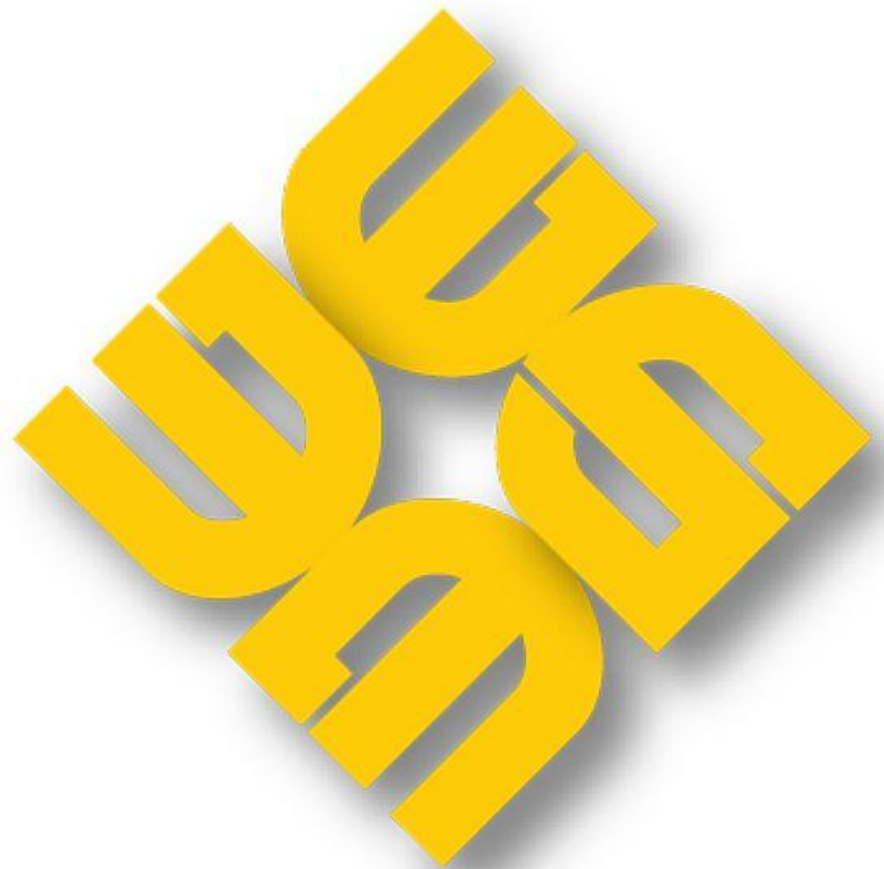


MAG-ARMAR-2019

ANNUAL RETAIL MARKET ASSESSMENT REPORT

26 December 2018 – 25 December 2019



**PHILIPPINE
ELECTRICITY
MARKET
CORPORATION**

**MARKET ASSESSMENT GROUP
(MAG)**

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Executive Summary

This Annual Assessment Report on the Retail Electricity Market covers the billing period **26 December 2018 to 25 December 2019**. Since the launch of the Retail Market on 26 June 2013, the number of registered Contestable Customer grew from the initial number of 240 to 1,408 registrants by the end of the December 2019 billing period. The Retail Market now has a total registry of 31 Retail Electricity Suppliers (RES), 14 Local Retail Electricity Suppliers (LRES), and 25 Suppliers of Last Resort (SOLR).

Based on the data from the Energy Regulatory Commission (ERC), there were a total of 2,029 qualified electricity end-users already issued with the Certificate of Contestability with 1,408 contestable customers or about 69 percent already registered in the market as of December 2019.

In terms of contestability threshold, the market recorded 1,096 registrants or 78 percent in the 1 MW and above threshold while the remaining 312 registrants or 22 percent were classified under 750-999 kW contestability threshold. With consideration of location, 1,264 Contestable Customers or about 90 percent of the registered Contestable Customers are situated in Luzon region while the other 10 percent or 144 Contestable Customers are in Visayas. As regards the nature of business¹, majority of the registered Contestable Customers or a total of 735 registrants were engaged in commercial activities while 673 registrants were in industrial sector.

The total energy consumption of the registered Contestable Customers as of December 2019 was recorded at about 19,464 GWh. This amounts to 24 percent of the total energy consumption of the system for the year. The load factor of registered Contestable Customers was kept relatively high ranging from 77 – 80 percent throughout the period in review.

While high load factor reflects a generally efficient electricity usage of registered Contestable Customers², low load factor may present opportunities for contestable customers to strategize hourly energy use and/or shift operation to maximize low prices in the WESM. From a RES' perspective, determination of the load factor and load profile are crucial in creating a tailor-fit contract with contestable customers.

By the end of 2019, majority or about 36 percent of the consumption of all registrants were supplied by the MERALCO group. This was followed by the Aboitiz and the San Miguel groups both at about 20 percent share, then by the Ayala group at about 11 percent share. The participation of new Suppliers, the registration of new Contestable Customers, and the switching of existing Contestable Customers were all factors in the change of participant share for this year as compared to the previous.

¹ Retail activity is based on the available information provided under the specific business type, i.e. manufacturing, real estate, etc., in the IEMOP-Registration Data. If information is unavailable in the Registration Data, retail activity of the participant will be tagged based on the business description and address available online.

² Dr. C.R. Bayliss CEng FIET, B.J. Hardy CEng FIET, in Transmission and Distribution Electrical Engineering (Fourth Edition), 2012

Accordingly, the Herfindahl-Hirschman Index (HHI) calculated based on consumption and number of registered Contestable Customers per ERC's major participants grouping yielded a level of a concentrated market.

Of the 102 Suppliers with license from ERC, only 70 Suppliers are registered in the retail market, two (2) of which are newly registered in the market. Meanwhile, in December 2019, AC Energy Philippines, Inc. had acquired PHINMA Energy-Corporation-RES, effectively changing its registered name to the former.

During the period in review, 96 switches were recorded from one Supplier to another. This was comprised of 2 switches from LRES to RES, 28 switches from RES to LRES and 66 switches from RES to another RES.

This Annual Assessment Report on the Retail Electricity Market discusses the results of monitoring indices, as set forth in the Catalogue of Retail Market Monitoring Data and Indices. This report also provides indications on how the retail market performed during the year in review and how it fared with the performance of the retail market in the previous years. It is important to note that the Contestable Customers being referred to in this report were only those registered in the market. Other electricity end-users that have been issued with a Certificate of Contestability by the Energy Regulatory Commission (ERC) but have yet to register in the market remain as Captive Customers.

I. MARKET STRUCTURE

The market structure indices were used to determine the number of players, market share, and level of market concentration.

A. Number of Players

1. Number of Contestable Customers

At the end of 2019, an additional 210 registered Contestable Customers were recorded which demonstrated an 18 percent increase from 2018's 1,198 registrants, as provided in **Table 1**. The registrants of the Retail Market posed a steady upward trend from 2013 as shown in **Figure 1**. The total registered Contestable Customers, tallying up to 1,408, was about 69 percent of the 2,029 qualified electricity end-users already issued with a certificate of contestability based on the latest data of the Energy Regulatory Commission (ERC)³.

Table 1. Yearly Growth in the Number of Registered CCs vis-à-vis CCs issued with COC

Annual Growth in No. of Registrants	as of Dec 2013	as of Dec 2014	as of Dec 2015	as of Dec 2016	as of Dec 2017	as of Dec 2018	as of Dec 2019
<i>Cumulative No. of Contestable Customers Issued with COC</i>			1,057	1,469	1,598	1,876	2,029
<i>Cumulative No. of Registrants as of End of Period</i>	263	360	379	492	940	1,198	1,408
<i>Annual Percent Increase in Registrants</i>		37%	5%	30%	91%	27%	18%

³ Monthly Statistical Data as of December 2019 ((Source: ERC's 2019 Competitive Retail Electricity Market (CREM) Report; Link: www.buyourelectricity.com.ph).

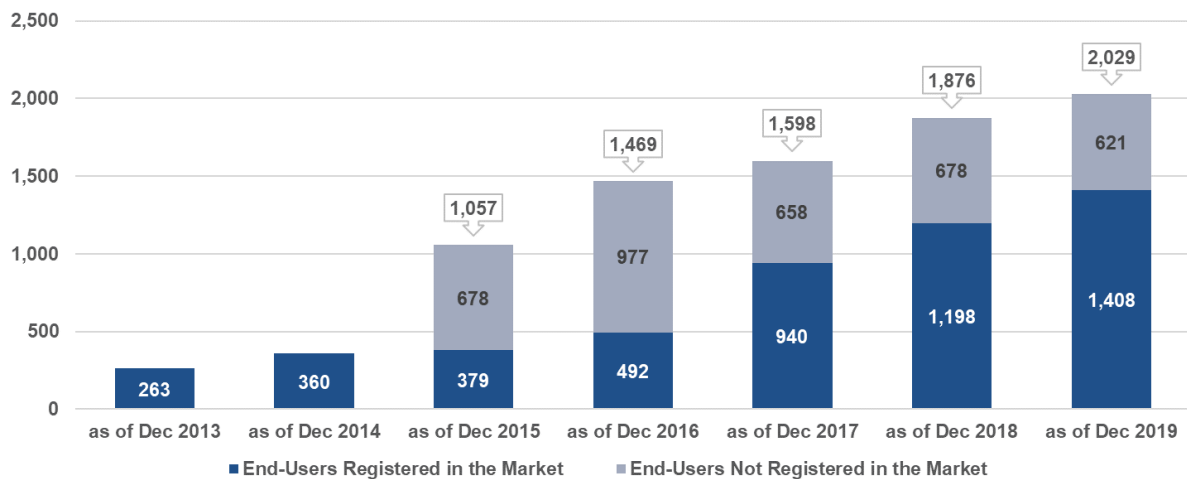


Figure 1. Yearly Cumulative Number of Registered CCs, 2013 - 2019

The number of registrants increased gradually during the year 2019 when compared with the previous year. As reflected in **Figure 2**, the month-on-month increase just varied between 1 to 3 percent during the billing months of January to December 2019.

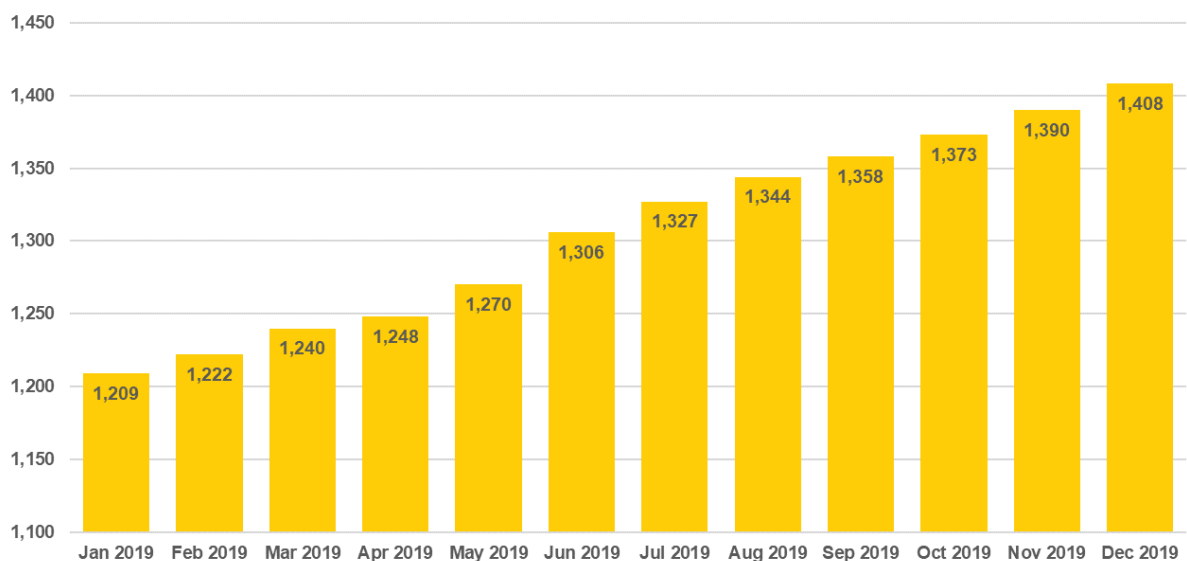


Figure 2. Monthly Cumulative Number of Registered CCs, Jan – Dec 2019

Figures 3 and 4 show the year-on-year and month-on-month cumulative number of registrants per contestability threshold, respectively. The voluntary registration of the Contestable Customers in the 750-999 kW contestability threshold began on 26 June 2016⁴.

With the ongoing imposition of the Supreme Court's temporary restraining order (TRO), dated February 2017, which puts halt on the implementation of ERC issuances⁵ that provide rules and regulations implementing the Retail Competition and Open Access (RCOA), as well as the DOE circulars⁶ defining the latest timeline of RCOA at that time, it can be observed that the registration of Contestable Customers in the 750-999 kW contestability threshold has continually increased over the years. From 2016, which only had 14 contestable customers registrants that are within the 750-999 kW contestability threshold, the total registered contestable customers as recorded in December 2019 is now at 312. This is about 22 percent of all the Contestable Customers registered in the market. The remaining 1,096 or about 78 percent is classified under 1 MW & above contestability threshold.

The month-on-month cumulative number of registrants illustrates a conservative increase for both Contestable Customers under the 750-999 kW and 1MW or more contestability thresholds.

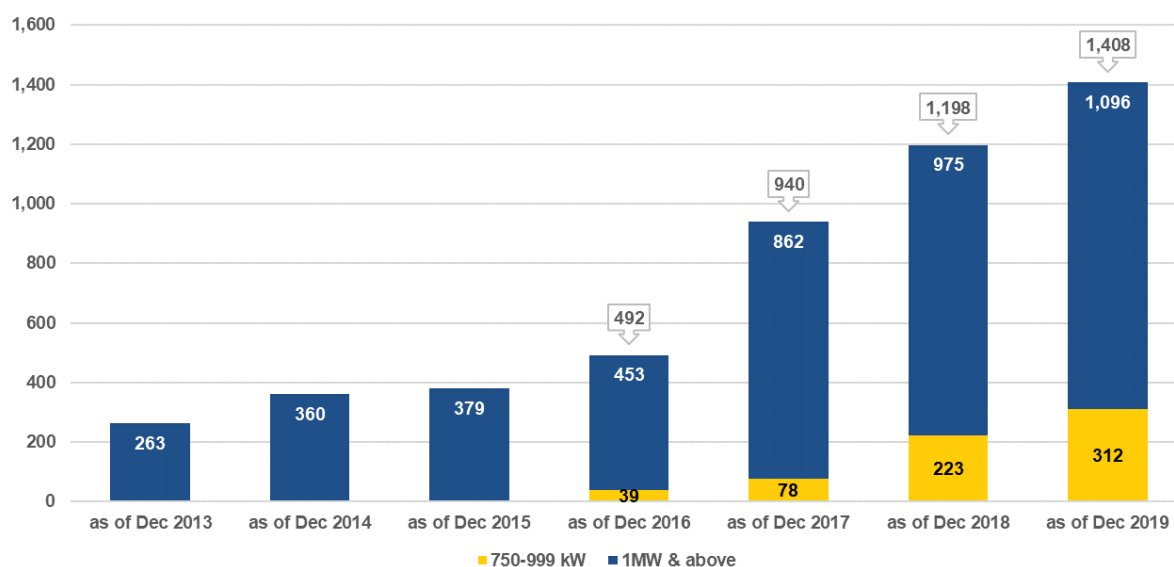


Figure 3. Yearly Cumulative Number of Registered CCs Per Contestability Threshold, 2013 - 2019

⁴ [ERC Resolution No. 10, Series of 2016](#)

⁵ [ERC Resolution Nos. 05, 10, 11 and 12](#), all series of 2016

⁶ [DOE Department Circular DC2015-06-0010](#)

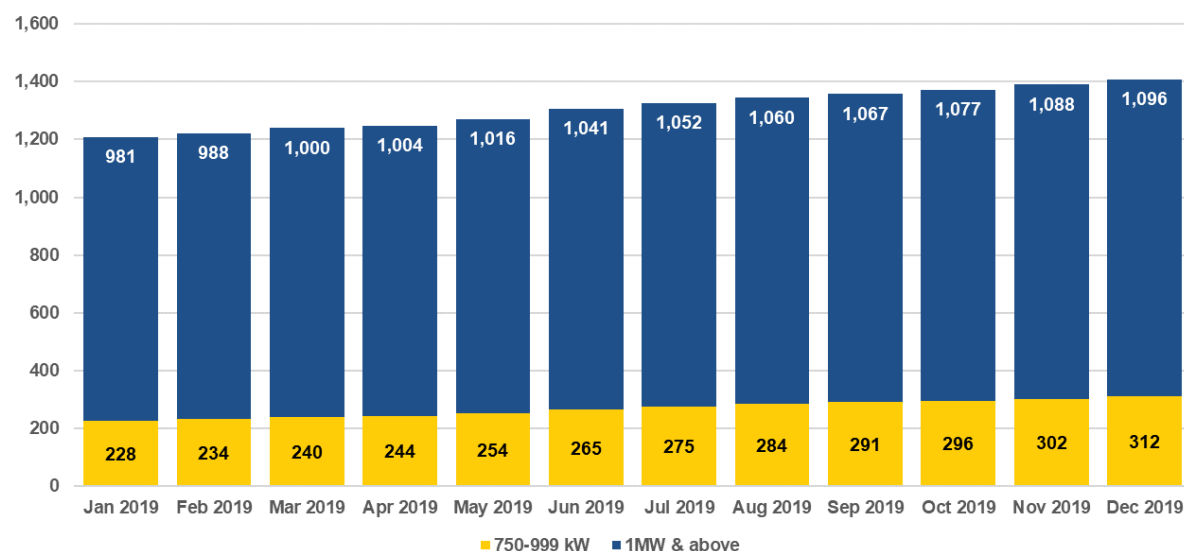


Figure 4. Monthly Cumulative Number of Registered CCs Per Contestability Threshold, Jan - Dec 2019

With regard the distribution on regions, majority of Contestable Customers or about 90 percent (1,264 Contestable Customers) are located in Luzon while about 10 percent (144 Contestable Customers) are situated in Visayas. The number of registered Contestable Customers per region by the end of each year, are shown in **Figure 5**. It may be observed that over the years, participation of Contestable Customers both in Luzon and Visayas in terms of number of registrants had increased significantly relative to the first year of RCOA's implementation. It may be further noted that most of the new registrants in the year 2019 alone were Contestable Customers in Luzon. As can be observed in **Figure 6** and consistent with the previous observations, the number of registrants increased gradually during the billing months of January to December 2019.

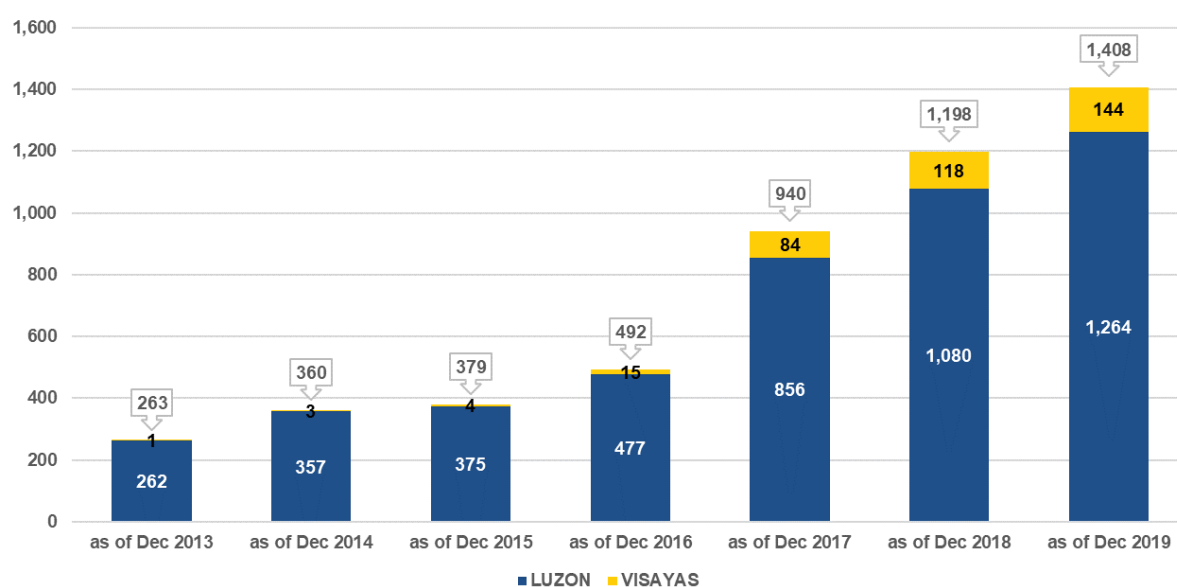


Figure 5. Yearly Cumulative Number of Registered CCs Per Region, 2013 - 2019

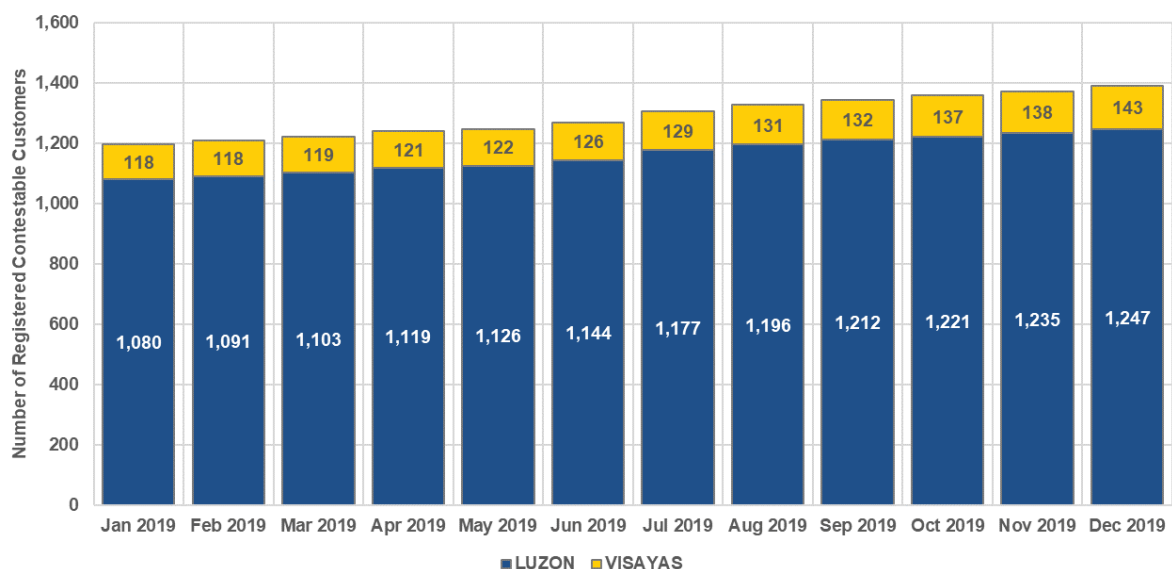


Figure 6. Monthly Cumulative Number of Registered CCs Per Region, Jan - Dec 2019

The year-on-year and month-on-month cumulative number of registered Contestable Customers per type of retail activity⁷ are shown in **Figures 7** and **8**, respectively. As of December 2019 billing month, the market was comprised of 673 Contestable Customers (about 48 percent) that were engaged into industrial activities and 735 Contestable Customers (about 52 percent) into commercial activities. Initially, the retail market started with a significantly higher number of industrial Contestable Customers which eventually was taken over by the sudden spike in the number of commercial Contestable Customers in 2017. This rate of increase, however, has slowed when the Supreme Court released its TRO⁸ on the implementation of the supposed mandatory registration in the market.

It may also be noted that retail activities of Contestable Customers were almost equally divided between industrial and commercial all throughout the billing months of January to December 2019, as shown in Figure 8.

⁷ Retail activity is based on the available information provided under the specific business type, i.e. manufacturing, real estate, etc., in the IEMOP-Registration Data. If information is unavailable in the Registration Data, retail activity of the participant will be tagged based on the business description and address available online.

⁸ G.R. No. 228588 dated 21 February 2017

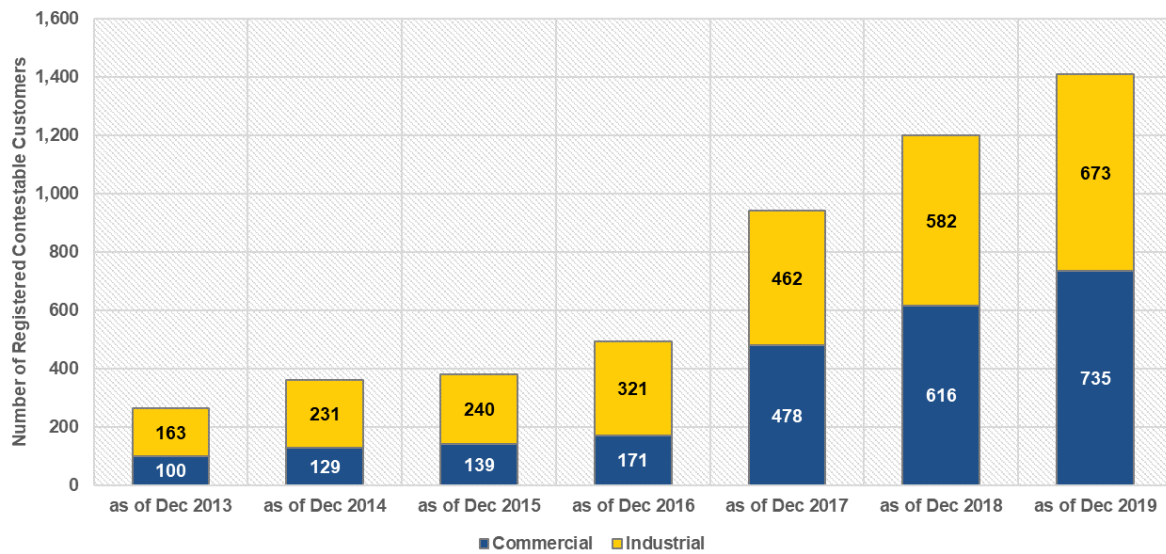


Figure 7. Yearly Cumulative Number of Registered CCs Per Retail Activity, 2013 – 2019

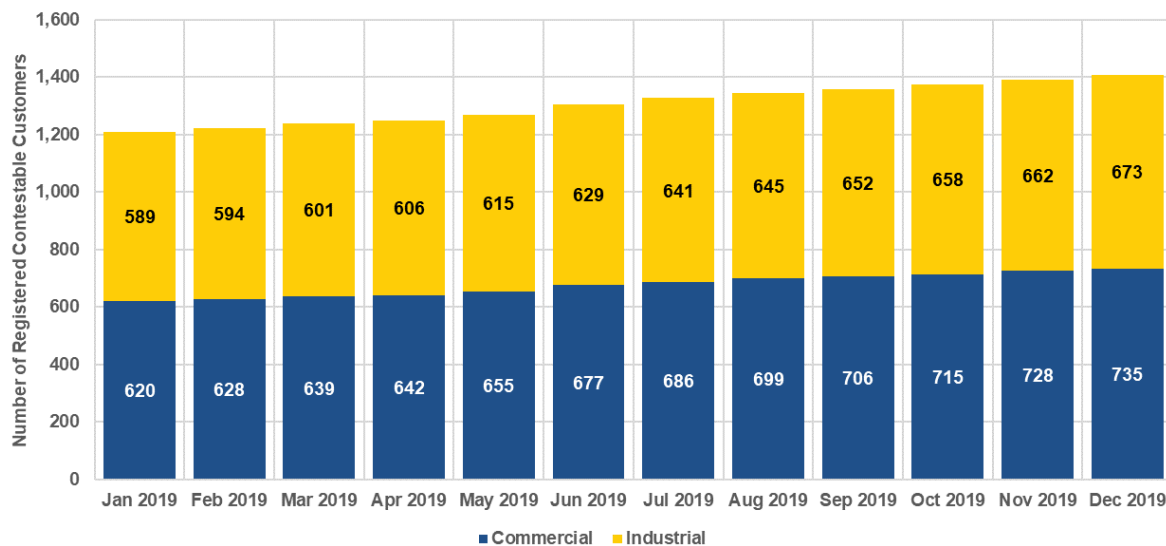


Figure 8. Monthly Cumulative Number of Registered CCs Per Retail Activity, Jan - Dec 2019

Table 2 shows the percentage of registered Contestable Customers per level of average energy consumption based on their metered quantity (MQ). For the January to December 2019 billing months, majority or about 56 percent of the registrants had average energy consumption within below 1MWh. This was followed by the increasing number of registrants consuming within the 1MWh and 5MWh threshold which was recorded to be about 39 percent of the total registrants. Meanwhile, about 3 percent of the registered Contestable Customers had average energy consumption above 5 MWh up to 10 MWh and about 2 percent had average energy consumption higher than 10 MWh during the period.

Table 2. Percentage of Registered CCs Per Level of Ave. Energy Consumption, Jan – Dec 2019

Region	1 MWh and below	Above 1 MWh to 5 MWh	Above 5 MWh to 10 MWh	Above 10 MWh to 15 MWh	Above 15 MWh to 20 MWh	Above 20 MWh to 50 MWh	Sub-Total Per Region
LUZON	50.35%	36.25%	3.31%	0.78%	0.49%	0.42%	91.61%
VISAYAS	5.36%	2.75%	0.07%	0.07%	0.00%	0.14%	8.39%
Sub-Total Per Level of Average Energy Consumption	55.71%	39%	3.39%	0.85%	0.49%	0.56%	100.00%

2. Number of Suppliers

As of December 2019, there were a total of 31 Retail Electricity Suppliers, 14 Local Retail Electricity Suppliers and 25 Suppliers of Last Resort documented from the registry of the market. **Figures 9** and **10** show the year-on-year and month-on-month cumulative number of registered Suppliers per category, respectively. There was no significant change in the number of registered Suppliers per category during the year 2019 thus by the end of the year, only one (1) new Retail Electricity Suppliers, Meridian X Inc. (MERXRES), and one (1) new Supplier of Last Resort, Batangas II Electric Cooperative, Inc., were noted to have registered in the market in March and June 2019, respectively.

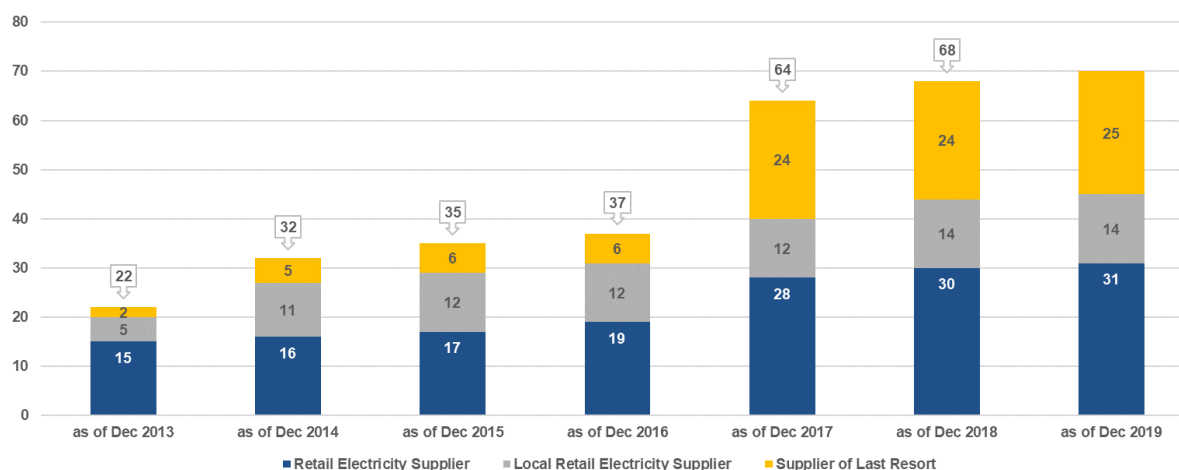


Figure 9. Yearly Cumulative Number of Registered Suppliers Per Category, 2013 - 2019

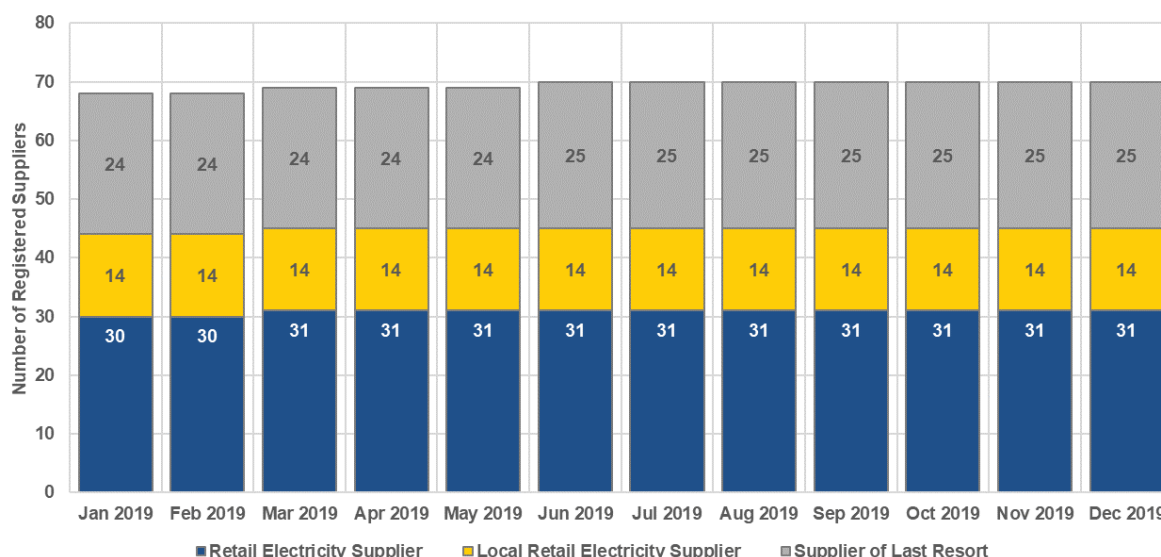


Figure 10. Monthly Cumulative Number of Registered Suppliers Per Category, Jan – Dec 2019

As of the December 2019, majority of the registered Retail Electricity Suppliers were actively participating in the market and serving Contestable Customers as shown in the summary below (**Table 3**).

Table 3. Summary of Suppliers Per Category, as of 25 December 2019

Category	No. of Suppliers	
	Total Registered	With CCs Served
Retail Electricity Supplier	31	29
Local Retail Electricity Supplier	14	6
Supplier of Last Resort	25	1
Total	70	36

A list of all registered Suppliers per category (Retail Electricity Supplier, Local Retail Electricity Supplier, and Suppliers of Last Resort) as of the December 2019 is provided in **Table 4**. It may be noted that the PHINMA Energy Corporation-RES was acquired by AC Energy Philippines, Inc., changing its registration name to AC Energy, Inc.

Table 4. List of Suppliers Per Category, as of 25 December 2019

Category	No.	Market Participant Name	Short Name
Retail Electricity Supplier	31	Aboitiz Energy Solutions, Inc.	AESIRES
		AC Energy Philippines, Inc.(formerly PHINMA Energy Corporation-RES)	ACEPHRES
		AC Energy Holdings, Inc.	ACERES
		AdventEnergy, Inc.	ADVENTRES

Category	No.	Market Participant Name	Short Name
		Anda Power Corporation RES	ANDARES
		Bac-Man Geothermal, Inc.	BGIRES
		Citicore Energy Solutions, Inc.	CESIRES
		Corenergy, Inc.	CORERES
		DirectPower Services, Inc.	DIRPOWRES
		Ecozone Power Management, Inc.	EPMIRES
		FDC Retail Electricity Sales Corporation	FDCRESC
		First Gen Energy Solutions, Inc.	FGESRES
		Global Energy Supply Corporation	GESCRES
		GNPower Ltd. Co.	GNPLCRES
		Kratos RES, Inc.	KRATOSRES
		KEPCO SPC Power Corporation	KSPCRES
		Mazzaraty Energy Corporation	MACRES
		Manta Energy, Inc.	MANTARES
		Masinloc Power Partners Company Limited	MPPCLRES
		Millenium Power RES, Inc.	MPRIRES
		Premier Energy Resources Corporation	PERCRES
		PHINMA Energy Corporation-RES	PHENRES
		Prism Energy, Inc.	PRISMRES
		SEM-Calaca RES Corporation	SCRCRES
		SMC Consolidated Power Corporation	SMCCPCRES
		San Miguel Electric Corporation	SMELCRES
		SN Aboitiz Power-RES, Inc.	SNAPRES
		Solvre, Inc.	SOLVRERES
		TeaM (Philippines) Energy Corporation	TPECRES
		Vantage Energy Solutions and Management, Inc.	VESMIRE
		Waterfront Mactan Casino Hotel, Inc.	WAHCRES
Local Retail Electricity Supplier	14	Batangas II Electric Cooperative, Inc.	BTLC2LRE
		Camarines Sur II Electric Cooperative, Inc.	CASUR2LRE
		Cebu I Electric Cooperative, Inc.	CEBEC1LRE
		Cebu II Electric Cooperative, Inc.	CEBEC2LRE
		Central Negros Electric Cooperative, Inc.	CENECOLRE
		Clark Electric Distribution Corporation LRES	CEDCLRE
		Dagupan Electric Corporation	DECORPLRE
		Ilocos Norte Electric Cooperative, Inc.	INECLRE
		Mactan Enerzone Corporation LRES	MEZLRE
		Manila Electric Company	MRLCOLRE
		Subic Enerzone Corporation	SEZLRE
		San Fernando Electric Light & Power Co., Inc.	SFELAPLRE
		Tarlac Electric, Inc.	TEILRE
		Visayan Electric Company, Inc.	VECOLRE
Supplier of Last Resort	25	Angeles Electric Corporation	AECSLR
		Balamban Enerzone Corporation	BEZSLR
		Batangas II Electric Cooperative, Inc.	BTLC2SLR
		Benguet Electric Cooperative, Inc.	BENECOSLR
		Bohol I Electric Cooperative, Inc.	BOHECO1SLR

Category	No.	Market Participant Name	Short Name
		Bohol Light Company, Inc.	BLCISLR
		Cabanatuan Electric Corporation	CELCORSLR
		Camarines Sur II Electric Cooperative, Inc.	CASUR2SLR
		Cebu I Electric Cooperative, Inc.	CEBEC1SLR
		Cebu II Electric Cooperative, Inc.	CEBEC2SLR
		Clark Electric Distribution Corporation	CEDCSLR
		Dagupan Electric Corporation	DECORPSLR
		Ilocos Norte Electric Cooperative, Inc.	INECSLR
		Ilocos Sur Electric Cooperative, Inc.	ISECOSLR
		Isabela I Electric Cooperative, Inc.	ISLCO1SLR
		La Union Electric Cooperative, Inc.	LUELCOSLR
		Mactan Electric Company, Inc.	MECOSLR
		Mactan Enerzone Corporation	MEZSLR
		Manila Electric Company	MRLCOSLR
		Negros Oriental II Electric Cooperative, Inc.	NRECO2SLR
		Subic Enerzone Corporation	SEZSLR
		Tarlac Electric, Inc.	TEISLR
		Tarlac I Electric Cooperative, Inc	TRLCO1SLR
		Tarlac II Electric Cooperative, Inc	TRLCO2SLR
		Visayan Electric Company, Inc.	VECOSLR

B. Market Share

1. Market Share of Supplier

The Suppliers generally increased the number of their registered Contestable Customer, with exception of a few Suppliers that either maintained or decreased the number of Contestable Customers they served. **Table 5** below shows the cumulative number of registered Contestable Customers served by each Supplier at the end of each year. The Suppliers were grouped based on the ERC's major participant grouping⁹ which reflects the affiliation among the Suppliers.

The following Suppliers: MRLCOLRE, AESIRES, SMELCRES, ACERES and ADVENTRES, remained as the top five (5) Suppliers with the most number of registered Contestable Customers for four straight quarters. Year-on-year, MRLCOLRE and SMCCPCRES showed the highest increases in number of Contestable Customers with 81 and 45 additional Contestable Customers, respectively.

⁹ Major participant grouping is based on ERC's Competitive Retail Electricity Market (CREM) Report.

Table 5. Yearly Cumulative Number of Registered CCs Per Supplier, 2013 - 2019

Market Participant Group	as of Dec 2013	as of Dec 2014	as of Dec 2015	as of Dec 2016	as of Dec 2017	as of Dec 2018	as of Dec 2019
Aboitiz Group	51	73	77	144	273	306	340
ADVENTRES	5	20	20	43	72	77	68
AESIRES	46	49	51	90	166	159	194
MACRES					2	3	3
PRISMRES					13	37	43
SEZLRE			2	2	2		
SFELAPLRE		1	1	1	1	1	1
SNAPRES		3	3	8	17	29	31
Ayala Group	45	54	58	51	108	154	238
ACEPHRES ^[i]							47
ACERES					37	72	102
DIRPOWRES	29	32	32	34	36	38	46
EPMIRES	16	22	26	17	35	44	43
MERALCO Group	155	207	212	238	294	390	491
CEDCLRE						6	11
MERXRES ^[ii]							1
MRLCOLRE	155	207	212	237	279	353	434
MRLCOSLR				1			
VESMIRES					15	31	45
PHENRES	0	3	9	17	84	74	0
PHENRES		3	9	17	84	74	
San Miguel Group	1	7	9	18	84	121	173
MPPCLRES ^[iii]							6
SMCCPCRES					4	10	55
SMELCRES	1	7	9	18	80	111	112
Others	10	14	11	22	94	149	162
ANDARES						1	3
BGIRES					9	24	52
BTLC2LRE							1
CESIRES					1	2	4
CORERES						2	1
FDCRESC					9	12	15
FGESRES				9	20	28	11
GESCRES	2	2		1	16	16	17
GNPLCRES		1	2	3	4	4	4
KRATOSRES					1	17	22
KSPCRES					1	3	3
MANTARES					2	2	1
MERXRES							
MPPCLRES	1	1	1		2	6	
PERCRES					12	12	12

Market Participant Group	as of Dec 2013	as of Dec 2014	as of Dec 2015	as of Dec 2016	as of Dec 2017	as of Dec 2018	as of Dec 2019
SCRCRES						1	4
TEILRE			1	2	1		
TPECRES	7	9	5	5	15	18	11
VECOLRE		1	1	1			
WAHCRES			1	1	1	1	1
TOTAL	262	358	376	490	937	1,194	1,404

Note: ^[i] ACEPHRES (formerly PHENRES) - Ayala group (ERC CREM Report as of Jun 2019);

^[ii] MERXRES - Meralco group (ERC CREM Report as of Jul 2019);

^[iii] MPPCLRES - San Miguel group (ERC CREM Report as of Jun 2019);

Highlighted suppliers were the top 5 suppliers for 2019

The following figures show the share of Suppliers in terms of number of registered Contestable Customers and their corresponding energy consumption, per major grouping.¹⁰

Figures 11 and 12 show the year-on-year and quarter-on-quarter share of Suppliers per major participant in terms of the number of Contestable Customers. plier to another.

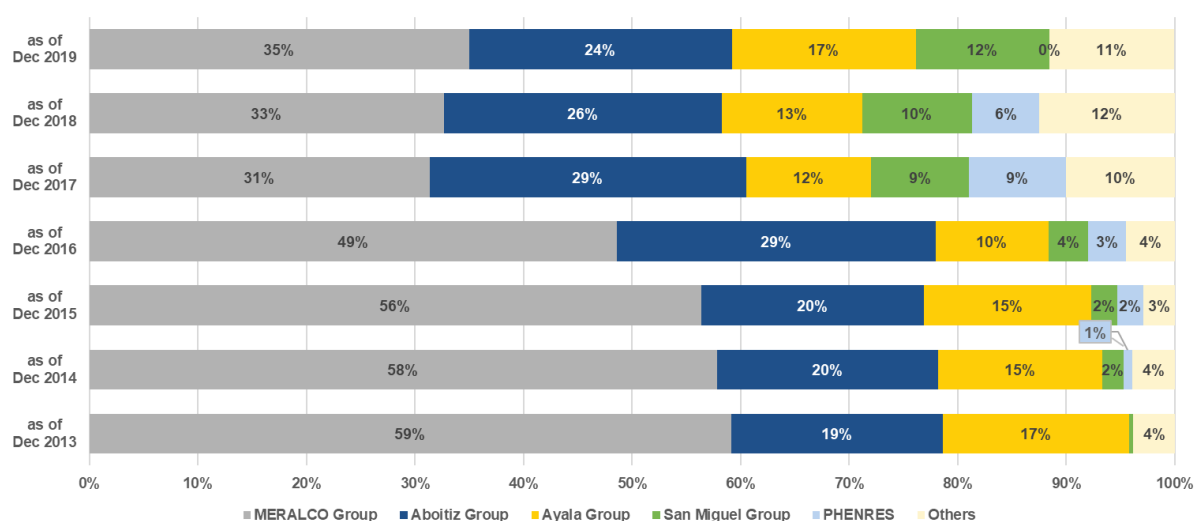


Figure 11. Yearly Share in the Number of Registered CCs Per Major Participant Group, 2013 - 2019

¹⁰ ERC major grouping in December 2019 Competitive Retail Electricity Market (CREM) Report.

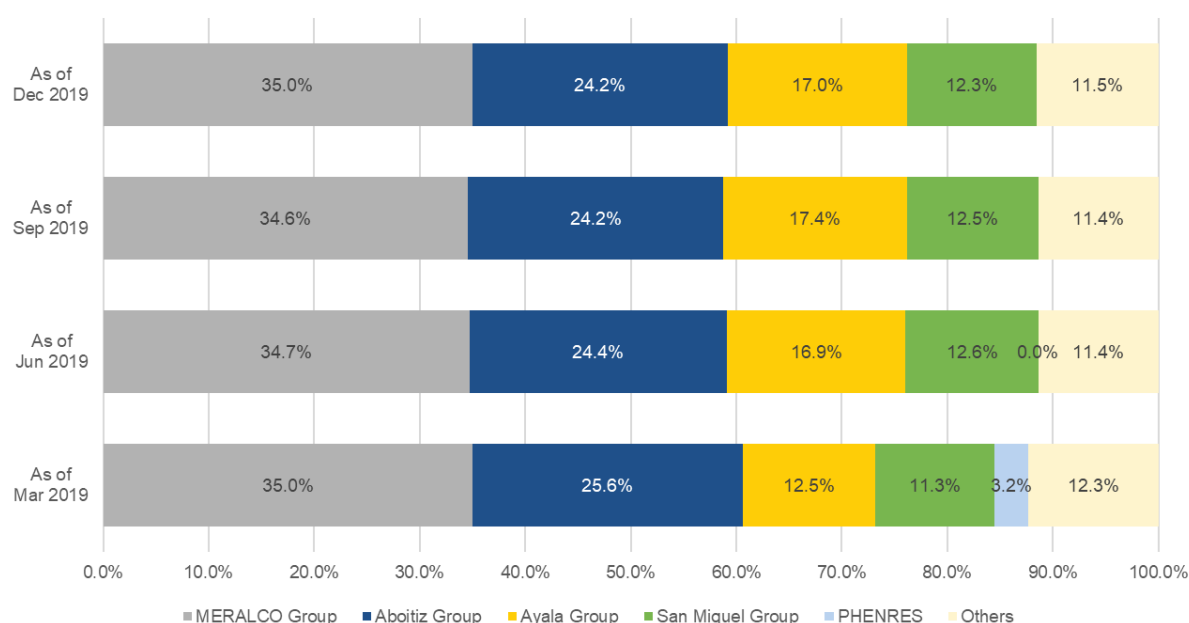


Figure 12. Quarterly Share in Number of Registered CCs Per Major Participant Group, Q1-Q4 2019

Consistent with the previous years, the list was topped by the MERALCO group with about 35 percent share, followed by the Aboitiz group at about 24 percent although on a decreasing trend. Meanwhile, the Ayala group's share increased to about 17 percent which may be attributed with PHENRES' re-classification of affiliation under the Ayala group. The San Miguel group likewise experienced an increase accumulating 12 percent share this year. The remaining 11 percent was accounted for the share of the other registered Suppliers that were not affiliated with the major participant groups as shown on **Figure 11**.

Over the years, it was notable that the share of the MERALCO group had been decreasing which may be a signal of the increase in competition in the Retail Market. From a high of 59 percent in December 2013, its share was down to about 33 percent share by the end of the December 2018. The MERALCO group, however, regained shares and increased to 35 percent throughout 2019.

On the other hand, San Miguel Group's share has been consistently increasing over the years. It originally held 0.3 percent share in December 2013 which later on increased to 12 percent of the total retail market shares by the end of December 2019.

Meanwhile, as shown in **Figure 11**, the Aboitiz group and Ayala group had slowly decreased shares from 2013 until 2016. From then, both groups had minimal increase in shares until the end of December 2019. Records show their shares as 24 percent (slightly lower than 26 percent in 2018) and 17 percent (higher than 13 percent in 2018), respectively. The growth in Ayala group's share, as mentioned in the preceding discussions, may be attributable to the acquisition of PHENRES in June 2019. Other Suppliers participating market generally performed well by the

end of 2019 posing an 11 percent share in the total number of Contestable Customers.

The observed changes in the shares of participants were driven by several factors, including among others, the participation of new Suppliers, the initial switch of new Contestable Customers to their choice of Supplier, and the switching of existing registered Contestable Customers from one Supplier to another.

Consistent with the discussion above, the MERALCO group had the largest share in terms of registered Contestable Customer consumption for all the years from 2013 to 2019. For the year 2019 alone, the MERALCO group had a share of about 36 percent (from 33 percent in the previous year and 57 percent in the year 2013). This was followed by the Aboitiz group with about 21 percent share (from about 20 percent in the previous year and 24 percent in the year 2013), San Miguel Group with about 20 percent (from 18 percent in the previous year and 1 percent in the year 2013), Ayala group with about 11 percent (from 10 percent in the previous year and about 12 percent in the year 2013), and PHENRES with about 1 percent (from about 5 percent in the previous year and 2 percent in the year 2014) prior to acquisition of the Ayala group.

The year-on-year and quarter-on-quarter share in total energy consumption of Registered Contestable Customers per major participant, respectively, are shown in **Figures 13 and 14**.

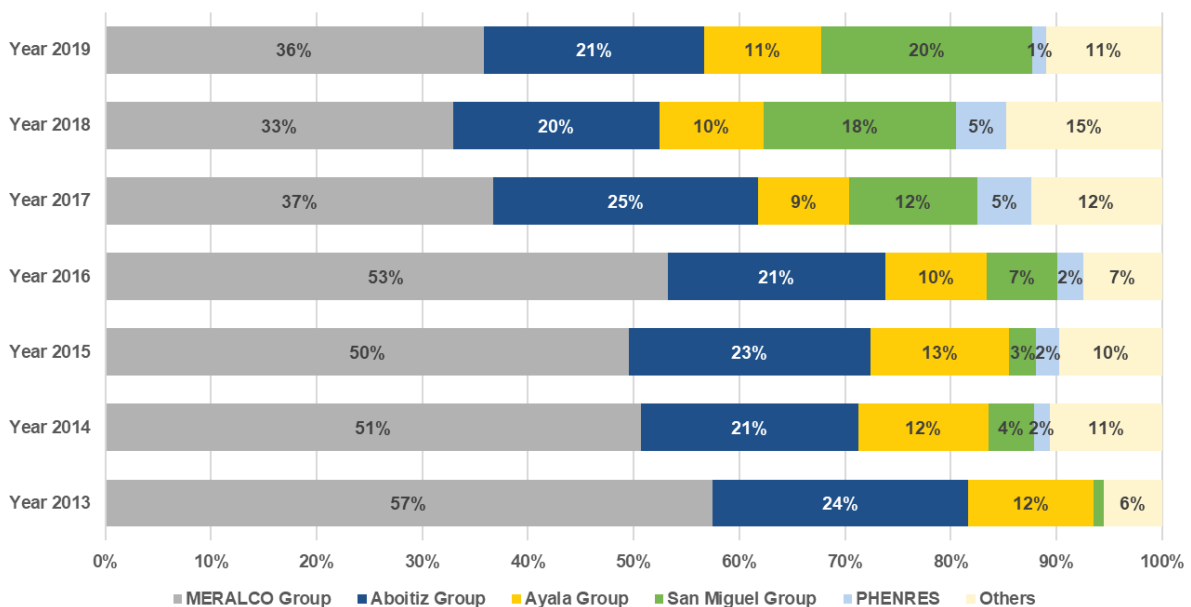


Figure 13. Yearly Share in Total Energy Consumption of Registered CCs, 2013 to 2019

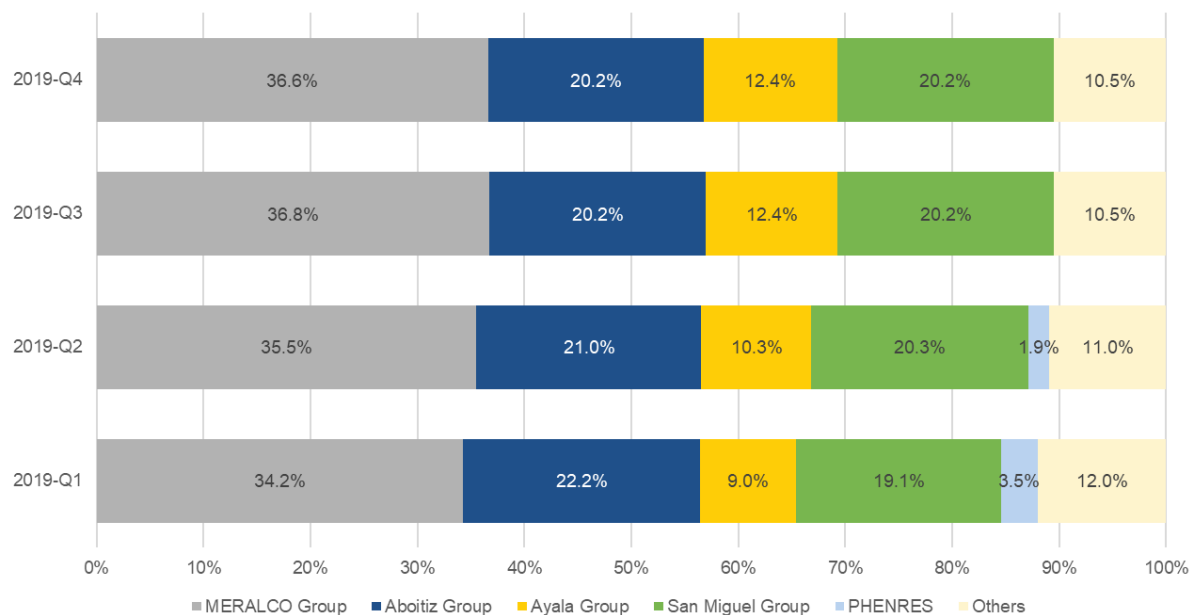


Figure 14. Quarterly Share in Total Energy Consumption of Registered CCs, Q1-Q4 2019

In terms of location, registered Contestable Customers were scattered within the different distribution utility franchise areas and economic zones listed in **Table 6**.

Table 6. List of Distribution Utility Franchise Areas and Economic Zones

No.	Short Name	Distribution Utility/ Economic Zone
1	AEC	Angeles Electric Corporation
2	AFAB	Authority of the Freeport Area of Bataan
3	AKELCO	Aklan Electric Cooperative, Inc.
4	ALECO	Albay Electric Cooperative, Inc.
5	ANTECO	Antique Electric Cooperative, Inc.
6	BATELEC I	Batangas I Electric Cooperative, Inc.
7	BATELEC II	Batangas II Electric Cooperative
8	BEZ	Balamban Enerzone Corporation
9	BLCI	Bohol Light Company, Inc.
10	BOHECO I	Bohol I Electric Cooperative, Inc.
11	CAGELCO I	Cagayan1 Electric Cooperative, Inc.
12	CAGELCO II	Cagayan II Electric Cooperative, Inc.
13	CASURECO II	Camarines Sur II Electric Cooperative, Inc.
14	CEBECO I	Cebu I Electric Cooperative, Inc.
15	CEBECO II	Cebu II Electric Cooperative, Inc.
16	CEDC	Clark Electric Distribution Corporation
17	CELCOR	Cabanatuan Electric Corporation
18	CENPELCO	Central Pangasinan Electric Cooperative, Inc.
19	DECORP	Dagupan Electric Corporation
20	DORELCO	Don Orestes Electric Cooperative, Inc.
21	FIT	First Industrial Township Utilities, Inc.

No.	Short Name	Distribution Utility/ Economic Zone
22	ILECO I	Iloilo I Electric Cooperative, Inc.
23	INEC	Ilocos Norte Electric Cooperative, Inc.
24	ISECO	Ilocos Sur Electric Cooperative, Inc.
25	ISELCO I	Isabela I Electric Cooperative, Inc.
26	LEYECO II	Leyte II Electric Cooperative, Inc.
27	LEYECO V	Leyte V Electric Cooperative, Inc.
28	LEZ	LIMA Enerzone Corporation
29	LUELCO	La Union Electric Cooperative, Inc.
30	MECO	Mactan Electric Company
31	MERALCO	Manila Electric Company
32	MEZ	Mactan Economic Zone
33	NEECO I	Nueva Ecija I Electric Cooperative, Inc.
34	NORECO II	Negros Oriental II Electric Cooperative, Inc.
35	OEDC	Olongapo Electricity Distribution Company
36	PANELCO III	Pangasinan III Electric Cooperative, Inc.
37	PECO	Panay Electric Co., Inc.
38	PELCO I	Pampanga I Electric Cooperative, Inc.
39	PELCO II	Pampanga II Electric Cooperative, Inc.
40	PELCO III	Pampanga III Electric Cooperative, Inc.
41	PENELCO	Peninsula Electric Cooperative, Inc.
42	PEZA	Philippine Economic Zone Authority
43	QUEZELCO I	Quezon I Electric Cooperative, Inc.
44	SAMELCO I	Samar I Electric Cooperative, Inc.
45	SEZ	Subic EnerZone Corporation
46	SFELAPCO	San Fernando Electric Light and Power Company, Inc.
47	TARELCO I	Tarlac I Electric Cooperative, Inc.
48	TARELCO II	Tarlac II Electric Cooperative, Inc.
49	TEI	Tarlac Electric, Inc.
50	VECO	Visayan Electric Company, Inc.
51	NGCP*	National Grid Corporation of the Philippines

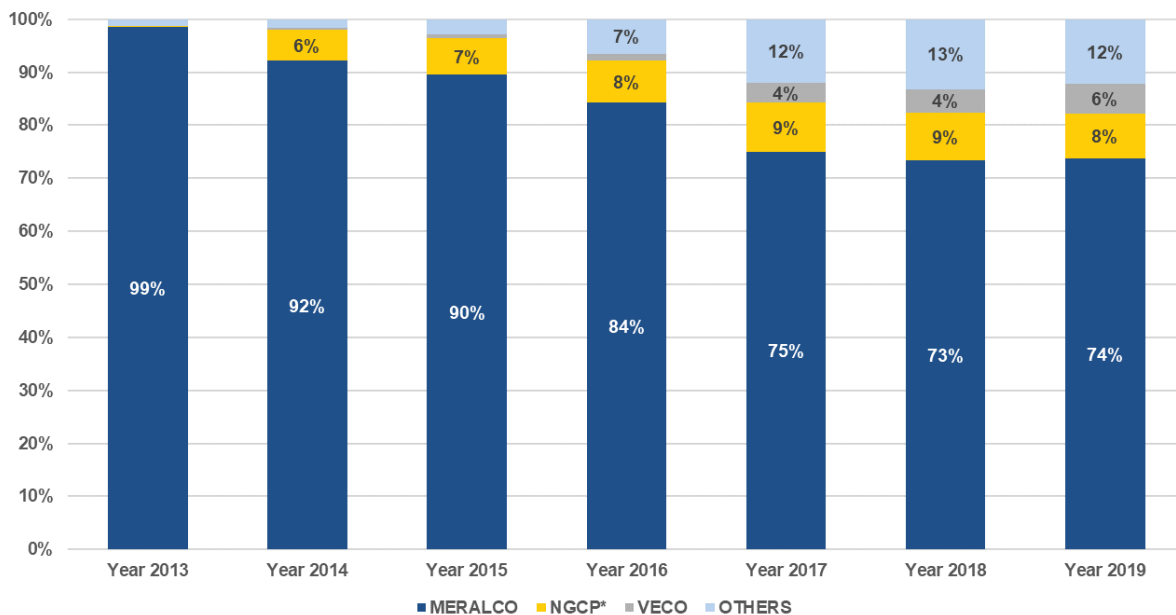


Figure 15. Share in Energy Consumption by Franchise Area, 2013 - 2019

As expected, majority or about 74 percent of the registered Contestable Customers were located within the franchise area of MERALCO. It should be noted, however, that not all of these registered Contestable Customers were being supplied by MRLCOLRE, as some of them availed the services of other Suppliers for their energy requirements as shown in Figure 15. About 6 percent were within the VECO franchise and 12 percent were scattered within the other franchise areas and economic zones. Meanwhile, 8 percent of the registered Contestable Customers were directly connected to the transmission grid.

With majority of the registered Contestable Customers located within the MERALCO franchise area, bulk of the energy consumption of registered Contestable Customers during the year in review was also accounted for by registered Contestable Customers within that franchise area.

Within the MERALCO franchise area, 43 percent of the total energy consumption of registered Contestable Customers was supplied by MRLCOLRE and its other affiliate Suppliers. Meanwhile, 15 percent of the total energy consumption of registered Contestable Customers was supplied by the Aboitiz group and its other affiliate Suppliers, 12 percent was supplied by the Ayala group and its other affiliate Suppliers, 18 percent was supplied by the San Miguel group and its other affiliate Suppliers, and 1 percent was supplied by PHENRES. The remaining 10 percent was supplied by other Retail Electricity Suppliers serving within the MERALCO franchise area (**Figure 16**).

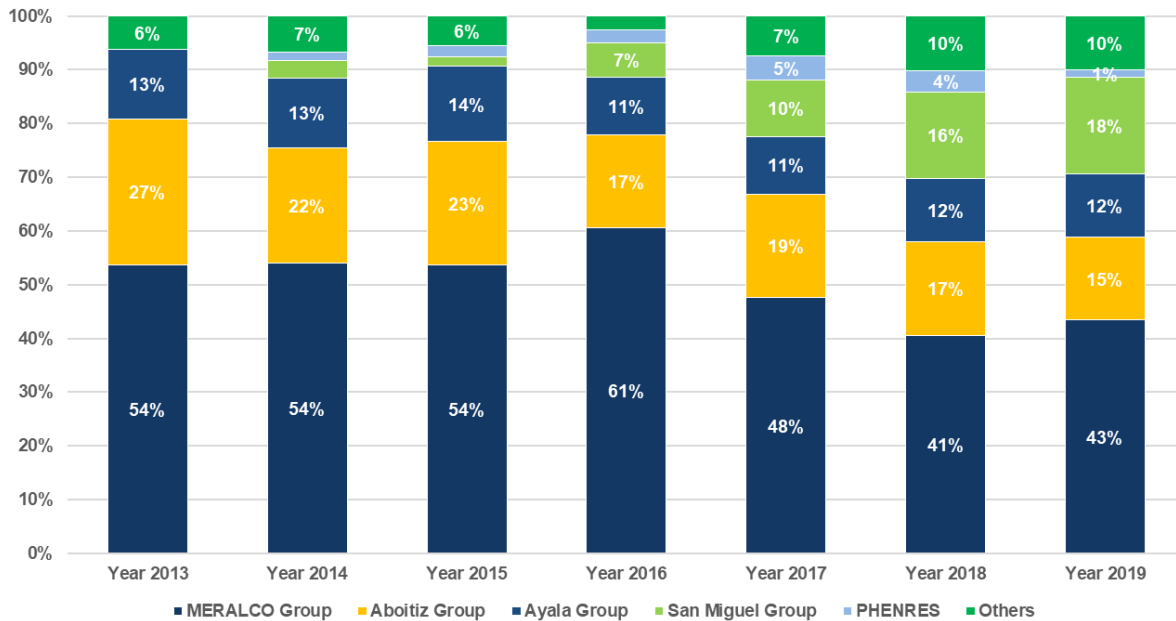


Figure 16. Share in Energy Consumption by Supplier within MERALCO Franchise Area, 2013 - 2019

2. Herfindahl–Hirschman Index (HHI)

The year-on-year (from 2013 to 2019) and quarter-on-quarter (2019) level of market concentration using the Herfindahl-Hirschman Index (HHI)¹¹ are shown in **Figures 17** and **18**, respectively. The computation of HHI shown in the figures were again based on the latest supplier grouping of the ERC.

The HHI values both in terms of number of registered Contestable Customers and their energy consumption showed a downward trend, indicating a shift from a highly concentrated market in 2013 to a concentrated market in 2019. Such shift in the level of market concentration was brought about by the increasing number of competitive Suppliers and registered Contestable Customers. The shares were now divided among more Suppliers resulting in lower HHI values as compared with the previous years.

Although 2019 still resulted to a concentrated market, the HHI values increased as compared to 2018. This is attributable to the increase in shares of almost all the major groups and the eventual reclassification of PHENRES, now registered as ACEPHRES, under the Ayala group.

¹¹ HHI measures the degree of market concentration. Defined as the sum of the Suppliers' market share, the HHI threshold are as follows:

- HHI < 1000 - not concentrated
- 1000 – 1800 - moderately concentrated
- Greater than 1800 - concentrated
- Greater than 2500 - highly concentrated

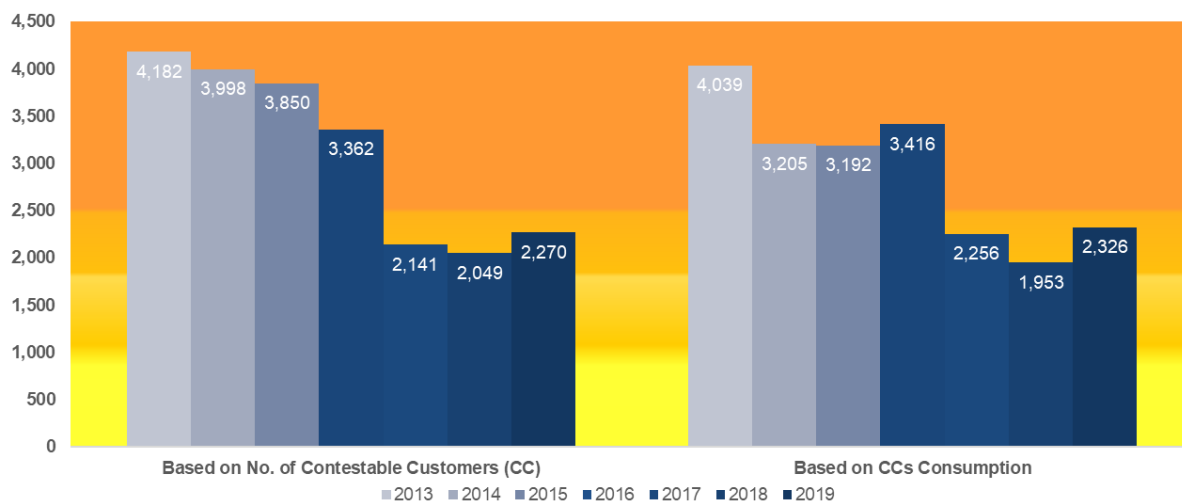


Figure 17. Yearly HHI Values, 2013 - 2019

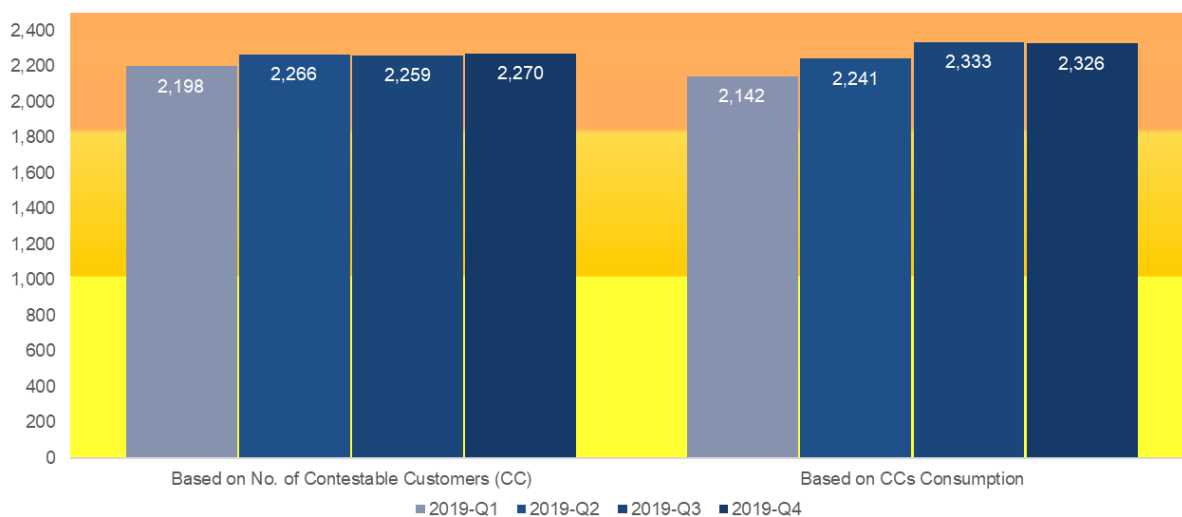


Figure 18. Quarterly HHI Values, Q1-Q4 2019

3. Four-Firm Concentration Index (C4)

Consistent with the increase in HHI values, the four-firm index or C4 values were observed to be decreasing over the years both in terms of number of registered Contestable Customers and their energy consumption as shown in **Figure 19**. It is also prudent to note the increase for both utilized indices recorded for 2019.

Although the resulting C4s are lower than the figures in 2013, the figures were still quite high at above 80 percent for both the number of registered Contestable Customers and their energy consumption in 2019 (**Figure 20**).

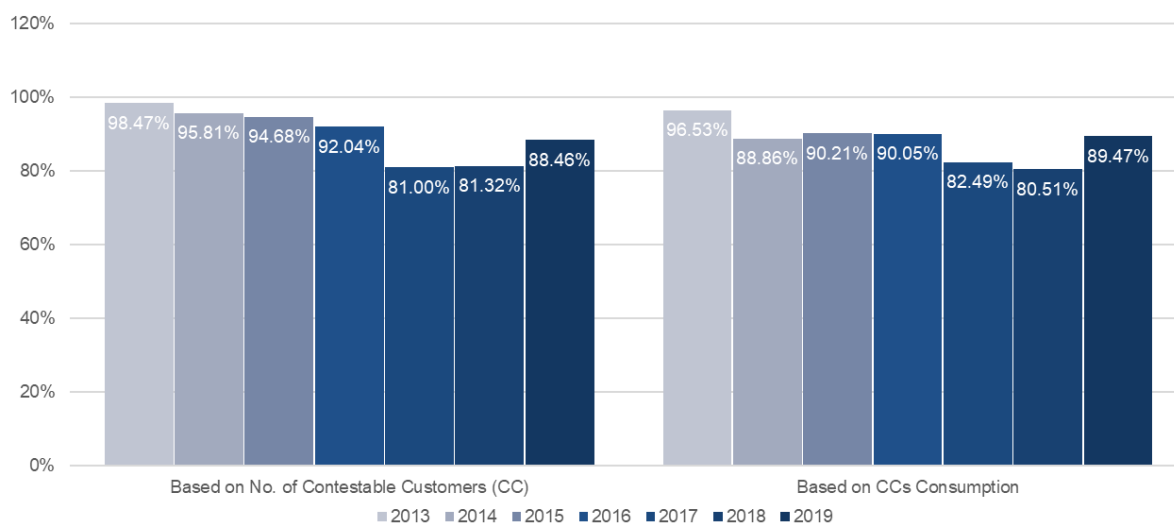


Figure 19. Yearly Four-Firm Index, 2013 - 2019

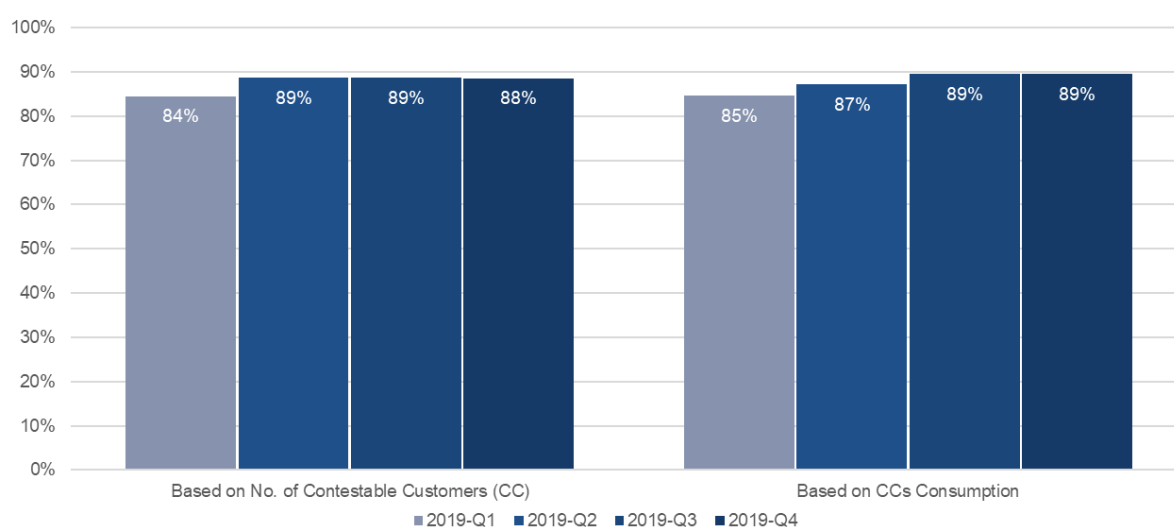


Figure 20. Quarterly Four-Firm Index, Q1-Q4 2019

4. Supplier Structure

Table 7 shows the degree of integration among the Suppliers, Generation Companies, and Distribution Utilities as of December 2019¹². The Supplier structure shows that majority of the RES had affiliate Generation Companies. Note that one Supplier may have multiple affiliate Generation Companies, Suppliers, and/or Distribution Utilities.

¹² Based on latest available ERC data.

Table 7. Summary of Suppliers with Affiliate GenCos, Suppliers and Distribution Utilities

Category	No. of Registered Suppliers	with Affiliate Generator		with Affiliate Supplier		with Affiliate DU	
		No. of Suppliers	% of Suppliers	No. of Suppliers	% of Suppliers	No. of Suppliers	% of Suppliers
Retail Electricity Supplier	31	24	77%	18	58%	13	42%
Local Retail Electricity Supplier	14	2	14%	4	29%	3	21%
Supplier of Last Resort	25	5	20%	7	28%	4	16%
Total	70	31	44%	29	41%	20	29%

II. MARKET PERFORMANCE

A. Total Energy Consumption

The year-on-year total energy consumption from 2013 to 2019 is shown in **Figure 21**, which includes both that of the Captive¹³ and registered Contestable Customers. Over the years, the energy consumption showed an increasing trend. From about 29,513 GWh in 2013, the total energy consumption grew to as high as 82,274 GWh in 2019. This was about 6 percent increase when compared with the previous year.

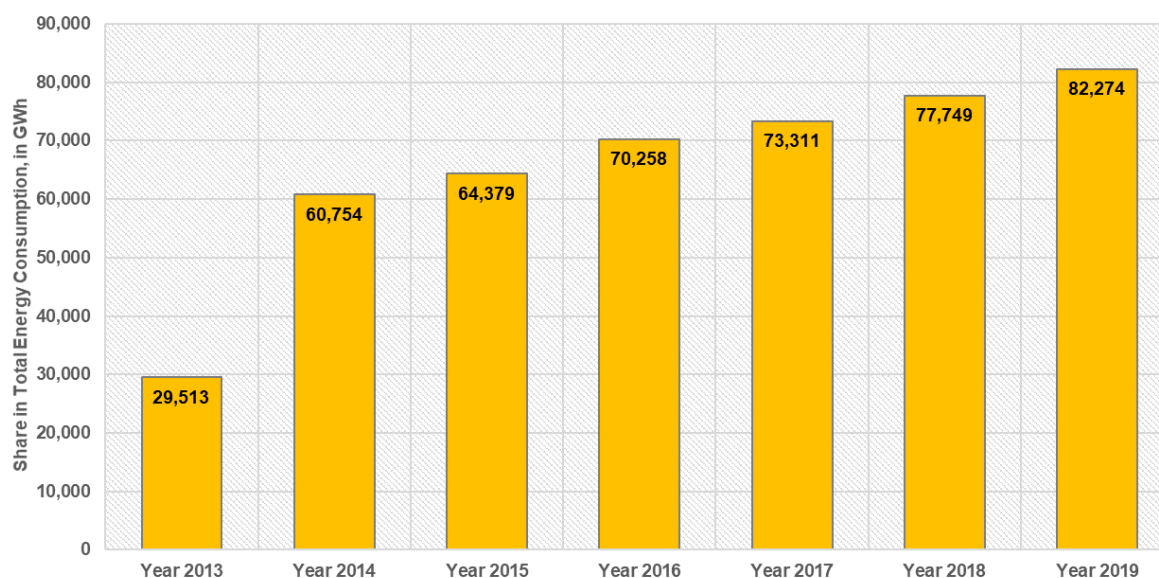


Figure 21. Yearly Total Energy Consumption (in GWh), 2013 - 2019

Meanwhile, the quarter-on-quarter total energy consumption for the year 2019 is shown in **Figure 22**. Factors such as temperature and seasonal changes, as well

¹³ Captive Customer consumption for this purpose is the energy consumption of customers of Private Distribution Utilities (PDU) and Electric Cooperatives (EC), as well as other consumption associated Directly-Connected Customers (DCC), Network Services Providers (NSP), Kalayaan pumping and other generator-related consumption.

as the economic activities during certain periods of the year may well have played a role in the varying level of energy consumption per quarter. As expected, the highest energy consumption at about 22,242 GWh was observed during the second quarter covering the summer months of April to June. The lowest consumption, on the other hand, was observed during the first quarter at about 18,383 GWh, which period covered the long holidays in December 2018 and January 2019.

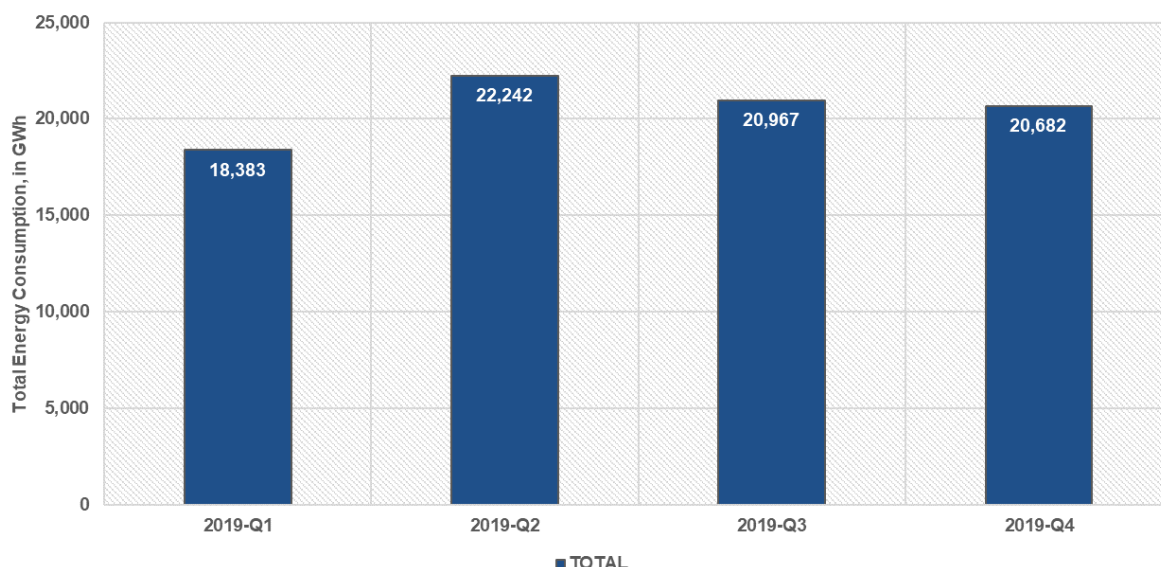


Figure 22. Quarterly Total Energy Consumption (in GWh), Q1-Q4 2019

B. Energy Consumption by Type of End-User

Illustrated in **Figure 23** is the year-on-year total energy consumption by type of end-user consisting of the Captive Customers and the registered Contestable Customers.

The energy consumption of Captive Customers showed increases from 2013 to 2016, and then went down in 2017, which decline was influenced primarily by the increased number of registrants in the contestable market. However, from 2018 up to the end of 2019, the energy consumption of Captive Customers had gradually increased.

Meanwhile for the consumption of Contestable Customers, it can be noted in the figure that the consumption has been increasing over the years. Such increase was supported by the growth in the number of new registrants during the period as described in the previous section.

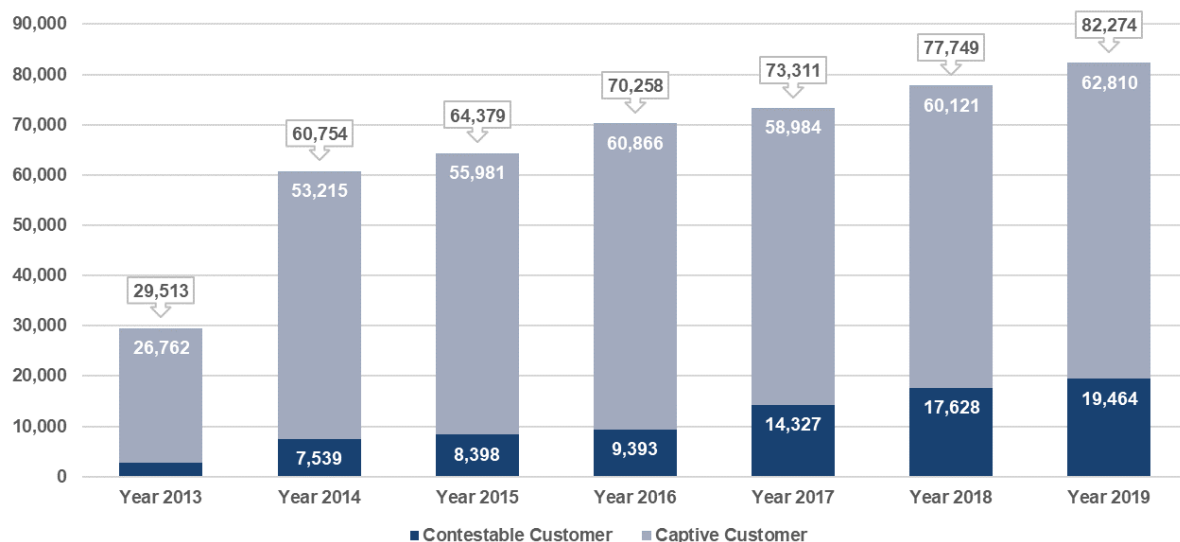


Figure 23. Yearly Total Energy Consumption (in GWh) Per Type of End-User, 2013 - 2019

C. Share in Energy Consumption by Type of End-User

The share of registered Contestable Customers and Captive Customers in the total energy consumption based on WESM transactions for the comparative periods in review is shown in **Figure 24**. From about 9 percent in 2013, the share of the registered Contestable Customers in the total energy consumption was recorded at about 24 percent in 2019. This might be attributable to several factors that include the increasing number of registrants in the market and perhaps the increasing demand for electricity by this type of end-users.

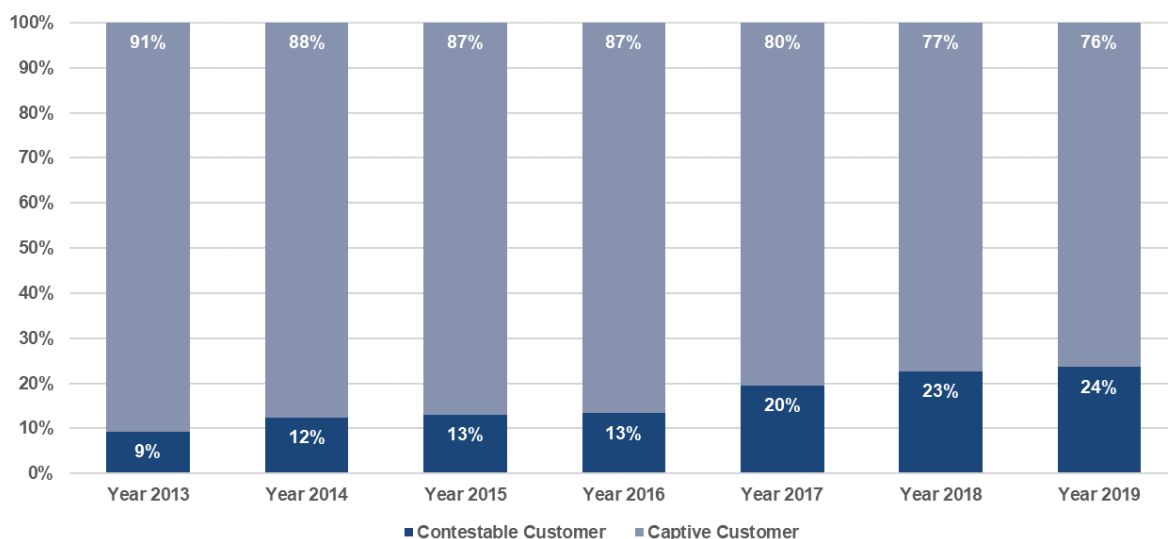


Figure 24. Yearly Share in Total Energy Consumption Per Type of End-User, 2013 - 2018

D. Hourly Energy Consumption Profile of Registered Contestable Customers

Figures 25 and 26 show the consumption profile per month of registered industrial and commercial Contestable Customers, respectively, for the 2019 billing year based on the hourly average consumption. The consumption profile demonstrates how their electricity consumption varied over the course of a 24-hour period.

As shown in **Figure 25**, the industrial Contestable Customers, generally, did not show substantial peak and off-peak variation in their hourly average energy consumption. Furthermore, the month-on-month comparison of their hourly consumption profile denotes that regardless of seasonal changes and varying temperatures throughout the year, the pattern of electricity consumption of the registered industrial Contestable Customers during the course of a day was approximately the same for any given month.

As shown in the consumption profile of the registered industrial Contestable Customer, a dip in their average energy consumption was generally observed during intervals 0700H, 1300H, and 1900H which may imply that industrial Contestable Customers operate on three shifts.

For the January to December 2019 billing month, the highest hourly average energy consumption of registered industrial Contestable Customers was recorded in the November 2019 billing month at 0900H (about 1,540 MWh) while the lowest average energy consumption was noted in February 2019 billing month at 0700H (about 1,240 MWh).

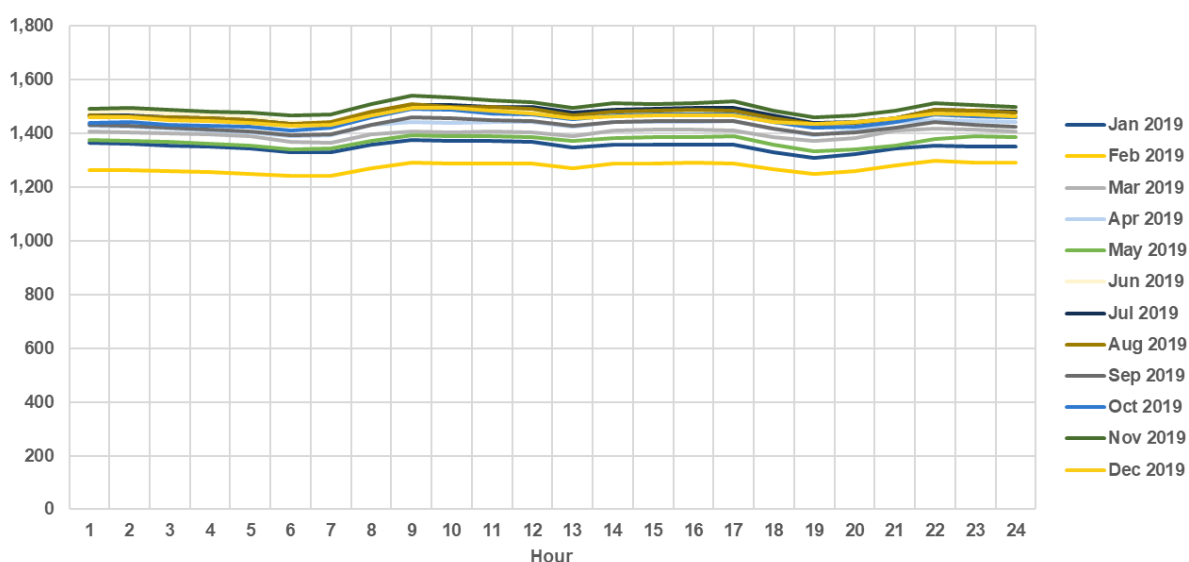


Figure 25. Hourly Average Energy Consumption (in MWh), Industrial CCs, Jan – Dec 2019

While the registered industrial Contestable Customers had an almost flat consumption profile, the registered commercial Contestable Customers, on the other hand, showed a substantial variation in their peak and off-peak consumption as shown in **Figure 26**. Peak consumption of registered Commercial Contestable Customers was generally observed from around 1000H to 2100H.

The highest hourly average energy consumption of registered commercial Contestable Customers during the January to December 2019 billing month was recorded in November 2019 billing month at 1500H (about 1,202 MWh) while the lowest average energy consumption was noted in February 2019 billing month at 0400H (about 386 MWh).

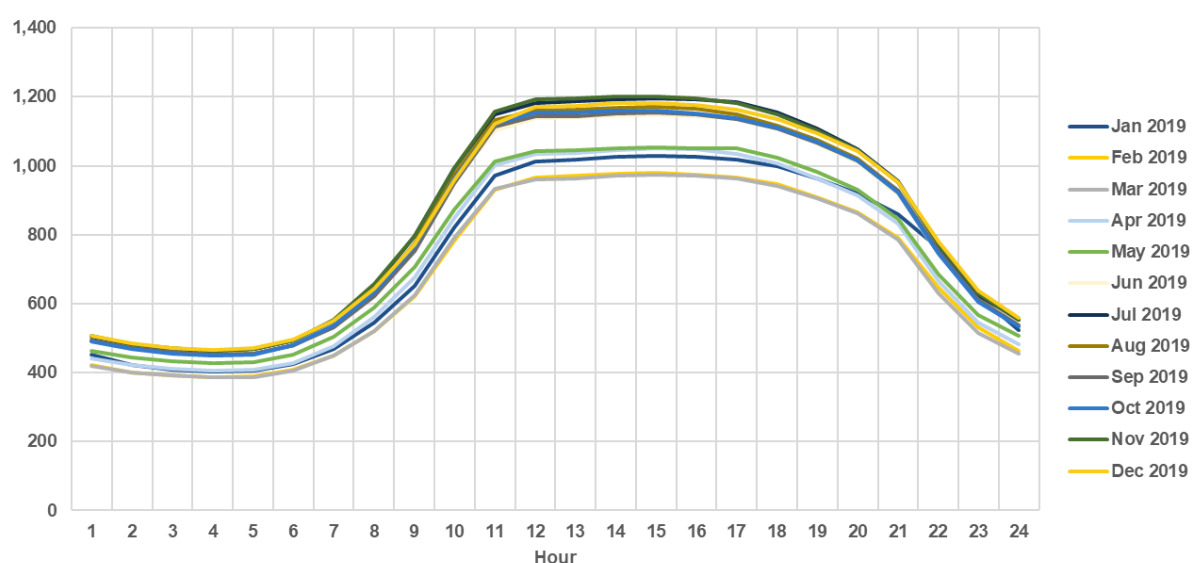


Figure 26. Hourly Average Energy Consumption (in MWh), Commercial CCs, Jan - Dec 2018

E. Load Factor

Figure 27 shows the monthly load factor¹⁴ of registered Contestable Customers and Captive Customers, which was calculated based on their actual electricity consumption. The load factor of registered Contestable Customers was maintained at a relatively high level ranging from 77 percent to 82 percent. It may be observed that the load factor of registered Contestable Customers had been steady between 80 to 81 percent beginning May 2019 but dropped to 78 percent by the end of December 2019.

The high load factor reflects a reasonably efficient electricity usage of registered Contestable Customers.¹⁵

¹⁴ Based on Metered Quantity (MQ)

¹⁵ Dr. C.R. Bayliss CEng FIET, B.J. Hardy CEng FIET, in Transmission and Distribution Electrical Engineering (Fourth Edition), 2012

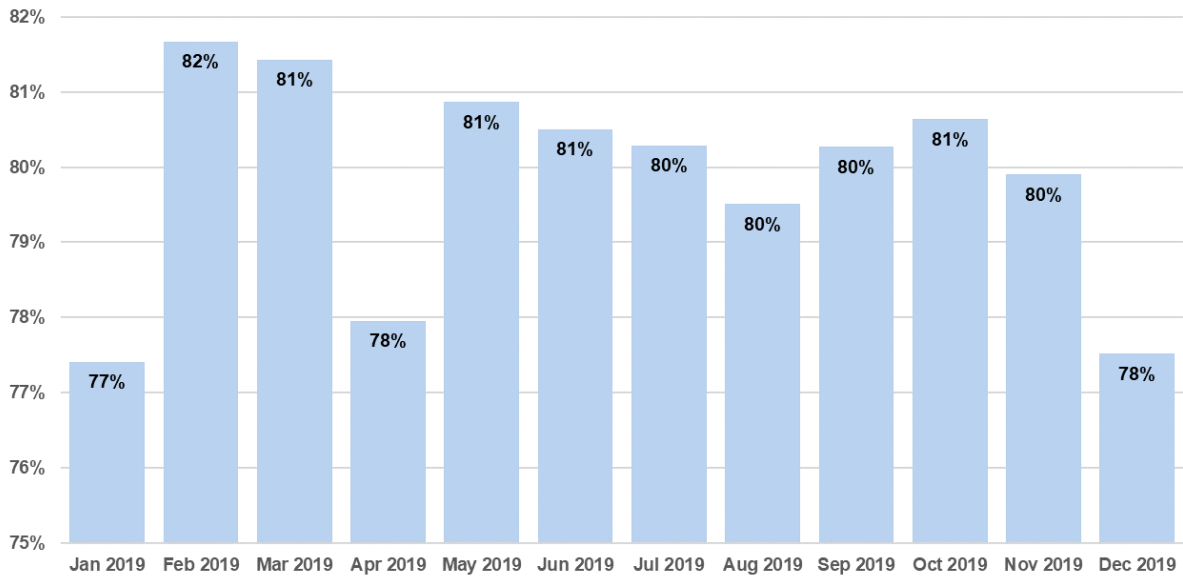


Figure 27. Monthly Load Factor, Registered CCs, Jan - Dec 2019

III. RETAIL ACTIVITY

A. Customer Participation Level

Based on **Figures 28 and 29**, the commercial sector comprises more than half of the Contestable Customers' participation in the retail market, outnumbering the registered industrial Contestable Customers by a few percent. As previously discussed in Section I, the retail activities of Contestable Customers were almost equally divided between industrial and commercial all throughout the period in review.

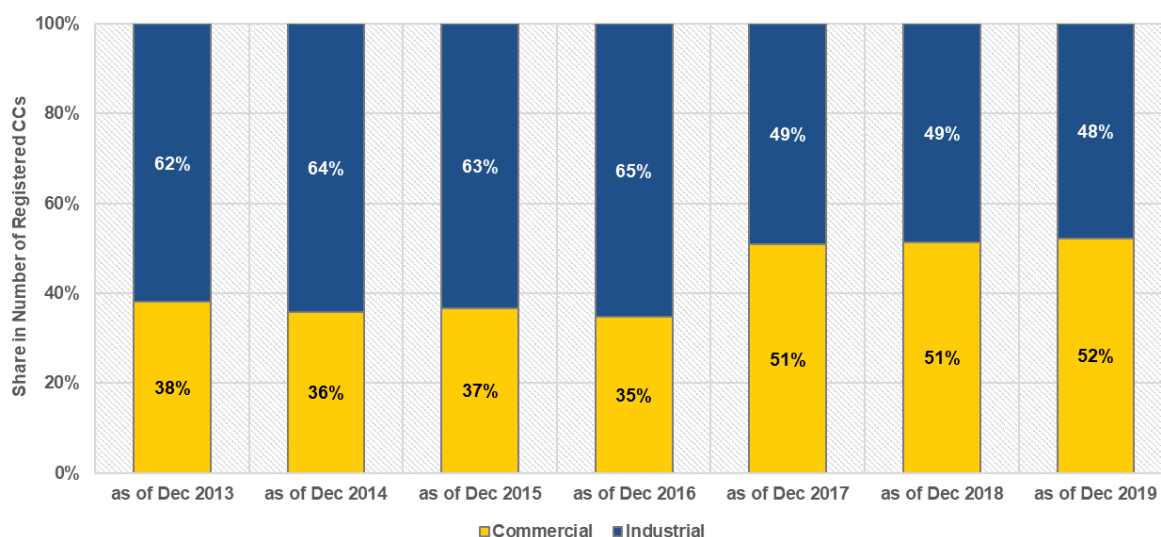


Figure 28 Percentage of Registered CCs, Per Industry Type, as of Dec 2019

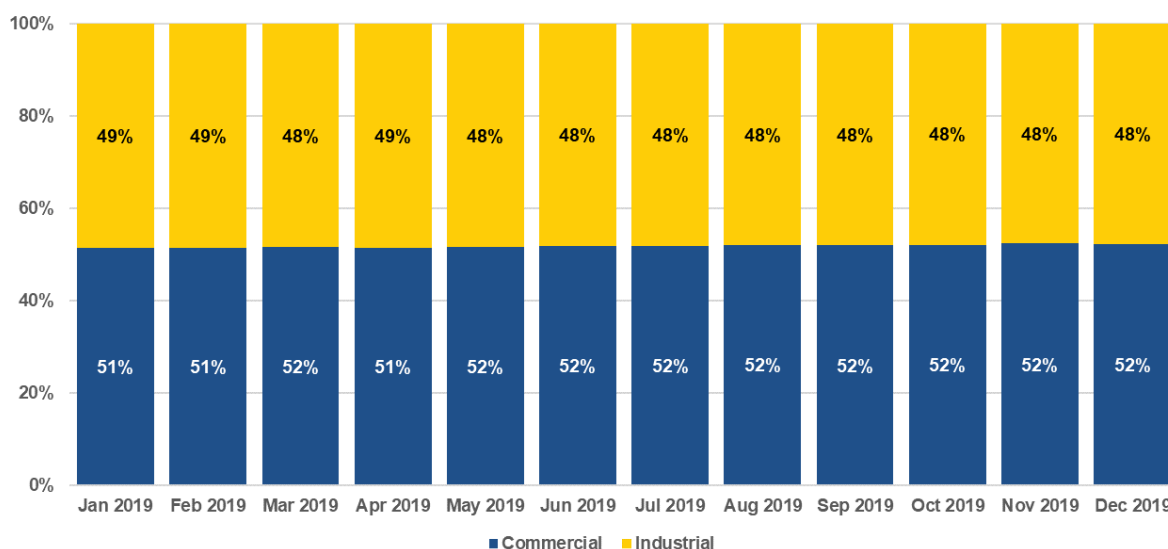


Figure 29. Percentage of Registered CCs, Per Industry Type, Jan – Dec 2019

B. Customer Switching Rate

Table 8 shows the switching rate among registered Contestable Customers for the period covered in this report. Based on the data, 96 switches from one Supplier to another were recorded from January to December 2019.

In Luzon, 2 registered Contestable Customers switched from LRES to RES, 28 switched from RES to LRES and 48 switched from RES to another RES. Meanwhile, in Visayas, 18 registered Contestable Customer switched from RES to RES. The highest switching rate recorded for the year occurred in February 2019 at 3.68 percent.

In terms of industry type, the market has recorded 53 switches on CCs categorized under Commercial activities and 43 switches under Industrial activities. Further details of the switches are provided herewith in **Table 9**.

Table 8. Customer Switching Rate, Jan - Dec 2019

Particulars	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Switching Rate (Luzon)	0.64%	3.72%	0.54%	0.36%	0.00%	0.68%	0.17%	0.41%	0.08%	0.08%	0.08%	0.16%
Total No. of CCs	1,091	1,103	1,119	1,126	1,144	1,177	1,196	1,212	1,221	1,235	1,247	1,264
Total No. of CCs that Switched	7	41	6	4	0	8	2	5	1	1	1	2
LRES to RES						1						1
RES to LRES	3	17	1			3	2			1		1
RES to RES	4	24	5	4		4		5	1		1	
SOLR to RES												
Switching Rate (Visayas)	5.08%	3.36%	0.83%	0.00%	0.00%	3.10%	0.76%	0.00%	0.73%	0.72%	0.00%	0.00%
Total No. of CCs	118	119	121	122	126	129	131	132	137	138	143	144
Total No. of CCs that Switched	6	4	1	0	0	4	1	0	1	1	0	0
LRES to RES												
RES to RES	6	4	1			4	1		1	1		
Switching Rate (Luzon-Visayas)	1.08%	3.68%	0.56%	0.32%	0.00%	0.92%	0.23%	0.37%	0.15%	0.15%	0.07%	0.14%
Total No. of CCs	1,209	1,222	1,240	1,248	1,270	1,306	1,327	1,344	1,358	1,373	1,390	1,408
Total No. of CCs that Switched	13	45	7	4	0	12	3	5	2	2	1	2

Table 9. Customer Switching Rate by Industry Type

Particulars	Industry Type	
	Commercial	Industrial
<i>Total Number of Switches</i>	53	43
<i>LRES to RES</i>	1	1
<i>RES to LRES</i>	16	10
<i>RES to RES</i>	36	32
<i>SOLR to RES</i>		