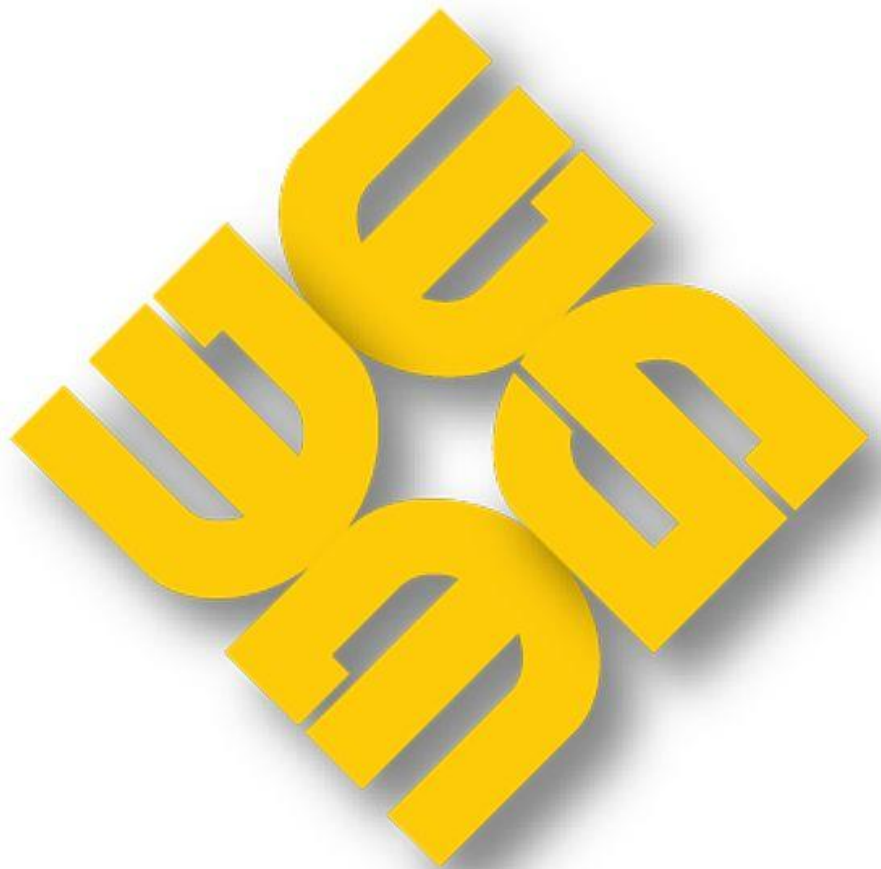


MAG-ARMAR-2018

ANNUAL RETAIL MARKET ASSESSMENT REPORT

26 December 2017 – 25 December 2018



**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 2017 to 25 December 2018**. More than five years since the retail market was launched on 26 June 2013, the number of registered Contestable Customers grew from the initial 240 Contestable Customers to 1,198 registrants by the end of the December 2018 billing month. Likewise, the market recorded a total of 30 registered Retail Electricity Suppliers, 14 registered Local Retail Electricity Suppliers, and 24 registered Suppliers of Last Resort.

Majority or 1,080 registered Contestable Customers were in Luzon and the remaining 118 registered Contestable Customers were in Visayas. Of the total registrants, 19 percent were in the 750 kW to 999 kW contestability threshold, while 81 percent were in the 1 MW and above contestability threshold. It may be noted that retail activities of Contestable Customers were almost equally divided between industrial and commercial by the end of December 2018 billing month. The total registrants was about 64 percent of the 1,876 electricity end-users that were already issued a Certificate of Contestability by the ERC. The remaining 36 percent electricity end-users already issued with Certificate of Contestability have not yet registered in the market.

The total energy consumption of the registered Contestable Customers for January to December 2018 billing months stood at about 17,628 GWh. This consumption level accounts for about 23 percent of the combined energy consumption of the registered Contestable Customers and the Captive Customers for the year 2018. The load factor of registered Contestable Customers was maintained relatively high throughout the period in review, indicating that their electricity usage was reasonably efficient.

Majority of the registered Contestable Customers were located within the MERALCO franchise area. By the end of December 2018 billing month, about 31 percent of all registrants were being supplied by the Suppliers under the MERALCO group.

The level of market concentration based on Herfindahl-Hirschman Index (HHI) using the ERC's major participant grouping fell within the concentrated area both in number and consumption of registered Contestable Customers.

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

More than five years since the retail market was launched on 26 June 2013, the number of registered Contestable Customers grew from the initial 240 Contestable Customers to 1,198 registrants by the end of the December 2018 billing month (**Figure 1**). This was about 64 percent of the 1,876 qualified electricity end-users already issued with a certificate of contestability based on the latest data of the Energy Regulatory Commission (ERC)¹. The year 2018 marked a 27 percent increase in the number of registered Contestable Customers from the previous year's 940 registrants.

¹ Monthly Statistical Data as of December 2018 ((Source: ERC's 2018 Competitive Retail Electricity Market (CREM) Report; Link: www.buyourelectricity.com.ph).

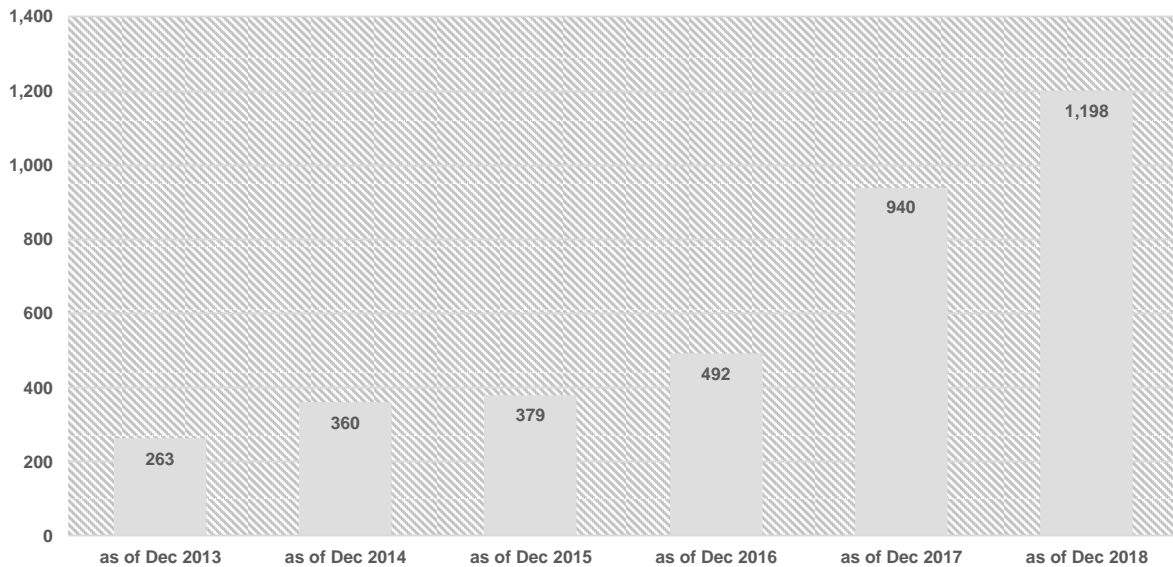


Figure 1. Yearly Cumulative Number of Registered CCs, 2013 - 2018

Table 1. Yearly Growth in the Number of Registered CCs

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
Cumulative No. of Registrants as of End of Period	263	360	379	492	940	1,198
Annual Percent Increase		37%	5%	30%	91%	27%

The number of registrants increased gradually during the year 2018 when compared with the previous year. As reflected in **Figure 2**, the month-on-month increase just varied between 1 to 4 percent during the billing months of January to December 2018.

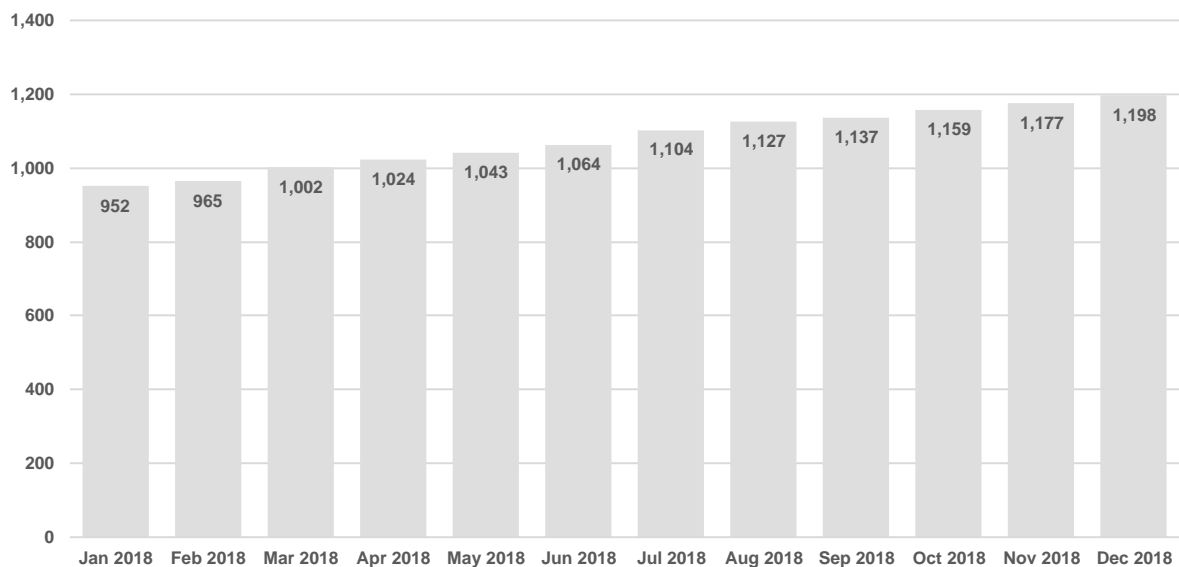


Figure 2. Monthly Cumulative Number of Registered CCs, Jan – Dec 2018

Figures 3 and 4 show the year-on-year and month-on-month cumulative number of registrants per contestability threshold, respectively. The market initially registered 14 participants when the voluntary registration of the Contestable Customers in the 750-999 kW contestability threshold began on 26 June 2016².

However, the registration of Contestable Customers in the 750-999 kW contestability threshold was temporarily stalled after the Supreme Court's imposition of a temporary restraining order in February 2017, halting the implementation of ERC issuances³ providing rules and regulations implementing the Retail Competition and Open Access (RCOA), as well as the DOE circulars⁴ defining the latest timeline of RCOA at that time.

On 29 November 2017, the DOE promulgated the department circulars⁵ addressing policy and regulatory gaps resulting from and consistent with the cases mentioned above. These latest policy issuances of the DOE aim to provide immediate guidance to affected power industry entities in view of the temporary restraining order on the pre-existing RCOA processes, in particular, the Suppliers and Contestable Customers that wish to participate in the retail market. The said policy issuances effectively allow the voluntary participation of Contestable Customers in the 750 kW and above contestability threshold, among others.

Following the DOE's policy issuances, the registration of Contestable Customers resumed and by the end of the December 2018 billing month, the market recorded 223 registrants in the 750-999 kW contestability threshold. This was about 19 percent of all the Contestable Customers registered in the market. The remaining 975 or about 81 percent was classified under 1 MW & above contestability threshold.

² [ERC Resolution No. 10, Series of 2016](#)

³ [ERC Resolution Nos. 05, 10, 11 and 12](#), all series of 2016

⁴ [DOE Department Circular DC2015-06-0010](#)

⁵ [DOE Department Circulars DC2017-12-0013](#) and [DC-2017-12-0014](#)

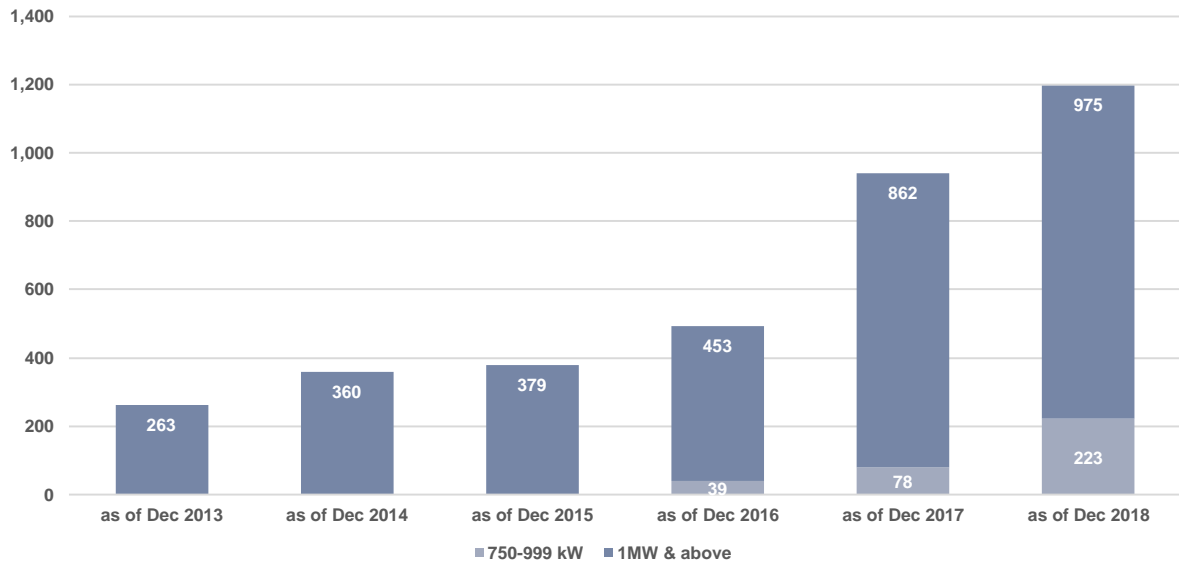


Figure 3. Yearly Cumulative Number of Registered CCs Per Contestability Threshold, 2013 - 2018

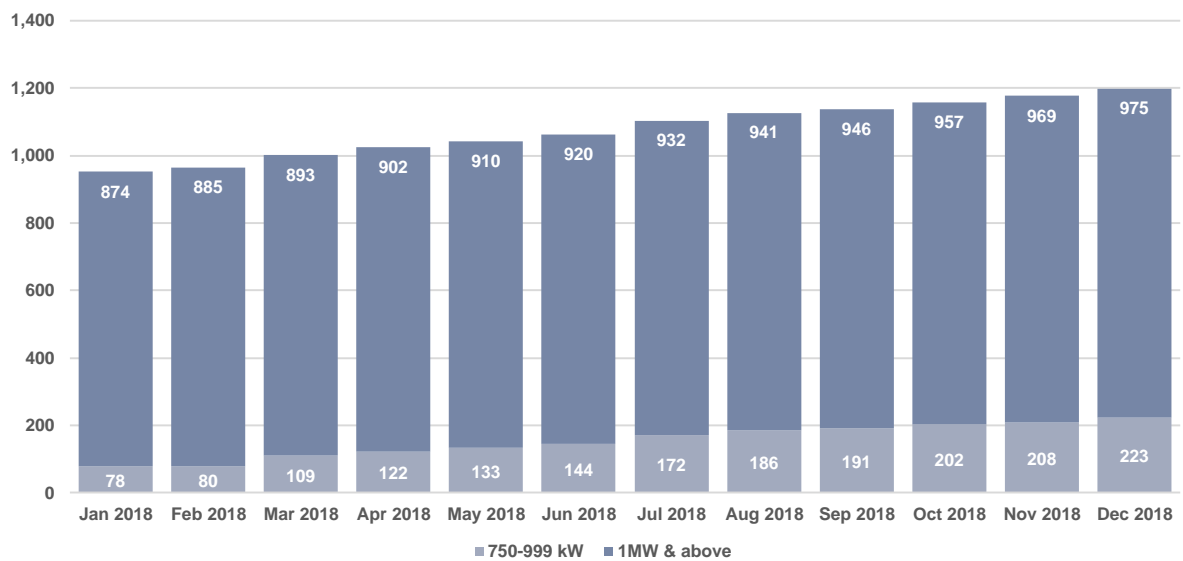


Figure 4. Monthly Cumulative Number of Registered CCs Per Contestability Threshold, Jan - Dec 2018

In terms of distribution by region, majority of Contestable Customers or about 90 percent (1,080 Contestable Customers) were located in Luzon while about 10 percent (118 Contestable Customers) were located 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 noted that most of the new registrants in the year 2018 alone were Contestable Customers in Luzon. As can be observed in **Figure 6** and consistent with the

previous discussions, the number of registrants increased gradually during the billing months of January to December 2018.

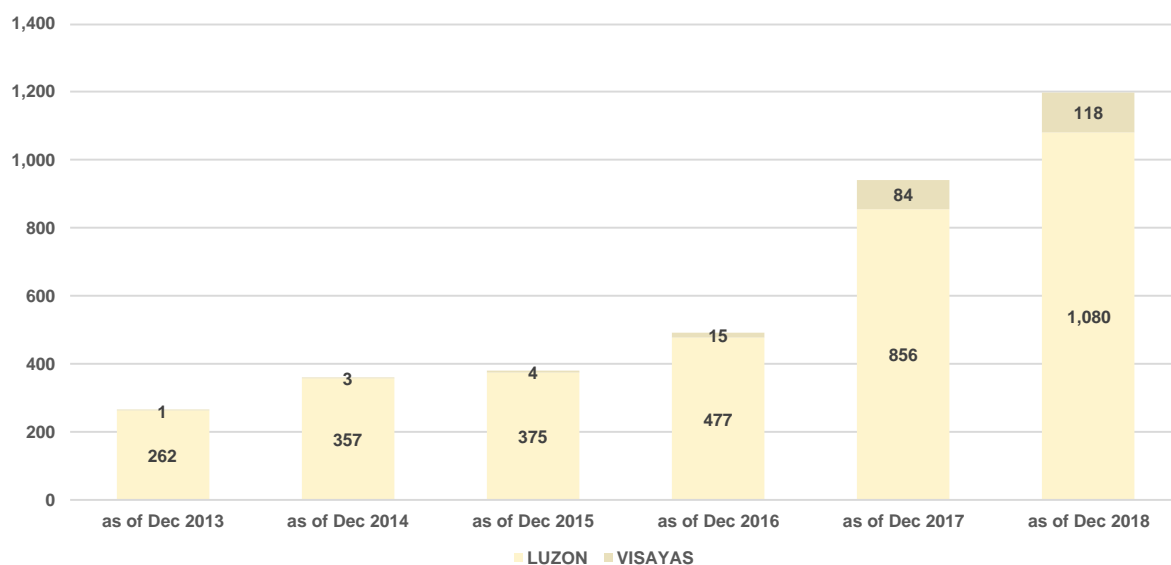


Figure 5. Yearly Cumulative Number of Registered CCs Per Region, 2013 - 2018

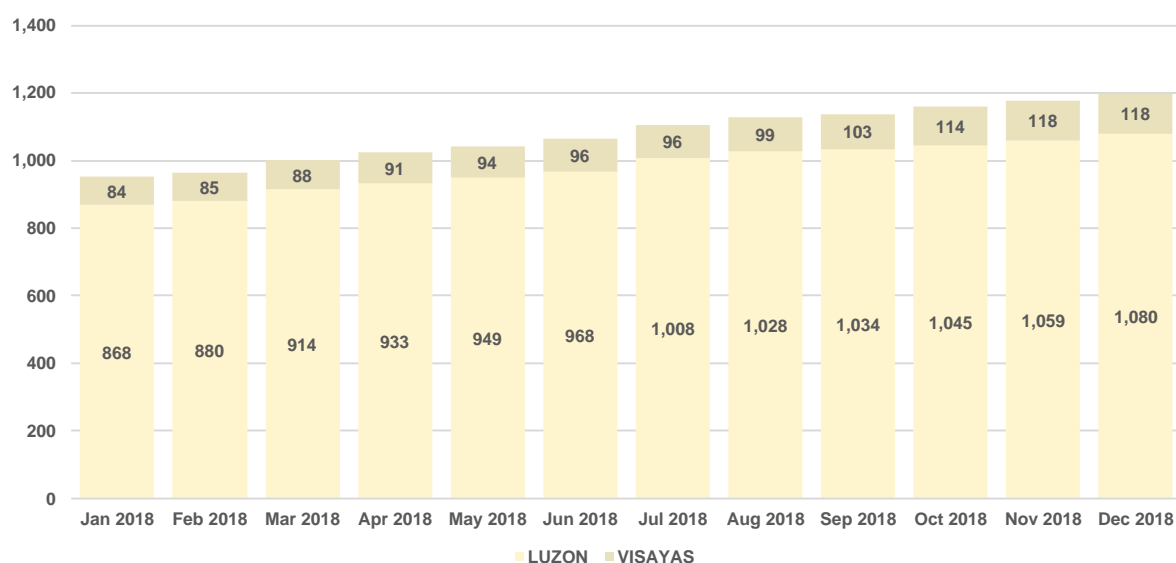


Figure 6. Monthly Cumulative Number of Registered CCs Per Region, Jan - Dec 2018

The year-on-year and month-on-month cumulative number of registered Contestable Customers per type of activity are shown in **Figures 7** and **8**, respectively. As of December 2018 billing month, the market was comprised of 582 Contestable Customers (about 49 percent) that were engaged into industrial activities and 616 Contestable Customers (about 51 percent) that were into commercial activities. The retail market started with a significantly

higher number of industrial than commercial Contestable Customers. However, the number of registrants engaged into commercial activities caught up slowly in the year 2017 when the supposed mandatory registration in the market was originally scheduled. It may 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 2018, as shown in Figure 8.

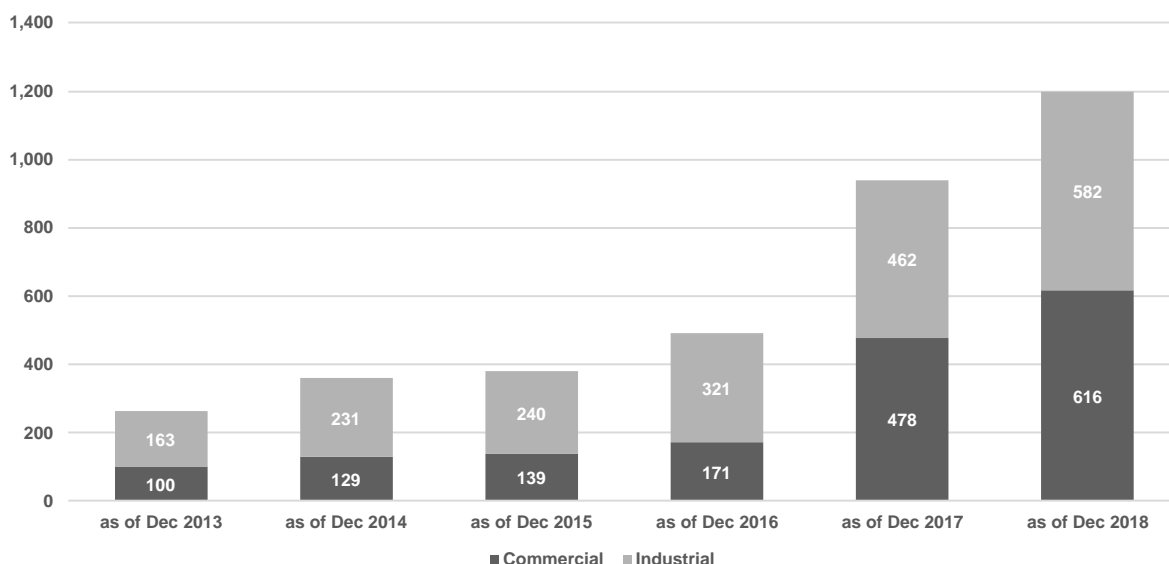


Figure 7. Yearly Cumulative Number of Registered CCs Per Retail Activity, 2013 – 2018

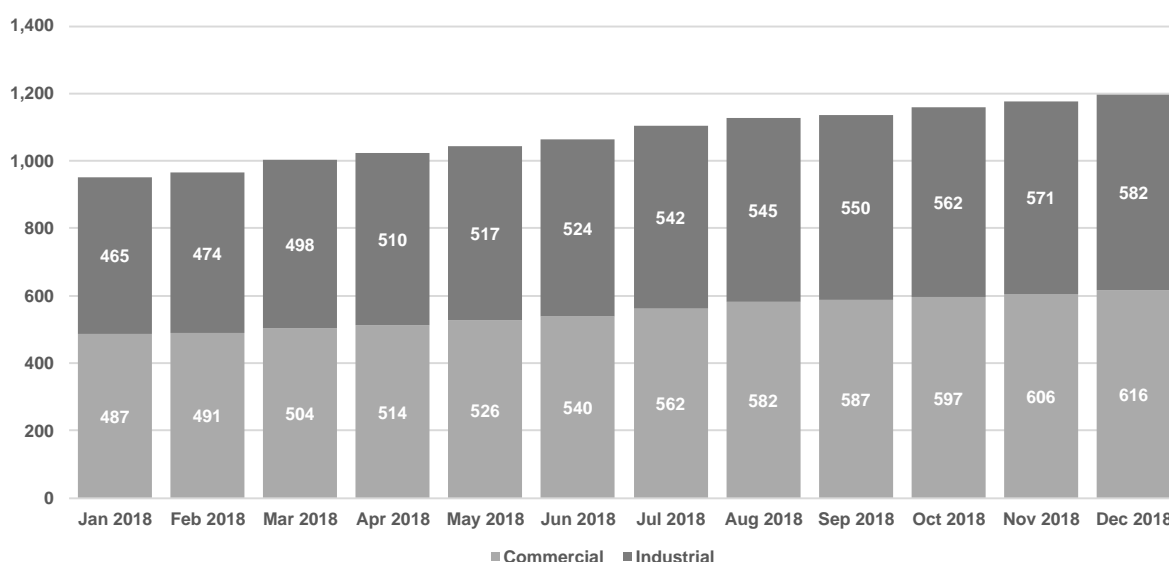


Figure 8. Monthly Cumulative Number of Registered CCs Per Retail Activity, Jan - Dec 2018

Table 2 shows the percentage of registered Contestable Customers per level of maximum energy consumption based on their metered quantity (MQ). For the January to December

2018 billing months, majority or about 49 percent of the registrants had maximum energy consumption higher than 1 MWh up to 5 MWh. Meanwhile, about 18 percent of the registered Contestable Customers had maximum energy consumption above 5 MWh up to 10 MWh, while about 15 percent had maximum energy consumption higher than 20 MWh up to 50 MWh during the period.

Table 2. Percentage of Registered CCs Per Level of Max. Energy Consumption, Jan – Dec 2018

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	Above 50 MWh	Sub-Total Per Region
LUZON	5.96%	44.10%	17.37%	6.53%	2.63%	13.02%	0.00%	89.61%
VISAYAS	0.57%	4.90%	1.06%	0.29%	0.45%	1.82%	1.30%	10.39%
Sub-Total Per Level of Maximum Energy Consumption	6.52%	49.00%	18.43%	6.82%	3.07%	14.85%	1.30%	100.00%

2. Number of Suppliers

As of the period in review, there were a total of 30 Retail Electricity Suppliers, 14 Local Retail Electricity Suppliers and 24 Suppliers of Last Resort that registered in 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 2018 thus by the end of December 2018 billing month, only two (2) new Retail Electricity Suppliers and two (2) new Local Retail Electricity Suppliers that registered in the market.

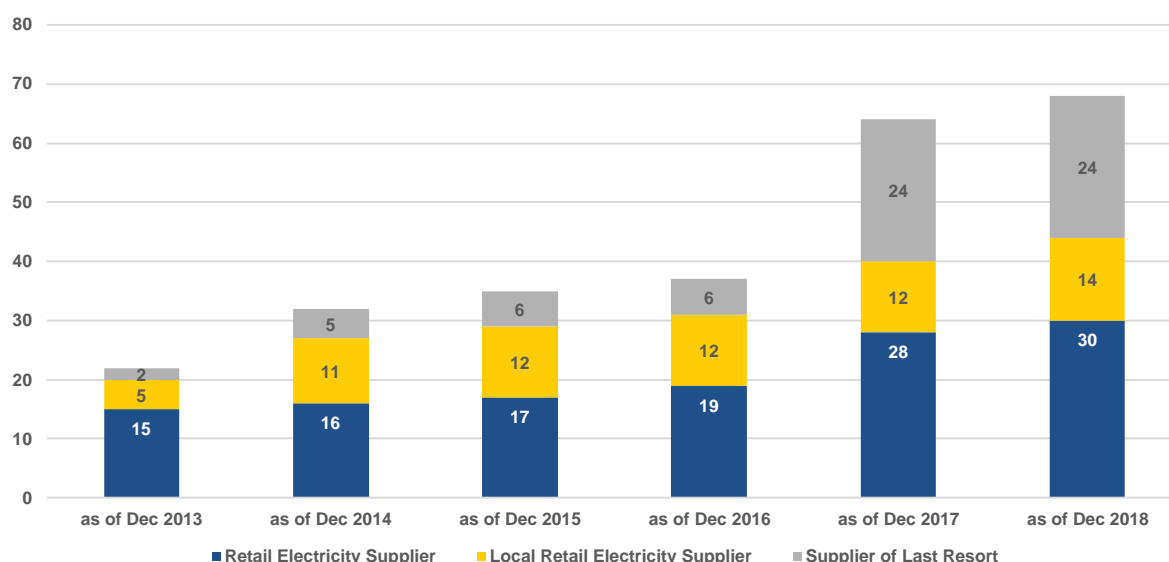


Figure 9. Yearly Cumulative Number of Registered Suppliers Per Category, 2013 - 2018

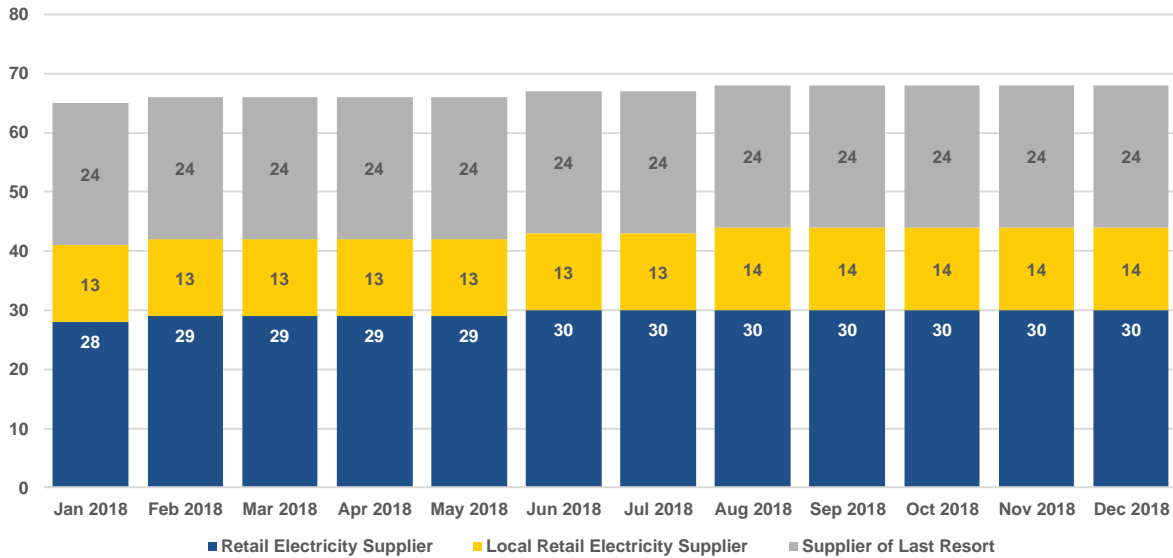


Figure 10. Monthly Cumulative Number of Registered Suppliers Per Category, Jan – Dec 2018

As of the December 2018 billing month, majority of the Retail Electricity Suppliers were actively participating in the market and serving registered Contestable Customers. A summary of the number of Suppliers with registered Contestable Customers served is shown in **Table 3**. As of this period, 28 Retail Electricity Suppliers and three (3) Local Retail Electricity Suppliers were serving registered Contestable Customers.

Table 3. Summary of Suppliers Per Category, as of 25 December 2018

Category	No. of Suppliers	
	Total Registered	With CCs Served
Retail Electricity Supplier	30	28
Local Retail Electricity Supplier	14	3
Supplier of Last Resort	24	0
Total	68	31

A list of all registered Suppliers per category (Retail Electricity Supplier, Local Retail Electricity Supplier, and Suppliers of Last Resort) as of the December 2018 billing month is provided in **Table 4**.

Table 4. List of Suppliers Per Category, as of 25 December 2018

Category	No.	Market Participant Name	Short Name
Retail Electricity Supplier	30	Aboitiz Energy Solutions, Inc.	AESIRES
		AC Energy Holdings, Inc.	ACERES
		AdventEnergy, Inc.	ADVENTRES
		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.	EPMIRE
		FDC Retail Electricity Sales Corporation	FDCRESC
		First Gen Energy Solutions, Inc.	FGESRES
		Global Energy Supply Corporation	GESCRE
		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	24	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
		Bohol Light Company, Inc.	BLCISLR
		Cabanatuan Electric Corporation	CELCOSLR
		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.	LUELCO1SLR
		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 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 grouping⁶ which reflects the affiliation among the Suppliers.

On top of the list was MRLCOLRE with 353 registered Contestable Customers as of end of the December 2018 billing month. Next in the list were AESIRES with 159 Contestable Customers, SMELCRES with 111 Contestable Customers, ADVENTRES with 77 Contestable Customers, and PHENRES (formerly TAORES) with 74 Contestable Customers.

⁶ 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 - 2018

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
Aboitiz Group	51	73	77	144	273	306
ADVENTRES	5	20	20	43	72	77
AESIRES	46	49	51	90	166	159
MACRES					2	3
PRISMRES					13	37
SEZLRE			2	2	2	
SFELAPLRE		1	1	1	1	1
SNAPRES		3	3	8	17	29
Ayala Group	45	54	58	51	108	154
ACERES					37	72
DIRPOWRES	29	32	32	34	36	38
EPMIRES	16	22	26	17	35	44
MERALCO Group	155	207	212	238	294	390
CEDCLRE						6
MRLCOLRE	155	207	212	237	279	353
MRLCOSLR				1		
VESMIRES					15	31
PHENRES	0	3	9	17	84	74
PHENRES		3	9	17	84	74
San Miguel Group	1	7	9	18	84	121
SMCCPCRES					4	10
SMELCRES	1	7	9	18	80	111
Others	10	14	11	22	94	149
ANDARES						1
BGIRES					9	24
CESIRES					1	2
CORERES						2
FDCRESC					9	12
FGESRES				9	20	28
GESCRESC	2	2		1	16	16
GNPLCRES		1	2	3	4	4
KRATOSRES					1	17
KSPCRES					1	3
MANTARES					2	2
MPPCLRES	1	1	1		2	6
PERCRES					12	12
SCRCRES						1
TEILRE			1	2	1	
TPECRES	7	9	5	5	15	18
VECOLRE		1	1	1		
WAHCRES			1	1	1	1
TOTAL	262	358	376	490	937	1,194

The following figures show the share of Suppliers in terms number of registered Contestable Customers and their corresponding energy consumption, per major grouping.⁷

Figures 11 and **12** show the year-on-year and month-on-month share of Suppliers per major participant in terms of the number of Contestable Customers.

Consistent with the previous years, the list was topped by the MERALCO group with about 33 percent share, followed by the Aboitiz group with about 26 percent share. Meanwhile, the Ayala group's share stood at about 13 percent, the San Miguel group at about 10 percent share and PHENRES at about 6 percent by the end of the December 2018 billing month. The remaining 12 percent was accounted for the share of the other registered Suppliers that were not affiliated with the major participant groups (Figure 11).

⁷ ERC major grouping in December 2018 Competitive Retail Electricity Market (CREM) Report.

It was quite evident that over the years, the share of the MERALCO group had been going down, from about 59 percent in December 2013 to about 31 percent share by the end of the December 2017 billing month. However, its share started to slightly increase beginning the second quarter of 2018 (Figure 12) that by the end of December 2018 billing month, the MERALCO group's share in terms of number of registered Contestable Customers served, was recorded at about 33 percent.

On the other hand, the Aboitiz group and PHENRES, though showed yearly increases in their share in terms of number of registered Contestable Customers served (Figure 11), had slowly decreased their shares in 2018 (Figure 12) that by the end of December 2018 billing month, both recorded slightly lower shares at about 26 percent (from previous year's 29 percent) and 6 percent (from previous year's 9 percent), respectively.

Meanwhile, the share in terms of number of registered Contestable Customers served by the Ayala group significantly dropped at 10 percent in the year 2016 but started to increase thereafter (Figure 11), thus by the end of the December 2018 billing month, it recorded a 13 percent increase (Figure 12). The share of the San Miguel group, on the other hand, continued to increase both on a yearly and monthly basis.

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

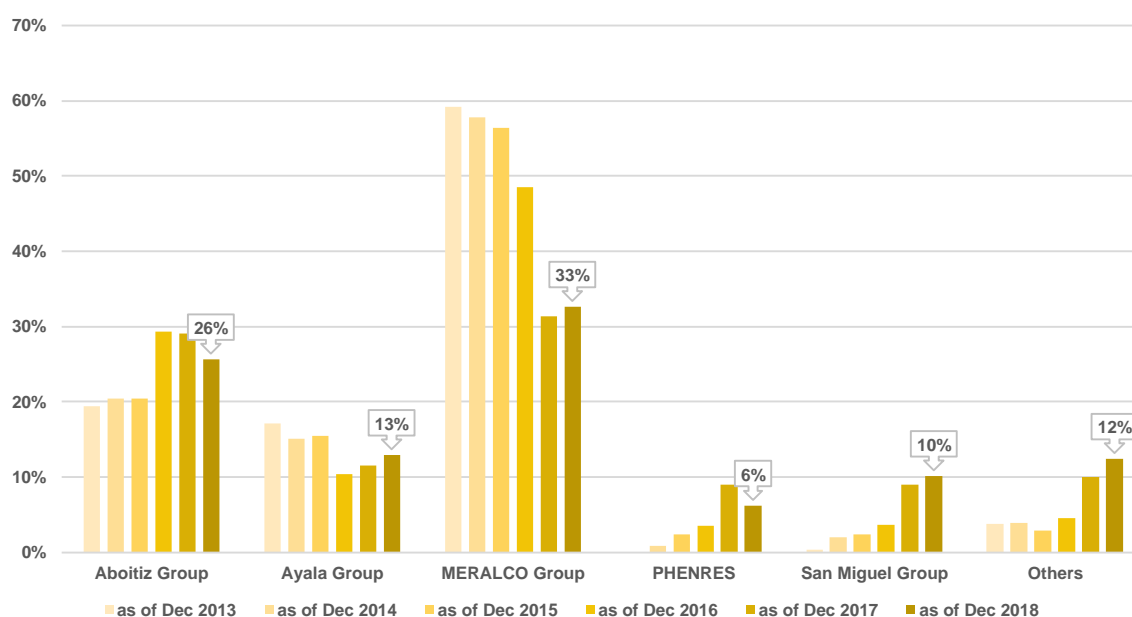


Figure 11. Yearly Share in the Number of Registered CCs Per Major Participant Group, 2013 - 2018

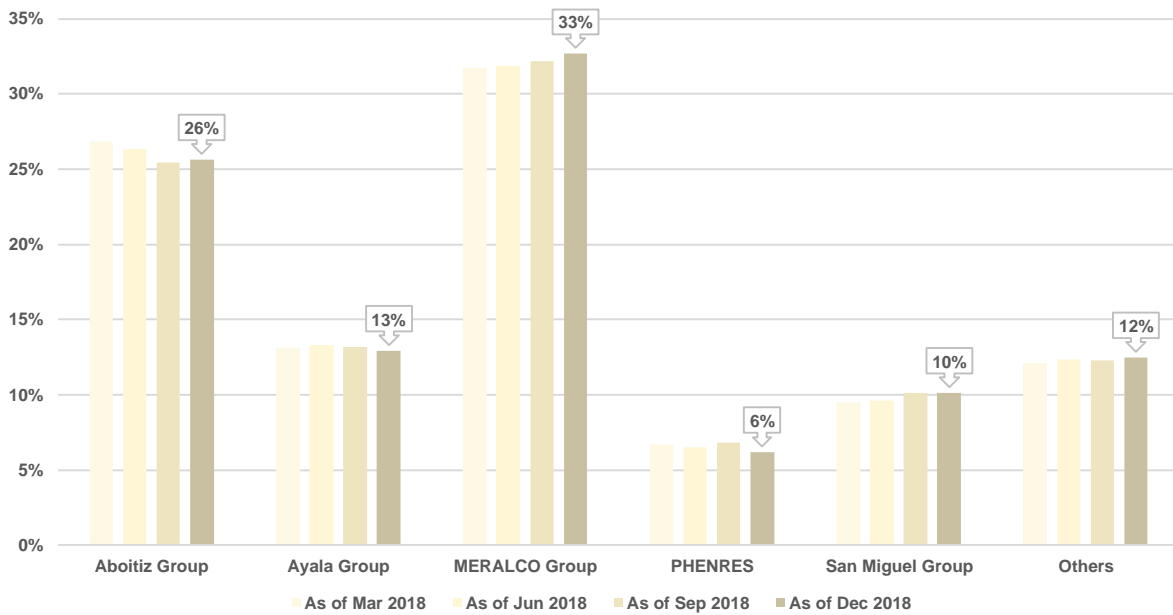


Figure 12. Quarterly Share in Number of Registered CCs Per Major Participant Group, Q1-Q4 2018

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 2018. For the year 2018 alone, the MERALCO group had a share of about 33 percent (from 37 percent in the previous year and 57 percent in the year 2013). This was followed by the Aboitiz group with about 20 percent share (from about 25 percent in the previous year and 24 percent in the year 2013), San Miguel Group with about 18 percent (from 12 percent in the previous year and 1 percent in the year 2013), Ayala group with about 10 percent (from 9 percent in the previous year and about 12 percent in the year 2013), and PHENRES with about 5 percent (from about 2 percent in the year 2014).

Notably, the share of the MERALCO group had been going down, with the increasing number of smaller Suppliers serving the registered Contestable Customers.

The year-on-year and 2018 quarter-on-quarter share in total energy consumption of Registered Contestable Customers per major participant, respectively, are shown in **Figures 13** and **14**.

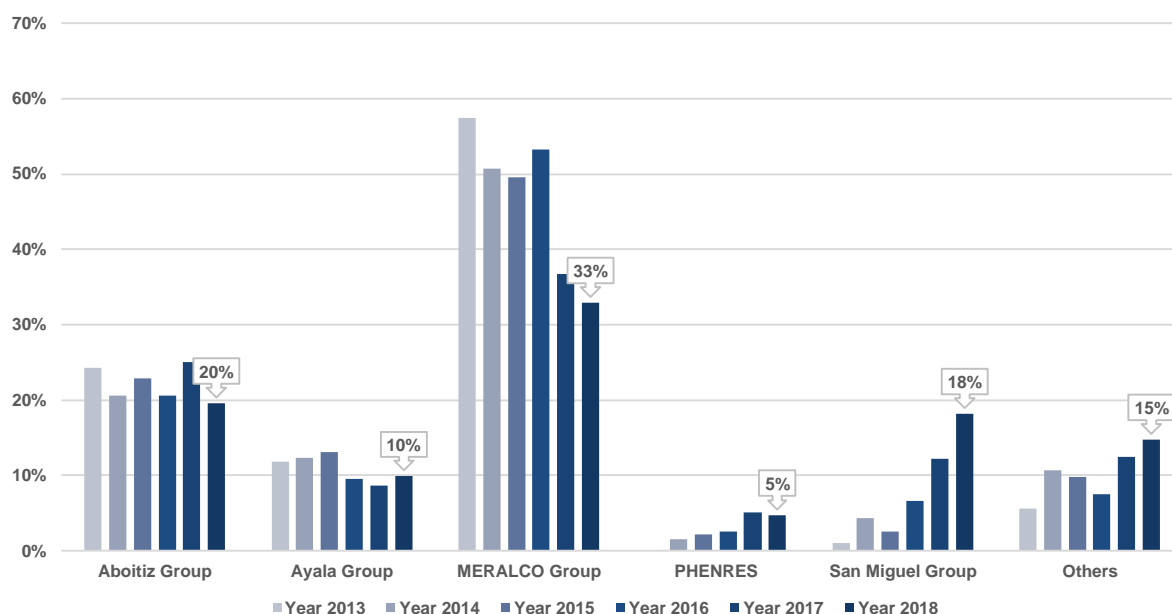


Figure 13. Yearly Share in Total Energy Consumption of Registered CCs, 2013 to 2018

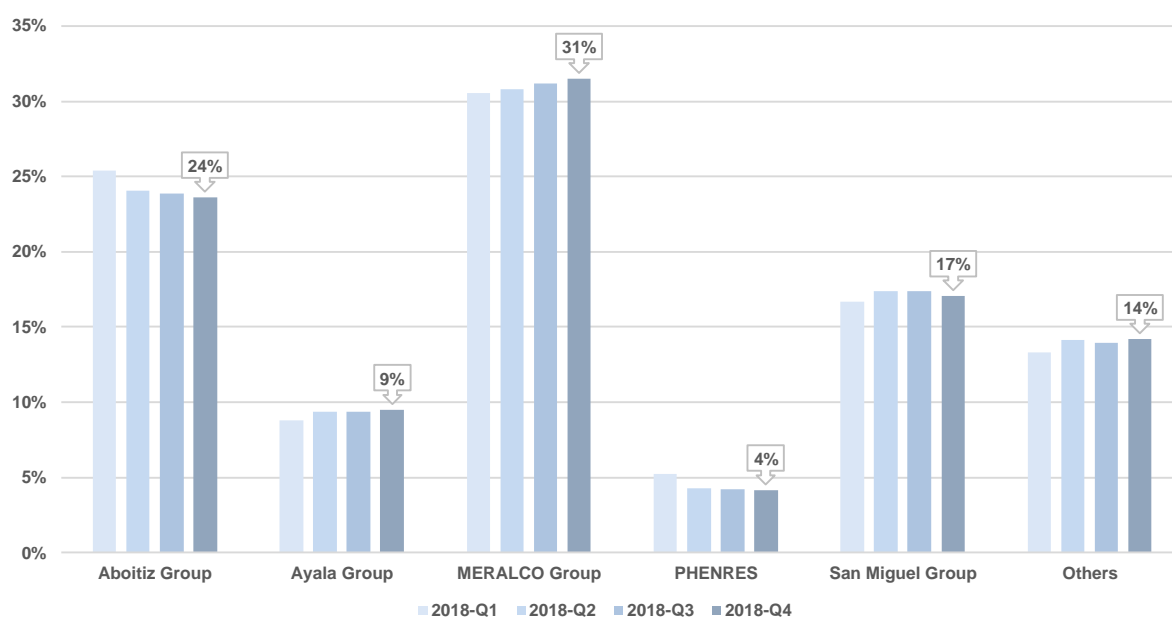


Figure 14. Quarterly Share in Total Energy Consumption of Registered CCs, Q1-Q4 2018

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	CASURECO II	Camarines Sur II Electric Cooperative, Inc.
12	CEBECO I	Cebu I Electric Cooperative, Inc.
13	CEBECO II	Cebu II Electric Cooperative, Inc.
14	CEDC	Clark Electric Distribution Corporation
15	CELCOR	Cabanatuan Electric Corporation
16	DECORP	Dagupan Electric Corporation
17	FIT	First Industrial Township Utilities, Inc.
18	ILECO I	Iloilo I Electric Cooperative, Inc.
19	INEC	Ilocos Norte Electric Cooperative, Inc.
20	ISECO	Ilocos Sur Electric Cooperative, Inc.
21	ISELCO I	Isabela I Electric Cooperative, Inc.
22	LEYECO II	Leyte II Electric Cooperative, Inc.
23	LEYECO V	Leyte V Electric Cooperative, Inc.
24	LEZ	LIMA Enerzone Corporation
25	LUELCO	La Union Electric Cooperative, Inc.
26	MECO	Mactan Electric Company
27	MERALCO	Manila Electric Company
28	MEZ	Mactan Economic Zone
29	NEECO I	Nueva Ecija I Electric Cooperative, Inc.
30	NORECO II	Negros Oriental II Electric Cooperative, Inc.
31	OEDC	Olongapo Electricity Distribution Company
32	PANELCO III	Pangasinan III Electric Cooperative, Inc.
33	PELCO II	Pampanga II Electric Cooperative, Inc.
34	PENELCO	Peninsula Electric Cooperative, Inc.
35	PEZA	Philippine Economic Zone Authority
36	QUEZELCO I	Quezon I Electric Cooperative, Inc.
37	SAMELCO I	Samar I Electric Cooperative, Inc.
38	SEZ	Subic EnerZone Corporation
39	SFELAPCO	San Fernando Electric Light and Power Company, Inc.
40	TARELCO I	Tarlac I Electric Cooperative, Inc.
41	TARELCO II	Tarlac II Electric Cooperative, Inc.
42	TEI	Tarlac Electric, Inc.
43	VECO	Visayan Electric Company, Inc.
44	NGCP*	National Grid Corporation of the Philippines

As shown in **Figure 15**, majority or 73 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 tap the other Suppliers serving within the MERALCO franchise area to supply their energy requirements. As of the year in review, about 4 percent was within VECO and 13 percent was scattered within the other distribution utility franchise areas and economic zones. Meanwhile, 9 percent of the registered Contestable Customers was directly connected to the transmission grid.

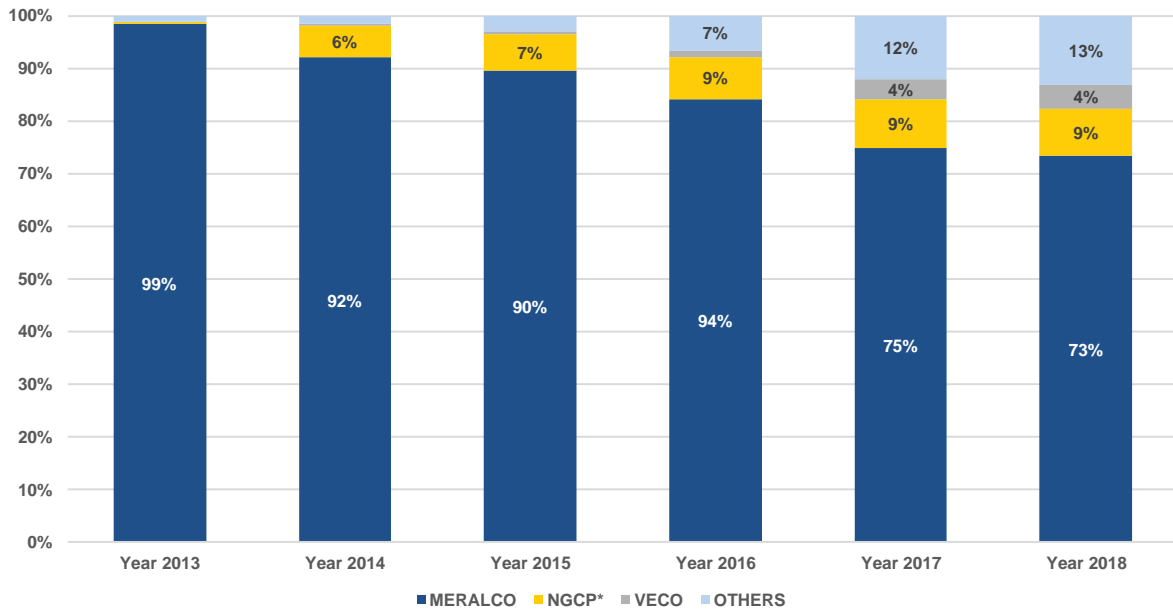


Figure 15. Share in Energy Consumption of Registered CCs by Franchise Area, 2013 - 2018

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, 41 percent of the total energy consumption of registered Contestable Customers was supplied by MRLCOLRE and its other affiliate Suppliers. Meanwhile, 17 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, 16 percent was supplied by the San Miguel group and its other affiliate Suppliers, and 4 percent was supplied by PHENRES. The remaining 10 percent was supplied by other Retail Electricity Suppliers serving within the MERALCO franchise area (**Figure 16**).

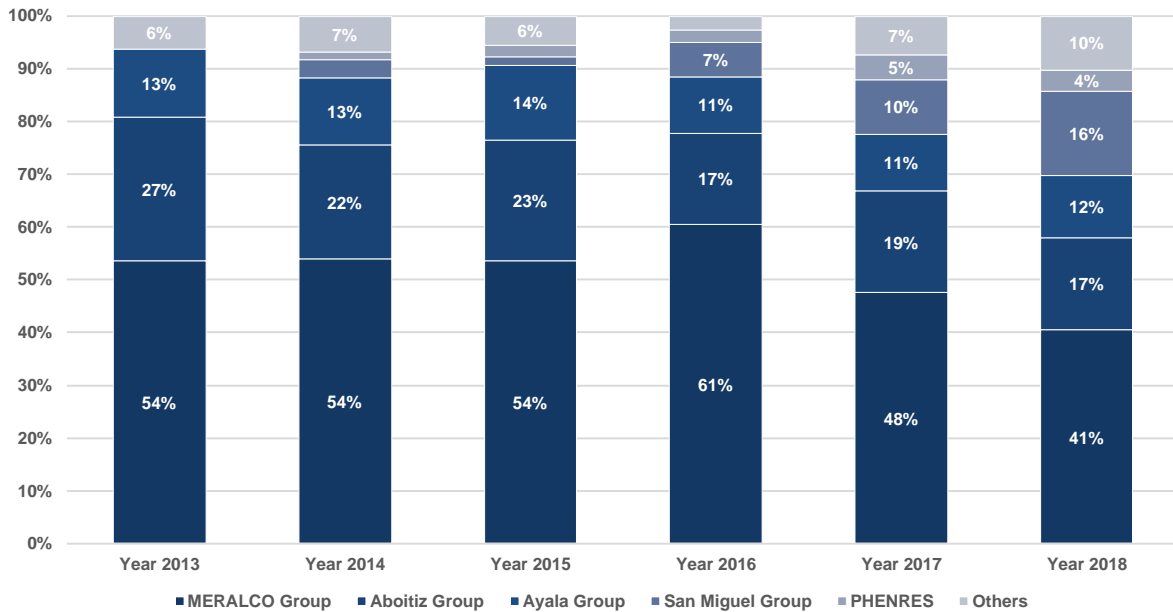


Figure 16. Share in Energy Consumption by Supplier within MERALCO Franchise Area, 2013 - 2018

2. Herfindahl–Hirschman Index (HHI)

The year-on-year (from 2013 to 2018) and quarter-on-quarter (2018) level of market concentration using the Herfindahl-Hirschman Index (HHI)⁸ are shown in **Figures 18** and **19**, respectively. The HHI values shown in the figures were based on the latest 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 2018.

Such shift in the level of market concentration was brought about by the increasing number of active Suppliers and registered Contestable Customers. The shares were now divided among more Suppliers resulting in lower HHI values as compared in the previous years.

⁸ 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

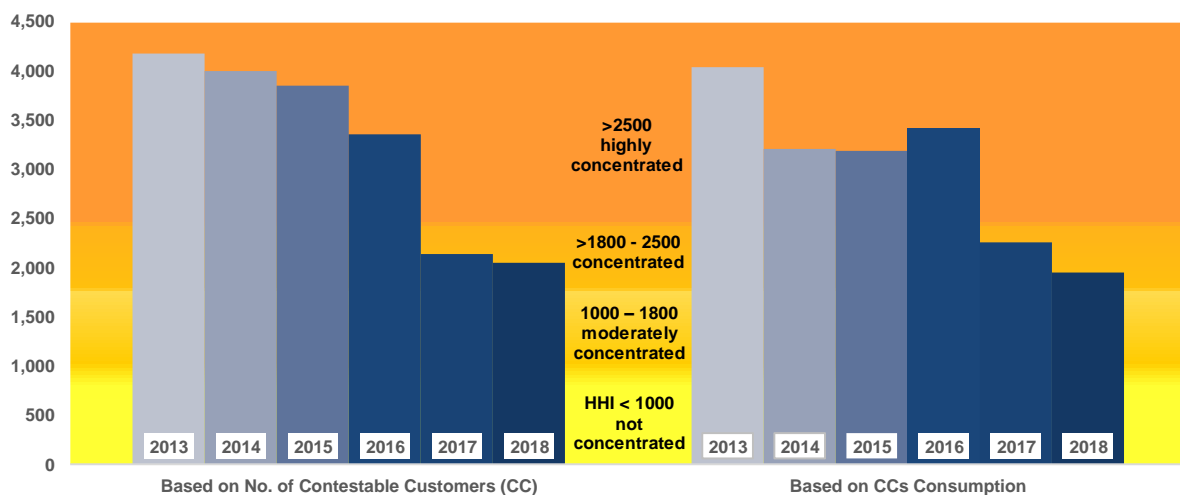


Figure 17. Yearly HHI Values, 2013 - 2018

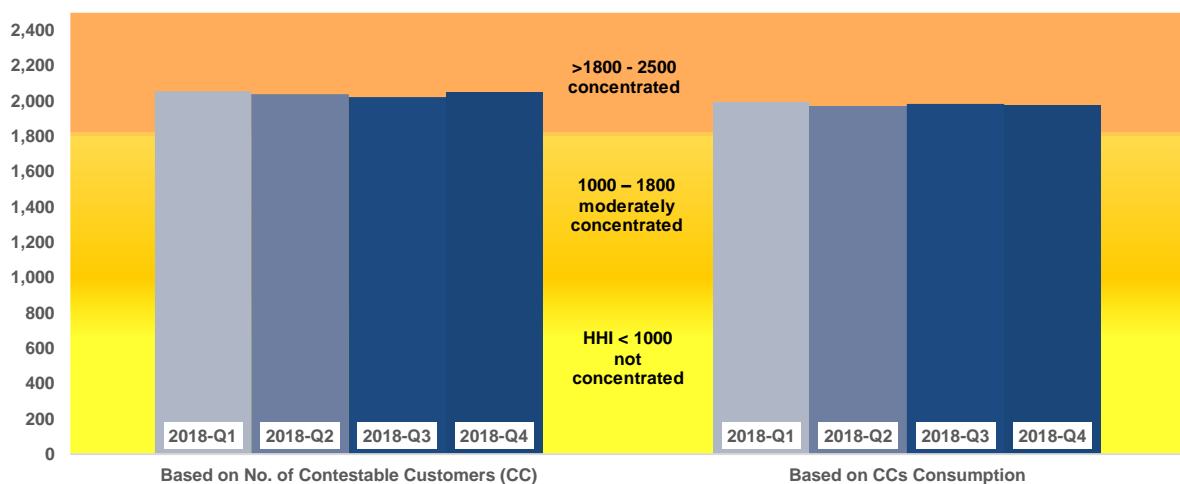


Figure 18. Quarterly HHI Values, Q1-Q4 2018

3. Four-Firm Concentration Index (C4)

Similarly, 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 **Figures 20**. Note that the C4 or top four (4) Suppliers were determined based on the ERC major participants grouping.

While a downward trend was observed in the C4 values over the years (**Figure 20**), it may be noted that the figures were still quite high at above 80 percent for both the number of registered Contestable Customers and their energy consumption in 2018 (**Figure 21**).

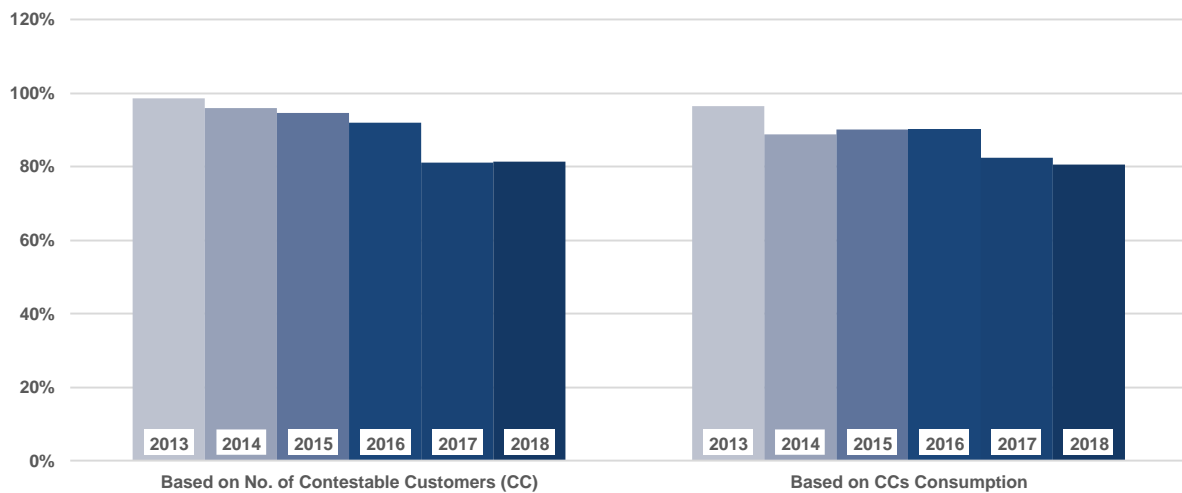


Figure 19. Yearly Four-Firm Index, 2013 - 2018

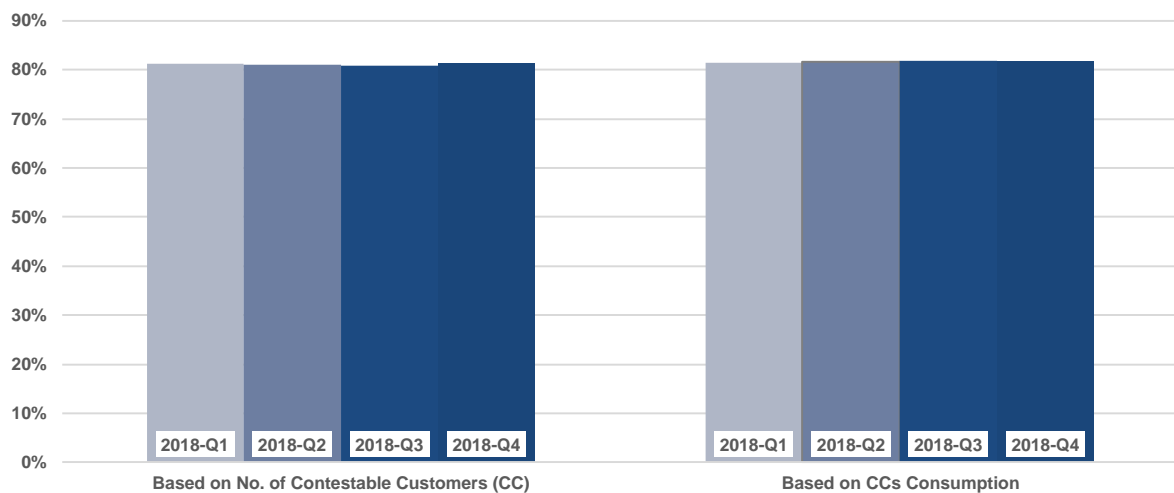


Figure 20. Quarterly Four-Firm Index, Q1-Q4 2018

4. Supplier Structure

Table 7 shows the degree of integration between the Suppliers and Generation Companies; Suppliers and Other Supplier; and Suppliers and Distribution Utilities. 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.

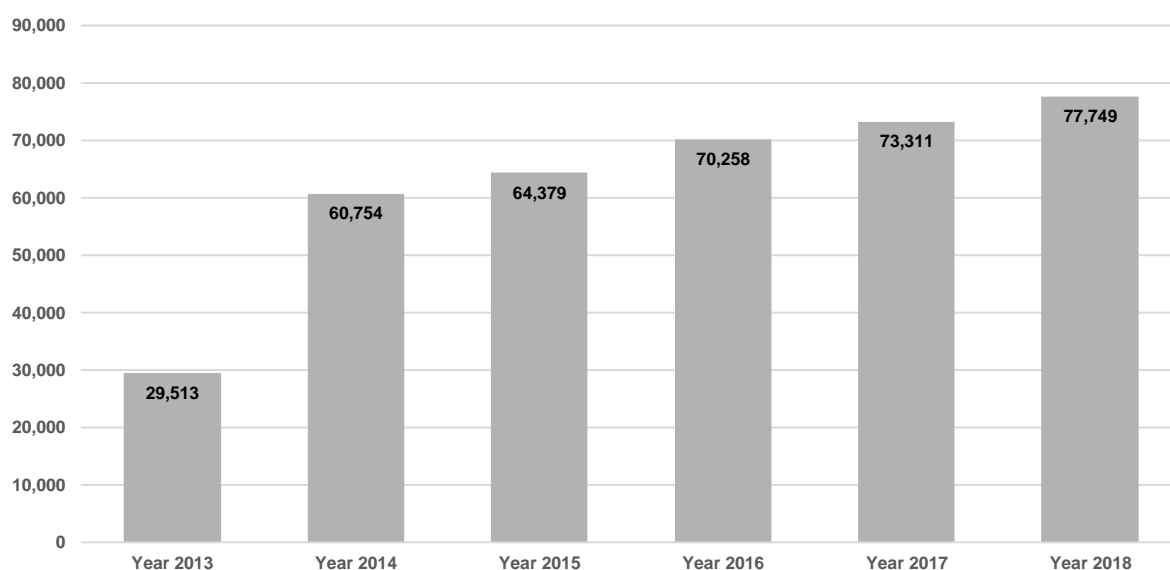
Table 7. Summary of Suppliers with Affiliate GenCos, Suppliers and Distribution Utilities

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	30	25	83%	13	43%	10	33%
Local Retail Electricity Supplier	14	4	29%	5	36%	3	21%
Supplier of Last Resort	24	5	21%	7	29%	4	17%

II. MARKET PERFORMANCE

A. Total Energy Consumption

The year-on-year total energy consumption from 2013 to 2018 is shown in **Figure 24**. Note that the total energy consumption described in this section includes both that of the Captive⁹ 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 77,749 GWh in 2018. This is about 6 percent increase when compared with the previous year.

**Figure 21. Yearly Total Energy Consumption (in GWh), 2013 - 2018**

Meanwhile, the quarter-on-quarter total energy consumption for the year 2018 is shown in **Figure 23**. Factors such as temperature and seasonal changes, as well 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 was observed during second quarter covering the

⁹ 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.

summer months of April to June and was recorded at about 20,326 GWh. The lowest consumption, on the other hand, was observed during the first quarter at about 17,924 GWh, which period covered the long holidays in December 2017 and January 2018.

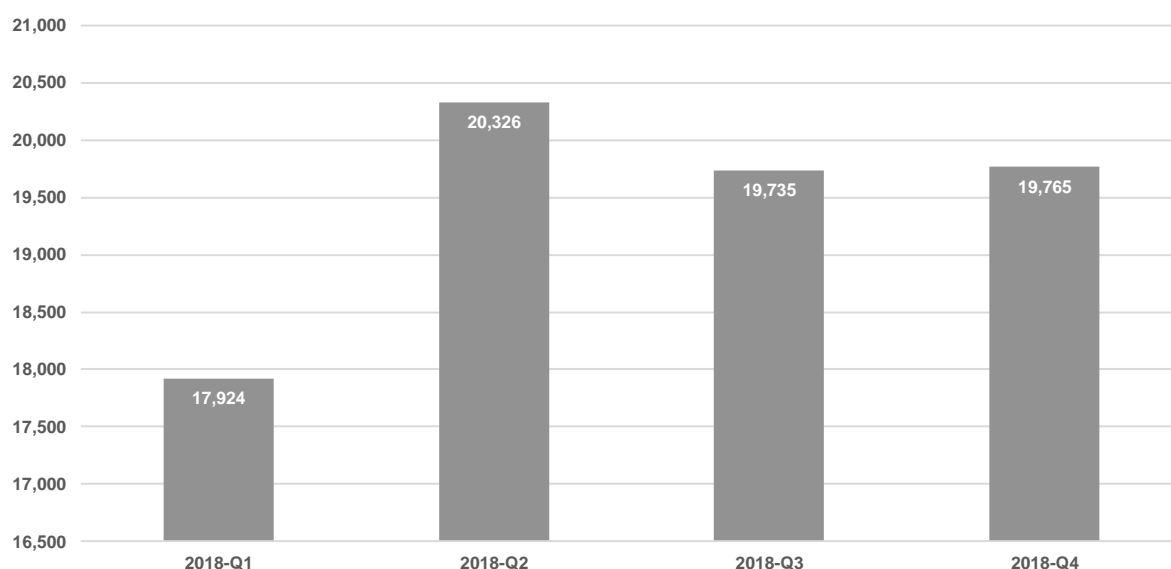


Figure 22. Quarterly Total Energy Consumption (in GWh), Q1-Q4 2018

B. Energy Consumption by Type of End-User

Shown in **Figure 24** is the year-on-year total energy consumption by type of end-user consisting of the Captive Customers¹⁰ and the registered Contestable Customers.

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

As seen in the figure, the consumption of registered Contestable Customers showed an increase from about 14,327 GWh in 2017 to 17,628 GWh in 2018. Such increase was supported by the growth in the number of new registrants during the period as described in the previous section.

¹⁰ 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.

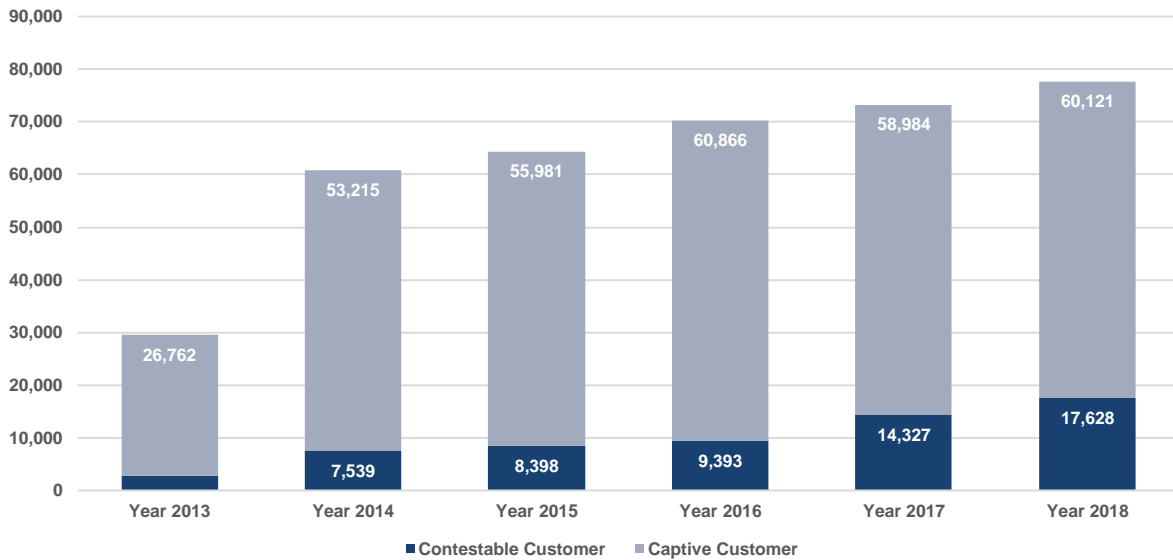


Figure 23. Yearly Total Energy Consumption (in GWh) Per Type of End-User, 2013 - 2018

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 25**. From about 9 percent in 2013, the share of the registered Contestable Customers in the total energy consumption in 2018 stood at about 23 percent. This may be attributable to several factors that includes the increased registrants in the market and perhaps the increasing demand for electricity by this type of end-users.

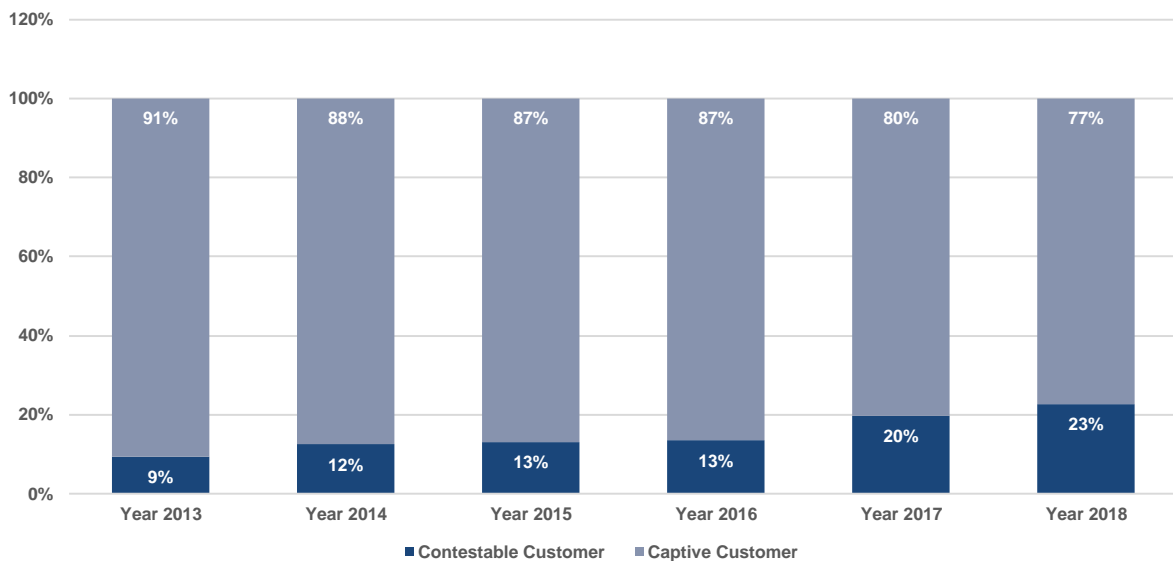


Figure 24. Yearly Share in Total Energy Consumption Per Type of End-User, 2013 - 2018

D. Hourly Energy Consumption Profile of Registered Contestable Customers

Figures 26 and 27 show the consumption profile per month of registered industrial and commercial Contestable Customers, respectively, for the billing months January to December 2018 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 26**, 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 2000H denoting that they operate on three shifts.

For the January to December 2018 billing month, the highest hourly average energy consumption of registered industrial Contestable Customers was recorded in the October 2018 billing month at 1000H (about 1,448 MWh) while the lowest average energy consumption was noted in January 2018 billing month at 0700H (about 1,113 MWh).

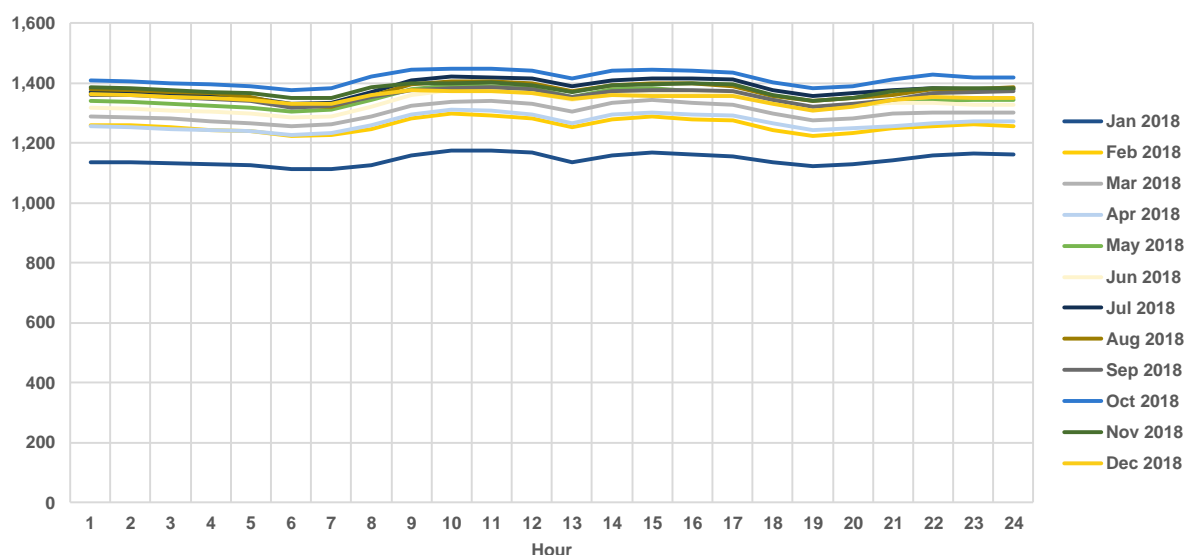


Figure 25. Hourly Average Energy Consumption (in MWh), Industrial CCs, Jan – Dec 2018

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 29**. 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 2018 billing month was recorded in October 2018 billing month at 1500H (about 1,058 MWh) while the lowest average energy consumption was noted in January 2018 billing month at 0400H (about 331MWh).

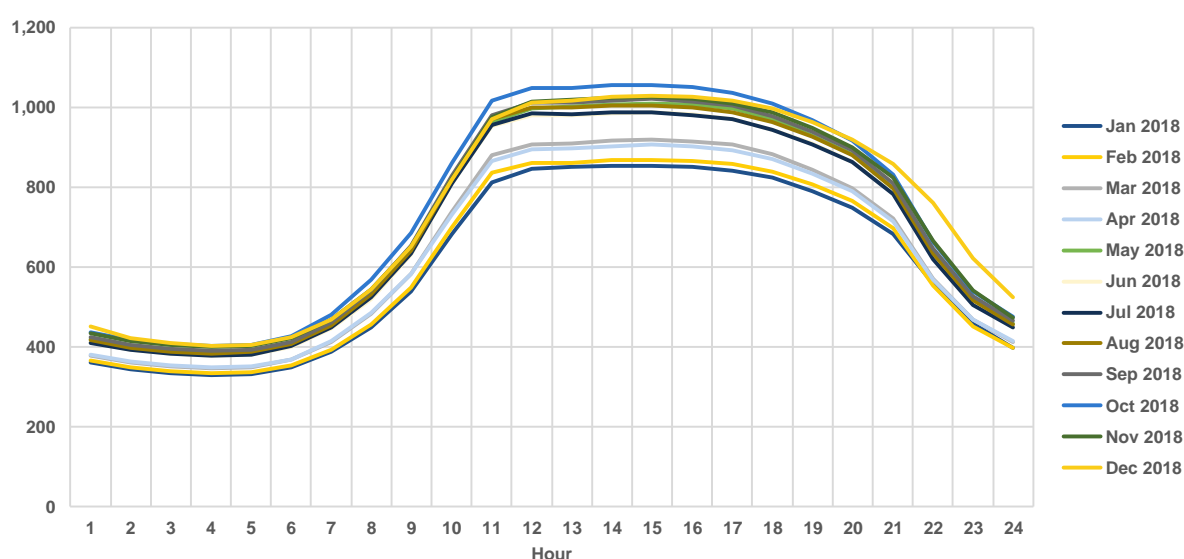


Figure 26. Hourly Average Energy Consumption (in MWh), Commercial CCs, Jan - Dec 2018

E. Load Factor

Figure 28 shows the monthly load factor¹¹ 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 relatively high ranging from 77 percent to 81 percent. It may be observed that the load factor of registered Contestable Customers had been steady between 80 to 81 percent beginning May 2018 but dropped to 78 percent by the end of December 2018.

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

¹¹ Based on Metered Quantity (MQ)

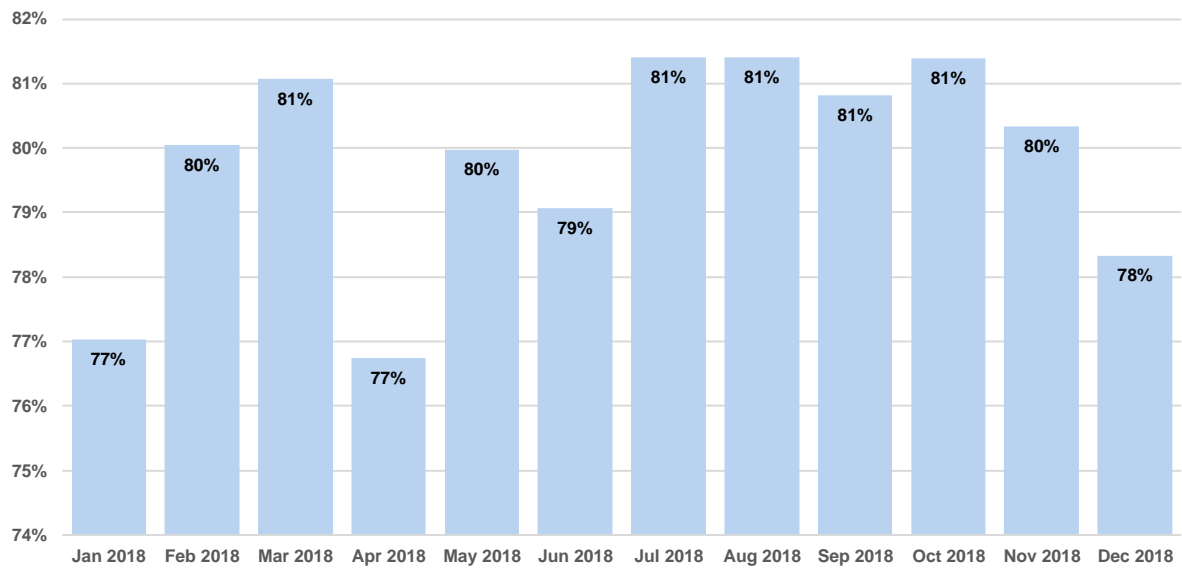


Figure 27. Monthly Load Factor, Registered CCs, Jan - Dec 2018

III. RETAIL ACTIVITY

A. Customer Participation Level

Based on **Figure 29**, the commercial sector now comprised 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.

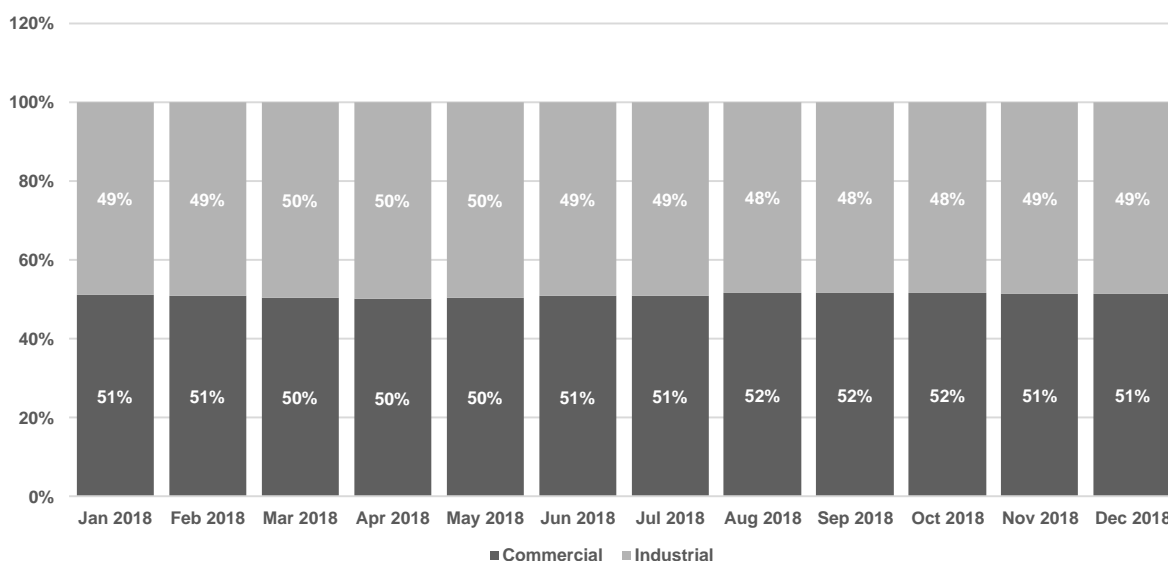


Figure 28. Percentage of Registered CCs, Per Industry Type, Jan – Dec 2018

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, 75 switches from one Supplier to another were recorded from January to December 2018.

In Luzon, 10 registered Contestable Customers switched from LRES to RES, 25 switched from RES to LRES and 33 switched from RES to another RES. Meanwhile, in Visayas, 7 registered Contestable Customer switched from RES to RES.

The 4.15 percent switching rate in February 2018 was attributable to the 40 registered Contestable Customers (out of 50 registered Contestable Customers) whose contracts with their respective Suppliers ended. This was by far the highest switching rate recorded since the retail market was launched in 2013.

Table 8. Customer Switching Rate, Jan - Dec 2018

Particulars	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018
Switching Rate (Luzon)	0.35%	4.20%	0.22%	0.32%	0.11%	1.65%	0.10%	0.00%	0.19%	0.00%	0.28%	0.00%
Total No. of CCs	868	880	914	933	949	968	1,008	1,028	1,034	1,045	1,059	1,080
Total No. of CCs that Switched	3	37	2	3	1	16	1	0	2	0	3	0
LRES to RES	3	4		1		2						
RES to LRES		19				5					1	
RES to RES		14	2	2	1	9	1		2		2	
SOLR to RES												
Switching Rate (Visayas)	0.00%	3.53%	0.00%	1.10%	0.00%	0.00%	1.04%	0.00%	0.97%	0.88%	0.00%	0.00%
Total No. of CCs	84	85	88	91	94	96	96	99	103	114	118	118
Total No. of CCs that Switched	0	3	0	1	0	0	1	0	1	1	0	0
LRES to RES												
RES to RES		3		1			1		1	1		
Switching Rate (Luzon-Visayas)	0.32%	4.15%	0.20%	0.39%	0.10%	1.50%	0.18%	0.00%	0.26%	0.09%	0.25%	0.00%
Total No. of CCs	952	965	1,002	1,024	1,043	1,064	1,104	1,127	1,137	1,159	1,177	1,198
Total No. of CCs that Switched	3	40	2	4	1	16	2	0	3	1	3	0