

CHAPTER- 17
POWER

Table 17.1- Power in Assam, at a Glance 2016-17

Installed Capacity of Generating Plant (MW)	379.7
Gross Unit Generation (MU)	1650.6
Energy Requirement (MU)	8240
Peak Demand (MW)	1679
Peak Demand Met (MW)	1634
Shortage (%)	3
No. of Consumers	
Domestic	3690714
Commercial	242031
Energy Billed (MU)	6526
LT Category	4271
HT Category	2255

Table 17.2- Requirement and shortage of electricity in Assam during 2014-15 to 2016-17

Item	2014-15	2015-16	2016-17
Energy Requirement (MU)	7233	7857	8240
Energy Input (Availability) (MU)	6955	7571	7948
Shortage (M.U)	278	286	292
Shortage (In %)	4	4	4
Peak Demand (MW)	1424	1496	1679
Peak Demand Met (MW)	1212	1339	1634
Shortage (MW)	212	157	45
Shortage (In %)	15	10	3

Source: Office of the AGM, LD-COM, SLDC, Assam.

Table 17.3- Installed capacity and generation of electricity in Assam during 2014-15 to 2016-17

Type		2014-15	2015-16	2016-17
A. Installed Capacity of Generating Plant(MW)				
Hydel	KLHEP	100	100	100
	Myntriang SHEP St-II	3	3	3
Gas	LTPS	120	120	120
	NTPS	97	97	97
Waste Heat Recovery Unit	LTPS WHRU	37.2	37.2	37.2
	NTPS WHRU	22.5	22.5	22.5
Total	APGCL	379.7	379.7	379.7
B. Gross Unit Generation (MU)				
Hydel	KLHEP	367	396.4	397.1
	Myntriang SHEP St-II	0.7	0.4	5.7
Gas	LTPS	935.3	946.8	891.4
	NTPS	591.7	507.6	356.4
Total	APGCL	1894.7	1851.1	1650.6
C. Auxiliary Consumption (MU)				
Hydel	KLHEP	1.8	2	2
Gas	Myntriang SHEP St-II	0.013	0.01	0.06
	LTPS	80	76.6	68.1
Total	NTPS	34.1	27.7	23.2
D. Net Unit Generation (MU)				
	APGCL	115.9	106.3	93.3
Hydel	KLHEP	365.1	394.4	395.1
	Myntriang SHEP St-II	0.7	0.4	5.7
Gas	LTPS	855.3	870.2	823.3
	NTPS	557.6	479.8	333.2
Total	APGCL	1778.7	1744.8	1557.3

Source: Assam Power Generation Corporation Ltd., Bijulee Bhawan, Guwahati-01.

Table 17.4- Transmission, distribution and commercial electricity losses in Assam, 2014-15 to 2016-17

Item	2014-15	2015-16	2016-17
Energy Input(MUs) (At APDCL end)	6955	7571	7948
Energy Billed (MUs)	5485	6199	6526
T & D Losses (MUs)	1470	1372	1422
T & D Losses (%)	21.14	18.12	17.89
Amount Billed (Rs. in Crore)	3189	3809	4432
Amount Realised (Rs. in Crore)	3139	3720	4086
Collection Efficiency (%)	98.43	97.64	92.2
Overall Efficiency (%)	77.63	79.94	75.7
Aggregate Transmission and Commercial Losses (%)	22.37	20.06	24.3

Table 17.5- Circle-wise number of consumers in Assam during 2014-15 to 2016-17

Circle	2014-15		2015-16		2016-17	
	Domestic	Commercial	Domestic	Commercial	Domestic	Commercial
Kokrajhar	160522	9431	173409	10254	216029	11333
Bongaigaon	196136	9287	208090	10254	242008	13815
Rangia	204830	7302	242772	8203	231887	8968
Barpeta	200219	9807	242772	10254	287760	14006
GEC-I	182683	25734	208090	26660	194152	29816
GEC-II	166973	7947	173409	8203	215766	11087
Mangaldoi	172560	6308	173409	6152	216424	8987
Tezpur	190720	11966	208090	12305	228389	13447
Lakhimpur	160383	7753	173409	8203	203642	11425
Morigaon*	102872	4525	138727	4102	121630	4893
Nagaon	253888	13189	312136	14356	339222	20118
Jorhat	159652	8741	208090	8203	189928	10705
Golaghat*	115919	5073	138727	6152	134467	5909
Sivasagar	136692	9784	173409	10254	162329	12039
Dibrugarh	99212	15753	104045	10254	125137	10331
Tinsukia	116470	13790	138727	16406	158789	16282
Kaanch	93165	6126	104045	6152	124336	7934
Badarpur*	102073	10392	138727	10254	137809	13016
Cachar	130392	13380	208090	18457	161010	17920
Total (APDCL)	2945361	196288	3468173	205078	3690714	242031

* Some of the circles shows less consumers then the previous year due to migration of consumers from one circle to anothers.

Table 17.6- Sale of electricity by type of consumption in Assam during 2015-16 to 2016-17

Category	Range	Energy Billed (MU)	
		2015-16	2016-17
LT Category			
Jeevan Dhara	-	771	487
Domestic A	Above 0.5 kw to 5 kw	2075	2639
Domestic B	Above 5kw to 20 kw	228	261
Commercial Load	Above 0.5kw to 20 kw	578	631
General Load	upto 20 kw	118	117
Public Lighting	-	17	17
Agriculture	upto 7.5 hp	12	15
Small Industries (Rural) upto 20 Kw	upto 20 kw	57	64
Small Industries (Urban)	-	31	33
Temporary Supply	-	-	7
LT Total	-	3887	4271
HT Category			
Domestic	20 kw and above	43	36
Commercial	20 kw and above	324	375
Public Water Works	-	66	87
Bulk Supply (Govt. Education Instt.)	-	78	86
Bulk supply (Others)	-	384	391
HT Small Industries	upto 50 kw	22	26
HT Industries-I	50 kw to 150 kw	78	78
HT Industries-II	Above 150 kw	907	617
Tea, Coffee and Rubber	-	412	426
Oil & Coal	-	129	112
HT Irrigation load	Above 7.5 hp	22	21
HT Total	-	2465	2255
All Total	-	6352	6526

N.B.: Inclusive of Open Access Consumers.

Source: (Table 17.03 to 17.05) Office of the CGM, APDCL (Commercial), Bijulee Bhawan, Guwahati-01.

Table 17.7- District-wise number of villages electrified in Assam during 2015-16 to 2016-17

District	Total No. of Villages, 2011 (as per Census)	No. of Villages Electrified	
		2015-16	2016-17
Kokrajhar	1068	834	890
Dhubri	1091	1083	1088
Goalpara	829	748	769
Barpeta	835	825	827
Morigaon	632	503	513
Nagaon	1412	1354	1369
Sonitpur	1876	1606	1622
Lakhimpur	1184	1126	1172
Dhemaji	1319	1311	1316
Tinsukia	1168	1093	1102
Dibrugarh	1348	1072	1118
Sivasagar	875	573	773
Jorhat	848	787	805
Golaghat	1125	1090	1107
Karbi Anglong	2921	2400	2907
Dima Hasao	695	536	652
Cachar	1040	913	922
Karimganj	936	806	840
Hailakandi	331	314	327
Bongaigaon	563	885	906
Chirang	508		
Kamrup	1068	1240	1267
Kamrup Metro	216		
Nalbari	456	857	877
Baksa	690		
Darrang	561	1338	1343
Udalguri	800		
Assam	26395	23294	24512

Source: AGM, APDCL (Rural Electrification) Bijulee Bhawan, Guwahati-01.

Table 17.8- Solar home light system in Assam in 2015 (under RVEP)

District	Total Home Lighting System (As on 31-03-2015)
Dhubri	4468
Goalpara	1163
Barpeta	1573
Morigaon	956
Nagaon	0
Sonitpur	1842
Lakhimpur	2818
Dhemaji	5862
Tinsukia	351
Dibrugarh	45
Sivasagar	0
Jorhat	436
Golaghat	1180
Karbi Anglong	3874
Dima Hasao	762
Cachar	998
Karimganj	2287
Hailakandi	252
Bongaigaon	2566
Kokrajhar (including Chirang)	1027
Kamrup (including Kamrup Metro)	6812
Nalbari	0
Baksa	0
Darrang	763
Udalguri	0
Assam	40035

Home Lighting Systems includes:

Solar Module = 12V, 37 Wp-1 No,

Tabular Plate Battery = 12V, 40 AH-1 No, Luminary = 9W-2 Nos.

**TABLE-17.08: NOS. OF SOLAR PHOTOVOLTAIC POWER PLANT (OFF GRID) INSTALLED UNDER
JAWAHARLAL NEHRU NATIONAL SOLAR MISSION (JNNSM) & SPECIAL AREA DEMONSTRATION
PROJECT PROGRAMME**

(As on 31st March 2016)

District	Plant Size (in KWP) and Nos. of Plant								Total	
	0.5	1	2.5	4	5	10	33	100	Nos.	Size
Kokrajhar	-	-	1	-	-	-	-	-	1	2.5
Dhubri	1	-	1	-	1	-	-	-	3	8
Goalpara	-	-	1	-	-	-	-	-	1	2.5
Barpeta	-	-	1	-	-	-	-	-	1	2.5
Morigaon	1	5	1	-	1	-	-	-	8	13
Nagaon	-	18	1	-	1	-	-	-	20	25.5
Sonitpur	-	14	1	-	1	-	-	-	16	21.5
Lakhimpur	-	-	1	-	-	-	-	-	1	2.5
Dhemaji	1	-	-	-	-	-	-	-	1	0.5
Tinsukia	-	-	1	-	-	3	-	-	4	32.5
Dibrugarh	-	-	1	-	-	2	-	1	4	122.5
Sivasagar	-	-	1	-	-	4	-	-	5	42.5
Jorhat	-	16	1	-	-	-	-	-	17	18.5
Golaghat	-	-	1	-	-	-	-	-	1	2.5
Karbi Anglong	-	14	-	2	2	-	-	-	18	32
Dima Hasao	-	-	-	-	-	-	-	-	-	-
Cachar	-	-	1	-	-	-	-	-	1	2.5
Karimganj	1	-	-	-	-	-	-	-	1	0.5
Hailakandi	-	-	-	-	-	-	-	1	1	100
Bongaigaon	-	-	1	-	-	-	-	-	1	2.5
Chirang	-	-	-	-	-	-	-	-	-	-
Kamrup	11	17	2	-	2	-	-	-	32	37.5
Kamrup Metro	-	2	-	-	1	1	1	-	5	50
Nalbari	-	-	2	-	-	-	-	-	2	5
Baksa	-	-	-	-	-	-	-	-	-	-
Darrang	-	5	1	-	1	-	-	-	7	12.5
Udalguri	-	6	-	-	1	-	-	-	7	11
Assam	15	97	20	2	11	10	1	2	158	550.5

Source: (Table 17.07 & 17.08) Assam Energy Development Agency, G.S. Road, Guwahati-05