



	Rajpura (2*700)	1400	1320	660	26.81	1117
	Talwandi Saboo (3*660)	1980	1086	616	18.52	772
	<b>Thermal (Total)</b>	<b>6560</b>	<b>2626</b>	<b>1478</b>	<b>50.16</b>	<b>2090</b>
	Total Hydro	1000	237	166	6.65	277
	Wind Power	0	0	0	0.00	0
	Biomass	288	9	9	0.22	9
	Solar	560	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>848</b>	<b>9</b>	<b>9</b>	<b>0.22</b>	<b>9</b>
	<b>Total Punjab</b>	<b>8408</b>	<b>2872</b>	<b>1653</b>	<b>57.03</b>	<b>2376</b>
Haryana	Panipat TPS (2*210+2*250)	920	200	207	4.03	168
	DCRTPP (Yamuna nagar) (2*300)	600	459	477	10.96	457
	Faridabad GPS (NTPC)(2*137.75+1*156)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	1086	406	15.52	647
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar (CLP) (2*660)	1320	1225	740	22.84	952
	<b>Thermal (Total)</b>	<b>4497</b>	<b>2970</b>	<b>1830</b>	<b>53.34</b>	<b>2223</b>
	Total Hydro	62	18	7	0.42	18
	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>2988</b>	<b>1837</b>	<b>53.76</b>	<b>2240</b>
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	1169	964	25.73	1072
	suratgarh TPS (6*250)	1500	218	182	5.15	215
	Chabra TPS (4*250)	1000	909	822	20.34	847
	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	151	149	3.53	147
	RAPS A (NPC) (1*100+1*200)	300	190	190	4.30	179
	Barsingar (NLC) (2*125)	250	0	226	0.81	34
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	935	503	20.23	843
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(2*600)	1200	1132	822	24.86	1036
	Kawai (Adani) (2*660)	1320	439	434	10.33	430
	<b>Thermal (Total)</b>	<b>8876</b>	<b>5143</b>	<b>4292</b>	<b>115.28</b>	<b>4803</b>
	Total Hydro	550	211	199	4.42	184
	Wind power	4017	133	433	5.08	212
	Biomass	99	13	13	0.30	13
	Solar	1295	4	0	2.37	99
	Renewable/Others (Total)	5411	150	446	7.75	323
	<b>Total Rajasthan</b>	<b>14837</b>	<b>5504</b>	<b>4937</b>	<b>127.45</b>	<b>5310</b>
UP	Anpara TPS (3*210+2*500)	1630	1385	1064	29.06	1211
	Obra TPS (2*50+2*94+5*200)	1194	494	440	11.20	467
	Paricha TPS (2*110+2*220+2*250)	1160	646	641	17.80	742
	Panki TPS (2*105)	210	135	135	3.30	138
	Harduaganj TPS (1*60+1*105+2*250)	665	411	410	11.00	458
	Tanda TPS (NTPC) (4*110)	440	401	276	8.21	342
	Roza TPS (IPP) (4*300)	1200	761	747	22.08	920
	Anpara-C (IPP) (2*600)	1200	1017	626	21.34	889
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	194	195	5.21	217
	Anpara-D(2*500)	1000	842	608	16.32	680
	Lalitpur TPS(3*660)	1980	0	0	0.00	0
	Bara(2*660)	1320	887	733	20.11	838
	<b>Thermal (Total)</b>	<b>12449</b>	<b>7173</b>	<b>5875</b>	<b>165.63</b>	<b>6901</b>
	Vishnuparyag HPS (IPP)(4*110)	440	83	73	1.77	74
	Alakanada(4*82.5)	330	76	0	1.11	46
	Other Hydro	527	97	190	3.89	162
	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>8279</b>	<b>6988</b>	<b>192.80</b>	<b>8033</b>
	Uttarakhand	Other Hydro	1250	535	253	8.45
Total Gas		225	101	104	2.27	95
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>636</b>	<b>357</b>	<b>10.76</b>	<b>448</b>
Delhi	Rajghat TPS (2*67.5)	135	0	0	-0.01	-1
	Delhi Gas Turbine (6x30 + 3x34)	282	0	0	1.93	80
	Pragati Gas Turbine (2x104+ 1x122)	330	0	0	3.93	164
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	340	280	6.66	278
	Badarpur TPS (NTPC) (3*95+2*210)	705	0	0	0.00	0
	<b>Thermal (Total)</b>	<b>2917</b>	<b>340</b>	<b>280</b>	<b>12.51</b>	<b>521</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>340</b>	<b>280</b>	<b>12.51</b>	<b>521</b>	
HP	Baspa HPS (IPP) (3*100)	300	0	0	0.98	41
	Malana HPS (IPP) (2*43)	86	0	0	0.18	7
	Other Hydro	372	127	80	2.82	118
	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	53	38	1.05	44
	<b>Renewable(Total)</b>	<b>486</b>	<b>53</b>	<b>38</b>	<b>1.05</b>	<b>44</b>
	<b>Total HP</b>	<b>1244</b>	<b>180</b>	<b>118</b>	<b>5.03</b>	<b>210</b>
	J & K	Baqilhar HPS (IPP) (3*150+3*150)	900	113	113	2.71
Other Hydro/IPP(including 98 MW Small Hydro)		308	80	18	0.95	40
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>193</b>	<b>131</b>	<b>4</b>	<b>153</b>

Total State Control Area Generation	50078	20992	16301	463.01	19292
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		7869	7017	209.46	8727
Total Regional Availability(Gross)	75315	44979	30115	893.54	37231

**IV. Total Hydro Generation:**

Regional Entities Hydro	12234	8681	734	60.49	2520
State Control Area Hydro	7163	1731	1241	35.40	1572
Total Regional Hydro	19397	10411	1975	95.89	4092

**V. Total Renewable Generation:**

Regional Entities Renewable	30	0	0	0.13	5
State Control Area Renewable	7356	212	493	9.07	378
Total Regional Renewable	7386	212	493	9.20	383

**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)	50	-500	50	500	0.24	8.49	-8.25
765 KV Gwalior-Agra (D/C)	2634	2006	3301	0	64.94	0.00	64.94
400 KV Zerda-Kankroli	37	-214	87	227	0.00	1.26	-1.26
400 KV Zerda-Bhimnal	95	-109	223	140	1.09	0.00	1.09
220 KV Auraiya-Malanpur	-67	-58	0	75	0.00	1.16	-1.16
220 KV Badod-Kota/Morak	-6	-39	16	54	0.00	0.34	-0.34
Mundra-Mohinderghar(HVDC Bipole)	2499	2302	2506	0.00	59.92	0.00	59.92
400 KV RAPPCC-Sujalpur	427	271	485	0	9.28	0.00	9.28
400 KV Vindhychal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	1235	1210	1658	0	35.30	0.00	35.30
<b>Sub Total WR</b>	<b>6904</b>	<b>4869</b>			<b>170.77</b>	<b>11.25</b>	<b>159.52</b>
400 kV Sasaram - Varanasi	-90	194	208	98	1.59	0.00	1.59
400 kV Sasaram - Allahabad	-191	46	49	201	0.00	1.66	-1.66
400 KV MZP- GKP (D/C)	24	179	335	41	4.29	0.00	4.29
400 KV Patna-Balia(D/C) X 2	565	693	810	0	16.16	0.00	16.16
400 KV B'Sharif-Balia (D/C)	47	198	247	0	3.33	0.00	3.33
765 KV Gaya-Balia	141	281	355	0	6.44	0.00	6.44
765 KV Gaya-Varanasi (D/C)	431	390	777	0	13.26	0.00	13.26
220 KV Pusaali-Sahupuri	78	84	135	0	2.27	0.00	2.27
132 KV K'nasa-Sahupuri	0	0	0	0	0.48	0.51	-0.51
132 KV Son Ngr-Rihand	-26	-22	0	28	0.00	0.51	-0.51
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	53	99	252	0	3.47	0.00	3.47
400 KV Barh -GKP (D/C)	410	454	582	0	11.56	0.00	11.56
400 kV B'Sharif - Varanasi (D/C)	23	52	209	36	2.06	0.00	2.06
<b>Sub Total ER</b>	<b>1465</b>	<b>2648</b>			<b>64.90</b>	<b>2.68</b>	<b>61.74</b>
+/- 800 KV BiswanathChariali-Agra	-500	-500	0	500.00	0.00	11.80	-11.80
<b>Sub Total NER</b>	<b>-500</b>	<b>-500</b>			<b>0.00</b>	<b>11.80</b>	<b>-11.80</b>
<b>Total IR Exch</b>	<b>7869</b>	<b>7017</b>			<b>235.66</b>	<b>25.73</b>	<b>209.46</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
36.67	0.47	37.14	1.57	0.79	27.27	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
65.98	142.13	208.11	49.94	159.52	209.46	-16.04	17.39	1.35

**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	-39	0	41	0	1	-0.92

**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	0.37	8.91	55.03	71.82	16.44	3.37	0.13	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)		
50.22	22.00	49.74	16.16	49.99	0.045	0.00	0.00	28.18	

**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	407	1:03	397	7:41	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	418	4:01	400	9:40	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	421	0:59	397	9:47	0.0	0.0	1.2	0.0	1.2
Kanpur	400	417	0:59	395	9:37	0.0	0.0	0.0	0.0	0.0
Dadri	400	427	3:59	401	9:38	0.0	0.0	22.2	0.0	22.2
Ballabgarh	400	430	4:00	404	9:37	0.0	0.0	33.0	0.0	33.0
Bawana	400	425	3:44	401	9:38	0.0	0.0	19.7	0.0	19.7
Bassi	400	425	4:00	396	9:35	0.0	0.0	2.3	0.0	2.3
Hissar	400	423	4:03	397	12:43	0.0	0.0	1.4	0.0	1.4
Moga	400	415	19:38	402	12:15	0.0	0.0	0.0	0.0	0.0
Abdullapur	400	427	3:03	405	12:15	0.0	0.0	27.6	0.0	27.6
Nalagarh	400	430	3:12	412	12:16	0.0	0.0	39.4	0.0	39.4
Kishenpur	400	419	2:28	397	12:14	0.0	0.0	0.0	0.0	0.0
Wagoora	400	412	17:49	367	10:34	36.3	85.6	0.0	0.0	36.3
Amritsar	400	429	3:07	406	12:14	0.0	0.0	33.8	0.0	33.8
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	424	2:27	413	5:49	0.0	0.0	22.5	0.0	22.5
Rishikesh	400	422	4:00	391	9:42	0.0	0.0	4.4	0.0	4.4

**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	772	20:28	734	9:47	0.0	4.3	0.0	0.0	0.0
Balia	765	787	4:02	749	9:47	0.0	0.0	0.0	0.0	0.0
Moga	765	792	19:43	764	9:38	0.0	0.0	0.0	0.0	0.0

Agra	765	788	4:01	746	9:38	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	809	3:04	763	9:38	0.0	0.0	20.6	0.0	20.6
Unnao	765	775	4:02	730	9:46	0.0	23.9	0.0	0.0	0.0
Lucknow	765	800	4:00	758	9:47	0.0	0.0	0.0	0.0	0.0
Meerut	765	807	20:26	762	9:38	0.0	0.0	11.6	0.0	11.6
Jhatikara	765	806	4:01	758	9:38	0.0	0.0	10.5	0.0	10.5
Bareilly 765 kV	765	796	4:02	750	9:38	0.0	0.0	0.0	0.0	0.0
Anta	765	796	3:58	758	9:33	0.0	0.0	0.0	0.0	0.0
Phagi	765	804	4:00	754	9:42	0.0	0.0	0.6	0.0	0.6

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	486.13	619.14	499.05	1053.16	160.41	365.37
Pong	426.72	384.05	406.93	397.88	409.22	474.29	71.02	227.87
Tehri	829.79	740.04	804.15	687.97	797.70	565.18	37.01	208.00
Koteshwar	612.50	598.50	610.40	4.70	610.94	5.04	208.00	205.92
Chamera-I	760.00	748.75	759.46	0.00	0.00	0.00	43.27	49.42
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	503.78	1.80	496.64	3.38	53.91	93.59

\* 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	-542	1	0	-617	0	0	-18.49	0.65	-17.85
Delhi	-94	-655	0	-273	208	0	-3.93	0.41	-3.52
Haryana	-854	208	0	-421	348	0	-15.12	6.55	-8.58
HP	478	70	0	251	-30	0	12.26	-1.22	11.04
J&K	608	241	0	605	169	0	15.08	5.11	20.18
CHD	0	0	0	0	0	0	0.00	0.00	0.00
Rajasthan	299	501	0	261	490	0	13.70	13.14	26.83
UP	91	0	0	-47	-100	0	-8.10	-1.60	-9.70
Uttarakhand	286	69	0	286	148	0	4.77	4.97	9.74
<b>Total</b>	<b>271</b>	<b>436</b>	<b>0</b>	<b>45</b>	<b>1233</b>	<b>0</b>	<b>0.14</b>	<b>28.00</b>	<b>28.15</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-533	-1271	579	-517	0	0
Delhi	-25	-309	753	-675	0	0
Haryana	-421	-854	377	-277	0	0
HP	708	251	72	-590	0	0
J&K	694	590	420	-52	0	0
CHD	0	0	29	-52	0	0
Rajasthan	1176	94	1091	420	0	0
UP	205	-945	0	-100	0	0
Uttarakhand	286	0	490	35	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	9.03%
ER	0.00%
Simultaneous	0.00%

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

WR	46.53%
ER	0.00%
Simultaneous	22.57%

(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	22
Haryana	2	15
Rajasthan	1	18
Delhi	6	44
UP	1	16
Uttarakhand	3	33
HP	5	35
J & K	7	67
Chandigarh	5	68

**XIII. System Constraints:**

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

**XV. Weather Conditions For 11.01.2017 :**

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

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

400 kV Kurukshetra-Malerkotla 1 & 2 first time charged at 0849 & 1011 Hrs on 11.01.17 respectively, 765 kV Bay No. 705,706 & Bus 2 at Mainpuri first time charged at 1627 Hrs on 11.01.17.

**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 : 11.01.2017

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER