

पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(भारत सरकार का उद्यम)

उत्तर क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GO1188682

Power Supply Position in Northern Region for 29.11.2017

Date of Reporting : 30.11.2017



I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 Hrs) MW			Off Peak (03:00 Hrs) MW				Day Energy (Net MU)	
	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
41780	876	42656	49.98	30009	284	30293	49.98	855.51	14.18

\* 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)							UI (OD:(+ve), UD:(-ve))				
	Thermal	Hydro	Gas/Naphtha/Diesal	Solar	Wind	Other (Biomass/Small hydro/Co-Generation etc.)	Total	Drawal Schedule (Net MU)	Actual Drawal (Net MU)	UI (Net MU)	Consumption (Net MU)	Shortages* (MU)
Punjab	65.11	9.98	0.00	0.06	0.00	0.29	75.43	30.52	26.19	-4.33	101.62	0.00
Haryana	47.21	0.40	6.86	0.00	0.00	0.00	54.47	64.07	63.34	-0.72	117.81	0.66
Rajasthan	102.29	5.13	7.75	0.00	4.86	4.99	125.01	69.21	74.53	5.32	199.54	2.70
Delhi	0.01	0.00	14.52	0.00	0.00	0.00	14.52	46.67	47.08	0.40	61.60	0.01
UP	155.62	5.76	0.00	0.00	0.00	19.20	180.58	86.55	87.65	1.10	268.23	0.52
Uttarakhand	0.00	7.95	7.20	0.50	0.00	0.00	15.64	17.73	18.99	1.26	34.63	0.28
HP	0.00	4.14	0.00	0.00	0.00	1.62	5.75	19.13	20.67	1.54	26.42	0.00
J & K	0.00	4.64	0.00	0.00	0.00	0.00	4.64	35.95	37.79	1.84	42.43	10.01
Chandigarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.43	3.24	-0.20	3.24	0.00
Total	370.24	37.99	36.31	0.56	4.86	26.09	476.05	373.26	379.46	6.20	855.51	14.18

\* Shortage furnished by the respective constituent. \$ 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				Diversity is 1.05		
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	Maximum Demand Met (MW) and Time(Hrs)	Shortage (MW)	
Punjab	5376	0	-293	-1712	2998	0	69	-998	5376	19	0
Haryana	6416	0	-157	-587	3995	0	88	-544	6416	19	0
Rajasthan	8879	229	540	-457	7856	0	-10	203	11107	8	0
Delhi	3236	0	60	-712	1512	0	-97	-1167	3432	11	0
UP	12712	0	-182	-121	10015	0	234	15	12712	19	0
Uttarakhand	1652	150	30	328	1137	0	22	195	1886	7	0
HP	1349	0	87	271	807	0	49	367	1479	8	0
J&K	1989	497	-3	745	1609	284	112	775	2021	20	505
Chandigarh	171	0	-24	-10	80	0	-15	0	189	8	0
Total	41780	876	58	-2254	30009	284	452	-1155	42390	8	850

\* 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 (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule		UI	
							Net MU	Net MU	Net MU	Net MU
A. NTPC										
Singrauli STPS (5*200+2*500)	2000	920	1022	1028	22.85	952	22.07			0.78
Rihand I STPS (2*500)	1000	766	829	796	18.40	767	18.21			0.19
Rihand II STPS (2*500)	1000	866	1009	531	20.79	866	20.61			0.18
Rihand III STPS (2*500)	1000	943	1014	955	22.70	946	22.22			0.47
Dadri I STPS (4*210)	840	769	253	226	6.12	255	6.28			-0.16
Dadri II STPS (2*490)	980	929	782	538	17.41	725	17.98			-0.58
Unchahar I TPS (2*210)	420	338	339	257	6.44	269	6.43			0.02
Unchahar II TPS (2*210)	420	192	212	118	3.65	152	3.69			-0.03
Unchahar III TPS (1*210)	210	192	186	116	3.56	148	3.67			-0.12
Unchahar IV TPS(1*500)	500	0	0	0	0.00	0	0.00			0.00
ISTPP (Jhajjar) (3*500)	1500	1094	982	584	18.54	773	19.00			-0.46
Dadri GPS (4*130.19+2*154.51)	830	806	270	137	4.24	177	4.00			0.25
Anta GPS (3*88.71+1*153.2)	419	415	0	0	0.00	0	0.00			0.00
Auraiya GPS (4*111.19+2*109.30)	663	638	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	3	0	0	0.06	3	0.07			-0.01
KHEP(4*200)	800	792	865	160	3.16	132	3.00			0.16
Sub Total (A)	12612	9665	7763	5446	148	6166	147			0.69
B. NPC										
NAPS (2*220)	440	409	448	451	9.82	409	9.79			0.03
RAPS- B (2*220)	440	401	442	442	9.59	400	9.50			0.10
RAPS- C (2*220)	440	410	451	455	10.01	417	9.84			0.17
Sub Total (B)	1320	1220	1341	1348	29.42	1226	29.12			0.29
C. NHPC										
Chamera I HPS (3*180)	540	534	537	0	1.77	74	1.60			0.16
Chamera II HPS (3*100)	300	200	204	0	1.44	60	1.35			0.09
Chamera III HPS (3*77)	231	231	225	0	0.93	39	0.82			0.11
Bairasuil HPS(3*60)	180	53	123	0	0.47	19	0.37			0.10
Salal-HPS (6*115)	690	103	344	36	2.89	120	2.50			0.39
Tanakpur-HPS (3*31.4)	94	33	32	38	0.83	35	0.79			0.05
Uri-I HPS (4*120)	480	78	220	35	2.10	87	1.86			0.24
Uri-II HPS (4*60)	240	52	39	37	1.33	55	1.25			0.08
Dhauliganga-HPS (4*70)	280	55	214	0	1.43	60	1.33			0.10
Dulhasti-HPS (3*130)	390	387	402	0	3.42	143	3.20			0.22
Sewa-II HPS (3*40)	120	119	89	0	0.32	13	0.36			-0.04
Parbati 3 (4*130)	520	24	259	0	0.60	25	0.58			0.03
Sub Total (C)	4065	1868	2688	145	18	730	16			1.53
D.SJVNL										
NJPC (6*250)	1500	1497	1495	0	8.68	362	8.40			0.28
Rampur HEP (6*68.67)	412	412	414	0	2.42	101	2.34			0.08
Sub Total (D)	1912	1910	1909	0	11.10	463	10.74			0.36
E. THDC										
Tehri HPS (4*250)	1000	988	1019	0	6.71	279	6.50			0.21
Koteshwar HPS (4*100)	400	100	202	93	2.40	100	2.36			0.04
Sub Total (E)	1400	1088	1221	93	9.10	379	8.86			0.24
F. BBMB										
Bhakra HPS (2*108+3*126+5*157)	1379	596	1078	390	14.54	606	14.30			0.24
Dehar HPS (6*165)	990	147	495	0	3.72	155	3.52			0.20
Pong HPS (6*66)	396	209	330	66	5.02	209	5.02			0.00
Sub Total (F)	2765	952	1903	456	23.28	970	22.84			0.44
G. IPP(s)/JV(s)										
Allain DuhanganHPS(IPP) (2*96)	192	0	55	0	0.59	25	0.60			-0.01
Karcham Wangtoo HPS(IPP) (4*250)	1000	0	580	0	4.83	201	4.74			0.09
Malana Stg-II HPS (2*50)	100	0	0	0	0.27	11	0.26			0.01
Shree Cement TPS (2*150)	300	0	1	0	0.01	1	0.00			0.01
Budhil HPS(IPP) (2*35)	70	0	69	0	0.22	9	0.21			0.01
Saini HPS (IPP) (2*50)	100	0					0.39			
Sub Total (G)	1762	0	705	0	5.93	247	5.81			0.11
H. Total Regional Entities (A-G)	25837	16702	17530	7488	244.35	10181	240.67			3.68
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	
	Goindwal(GVK) (2*270)	540	491	290	9.98	416	
	Rajpura (2*700)	1400	1320	660	27.32	1138	
	Talwandi Saboo (3*660)	1980	1200	924	27.60	1150	
	<b>Thermal (Total)</b>	<b>6560</b>	<b>3011</b>	<b>1874</b>	<b>65.11</b>	<b>2713</b>	
	Total Hydro	1000	436	370	9.98	416	
	Wind Power	0	0	0	0.00	0	
	Biomass	303	0	0	0.29	12	
	Solar	859	0	0	0.06	2	
	<b>Renewable(Total)</b>	<b>1162</b>	<b>0</b>	<b>0</b>	<b>0.35</b>	<b>14</b>	
	<b>Total Punjab</b>	<b>8722</b>	<b>3447</b>	<b>2244</b>	<b>75.43</b>	<b>3143</b>	
	Haryana	Panipat TPS (2*210+2*250)	920	449	203	9.28	386
DCRTPP (Yamuna nagar) (2*300)		600	555	469	12.22	509	
Faridabad GPS (NTPC)(2*137.75+1*156)		432	284	281	6.86	286	
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	1235	747	25.72	1072	
<b>Thermal (Total)</b>		<b>4497</b>	<b>2523</b>	<b>1700</b>	<b>54.07</b>	<b>2253</b>	
Total Hydro		62	15	14	0.40	17	
Wind Power		0	0	0	0.00	0	
Biomass		106	0	0	0.00	0	
Solar		50	0	0	0.00	0	
<b>Renewable(Total)</b>		<b>156</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	
<b>Total Haryana</b>		<b>4715</b>	<b>2538</b>	<b>1714</b>	<b>54.47</b>	<b>2269</b>	
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	973	774	21.19	883
	suratgarh TPS (6*250)	1500	619	362	12.02	501	
	Chabra TPS (4*250)	1000	937	914	22.21	925	
	Chabra TPS (1*660)	660	0	0	0.00	0	
	Dholpur GPS (3*110)	330	140	126	3.38	141	
	Ramgarh GPS(1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50)	271	171	177	4.36	182	
	RAPS A (NPC) (1*100+1*200)	300	188	228	4.28	178	
	Barsingar (NLC) (2*125)	250	224	224	5.30	221	
	Giral LTPS (2*125)	250	0	0	0.00	0	
	Rajwest LTPS (IPP) (8*135)	1080	842	842	19.56	815	
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0	
	Kalisindh Thermal(2*600)	1200	-20	923	9.59	400	
	Kawai(Adani) (2*660)	1320	435	436	12.42	517	
	<b>Thermal (Total)</b>	<b>9536</b>	<b>4509</b>	<b>5006</b>	<b>114.31</b>	<b>4763</b>	
	Total Hydro	550	248	98	5.13	214	
	Wind power	4292	190	44	4.86	203	
	Biomass	102	29	29	0.70	29	
	Solar	1995	0	0	0.00	0	
	Renewable/Others (Total)	6389	219	73	5.57	232	
<b>Total Rajasthan</b>	<b>16475</b>	<b>4976</b>	<b>5177</b>	<b>125.01</b>	<b>5209</b>		
UP	Anpara TPS (3*210+2*500)	1630	1332	1263	33.76	1407	
	Obra TPS (2*50+2*94+5*200)	1194	613	531	13.26	553	
	Paricha TPS (2*110+2*220+2*250)	1160	596	432	11.91	496	
	Panki TPS (2*105)	210	0	0	0.00	0	
	Harduaganj TPS (1*60+1*105+2*250)	665	443	298	8.96	373	
	Tanda TPS (NTPC) (4*110)	440	381	273	7.96	332	
	Roza TPS (IPP) (4*300)	1200	796	783	18.85	786	
	Anpara-C (IPP) (2*600)	1200	1050	749	25.18	1049	
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0	
	Anpara-D(2*500)	1000	456	452	10.82	451	
	Lalitpur TPS(3*660)	1980	612	378	12.55	523	
	Bara(2*660)	1320	565	377	12.37	515	
	<b>Thermal (Total)</b>	<b>12449</b>	<b>6844</b>	<b>5536</b>	<b>155.62</b>	<b>6484</b>	
	Vishnuparyag HPS (IPP)(4*110)	440	107	102	2.56	107	
	Alakanada(4*82.5)	330	79	80	1.91	80	
	Other Hydro	527	105	30	1.29	54	
	Cogeneration	981	800	800	19.20	800	
	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>7935</b>	<b>6548</b>	<b>180.58</b>	<b>7524</b>		
Uttarakhand	Other Hydro	1250	508	249	7.95	331	
	Total Gas	450	299	300	7.20	300	
	Wind Power	0	0	0	0.00	0	
	Biomass	127	0	0	0.00	0	
	Solar	100	0	0	0.50	21	
	Small Hydro (< 25 MW)	180	0	0	0.00	0	
	<b>Renewable(Total)</b>	<b>407</b>	<b>0</b>	<b>0</b>	<b>0.50</b>	<b>21</b>	
	<b>Total Uttarakhand</b>	<b>2107</b>	<b>807</b>	<b>549</b>	<b>15.64</b>	<b>652</b>	
	Delhi	Rajghat TPS (2*67.5)	135	0	0	0.01	0
		Delhi Gas Turbine (6x30 + 3x34)	282	79	80	1.87	78
Pragati Gas Turbine (2x104+ 1x122)		330	265	265	6.52	272	
Rithala GPS (3*36)		95	0	0	0.00	0	
Bawana GPS (4*216+2*253)		1370	250	250	6.12	255	
Badarpur TPS (NTPC) (3*95+2*210)		705	0	0	0.00	0	
<b>Thermal (Total)</b>		<b>2917</b>	<b>594</b>	<b>595</b>	<b>14.52</b>	<b>605</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>594</b>	<b>595</b>	<b>14.52</b>	<b>605</b>		
HP	Baspa HPS (IPP) (3*100)	300	31	0	1.34	56	
	Malana HPS (IPP) (2*43)	86	48	0	0.29	12	
	Other Hydro (>25MW)	372	123	66	2.50	104	
	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	94	47	1.62	67	
	<b>Renewable(Total)</b>	<b>486</b>	<b>94</b>	<b>47</b>	<b>1.62</b>	<b>67</b>	
<b>Total HP</b>	<b>1244</b>	<b>296</b>	<b>113</b>	<b>5.75</b>	<b>240</b>		
J & K	Baglihar HPS (IPP) (3*150+3*150)	900	147	147	3.53	147	
	Other Hydro/IPP(including 98 MW Small Hydro)	308	90	32	1.12	46	
	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>237</b>	<b>179</b>	<b>5</b>	<b>193</b>
<b>Total State Control Area Generation</b>	<b>52451</b>	<b>20830</b>	<b>17119</b>	<b>476.05</b>	<b>19836</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>		<b>5401</b>	<b>7354</b>	<b>154.37</b>	<b>6432</b>
<b>Total Regional Availability(Gross)</b>	<b>78288</b>	<b>43761</b>	<b>31961</b>	<b>874.77</b>	<b>36449</b>

**IV. Total Hydro Generation:**

<b>Regional Entities Hydro</b>	<b>12234</b>	<b>9221</b>	<b>854</b>	<b>70.09</b>	<b>2911</b>
<b>State Control Area Hydro</b>	<b>7468</b>	<b>2330</b>	<b>1535</b>	<b>37.99</b>	<b>1971</b>
<b>Total Regional Hydro</b>	<b>19702</b>	<b>11551</b>	<b>2389</b>	<b>108.08</b>	<b>4882</b>

**V. Total Renewable Generation:**

<b>Regional Entities Renewable</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>0.13</b>	<b>5</b>
<b>State Control Area Renewable</b>	<b>8844</b>	<b>313</b>	<b>120</b>	<b>8.03</b>	<b>335</b>
<b>Total Regional Renewable</b>	<b>8874</b>	<b>313</b>	<b>120</b>	<b>8.16</b>	<b>340</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)	250	250	250	0	5.95	0.00	5.95
765 KV Gwalior-Agra (D/C)	829	2037	2042	0	36.72	0.00	36.72
400 KV Zerda-Kankroli	-151	-150	0	264	0.00	4.02	-4.02
400 KV Zerda-Bhinmal	-202	-53	199	206	0.00	1.53	-1.53
220 KV Auraiya-Malanpur	-104	-35	0	105	0.00	1.57	-1.57
220 KV Badod-Kota/Morak	-165	-97	0	69	0.00	2.98	-2.98
Mundra-Mohindergarh(HVDC Bipole)	1248	1200	1252	0	27.99	0.00	27.99
400 KV RAPPCC-Sujalpur	24	156	376	41	3.00	0.00	3.00
400 KV Vindhychal-Rihand	0	0	0	0	0.00	23.11	-23.11
765 kV Phagi-Gwalior (D/C)	1055	1103	1592	0	29.70	0.00	29.70
+/- 800 kV HVDC Champa-Kurushetra	800	800	3000	0	19.54	0	19.54
<b>Sub Total WR</b>	<b>3584</b>	<b>5211</b>			<b>122.91</b>	<b>33.21</b>	<b>89.70</b>
400 kV Sasaram - Varanasi	-40	-173	0	181	5.08	0.00	5.08
400 kV Sasaram - Allahabad	106	42	106	0	1.47	0.00	1.47
400 KV MZP- GKP (D/C)	92	286	524	0	7.75	0.00	7.75
400 KV Patna-Balia(D/C) X 2	672	816	1100	0	21.09	0.00	21.09
400 KV B'Sharif-Balia (D/C)	18	132	223	0	3.41	0.00	3.41
765 KV Gaya-Balia	87	208	262	0	4.89	0.00	4.89
765 KV Gaya-Varanasi (D/C)	79	249	0	568	6.46	0.00	6.46
220 KV Pusauli-Sahupuri	112	68	112	0	2.07	0.00	2.07
132 KV K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
132 KV Son Ngr-Rihand	0	0	0	0	0.00	0.47	-0.47
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-17	-66	143	62	0.00	0.53	-0.53
400 KV Motihari -GKP (D/C)	-242	-126	0	242	0.00	3.93	-3.93
400 kV B'Sharif - Varanasi (D/C)	100	7	100	150	0.00	0.64	-0.64
+/- 800 KV HVDC Alipurduar-Agra	150	0	150	0	3.36	0.00	3.36
<b>Sub Total ER</b>	<b>1117</b>	<b>1443</b>			<b>55.58</b>	<b>5.57</b>	<b>50.01</b>
+/- 800 KV HVDC BiswanathChariali-Agra	700	700	700	0.00	14.66	0.00	14.66
<b>Sub Total NER</b>	<b>700</b>	<b>700</b>			<b>14.66</b>	<b>0.00</b>	<b>14.66</b>
<b>Total IR Exch</b>	<b>5401</b>	<b>7354</b>			<b>193.15</b>	<b>38.78</b>	<b>154.37</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
49.88	0.69	50.57	-0.34	-36.46	1.26	-5.87	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
51.49	107.96	159.45	64.67	89.70	154.37	13.18	-18.26	-5.08

**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	-19	0	0	0	0	0	-0.09

**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	0.46	15.86	61.49	70.58	10.47	3.16	0.00	0.00

Frequency (Hz)				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block		Freq Dev Index (% of Time)
Maximum		Minimum					MAX (Hz)	MIN (Hz)	
50.17	21.58	49.77	16.23	49.98	0.055	0.070	50.11	49.81	29.42

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

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Voltage Deviation Index
		Voltage(KV)	Time	Voltage (KV)	Time	<380 kV	<390 kV	>420 kV	>430 kV	
Rihand	400	403	3:05	399	22:38	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	417	1:52	402	17:50	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	421	4:01	405	9:15	0.0	0.0	0.0	0.0	0.0
Kanpur	400	422	4:00	410	9:17	0.0	0.0	2.9	0.0	2.9
Dadri	400	425	4:01	412	9:22	0.0	0.0	32.2	0.0	32.2
Ballabhgarh	400	425	4:03	408	9:23	0.0	0.0	20.3	0.0	20.3
Bawana	400	424	3:59	408	18:07	0.0	0.0	32.6	0.0	32.6
Bassi	400	427	13:01	398	6:41	0.0	0.0	15.3	0.0	15.3
Hissar	400	422	4:01	404	6:36	0.0	0.0	0.7	0.0	0.7
Moga	400	421	13:02	406	18:10	0.0	0.0	1.1	0.0	1.1
Abdullapur	400	428	4:01	409	18:09	0.0	0.0	39.5	0.0	39.5
Nalagarh	400	428	2:57	410	17:53	0.0	0.0	36.4	0.0	36.4
Kishenpur	400	420	2:58	398	18:11	0.0	0.0	0.0	0.0	0.0
Wagoora	400	398	13:02	364	10:46	6.5	67.9	0.0	0.0	6.5
Amritsar	400	427	3:29	410	17:53	0.0	0.0	34.2	0.0	34.2
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	419	0:00	419	0:00	0.0	0.0	0.0	0.0	0.0

Rishikesh	400	420	0:00	402	9:17	0.0	0.0	0.0	0.0	0.0
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**VIII(B). Voltage profile 765 kV**

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Voltage Deviation Index
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV	
Fatehpur	765	786	19:55	760	9:18	0.0	0.0	0.0	0.0	0.0
Balia	765	793	4:00	769	18:13	0.0	0.0	0.0	0.0	0.0
Moga	765	805	20:08	766	6:12	0.0	0.0	3.1	0.0	3.1
Agra	765	801	19:53	769	9:47	0.0	0.0	0.3	0.0	0.3
Bhiwani	765	810	13:02	783	6:10	0.0	0.0	18.2	0.0	18.2
Unnao	765	782	4:00	756	9:18	0.0	0.0	0.0	0.0	0.0
Lucknow	765	799	4:02	771	18:13	0.0	0.0	0.0	0.0	0.0
Meerut	765	814	19:57	782	6:10	0.0	0.0	26.3	0.0	26.3
Jhatikara	765	808	4:01	781	9:18	0.0	0.0	19.4	0.0	19.4
Bareilly 765 kV	765	801	4:00	773	9:22	0.0	0.0	0.4	0.0	0.4
Anta	765	803	13:02	766	6:19	0.0	0.0	0.3	0.0	0.3
Phagi	765	806	20:01	765	6:08	0.0	0.0	9.3	0.0	9.3

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)	nflow (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	504.49	1285.56	495.20	914.64	190.94	408.56
Pong	426.72	384.05	414.48	656.23	411.76	555.85	43.83	307.44
Tehri	829.79	740.04	818.60	974.26	817.55	953.25	43.47	150.00
Koteshwar	612.50	598.50	611.07	5.11	610.57	4.18	150.00	157.70
Chamera-I	760.00	748.75	756.91	0.00	0.00	0.00	50.16	47.52
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	509.31	3.60	509.67	3.04	56.29	139.06

\* 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 (MU)	PXIL (MU)	Total (MU)
Punjab	-744	-254	0	-744	-968	0	-18.88	-10.51		-29.38
Delhi	-954	-213	0	-557	-155	0	-17.70	-2.68		-20.39
Haryana	-698	154	0	-698	111	0	-22.99	0.92		-22.07
HP	276	92	0	213	58	0	7.59	-0.01		7.59
J&K	500	275	0	500	245	0	12.00	4.82		16.82
CHD	0	0	0	0	-10	0	0.00	-0.18		-0.18
Rajasthan	177	26	0	177	-634	0	3.19	3.59		6.78
UP	87	-72	0	-53	-68	0	-4.52	-1.66		-6.19
Uttarakhand	121	74	0	121	208	0	3.07	3.33		6.39
<b>Total</b>	<b>-1237</b>	<b>82</b>	<b>0</b>	<b>-1041</b>	<b>-1213</b>	<b>0</b>	<b>-38.24</b>	<b>-2.38</b>		<b>-40.62</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-744	-846	-254	-968	0	0
Delhi	-556	-954	232	-579	0	0
Haryana	-601	-1370	158	-661	0	0
HP	416	110	339	-723	0	0
J&K	500	500	412	-413	0	0
CHD	0	0	20	-92	0	0
Rajasthan	177	-8	1852	-818	0	0
UP	87	-537	-68	-72	0	0
Uttarakhand	179	121	379	-191	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	0.00%

(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	2	22
Rajasthan	3	16
Delhi	3	26
UP	1	13
Uttarakhand	1	19
HP	3	36
J & K	5	34
Chandigarh	5	37

**XIII. System Constraints:**

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

**XV. Weather Conditions For 29.11.2017 :**

**XVI. Synchronisation of new generating units :**

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

1. First time charging of 500 MVA ICT-II at Ataur 400 KV Sub-Station UP at 13:32 hrs on 29.11.17 from 400 KV side only(NO-LOAD).
2. First time charging of 400 KV SIKAR-BIKANER Ckt.-1,Rajasthan, at 14:15 hrs. on 29.11.17.
3. First time charging of 220/132 KV -200 MVA ICT-3 at Rai-Bareilly(PG) on No load at 16:54 hrs on 28.11.17 and ON LOAD at 16:15 hrs. on 29.11.17

**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 : 29.11.2017

पारी प्रमारी अभिचंता / SHIFT CHARGE ENGINEER