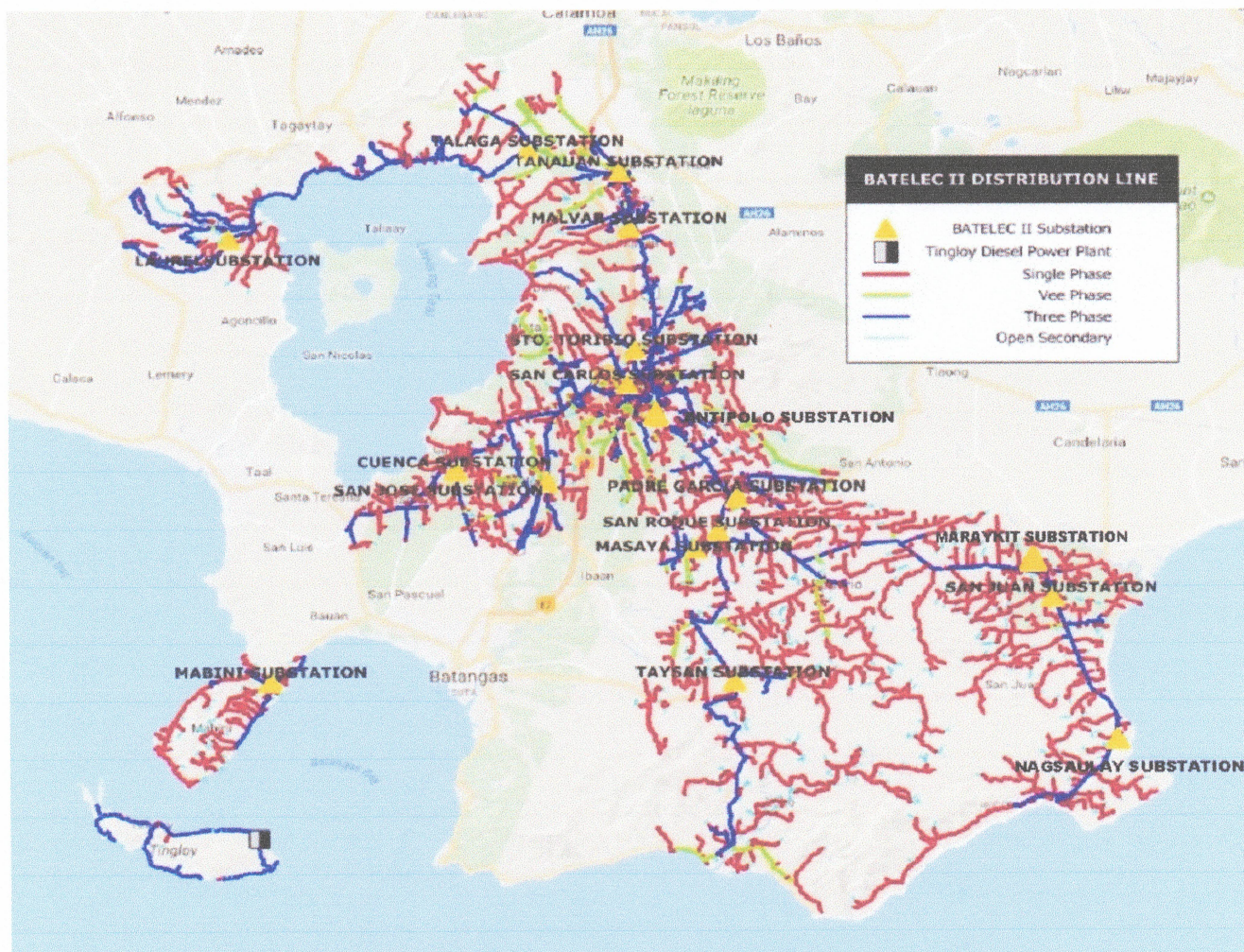


Distribution Development Plan 2025

BATANGAS II ELECTRIC COOPERATIVE, INC.

General Information

The DU's franchise was granted on 28th day of May 1980 by virtue of the authority vested in the National Electrification Commission by Presidential Decree No. 269 dated August 6, 1973 with Certificate No. 060 and hereby granted to operate an electric light and power service for a period of fifty (50) years.



The DU's franchise area consists of 482 barangays in the Cities of Lipa and Tanauan and the Municipalities of Alitagtag, Balete, Cuenca, Laurel, Lobo, Mabini, Malvar, MataasnaKahoy, Padre Garcia, Rosario, San Jose, San Juan, Talisay, Taysan and Tingloy in the Province of Batangas. The Coop's franchise land area connected to the Grid is 1,602.21 square kilometers in size with a population of 1,344,305 while for Off-Grid is 32.41 square kilometers with a population of 19,215. The population was based on the 2020 Census of Population and Housing (<https://psa.gov.ph/content/household-population-number-households-and-average-household-size-philippines-2020-census>).

The DU serves Grid and Off-Grid Sectors.

Historical and Forecasted Consumption Data

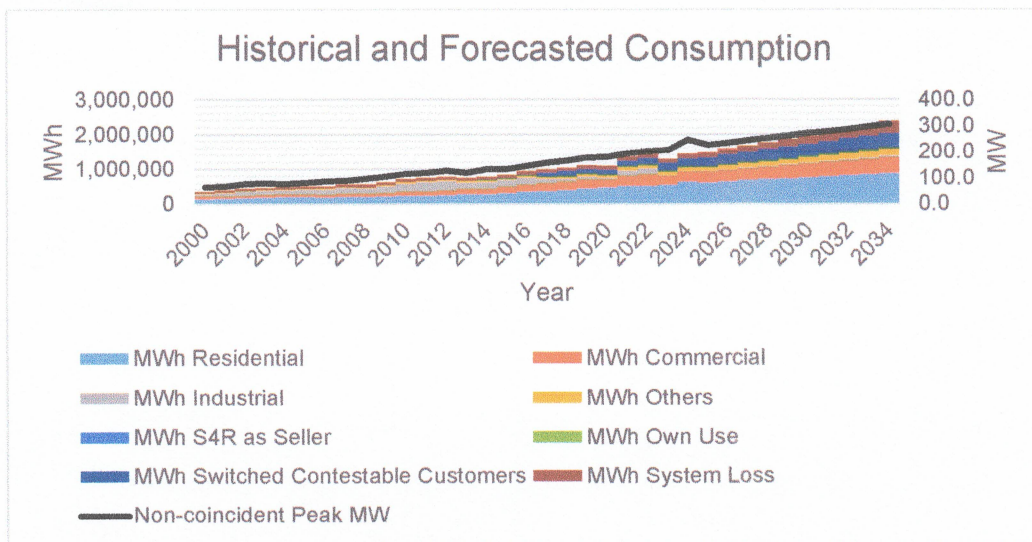
	Non-coincident Peak MW	MWh Offtake	MWh Transm'n Loss	MWh Residential	MWh Commercial	MWh Industrial	MWh Others	MWh Own Use	MWh Switched Contestable Customers	MWh System Loss
2000	66.58	354,145	0	135,796	66,357	77,590	21,165	782	0	52,454
2001	68.38	393,796	0	149,790	72,252	88,952	23,615	876	0	58,311
2002	79.48	430,769	0	159,899	79,294	103,223	25,851	948	0	61,554
2003	80.73	464,732	0	176,783	85,358	108,860	29,261	1,061	0	63,409
2004	78.83	488,389	0	189,999	86,764	109,168	32,394	936	0	69,128
2005	83.19	500,972	0	186,990	89,734	123,066	34,434	1,022	0	65,726
2006	88.52	507,471	0	178,516	87,328	139,106	35,518	1,172	0	65,831
2007	89.23	563,151	0	188,558	95,405	163,858	38,652	1,263	0	75,415
2008	99.58	556,440	0	191,091	97,141	146,806	41,609	1,084	0	78,708
2009	106.50	612,746	0	204,810	104,696	192,288	41,784	1,067	0	68,101
2010	117.40	706,450	0	229,442	114,933	238,803	44,669	1,059	0	77,545
2011	121.04	740,723	0	229,288	121,203	266,025	46,172	982	0	77,053
2012	130.78	780,527	0	248,876	133,911	258,827	52,138	1,013	0	85,763
2013	119.97	754,603	0	269,269	143,970	194,167	55,894	1,055	0	90,248
2014	135.73	779,125	15,773	273,544	152,230	198,808	57,047	1,042	11,935	80,681
2015	136.00	836,385	19,277	306,327	180,573	184,120	61,610	1,126	21,072	83,353
2016	147.96	923,111	19,823	345,520	203,495	196,958	65,789	1,142	24,421	90,384
2017	159.39	880,280	16,912	367,807	223,723	108,205	70,497	1,055	126,321	92,082
2018	168.55	891,861	13,782	390,559	241,131	79,692	77,286	1,109	160,737	88,347
2019	179.44	972,849	13,521	426,429	268,676	83,083	82,077	1,140	150,593	97,923
2020	182.02	951,228	15,707	471,065	218,951	62,817	81,116	1,118	149,959	103,270
2021	196.08	1,197,660	13,692	511,881	288,713	150,078	123,503	1,185	172,034	108,607
2022	203.98	1,250,432	9,823	524,019	322,323	166,342	108,637	1,251	194,932	109,935
2023	207.72	1,315,889	23,980	543,901	264,504	16,627	103,175	1,259	247,344	115,030
2024	248.71	1,468,083	24,410	629,519	291,727	15,164	123,093	1,293	243,094	139,783
2025	228.51	1,499,058	24,298	609,962	305,298	19,245	128,922	1,304	272,151	137,879
2026	237.41	1,593,271	25,884	639,790	321,595	22,007	138,371	1,329	292,203	152,092
2027	246.25	1,695,429	27,685	669,551	337,897	24,769	147,805	1,356	312,254	174,112
2028	255.08	1,794,071	29,636	699,253	354,197	27,530	157,254	1,382	332,306	192,512

	Non-coincident Peak MW	MWh Offtake	MWh Transm'n Loss	MWh Residential	MWh Commercial	MWh Industrial	MWh Others	MWh Own Use	MWh Switched Contestable Customers	MWh System Loss
2029	263.81	1,894,697	30,933	728,791	370,496	30,292	166,696	1,409	352,358	213,722
2030	272.64	1,997,382	32,685	758,419	386,796	33,054	176,262	1,435	372,410	236,321
2031	281.48	2,100,548	34,540	788,055	403,096	35,816	185,597	1,462	392,461	259,520
2032	290.31	2,204,917	36,063	817,695	419,396	38,577	195,051	1,489	412,513	284,133
2033	299.15	2,310,906	37,783	847,340	435,696	41,339	204,507	1,516	432,565	310,161
2034	307.98	2,417,934	39,417	876,989	451,998	44,101	213,966	1,543	452,617	337,305

The above table is a consolidation of energy consumption data for all Sectors, namely WESM, Net Metering Customers, GNPowr Mariveles Energy Center Ltd Co., Bac-Man Geothermal, Inc., and PSALM for Grid and NPC-Spug for Off-Grid areas. The largest Sector for 2024 is GNPowr Mariveles Energy Center Ltd Co. which accounts for around 49.72% of the MWh Offtake.

	Transm'n Loss	System Loss	Load Factor	Switched Contestable Customers
2000	0.00%	14.81%	61%	0.00%
2001	0.00%	14.81%	66%	0.00%
2002	0.00%	14.29%	62%	0.00%
2003	0.00%	13.64%	66%	0.00%
2004	0.00%	14.15%	71%	0.00%
2005	0.00%	13.12%	69%	0.00%
2006	0.00%	12.97%	65%	0.00%
2007	0.00%	13.39%	72%	0.00%
2008	0.00%	14.14%	64%	0.00%
2009	0.00%	11.11%	66%	0.00%
2010	0.00%	10.98%	69%	0.00%
2011	0.00%	10.40%	70%	0.00%
2012	0.00%	10.99%	68%	0.00%
2013	0.00%	11.96%	72%	0.00%
2014	2.02%	10.36%	67%	1.53%
2015	2.30%	9.97%	72%	2.52%
2016	2.15%	9.79%	73%	2.65%
2017	1.92%	10.46%	72%	14.35%
2018	1.55%	9.90%	71%	18.02%
2019	1.39%	10.07%	71%	15.48%
2020	1.65%	10.56%	76%	15.76%
2021	1.15%	9.07%	79%	14.36%
2022	0.79%	8.85%	81%	15.69%
2023	1.83%	8.90%	71%	19.15%
2024	1.66%	9.68%	66%	16.84%
2025	1.62%	9.35%	74%	18.45%
2026	1.62%	9.70%	75%	18.64%
2027	1.63%	10.44%	77%	18.72%
2028	1.65%	10.91%	79%	18.83%
2029	1.63%	11.47%	81%	18.91%
2030	1.64%	12.03%	82%	18.96%
2031	1.64%	12.56%	84%	19.00%
2032	1.64%	13.10%	85%	19.02%
2033	1.63%	13.64%	87%	19.03%
2034	1.63%	14.18%	88%	19.03%

Historically, the overall System Loss ranged from 8.85% to 14.81%. Overall System Loss peaked at 14.81% on years 2000 to 2001 because of several factors due to pilferages and other technical losses such as lengthy lines, existing old meters and equipment, inadequate size of conductors and etc.



For year 2024, Residential customers account for the bulk of energy sales at 59.42% due to the increasing number of household connections in Coop's franchise area. In contrast, customers Industrial Customers was accounted for 1.43% of energy sales due to continuous migration of contestable customers from Electric Cooperative to Retail Electricity Supplier with expansion of RCOA Coverage, implementation of GEOP and net metering program.

Historical and Forecasted Customer Data

	Number of barangays in franchise	Number of households in franchise	Number of barangays outside franchise being served	Number of customer connections outside franchise	Number of captive customer connections	Number of contestable customers	NCP MW of switched contestable customers	Total MWh of switched contestable customers
2013	482	260,879	2	1,053	221,906	0		
2014	482	269,902	2	1,077	228,738	13	5.79	11,935
2015	482	278,832	2	1,108	237,454	15	6.03	21,072
2016	482	290,128	2	1,122	248,628	15	10.96	24,421
2017	482	301,851	2	1,146	260,179	16	33.96	126,321
2018	482	315,040	2	1,155	272,201	16	28.83	160,737
2019	482	317,362	2	1,167	285,689	17	30.41	150,593
2020	482	340,085	2	1,167	293,693	31	40.66	149,959
2021	482	355,369	2	1,168	306,991	32	34.66	172,034
2022	482	370,056	2	1,168	321,028	36	36.73	194,932
2023	482	384,512	2	1,168	334,171	35	37.58	247,344
2024	482	396,597	2	490	346,134	40	45.55	201,312
2025	482	428,190	2	490	366,381	42	46.77	233,428
2026	482	431,732	2	490	386,543	45	50.86	257,869
2027	482	435,193	2	490	408,816	50	55.51	285,186
2028	482	438,591	2	490	433,221	52	60.76	315,377
2029	482	442,424	2	490	459,763	56	66.68	348,445
2030	482	446,937	2	490	488,456	58	73.35	384,387
2031	482	452,006	2	490	519,311	62	80.80	423,205
2032	482	457,652	2	490	552,325	65	89.11	464,899
2033	482	463,889	2	490	587,510	68	98.34	509,468
2034	482	470,728	2	490	624,873	72	108.55	556,912

In summary, the franchise area consists of a total of 482 barangays. Out of these:

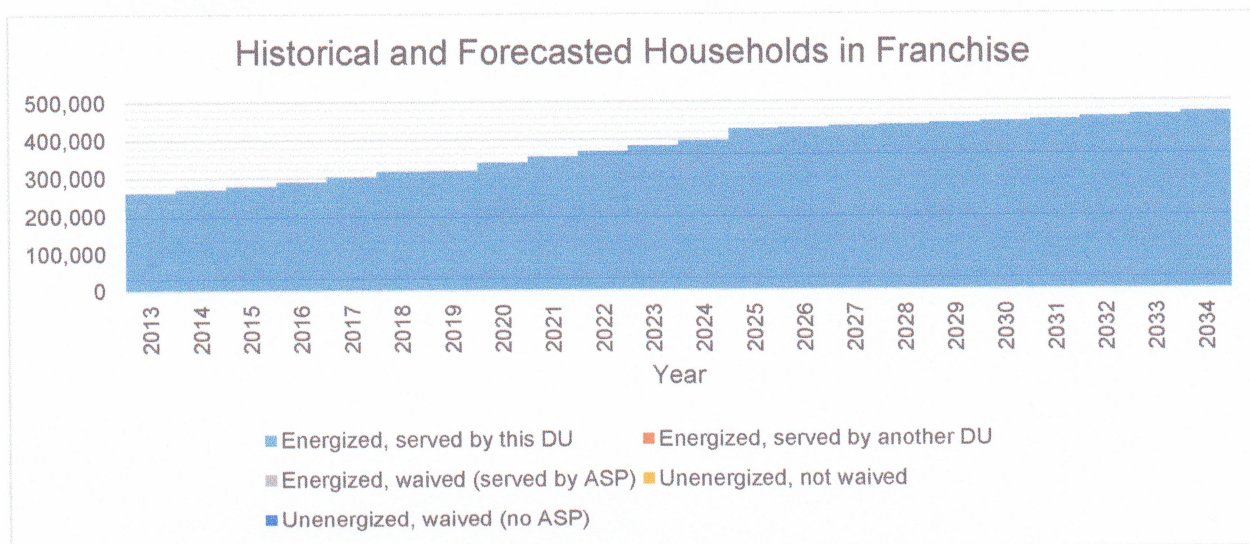
- 478 barangays are served by the BATELEC II.
- 3 barangays are served by another Distribution Utility.
- 1 barangay has been unenergized since 2020 due to the Taal Volcanic Eruption, with households relocating to nearby barangays.

Additionally, there are 2 barangays outside the franchise area (Sico and Talumpok in Batangas City) that are currently served by BATELEC II, but there is a possibility that they may switch their service to Meralco in the future.

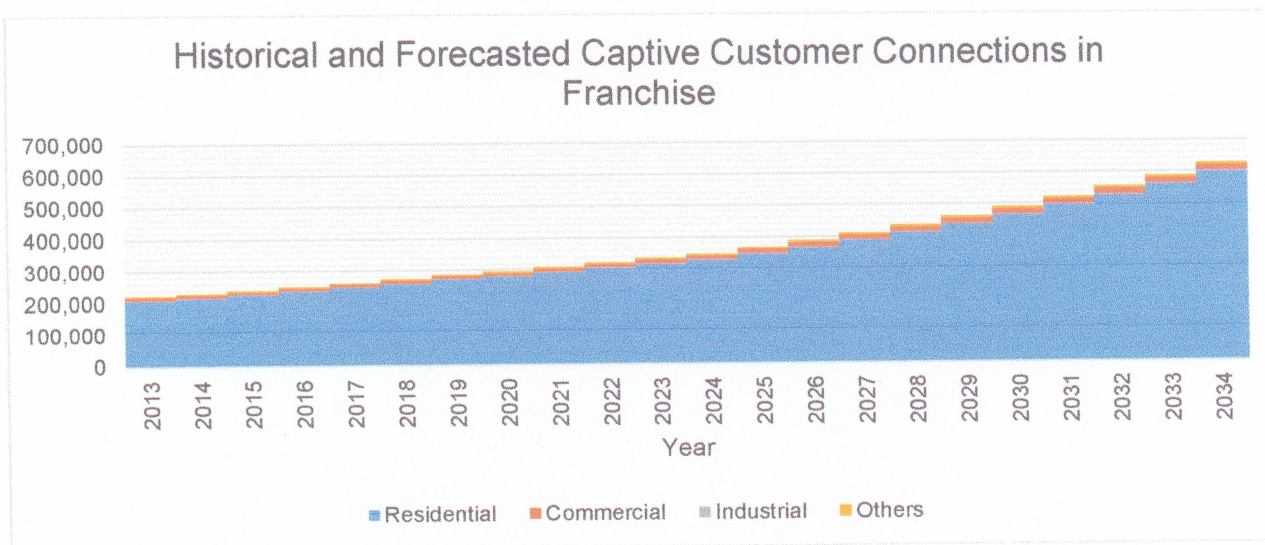
This overview provides clarity on the current service distribution among barangays within and around the franchise area.

As forecasted, it is expected that 72 Contestable Customers will be served by BATELEC II within 10 years (2025 – 2034). Within the same timeframe, the total MW accounted for switched Contestable Customers is expected to reach 108.55 MW with a corresponding offtake 556,912 MWh.

However, the plan for the implementation of lowering the threshold for eligibility to join the retail competition and open access (RCOA) program will have an impact on this forecast for the next 10 years.

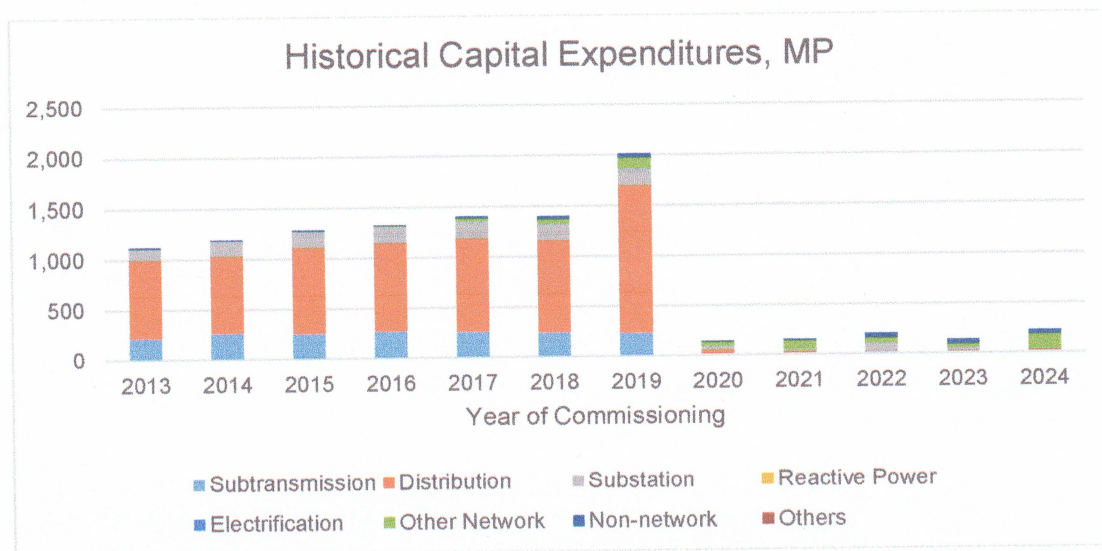


The number of households is expected to increase by 3.64% annually. However, the households in the unenergized Barangay affected by the Taal Volcanic Eruption in January 2020 have been relocated to a nearby Barangay. Additionally, BATELEC II does not have available data on the number of households in the three energized barangays within the franchise area served by another Distribution Utility (DU).



The number of captive customers such as Residential, Commercial, Industrial and Others (Public Building, Streetlights, Public Building and Water System) is expected to increase by 5.06% annually.

Capital Projects



BATELEC II's CAPEX applications for various periods have undergone evaluation and processing by the Energy Regulatory Commission (ERC). The CAPEX 2010–2014 plan was evaluated and approved as per the ERC decision on Case No. 2010-119RC. The CAPEX 2015–2017 application was submitted for initial review on September 13, 2024. Similarly, the CAPEX 2018–2020 application was submitted to the ERC for initial review on May 19, 2023, with the ERC providing comments on June 16, 2023.

Meanwhile, the CAPEX 2021–2023 application is currently being prepared by BATELEC II as a separate undertaking. The CAPEX 2024–2026 application, however, has already been submitted to ERC-ROS for initial review on November 4, 2024.

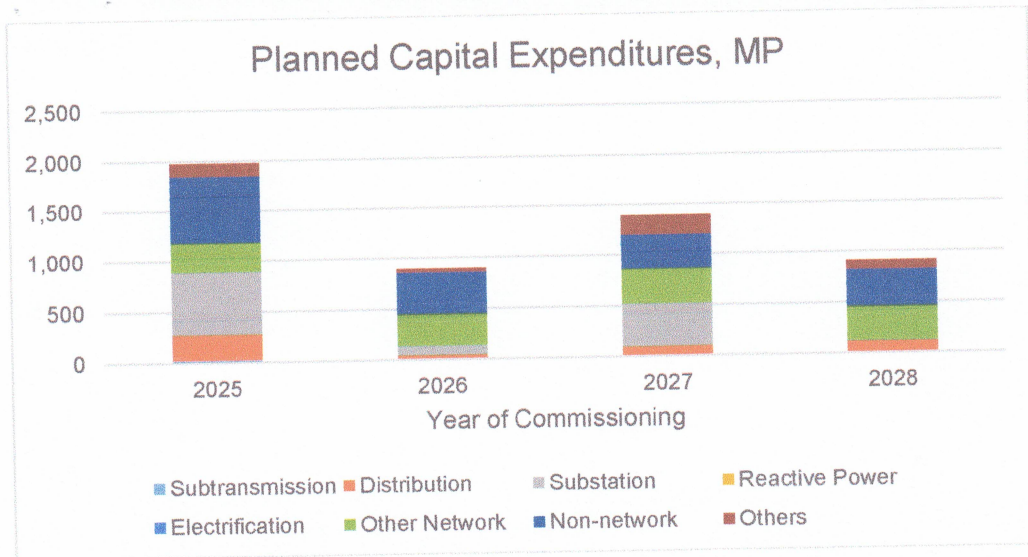
A majority of the projects implemented were financed through the Cooperative's Reinvestment Fund for Sustainable Capital Expenditures (RFSC). Notably, the Cooperative's RFSC rate has remained unchanged.

Historical Capital Expenditures of the sub-transmission facilities, consist of book / depreciated values of the assets for year 2013 to 2019, while the ckm was the actual accomplishment in a particular year. There are no additional projects during the years 2015, 2017 and 2018 thus we have no inputs for those specific years.

While for the Historical Capital Expenditures of the Substation particularly in Additional (MVA), Uprating (MVA), Retirement (MVA), and Stand-by, the Historical Capital Expenditures consist of book / depreciated values of the assets for year 2013 to 2019, while the MVA Substation was the actual accomplishment in a particular year. There are no additional projects during the years 2015, 2017 and 2018 thus we have no inputs for those specific years.

Likewise, the harmonization of input in CAPEX-3 (Historical Php) with CAPEX 2 was started for year 2020 for Reactive Power Compensation - Distribution.

Generally, in year 2020 to 2022, the capital expenditures (Million Php) reflected was based on Bill of Materials used in project implementation.



The proposed CAPEX projects (Network and Non-network projects) for the year 2025 to 2028 will be financed through the coop RFSC revenue, loan and government subsidy.

Distribution System Assets

Subtransmission Line ckm	507
Distribution Line ckm	3,777
Pole Count	68,538
Substation Transformer MVA	375.75
Distribution Transformer MVA	971.21
Capacitor MVar	17.33

The quantities of distribution system assets are adequate. Since the number of electric consumers per year is increasing, the need for distribution transformers, poles and extension of the line are likewise increasing. Moreover, the replacement and upgrading of transformer, poles and rehabilitation of line are necessary to sustain adequate load requirements of our member-consumers-owner's demand.

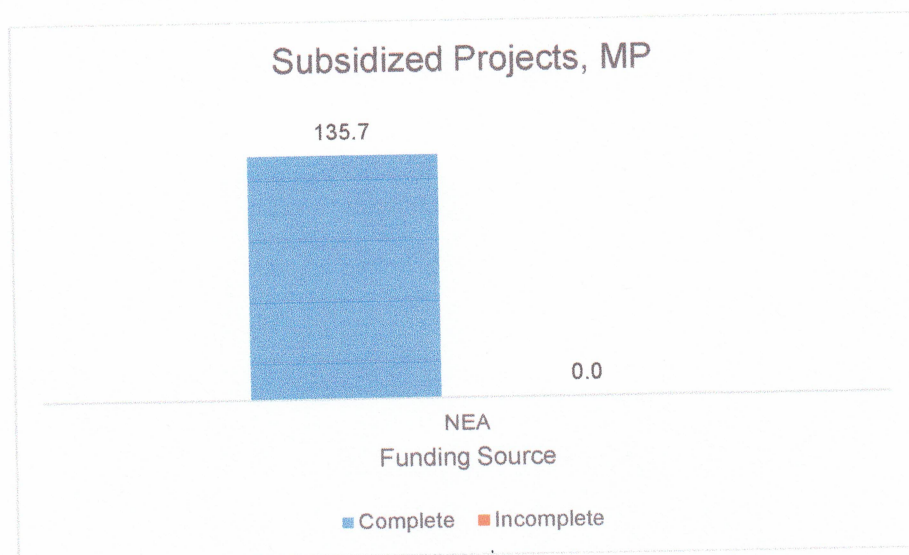
Likewise, the distribution utility like BATELEC II has the obligation to all its potential consumers within its franchise area to provide services and connections to its distribution system consistent with the Philippine Distribution Code, Magna Carta and DSOAR.

In line with this mandate, BATELEC II consumer's growth rate is based on historical trends. New connections translate to additional load and installed capacity on secondary network and distribution transformers are needed in order to accommodate additional and future load requirements of member-consumers within the coop's coverage areas.

Transformer	Max MVA	Months to Reach 70%
STO. TORIBIO (SILVER)	25.00	22
SAN CARLOS (RED)	82.00	N/A
ANTIPOLO	25.00	10
TANAUAN (MARS)	25.00	5
LAUREL (URANUS)	12.50	40
MALVAR (PLUTO)	18.75	29
TALAGA (EARTH)	25.00	5
PADRE GARCIA	25.00	17
MARAYKIT (BRONZE)	12.50	65
SAN JUAN (MAROONS)	12.50	N/A
NAGSAULAY (VIOLET)	12.50	42
SAN ROQUE	18.75	31
MASAYA (ORANGE)	12.50	4
TAYSAN (INDIGO)	18.75	18
CUENCA (AQUARIUS)	12.50	17
MABINI (VIRGO)	12.50	77
SAN JOSE (MEGAONE)	25.00	4

There are substation transformers that reflect N/A which means "Ideal", or it will not yet reach the 70% of their maximum load until 2034.

Subsidized Projects



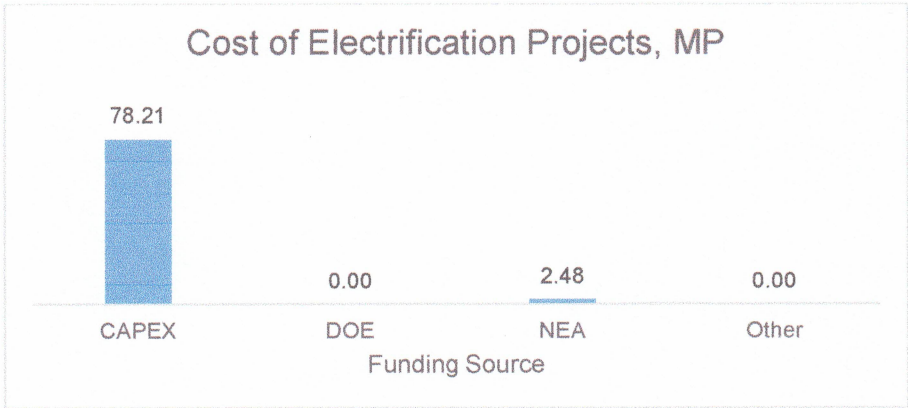
The only source of subsidy is NEA which accounts for P135.7 million disbursed since 2011.

Household Electrification

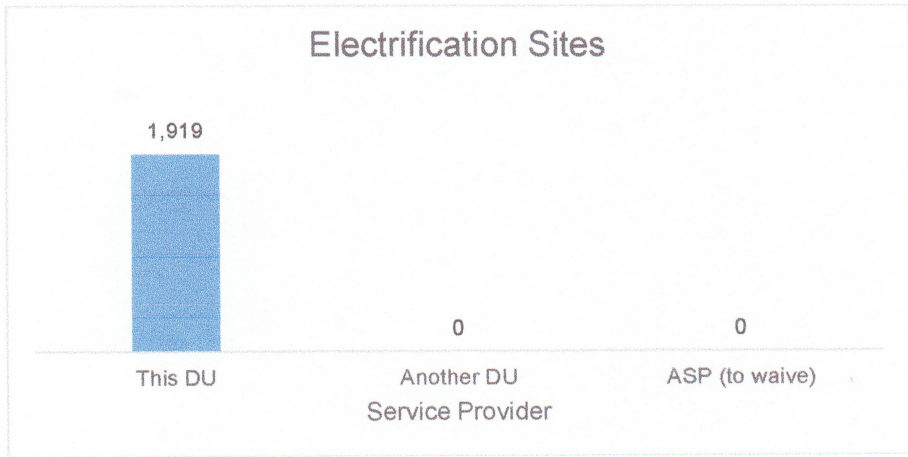
Province	Municipality / City	Energized, Grid-connected	Energized, Not Grid-connected	Total Energized
Batangas	Alitagtag	6,682	0	6,682
Batangas	Balete	6,267	0	6,267
Batangas	City of Tanauan	55,736	0	55,736
Batangas	Cuenca	11,276	0	11,276
Batangas	Laurel	11,345	0	11,345
Batangas	Lipa City	118,407	0	118,407
Batangas	Lobo	12,917	0	12,917
Batangas	Mabini	13,426	0	13,426
Batangas	Malvar	17,700	0	17,700
Batangas	Mataasnakahoy	8,737	0	8,737
Batangas	Padre Garcia	14,060	0	14,060
Batangas	Rosario	38,591	0	38,591
Batangas	San Jose	21,211	0	21,211
Batangas	San Juan	34,039	0	34,039
Batangas	Talisay	10,139	0	10,139
Batangas	Taysan	12,130	0	12,130
Batangas	Tingloy	0	3,444	3,444
Batangas	Batangas City	490	0	490
Total		393,153	3,444	396,597

As of December 31, 2024, the total number of energized household connections is 396,597 of which 29.86% are from the City of Lipa.

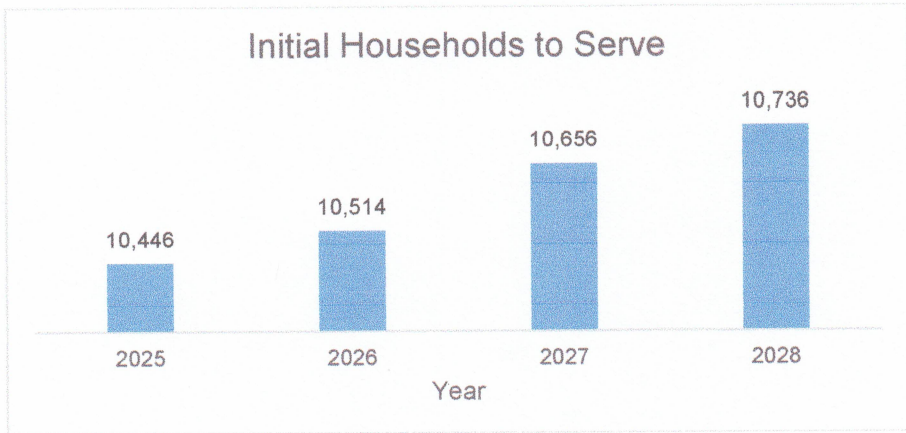
General Electrification



Planned electrification projects amounting to Php 80.69 million will be funded mostly from CAPEX Program. The cost of electrification projects is incorporated in BATELEC II approved 2024-2028 e-ICPM Workplan under SEP and Add-ons category.

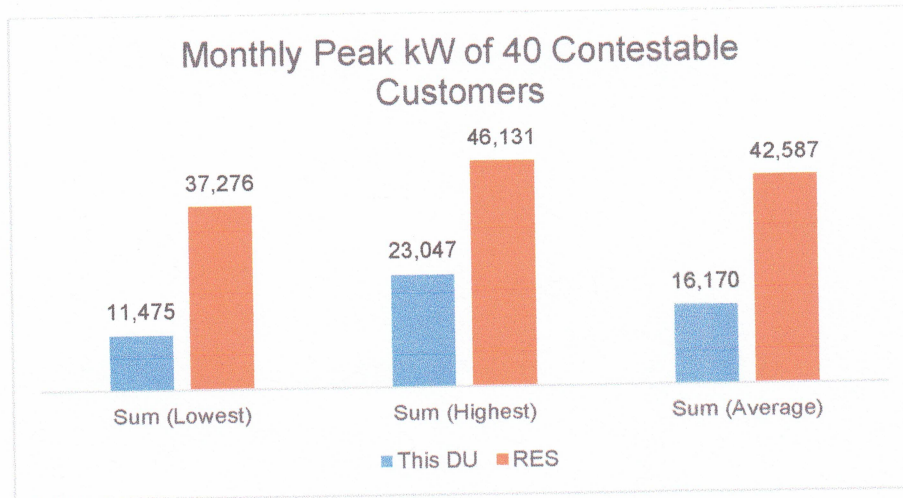


It is projected that BATELEC II will electrify 42,352 household in 1,919 Barangays covered in its coverage franchise area. (reference: as per submitted 2025-2028 LTER Report to NEA)



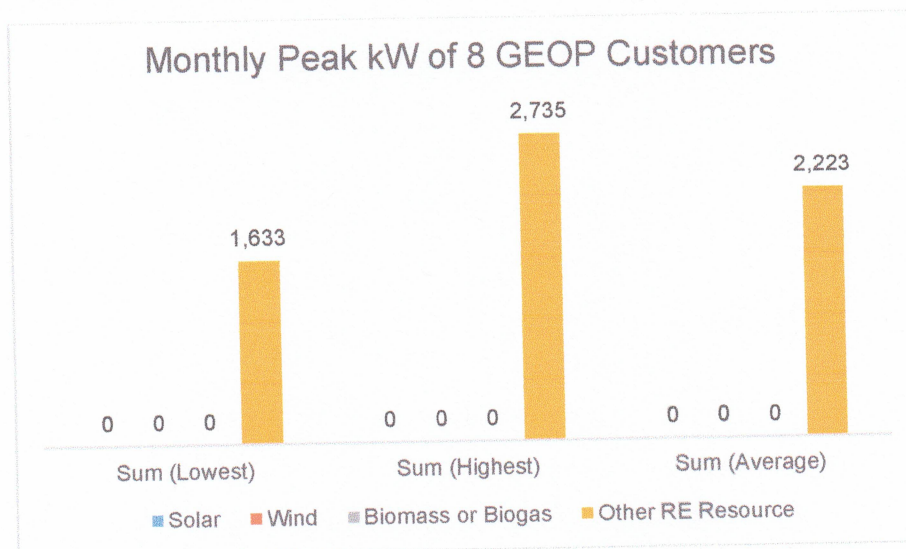
The majority of households to be served by electrification projects will be catered to on the year 2026.

Contestable Customers



As of December 31, 2024, the highest non-coincident demand is 46,131 kW for Contestable Customers switched to Retail Electricity Supplier (RES) and 23,047 kW for Contestable Customers that remain as Captive Customers supplied by BATELEC II. The e-ICPM 2024-2028 uses December 2023 as its base year, while the recently submitted DDP is based on December 2024 reflecting eligible and new contestable customers added during that period.

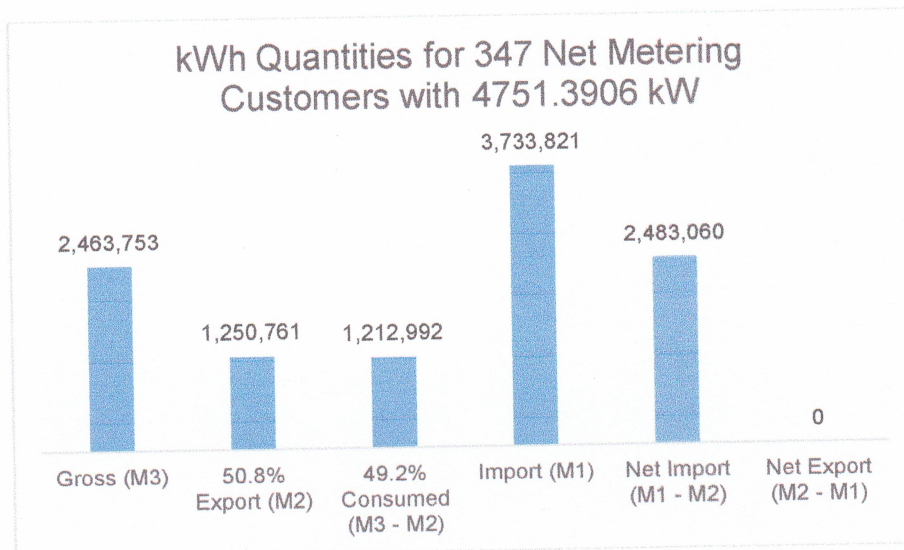
GEOP Customers



For the year 2024, BATELEC II has eight (8) GEOP Customers Connection with RES. For the implementation of GEOP which provides end-users the option to choose RE resources as their sources of energy, BATELEC II will adopt the ERC Resolution No. 8, Series of 2021. The e-ICPM 2024-2028 uses December 2023 as its base year, while the recently submitted DDP is based on December 2024, reflecting new GEOP customers added during that period.

The highest non-coincident demand is 2,735 kW.

Net Metering Customers



BATELEC II adopted the ERC Resolution No. 06, Series of 2019, and the Amendments to the Rules enabling the Net Metering Program for Renewable Energy while developing internal policies for the Competitive Retail Market Program (CREM), Green Energy Option Program (GEOP), Retail Aggregation Program (RAP), Net Metering Program, and Distributed Energy Resources (DERs).

The graph below shows the kWh quantities for Net Metering for year 2024.

The total gross generation measured from REC meters is 2,463,753 kWh. Of this, 1,250,761 kWh or 50.8% is exported. The total consumption as measured from import meters is 3,733,821 kWh. The total import is larger than the total export.

Historical Reliability Indices

Power Supplier outages

Year	SAIFI	MAIFI	SAIDI (h)	CAIDI (h)
2024	8.64	0.07	32.33	3.71

Outages due to the scheduled interruption of the power supplier.

Major Storm Disaster outages

Year	SAIFI	MAIFI	SAIDI (h)	CAIDI (h)
2024	3.00	1.04	4.71	1.17

Outages due to unforeseen and Force Majeure Event brought by abnormal weather conditions.

Scheduled outages

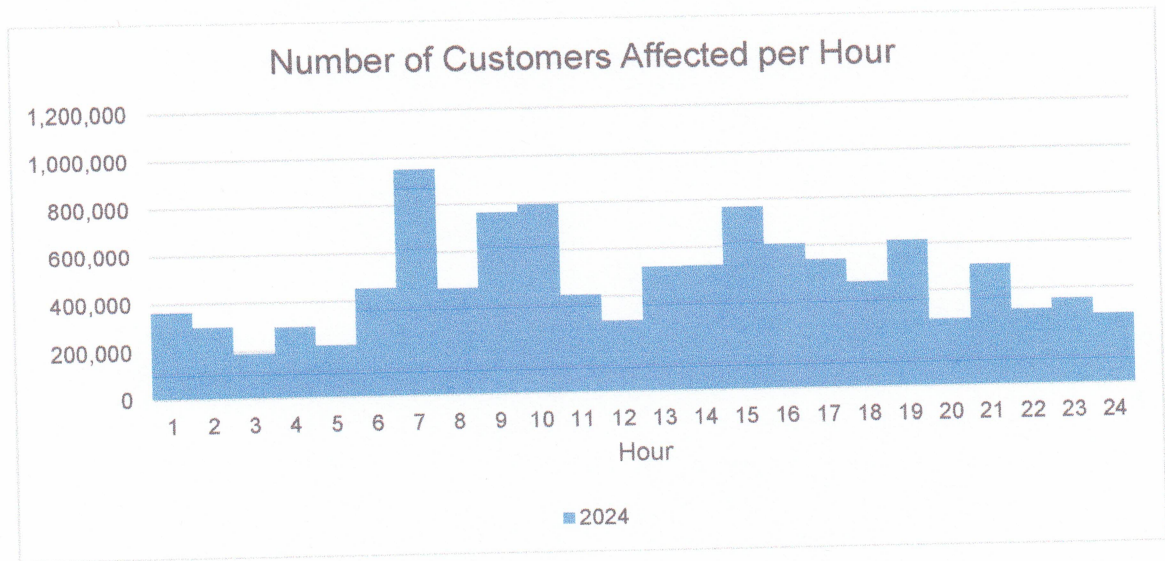
Year	SAIFI	MAIFI	SAIDI (h)	CAIDI (h)
2024	5.04	0.77	21.52	3.70

These consist of planned outages for preventive maintenance and other activities for safety, reliability and improvement which were properly disseminated to member-consumer-owners.

All other outages

Year	SAIFI	MAIFI	SAIDI (h)	CAIDI (h)
2024	8.04	5.92	5.52	0.40

The indices are within ERC's benchmarks.



For year 2024, the largest number of customer interruptions had occurred on hour 7 which did not coincide with the peak period. The second largest number of customer interruptions occurred on hour 10 which coincide with the peak period.

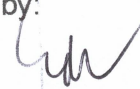
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