>186.47</b>	<b>7769</b>	
Uttarakhand	Other Hydro	1250	282	276	7.28	304
	Total Gas	225	286	421	6.68	279
	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>568</b>	<b>697</b>	<b>14.02</b>	<b>584</b>
Delhi	Rajghat TPS (2*67.5)	135	0	0	-0.01	0
	Delhi Gas Turbine (6x30 + 3x34)	282	80	81	1.91	80
	Pragati Gas Turbine (2x104+ 1x122)	330	162	161	3.86	161
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	250	280	5.96	249
	Badarpur TPS (NTPC) (3*95+2*210)	705	0	0	0.00	0
	<b>Thermal (Total)</b>	<b>2917</b>	<b>492</b>	<b>522</b>	<b>11.72</b>	<b>488</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>492</b>	<b>522</b>	<b>11.72</b>	<b>488</b>
	HP	Baspa HPS (IPP) (3*100)	300	0	0	1.03
Malana HPS (IPP) (2*43)		86	0	0	0.21	9
Other Hydro		372	105	37	1.87	78
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	112	100	2.48	103
<b>Renewable(Total)</b>		<b>486</b>	<b>112</b>	<b>100</b>	<b>2.48</b>	<b>103</b>
<b>Total HP</b>		<b>1244</b>	<b>218</b>	<b>138</b>	<b>5.59</b>	<b>233</b>
J & K		Baqilhar HPS (IPP) (3*150+3*150)	900	118	118	2.83
	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>249</b>	<b>227</b>	<b>6</b>	<b>239</b>

Total State Control Area Generation	50078	18615	16018	437.91	18246
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		8351	7177	206.62	8609
Total Regional Availability(Gross)	75315	43600	32143	897.25	37385

**IV. Total Hydro Generation:**

Regional Entities Hydro	12234	8439	1319	74.16	3090
State Control Area Hydro	7163	1864	1625	38.14	1870
Total Regional Hydro	19397	10303	2944	112.31	4960

**V. Total Renewable Generation:**

Regional Entities Renewable	30	0	0	0.13	5
State Control Area Renewable	7356	236	422	12.29	512
Total Regional Renewable	7386	236	422	12.42	518

**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)	150	-300	400	500	2.76	2.81	-0.06
765 KV Gwalior-Agra (D/C)	2480	2069	2764	0	57.87	0.00	57.87
400 KV Zerda-Kankrol	-46	-209	2	209	0.00	2.23	-2.23
400 KV Zerda-Bhimnal	37	-82	133	126	0.13	0.00	0.13
220 KV Auraiya-Malanpur	-65	-64	0	82	0.00	1.34	-1.34
220 KV Badod-Kota/Morak	-40	-8	53	67	0.00	0.49	-0.49
Mundra-Mohinderghar(HVDC Bipole)	2302	2502	2505	0.00	57.59	0.00	57.59
400 KV RAPPCC-Sujalpur	280	182	357	0	5.51	0.00	5.51
400 KV Vindhychal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	1275	1008	1584	0	32.39	0.00	32.39
Champa-Kurushetra HVDC	0	0	700	0	0.00	0.00	0.00
<b>Sub Total WR</b>	<b>6373</b>	<b>5098</b>			<b>156.25</b>	<b>6.87</b>	<b>149.37</b>
400 kV Sasaram - Varanasi	165	180	190	0	4.38	0.00	4.38
400 kV Sasaram - Allahabad	76	61	78	0	1.55	0.00	1.55
400 KV MZP- GKP (D/C)	149	325	415	0	5.74	0.00	5.74
400 KV Patna-Balia(D/C) X 2	583	656	732	0	15.57	0.00	15.57
400 KV B'Sharif-Balia (D/C)	74	138	227	0	3.51	0.00	3.51
765 KV Gaya-Balia	282	242	336	0	6.59	0.00	6.59
765 KV Gaya-Varanasi (D/C)	547	429	716	0	13.47	0.00	13.47
220 KV Pusauli-Sahupuri	220	172	220	0	4.07	0.00	4.07
132 KV K'nasa-Sahupuri	0	0	0	0	0.48	0.48	0.00
132 KV Son Ngr-Rihand	-30	-27	0	30	0.00	0.50	-0.50
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-95	-62	130	95	0.15	0.00	0.15
400 KV Barh -GKP (D/C)	512	480	556	0	11.22	0.00	11.22
400 kV B'Sharif - Varanasi (D/C)	-5	-15	125	36	1.15	0.00	1.15
<b>Sub Total ER</b>	<b>2478</b>	<b>2579</b>			<b>67.87</b>	<b>0.98</b>	<b>66.88</b>
+/- 800 KV BiswanathChariali-Agra	-500	-500	0	500.00	0.00	9.64	-9.64
<b>Sub Total NER</b>	<b>-500</b>	<b>-500</b>			<b>0.00</b>	<b>9.64</b>	<b>-9.64</b>
<b>Total IR Exch</b>	<b>8351</b>	<b>7177</b>			<b>224.11</b>	<b>17.49</b>	<b>206.62</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
52.02	0.37	52.39	-2.68	0.91	5.16	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
54.87	143.82	198.68	57.25	149.37	206.62	2.38	5.56	7.94

**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	-36	-35	0	40	0	1	-0.90

**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	2.09	39.62	67.04	23.56	7.37	0.01	0.00

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block		Freq Dev Index (% of Time)
Maximum		Minimum					MAX (Hz)	MIN (Hz)	
50.20	10.00	49.84	17.10	50.02	0.038	0.060	0.00	0.00	32.96

**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	478.34	420.92	491.65	788.17	109.13	452.90
Pong	426.72	384.05	402.79	281.22	401.78	259.17	61.14	377.12
Tehri	829.79	740.04	788.55	433.12	780.25	320.38	36.57	199.00
Koteshwar	612.50	598.50	610.45	4.79	611.17	5.13	199.00	199.41
Chamera-I	760.00	748.75	758.24	0.00	0.00	0.00	67.86	64.34
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	504.37	1.64	495.77	0.00	78.16	75.53

\* 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	-177	-403	0	-177	-152	0	-8.39	-3.64	-12.03
Delhi	-173	-733	0	-307	-149	0	-5.98	-3.99	-9.97
Haryana	-729	389	0	-420	265	0	-12.56	7.22	-5.34
HP	439	91	0	337	-122	0	11.98	-1.47	10.51
J&K	523	0	0	520	183	0	12.36	2.26	14.62
CHD	0	0	0	0	0	0	0.00	-0.18	-0.18
Rajasthan	22	320	0	12	182	0	8.08	5.69	13.77
UP	103	0	0	-74	-100	0	-7.06	-1.90	-8.96
Uttarakhand	121	87	0	0	161	0	1.37	4.56	5.93
<b>Total</b>	<b>128</b>	<b>-249</b>	<b>0</b>	<b>-109</b>	<b>267</b>	<b>0</b>	<b>-0.21</b>	<b>8.56</b>	<b>8.35</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-177	-763	148	-557	0	0
Delhi	-171	-347	403	-735	0	0
Haryana	-223	-729	392	7	0	0
HP	759	182	93	-366	0	0
J&K	523	505	361	-161	0	0
CHD	0	0	25	-51	0	0
Rajasthan	916	12	504	117	0	0
UP	163	-799	0	-100	0	0
Uttarakhand	121	0	427	42	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	1.04%
ER	0.00%
Simultaneous	0.35%

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

WR	36.81%
ER	0.00%
Simultaneous	39.93%

(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	16
Haryana	0	12
Rajasthan	3	22
Delhi	3	24
UP	3	16
Uttarakhand	2	32
HP	2	21
J & K	2	19
Chandigarh	3	41

**XIII. System Constraints:**

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

**XV. Weather Conditions For 15.02.2017 :**

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 : 15.02.2017

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER