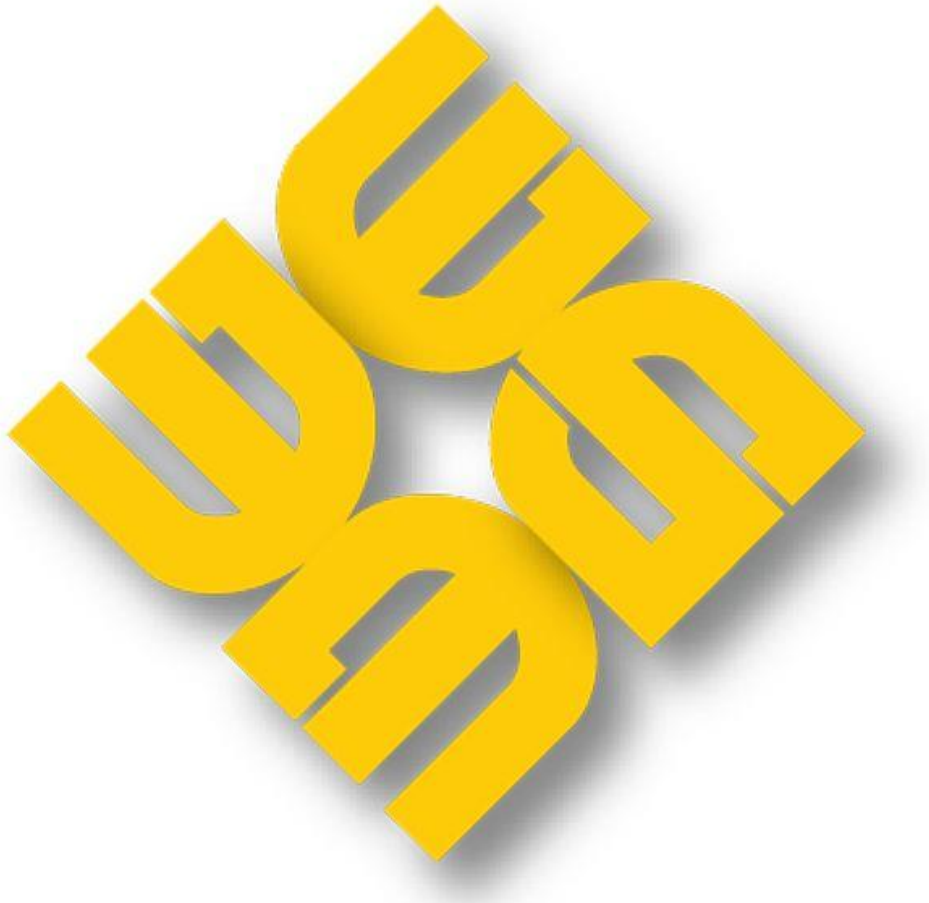
MAG-RMAR-2019-03

QUARTERLY RETAIL MARKET ASSESSMENT REPORT

26 June – 25 September 2019



PHILIPPINE ELECTRICITY MARKET CORPORATION

MARKET ASSESSMENT GROUP (MAG)

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Executive Summary

This Quarterly Assessment Report on the Retail Electricity Market covers the billing period **26 June to 25 September 2019.**

Based on the data of the Energy Regulatory Commission (ERC), there were a total of 1,993 qualified electricity end-users already issued with the ERC's Certificate of Contestability, the bulk of which or about 68 percent have already registered in the market as of the billing month of September 2019. The additional registered Contestable Customers marked a 13 percent increase as the total number of registrants grew to 1,358 at the close of the third quarter.

In terms of contestability threshold, the market recorded 1,067 registrants in the 1 MW and above contestability threshold, which is about 79 percent of all the Contestable Customers registered in the market. The 291 registrants or about 21 percent were classified under 750-999 kW contestability threshold. In terms of location, majority or about 90 percent of the registered Contestable Customers are in Luzon region while the remaining 10 percent are in Visayas. In terms of the nature of business, 706 registered Contestable Customers were engaged in commercial activities while 652 registrants were engaged in industrial activities.

The total energy consumption of the registered Contestable Customers for the third quarter of 2019 stood at about 5,019 GWh. This amounts to 24 percent of the combined energy consumption of the registered Contestable Customers and the Captive Customers for the quarter. The load factor of registered Contestable Customers was kept relatively high throughout the period in review, indicating that their electricity usage was generally efficient. By the end of September 2019 billing month, the load factor stood at 80 percent.

By the end of September 2019 billing month, about 36.8 percent of all registrants were supplied by the MERALCO group. This was followed by the Aboitiz group and the San Miguel group both at 20.2 percent share, and the Ayala group at 12.4 percent share. The participation of new Suppliers, the registration of new Contestable Customers, and the switching of already registered Contestable Customers were all factors in the change of participant share for this quarter as compared to the previous.

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

No additional Suppliers were registered during the period thus as of 25 September 2019, the market still recorded a total of 31 registered Retail Electricity Suppliers (RES), 14 registered Local RES (LRES), and 25 registered Supplier of Last Resort (SOLR). During the period in review, ten (10) switches from one Supplier to another were recorded, eight (8) of which were from Retail Electricity Supplier to Retail Electricity Supplier, while the remaining two (2) of the switches were from Retail Electricity Supplier to Local Retail Electricity Supplier.

This Quarterly Assessment Report on the Retail Electricity Market discusses the results of the monitoring indices, as set forth in the Catalogue of Retail Market Monitoring Data and Indices. This report also provides indications of the performance of the retail market during the quarter and how it fared against previous periods. Moreover, the report only covers Contestable Customers registered in the market and does not include other qualified end-users with a Certificate of Contestability but nonetheless remained 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 Participants

1. Contestable Customers

The number of registered Contestable Customers slightly crawled up by 4 percent to a total of 1,358 registrants at the close of the third quarter, shown in **Figure 1**. This was around 68 percent of the entire population of qualified electricity end-users already issued with a certificate of contestability[1]. The September 2019 figure brought the year-to-year increase to 19 percent. This was the lowest year-to-year increase since the implementation of voluntary registration of electricity end-users in the 750 kW contestability threshold[2] beginning July 2016 and mandatory contestability of electricity end-users with 1 MW and above average peak demand on February 2017[3]. It may be recalled that the year-to-year increase for the same periods in 2017 escalated to 102 percent. This rate however dwindled to 29 percent in 2018 as a result of the Supreme Court's imposition of a temporary restraining order (TRO), halting the implementation of ERC Resolution Nos. 05, 10, 11, and 12 all series of 2016, which are the rules and regulations implementing the RCOA, as well as the DOE Department Circular DC2015-06-0010, which defines the latest timeline of implementation of RCOA at that time. Further, it may be noted that the DOE issued on 29 July 2019 a Circular amending Section 3 of DC2012-05-0005[4] to allow Contestable Customers to voluntarily register in the WESM[5], which could have caused the slow increase in number of registrants.

[1] A total of 1,993 qualified end-users as of August 2019 (Source: ERC's Competitive Retail Electricity Market (CREM) Report; Link: www.buyourelectricity.com.ph).
[2] ERC Resolution No. 10, Series of 2016 *A Resolution Adopting the Revised Rules for Contestability*
[3] ERC Resolution No. 28, Series of 2016 *Revised Timeframe for Mandatory Contestability, Amending Resolution No. 10, Series of 2016 Entitled Revised Rules for Contestability*
[4] DOE Department Circular DC2012-05-005 *Prescribing the General Policies for the Implementation for Retail Competition and Open Aces*
[5] DOE Department Circular DC2019-07-0011 *Amending Various Issuances on the Implementation of the Retail Competition and Open Access*

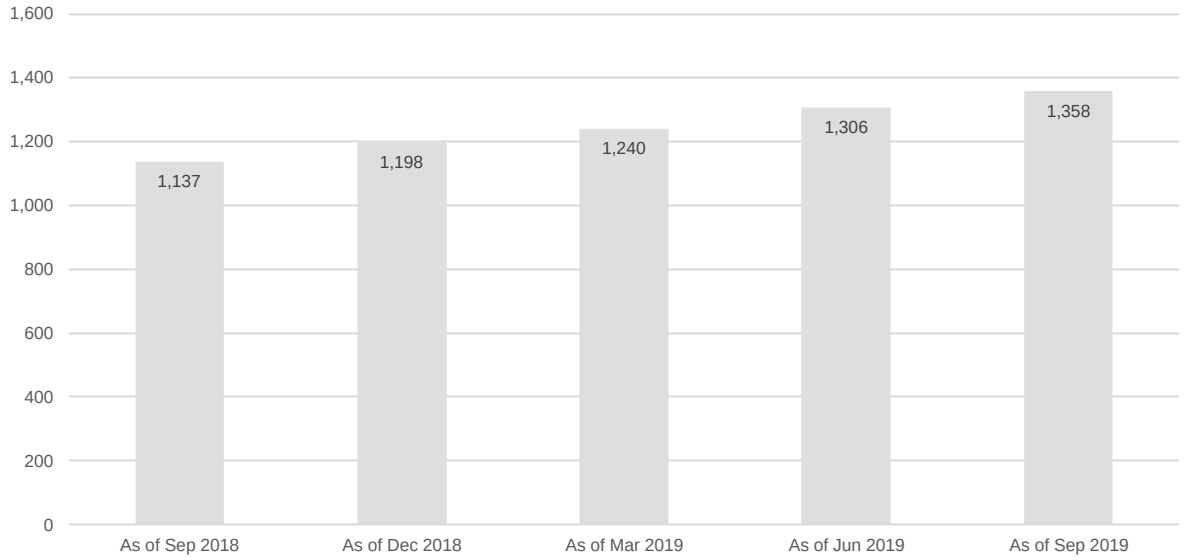

Figure 1. Cumulative Number of CCs, Sep 2018 to Sep 2019

Figure 2 shows the cumulative number of registrants per contestability threshold by the end of each relevant quarter. At the close of September 2019 billing month, the number of registrants in the 750-999 kW contestability threshold went up by 10 percent to 291 registrants. The number of registrants at this threshold represents 21 percent of all the Contestable Customers in the market. Similarly, there was about 2 percent increase in the number of registered Contestable Customers under the 1 MW & above threshold totalling to 1,067 registrants. This comprises 79 percent of all registered Contestable Customers in the market.

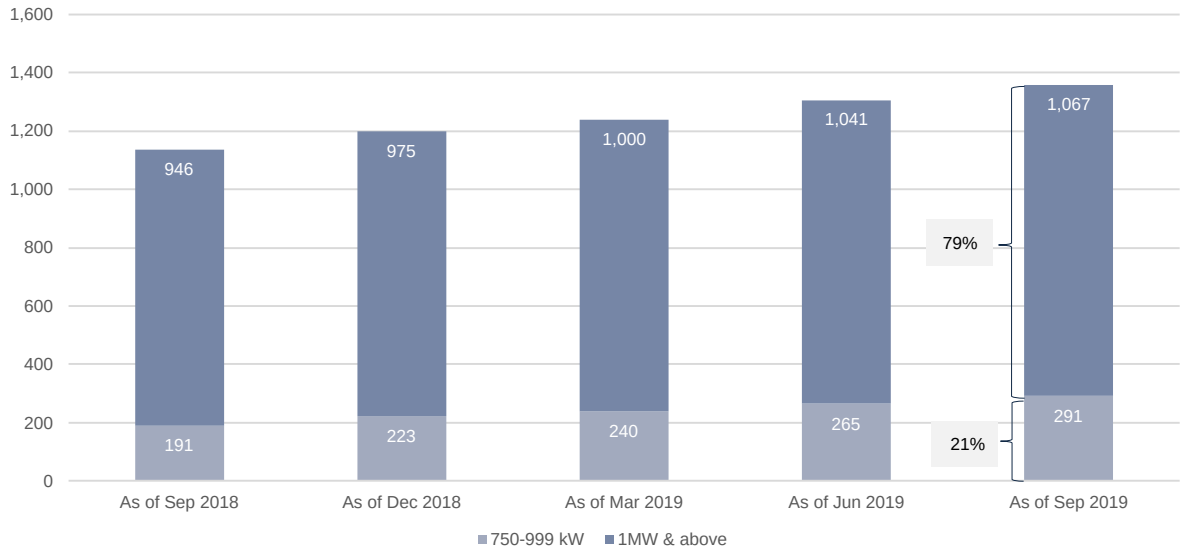

Figure 2. Cumulative Number of CCs Per Contestability Threshold, Sep 2018 to Sep 2019

In terms of distribution by region, majority of Contestable Customers or about 90 percent (1,221 Contestable Customers) were located in Luzon while about 10

percent (137 Contestable Customers) were located in Visayas. The number of registrants in Luzon and Visayas narrowly increased by 4 percent and 6 percent, respectively, at the close of the September 2019 billing month. The number of registered Contestable Customers per region by the end of each relevant quarter is shown in **Figure 3.**

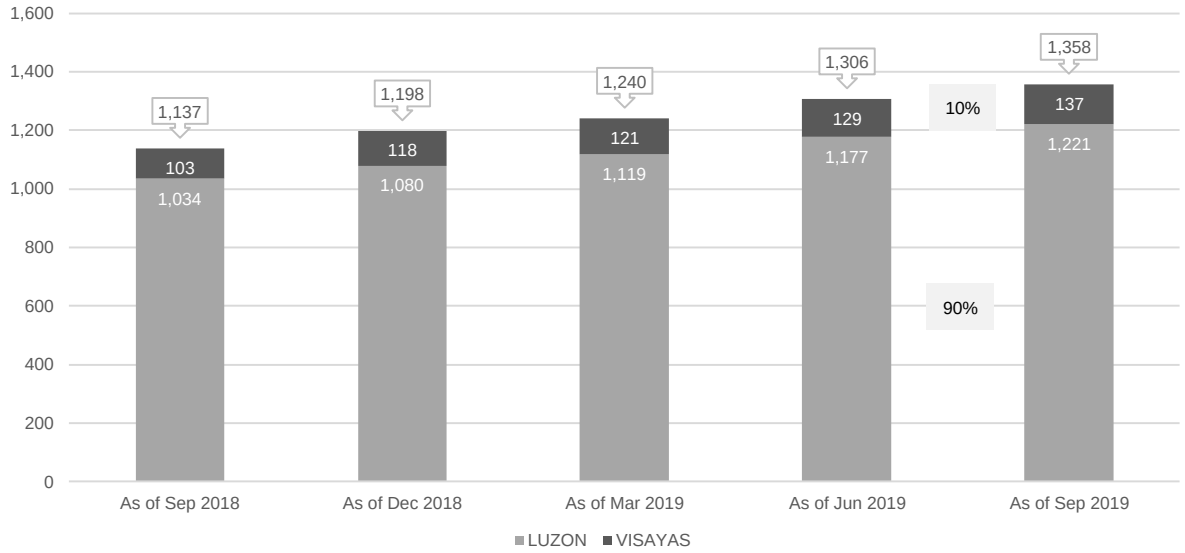

Figure 3. Cumulative Number of CCs Per Region, Sep 2018 to Sep 2019

Figure 4 shows the cumulative number of registered Contestable Customers per type of retail activity by the end of each relevant quarter[6]. Contestable Customers were engaged in commercial and industrial activities, with about 52 percent or 706 Contestable Customers accounted for those engaged in commercial activities as of the September 2019 billing month. The other 48 percent or 652 Contestable Customers were engaged in industrial activities.

[6] 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.

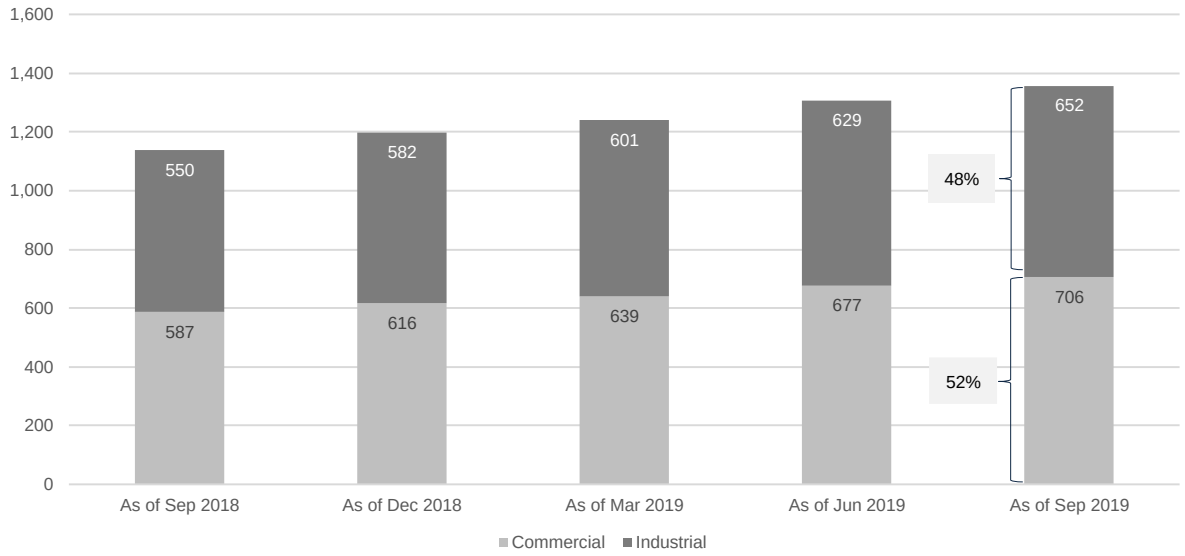

Figure 4. Cumulative Number of CCs Per Retail Activity, Sep 2018 to Sep 2019

Table 1 shows the breakdown of registered Contestable Customers by level of consumption based on metered quantity (MQ). From July to September 2019 billing months, majority or about 53 percent of the registered Contestable Customers had maximum energy consumption ranging above 1 MWh to 5 MWh. About 7 percent had maximum energy consumption ranging above 1 MWh and below, while about 40 percent had maximum energy consumption ranging above 5 MWh to 50 MWh during the period.

Table 1. Percentage of CCs Per Level of Maximum Energy Consumption, 2019-Q3

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	6%	48%	14%	8%	2%	10%	0%	89%
VISAYAS	1%	5%	1%	0%	0%	4%	0%	11%
Sub-Total Per Level of Maximum Energy Consumption	7%	53%	16%	9%	2%	14%	0%	100%

2. Suppliers

Table 2 shows the cumulative number of registered Suppliers per category vis-à-vis the number of active Suppliers or those that were currently serving a registered Contestable Customer. As of the period, majority of the Retail Electricity Suppliers were actively participating in the market and serving registered Contestable Customers. No additional Suppliers were registered during the quarter.

Table 2. Summary of Active Suppliers Per Category, as of 25 September 2019

Category	No. of Suppliers	
	Total Registered	With CCs Served
Retail Electricity Supplier	31	29
Local Retail Electricity Supplier	14	3
Supplier of Last Resort	25	0
Total	**70**	**32**

A list of all registered Suppliers per category (Retail Electricity Supplier, Local Retail Electricity Supplier, and Supplier of Last Resort) as of the September 2019 billing period is provided in **Table 3**.

Table 3. List of Suppliers Per Category, as of 25 September 2019

Category	No.	Market Participant Name	Short Name
Retail Electricity Supplier	31	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.	EPMIRES
		FDC Retail Electricity Sales Corporation	FDCRESC
		First Gen Energy Solutions, Inc.	FGESRES
		Global Energy Supply Corporation	GESCRES
		GNPower Ltd. Co.	GNPLCRES
		KEPCO SPC Power Corporation	KSPCRES
		Kratos RES, Inc.	KRATOSRES
		Manta Energy, Inc.	MANTARES
		Masinloc Power Partners Company Limited	MPPCLRES
		Mazzaraty Energy Corporation	MACRES
		MeridianX Inc.	MERXRES
		Millennium Power RES, Inc.	MPRIRES
		PHINMA Energy Corporation-RES	PHENRES
		Premier Energy Resources Corporation	PERCRES
		Prism Energy, Inc.	PRISMRES
		San Miguel Electric Corporation	SMELCRES
		SEM-Calaca RES Corporation	SCRCRES
		SMC Consolidated Power Corporation	SMCCPCRES
		SN Aboitiz Power-RES, Inc.	SNAPRES
		Solvre, Inc.	SOLVRERES
		TeaM (Philippines) Energy Corporation	TPECRES
		Vantage Energy Solutions and Management, Inc.	VESMIRES
		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
		San Fernando Electric Light & Power Co., Inc.	SFELAPLRE
		Subic Enerzone Corporation	SEZLRE
		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
		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

Table 4 shows the cumulative number of registered Contestable Customers served by each Supplier at the end of each relevant quarter. The Suppliers were grouped based on the ERC's major participant grouping[7] which reflects the affiliation among the Suppliers.

The following Suppliers: MRLCOLRE, AESIRES, SMELCRES, ACERES and ADVENTRES, still remained as the top five (5) Suppliers with the most number of registered Contestable Customers for three straight quarters. It may be noted that ACERES only joined the top 5 beginning the March 2019 billing month replacing PHENRES in the fifth spot.

The number of registered Contestable Customers served by MRLCOLRE rose to 415, while AESIRES grew to 186 Contestable Customers. On the other hand, SMELCRES barely increased to 111, ACERES climbed to 99, while ADVENTRES maintained the 67 registered Contestable Customers it served the previous quarter.

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

Table 4. Cumulative Number of CCs Per Supplier, Sep 2018 to Sep 2019

Market Participant Group	As of Sep 2018	As of Dec 2018	As of Mar 2019	As of Jun 2019	As of Sep 2019
Aboitiz Group	**288**	**306**	**316**	**318**	**328**
ADVENTRES	*77*	*77*	*72*	*67*	*67*
AESIRES	*155*	*159*	*172*	*178*	*186*
MACRES	*3*	*3*	*4*	*3*	*3*
PRISMRES	*25*	*37*	*39*	*39*	*40*
SFELAPLRE	*1*	*1*	*1*	*1*	*1*
SNAPRES	*27*	*29*	*28*	*30*	*31*
Ayala Group	**149**	**154**	**155**	**220**	**235**
ACERES	*69*	*72*	*71*	*88*	*99*
DIRPOWRES	*37*	*38*	*40*	*45*	*46*
EPMIRES	*43*	*44*	*44*	*44*	*44*
PHENRES [i]				*43*	*46*
MERALCO Group	**365**	**390**	**433**	**452**	**468**
CEDCLRE	*6*	*6*	*6*	*8*	*11*
MERXRES [ii]					*1*
MRLCOLRE	*331*	*353*	*386*	*403*	*415*
VESMIRES	*28*	*31*	*41*	*41*	*41*
PHENRES	**77**	**74**	**40**	**0**	**0**
PHENRES	*77*	*74*	*40*		
San Miguel Group	**115**	**121**	**140**	**164**	**169**
MPPCLRES [iii]				*6*	*6*
SMCCPCRES	*9*	*10*	*30*	*48*	*52*
SMELCRES	*106*	*111*	*110*	*110*	*111*
Others	**139**	**149**	**152**	**148**	**154**
ANDARES	*1*	*1*	*2*	*3*	*3*
BGIRES	*21*	*24*	*43*	*47*	*50*
CESIRES	*2*	*2*	*2*	*2*	*3*
CORERES	*2*	*2*	*2*	*2*	*1*
FDCRESC	*11*	*12*	*12*	*12*	*12*
FGESRES	*27*	*28*	*13*	*11*	*11*
GESCRES	*15*	*16*	*14*	*15*	*17*
GNPLCRES	*4*	*4*	*4*	*4*	*4*
KRATOSRES	*16*	*17*	*19*	*20*	*21*
KSPCRES	*3*	*3*	*3*	*3*	*3*
MANTARES	*2*	*2*	*2*	*2*	*2*
MERXRES				*1*	
MPPCLRES	*3*	*6*	*6*		
PERCRES	*12*	*12*	*12*	*11*	*12*
SCRCRES		*1*	*1*	*3*	*4*
TPECRES	*19*	*18*	*16*	*11*	*10*
WAHCRES	*1*	*1*	*1*	*1*	*1*
TOTAL	**1,133**	**1,194**	**1,236**	**1,302**	**1,354**

Note: [i] 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)

Figure 5 shows the quarterly share of the Suppliers per major participant, in terms of the number of Contestable Customers registered in the market as of the September 2019 billing period.

Over the years, a significant drop in the MERALCO group's share was observed. From about 63 percent at the start of implementation of Retail Competition and Open Access in July 2013 billing month, its share was halved to around 32 percent by the end of the September 2018. Its share thereafter started to softly recover that by the end of March 2019 billing month, the MERALCO group's share in terms of the number of registered Contestable Customers served was recorded at about 35 percent.

The MERALCO group maintained around the same share until the close of the third quarter, despite the registration of 12 new Contestable Customers served by the MRLCOLRE and three (3) new registrants served by CEDCLRE during the covered

period. One (1) Contestable Customer was recorded to switch Supplier from VESMIRES under the MERALCO group to ACERES under the Ayala group in the month of July 2019 but by the end of the September 2019 billing month, one (1) new Contestable Customer served by VESMIRES was added to the number of registrants. On the other hand, it may be noted that MERXRES, which served one (1) Contestable Customer, was already accounted under the MERALCO group during the covered period, noting the former's affiliation with the latter as reported in the ERC Competitive Retail Electricity Market (CREM) Report for July 2019.

The Aboitiz group's share likewise remained around 24 percent at the end of the quarter, even with the switch of two (2) Contestable Customers served by ACERES under the Ayala group to AESIRES under the Aboitiz group during the month of August 2019, and the registration of additional six (6) new Contestable Customers served by AESIRES by the end of the September 2019 billing month.

Similarly, the San Miguel group maintained its share at about 12 percent although additional four (4) new Contestable Customers served by SMCCPCRES was registered during the period, and one (1) Contestable Customer was recorded to switch Supplier from ADVENTRES under the Aboitiz group to SMELCRES under the San Miguel group during the month of August 2019.

Meanwhile, the Ayala group's share narrowly gained to 17.4 percent at the close of the quarter. It may be noted that PHENRES, which served 46 Contestable Customers, was already accounted under the Ayala group during the covered period, noting the former's affiliation with the latter as reported in the ERC Competitive Retail Electricity Market (CREM) Report for June 2019.

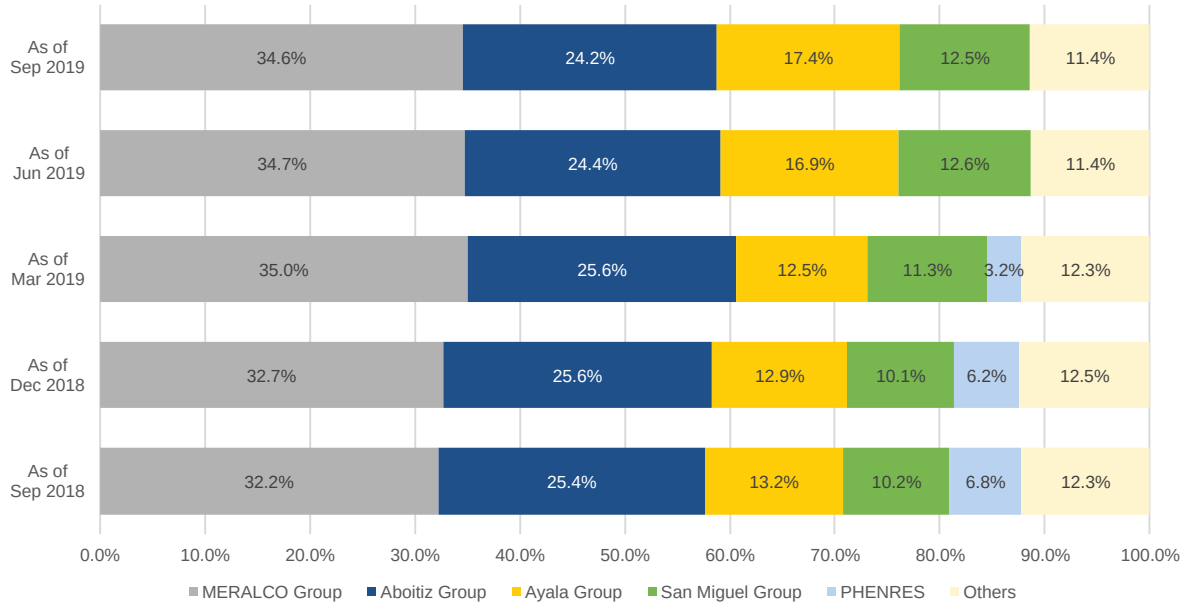

Figure 5. Share in Number of CCs Per Major Participant, Sep 2018 to Sep 2019

As seen in **Figure 6**, the MERALCO group remained with the largest share in terms of registered Contestable Customer consumption, gaining 1.3 percent at the close of the quarter. The share of Aboitiz group and San Miguel group tied in second, climbing by 0.8 percent and retreating by 0.1 percent, respectively.

Consistent with the previous discussion, the consumption of Contestable Customers served by PHENRES was already accounted under the Ayala group during the covered period, noting the former's affiliation with the latter as reported in the ERC Competitive Retail Electricity Market (CREM) Report for June 2019. As a result, the retreating share of PHENRES escalated the Ayala group's share by 2.1 percent at the close of the third quarter, the largest gain per major participant group recorded during the period covered.

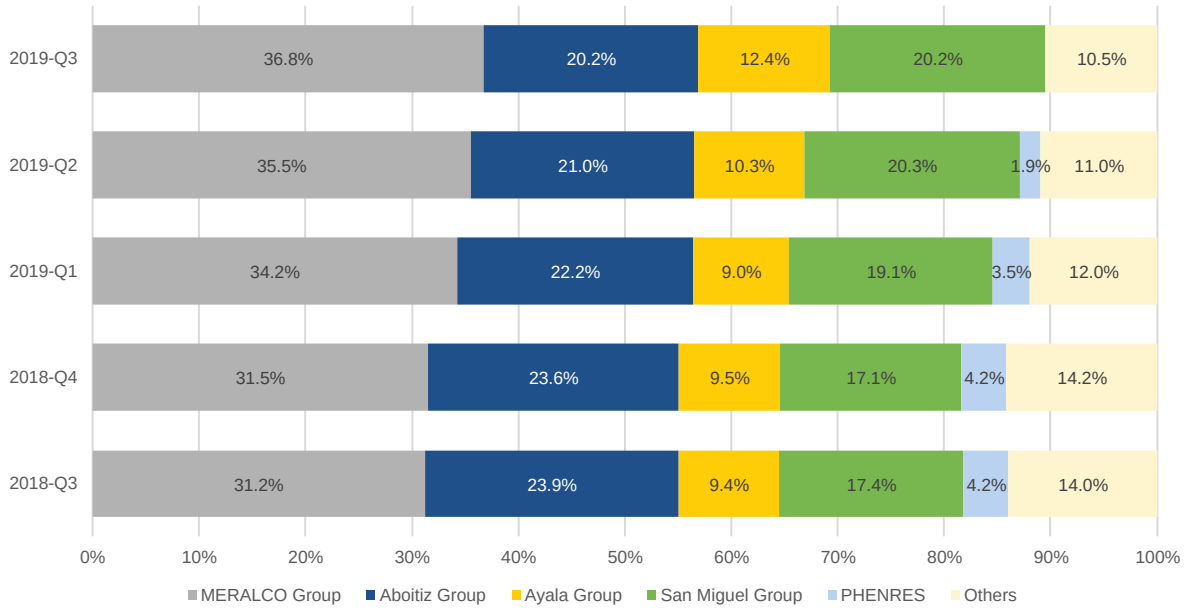

Figure 6. Share in Total Energy Consumption of CCs Per Major Participant, 2018-Q3 to 2019-Q3

In terms of location, registered Contestable Customers were scattered within the different distribution utility franchise areas and economic zones listed in **Table 5**.

Table 5. 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	CASURECO II	Camarines Sur II Electric Cooperative, Inc.
13	CEBECO I	Cebu I Electric Cooperative, Inc.
14	CEBECO II	Cebu II Electric Cooperative, Inc.
15	CEDC	Clark Electric Distribution Corporation
16	CELCOR	Cabanatuan Electric Corporation
17	CENPELCO	Central Pangasinan Electric Cooperative, Inc.
18	DECORP	Dagupan Electric Corporation
19	FIT	First Industrial Township Utilities, Inc.
20	ILECO I	Iloilo I Electric Cooperative, Inc.
21	INEC	Ilocos Norte Electric Cooperative, Inc.
22	ISECO	Ilocos Sur Electric Cooperative, Inc.
23	ISELCO I	Isabela I Electric Cooperative, Inc.
24	LEYECO II	Leyte II Electric Cooperative, Inc.
25	LEYECO V	Leyte V Electric Cooperative, Inc.
26	LEZ	LIMA Enerzone Corporation
27	LUELCO	La Union Electric Cooperative, Inc.
28	MECO	Mactan Electric Company
29	MERALCO	Manila Electric Company
30	MEZ	Mactan Economic Zone
31	NEECO I	Nueva Ecija I Electric Cooperative, Inc.
32	NORECO II	Negros Oriental II Electric Cooperative, Inc.
33	OEDC	Olongapo Electricity Distribution Company
34	PANELCO III	Pangasinan III Electric Cooperative, Inc.
35	PECO	Panay Electric Co., Inc.
36	PELCO I	Pampanga I Electric Cooperative, Inc.
37	PELCO II	Pampanga II Electric Cooperative, Inc.
38	PELCO III	Pampanga III Electric Cooperative, Inc.
39	PENELCO	Peninsula Electric Cooperative, Inc.
40	PEZA	Philippine Economic Zone Authority
41	QUEZELCO I	Quezon I Electric Cooperative, Inc.
42	SAMELCO I	Samar I Electric Cooperative, Inc.
43	SEZ	Subic EnerZone Corporation
44	SFELAPCO	San Fernando Electric Light and Power Company, Inc.
45	TARELCO I	Tarlac I Electric Cooperative, Inc.
46	TARELCO II	Tarlac II Electric Cooperative, Inc.
47	TEI	Tarlac Electric, Inc.
48	VECO	Visayan Electric Company, Inc.
49	NGCP [iv]	National Grid Corporation of the Philippines

[iv] for the Directly Connected Contestable Customers

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 tap other Suppliers for their energy requirements as

shown in **Figure 7(a)**. About 6 percent were within the VECO franchise and 13 percent were scattered within the other franchise areas and economic zones. Meanwhile, 7 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 period in review was on account of the registered Contestable Customers within said franchise area.

Within the MERALCO franchise area, 44 percent of the energy consumption of registered Contestable Customers was supplied by MRLCOLRE and its other affiliate suppliers, while the remaining 56 percent were supplied by other Suppliers serving within the MERALCO franchise area as seen in **Figure 7(b)**.

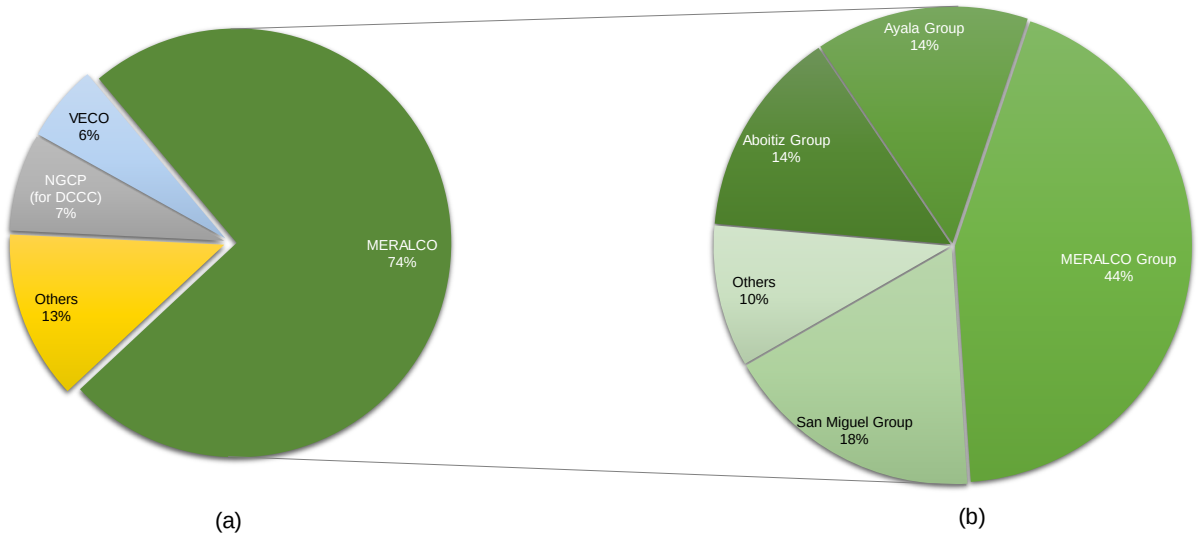

Figure 7. (a) Energy Consumption of CCs by Franchise Area, 2019-Q3; (b) Energy Consumption by Supplier within MERALCO Franchise Area, 2019-Q3

2. Herfindahl–Hirschman Index (HHI)

This section discusses the market concentration of Suppliers by major participant grouping of ERC, based on the number of Contestable Customers they are in contract with and based on the energy consumption of these Contestable Customers. **Figure 8** shows that the level of market concentration using the

Herfindahl-Hirschman Index (HHI)[8], consistently fell within the concentrated area throughout all the quarters in comparison. The HHI values based on the number of registered Contestable Customers barely declined during the quarter while the HHI values based on CC consumption was observed to be significantly the highest during the quarter in review over the one year period.

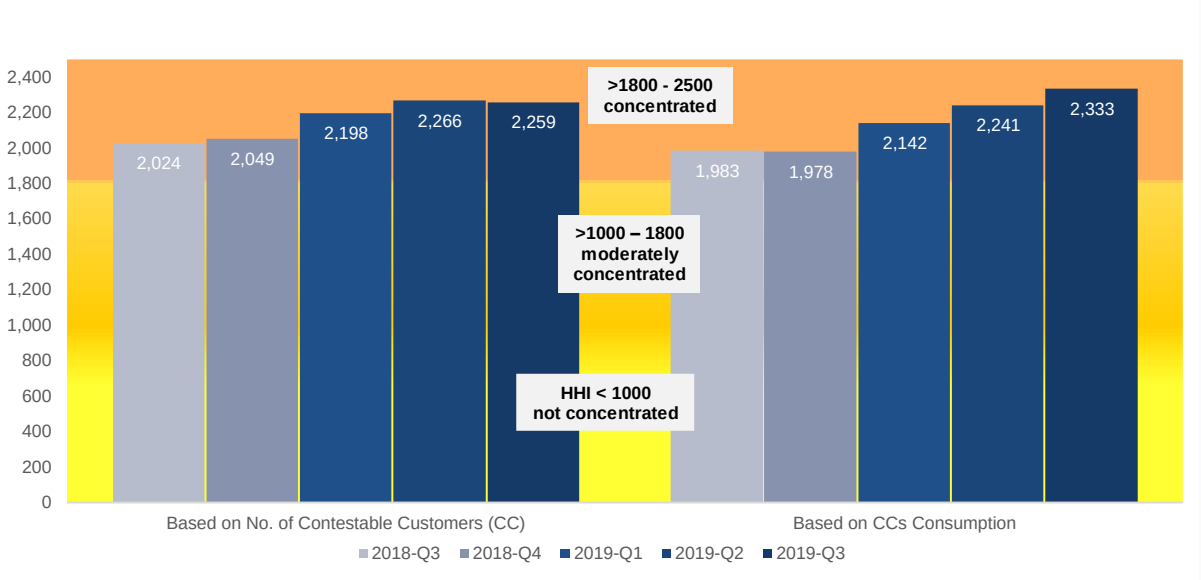

Figure 8. HHI Values Based on Number of CCs and CC Consumption, 2018-Q3 to 2019-Q3

3. Four-Firm Concentration Index (C4)[9]

The four-firm index or C4 values based both on the number of registered Contestable Customers and their consumption were still high at 89 percent during the quarter in review as shown in **Figure 9**. Note that the top four (4) Suppliers used in this index were determined based on the latest major participant grouping of the ERC.

[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
Greater than 1000 up to 1800 - moderately concentrated
Greater than 1800 up to 2500 - concentrated
Greater than 2500 - highly concentrated

[9] C4 measures the percentage of market share of the four largest firms in the market. Concentration levels are as follows: High: 80% to 100%; Medium: 50% to 80%; and Low: 0% to 50%

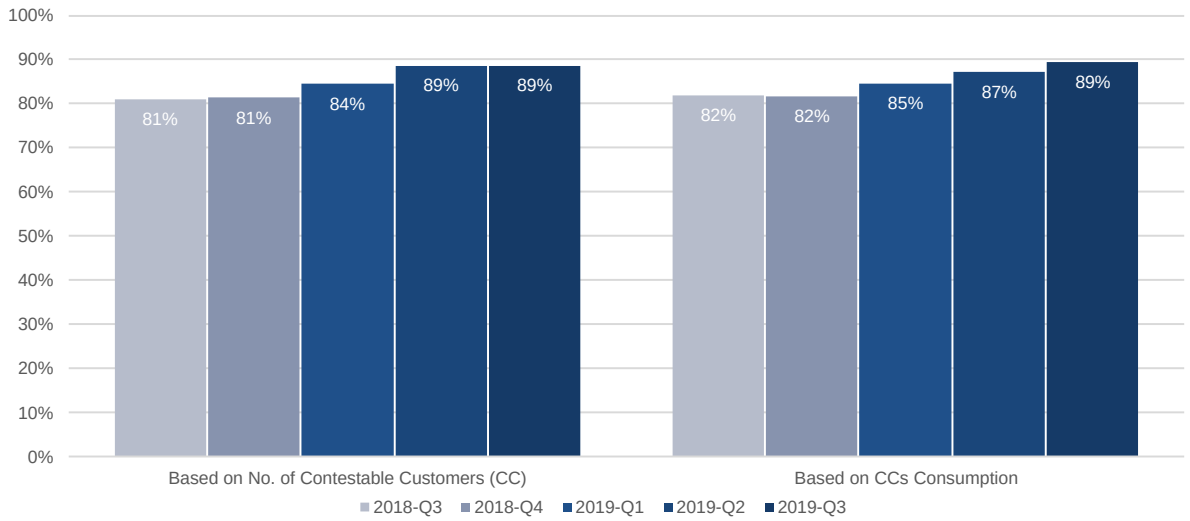

Figure 9. Four-Firm Index, 2018-Q3 to 2019-Q3

4. Supplier Structure

Table 6 shows the degree of integration among the Suppliers, Generation Companies, and Distribution Utilities as of October 2019[10]. The Supplier structure shows that majority of the Retail Electricity Suppliers had affiliate Generation Companies. Note that one Supplier may have multiple affiliate Generation Companies, Suppliers, and/or Distribution Utilities.

Table 6. Summary of Suppliers with Affiliate Generation Companies, Suppliers and Distribution Utilities

Category	No. of Registered Suppliers	No. of Suppliers with Affiliate Generator	No. of Suppliers with Affiliate Supplier	No. of Suppliers with Affiliate DU
Retail Electricity Supplier	31	24	16	12
Local Retail Electricity Supplier	14	3	5	3
Supplier of Last Resort	25	5	7	4
Total	**70**	**32**	**28**	**19**

II. MARKET PERFORMANCE

A. Total Energy Consumption

The quarter-on-quarter total energy consumption which includes both that of the Captive[11] and registered Contestable Customers is shown in **Figure 10**. As

[10] Based on latest available ERC data.

[11] 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.

expected, the second quarter's high total energy consumption dropped by about 6 percent in the third quarter, recording a total of 20,967 GWh. Energy consumption has been historically observed to be highest during the second quarter covering the summer months of April to June. The same was observed to slump in the succeeding quarters and ending at its lowest during the first quarter. The decline may be attributable to the slowing down of activities after the holidays by the end of the fourth quarter and relatively cooler temperature during the first half of the first quarter.

In contrast, the third quarter's figure brought the year-to year increase by 6 percent, in comparison with the previous year's 19,735 GWh during the same quarter.

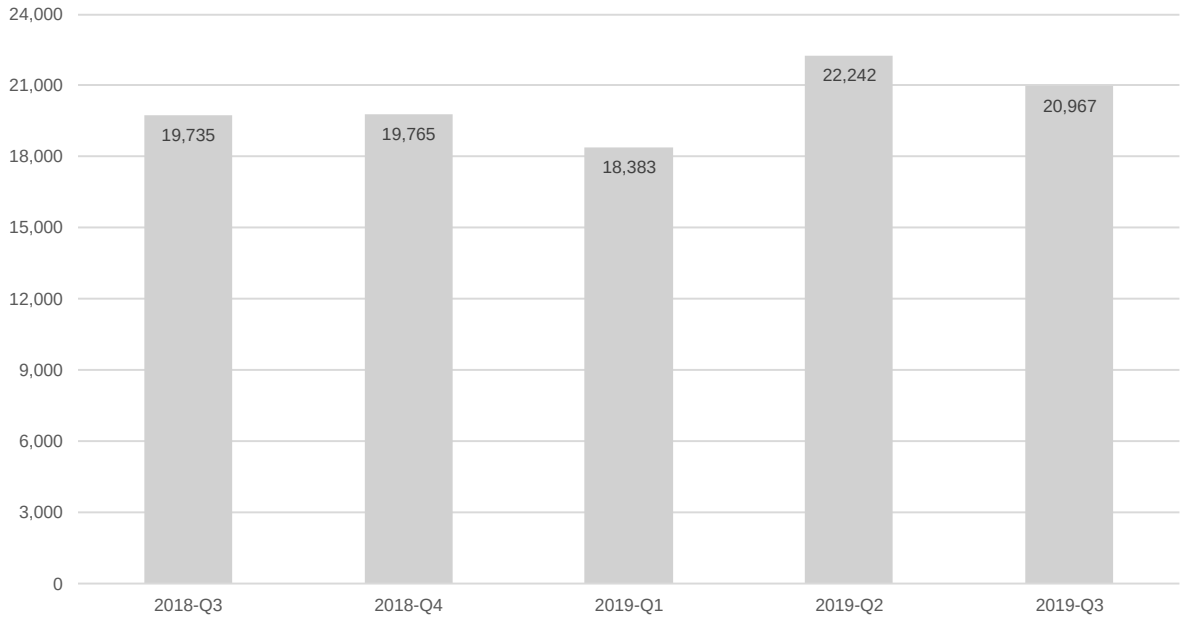

Figure 10. Total Energy Consumption (in GWh), 2018-Q3 to 2019-Q3

As shown in **Figure 11**, the monthly total energy consumption from July to September 2019 ended relatively flat, which is a similar pattern observed during the same months in the previous year. Consistent with the discussion in Section II. A, the monthly total energy consumption dropped by 8.5 percent at the start of the quarter, recording a total of 7,042 GWh in July 2019, and plunging to its lowest for the quarter at 6,929 GWh in September 2019.

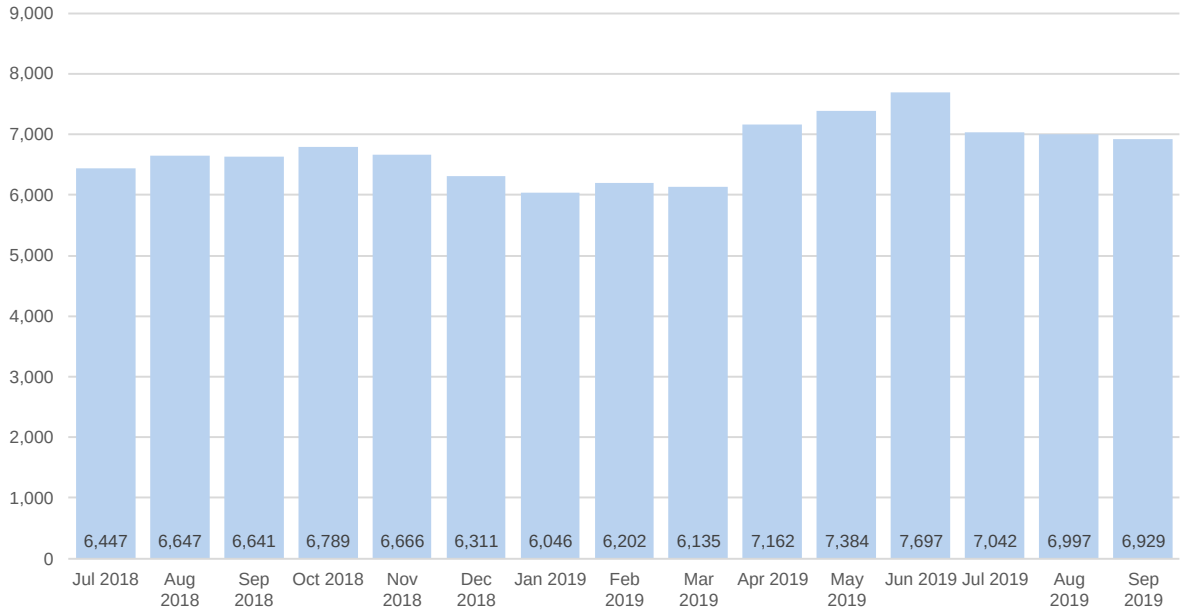

Figure 11. Monthly Total Energy Consumption (in GWh), 2018-Q3 to 2019-Q3

Factors such as temperature and seasonal changes, as well as the economic activities during certain periods of the year may well had played a role in the varying level of energy consumption per quarter.

B. Energy Consumption by Type of End-User

Shown in **Figure 12** is the quarterly total energy consumption by type of end-user consisting of the Captive Customers and the registered Contestable Customers.

When compared with the previous quarter's figures, the energy consumption of Captive Customers for the third quarter of 2019 weakened by about 8 percent, recorded at 15,948 GWh, while that of the registered Contestable Customers had a modest gain by about 1 percent, recorded at 5,019 GWh.

Year-on-year figures brought around 5 percent increase in the energy consumption of Captive Customers while about 9 percent increase was recorded in the energy consumption of registered Contestable Customers.

The consumption of registered Contestable Customer is a function of both the demand for electricity and the growing number of participants in the retail market.

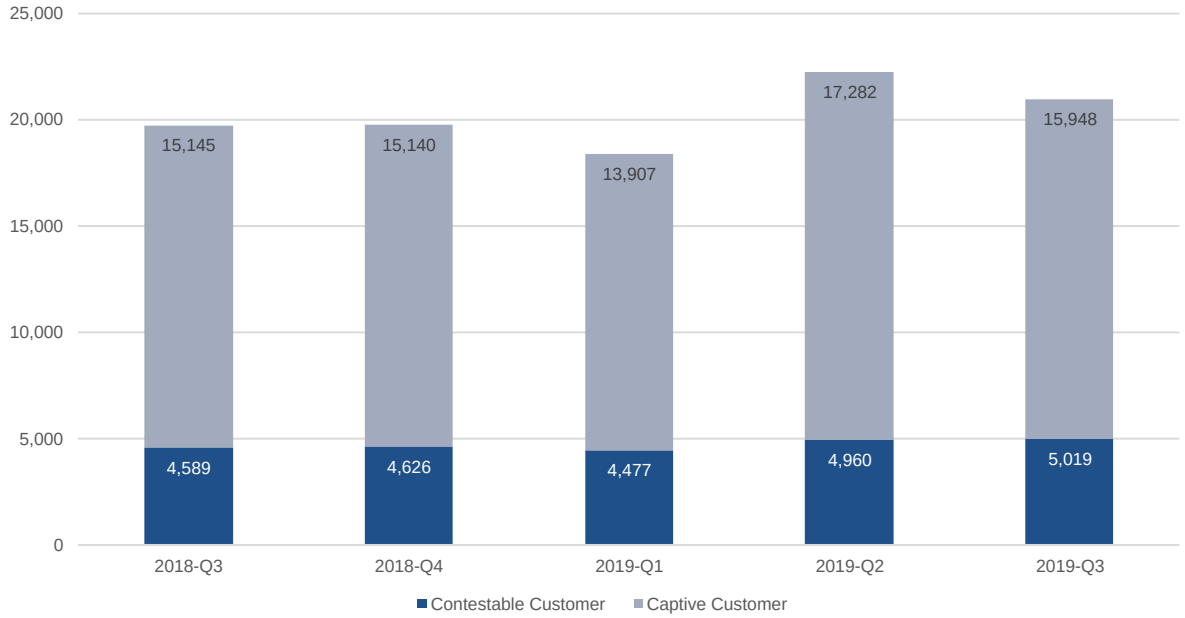

Figure 12. Total Energy Consumption (in GWh) Per Type of End-User, 2018-Q3 to 2019-Q3

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

The share in the total energy consumption based on WESM transactions of registered Contestable Customers accounted for about 24 percent while that of the Captive Customers accounted for about 76 percent, as shown in **Figure 13.**

The change in shares may be attributable to several factors including the change in demand for electricity per type of end-users.

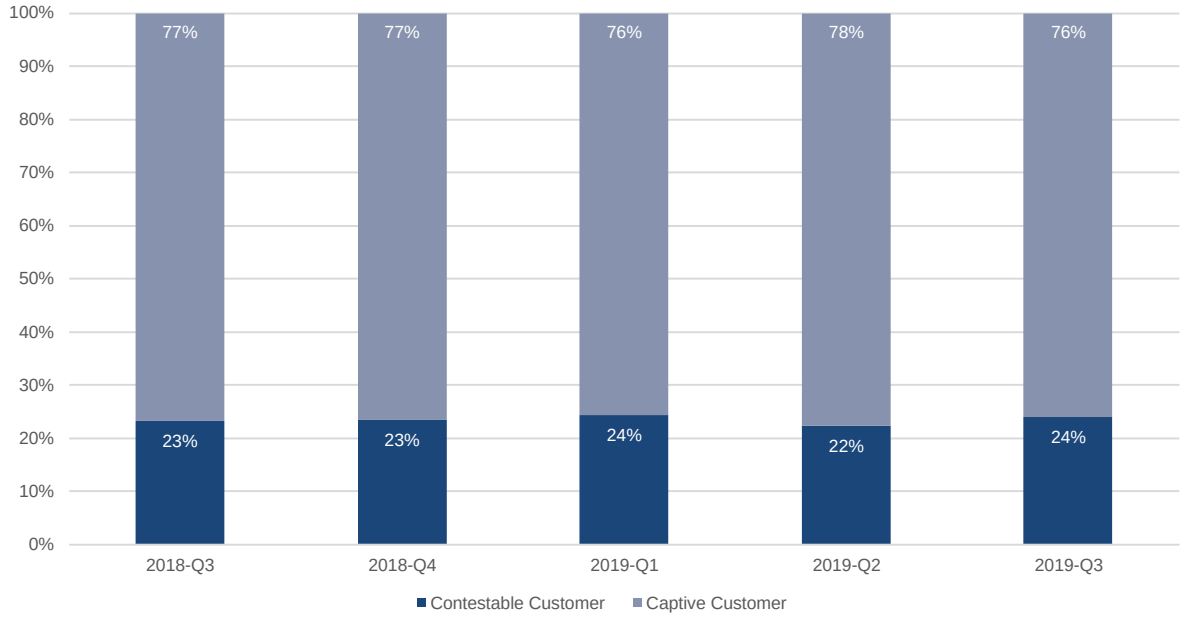

Figure 13. Share in Total Energy Consumption Per Type of End-User, 2018-Q3 to 2019-Q3

D. Hourly Energy Consumption Profile of Registered Contestable Customers

Figures 14 and 15 show the hourly average consumption per month of registered industrial and commercial Contestable Customers, respectively, for the billing months April to September 2019. The consumption profile demonstrated how their electricity consumption varied over the course of a 24-hour period.

As shown in **Figure 14,** the electricity consumption of industrial Contestable Customers, generally, did not show substantial peak and off-peak variations. A dip in their average energy consumption was generally observed during intervals 0700H, 1300H, and 1900H, denoting that they operate on three shifts.

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.

For the third quarter of 2019, the highest hourly average energy consumption of registered industrial Contestable Customers was recorded in July 2019 at 0900H (about 1,508 MWh) while the lowest average energy consumption was noted in August 2019 at 0600H (about 1,393 MWh).

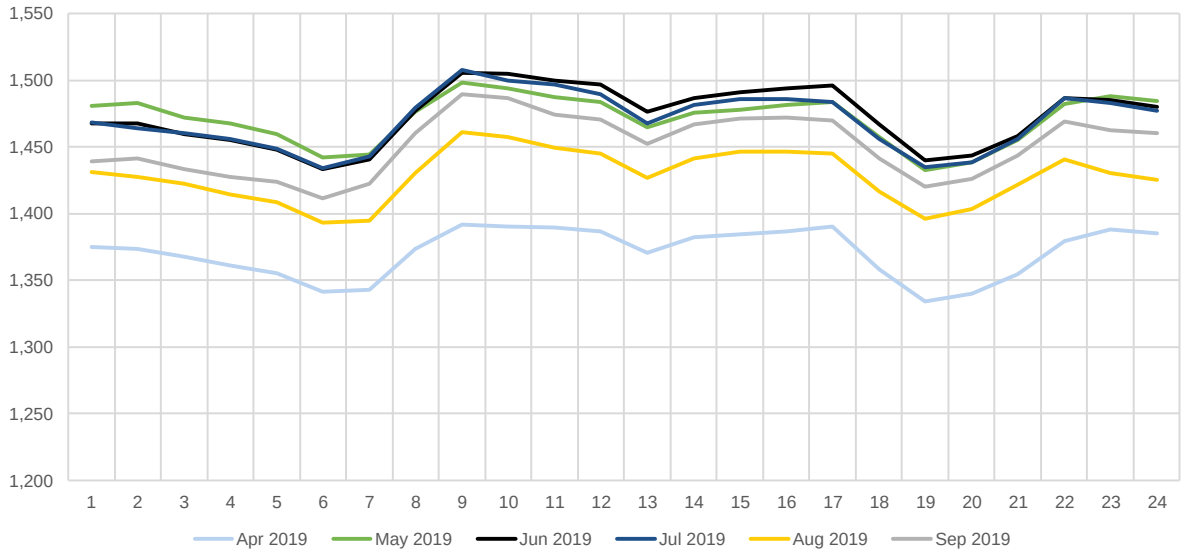

Figure 14. Hourly Average Energy Consumption (in MWh), Industrial CCs, Apr to Sep 2019

The registered commercial Contestable Customers, on the other hand, showed a substantial variation in their peak and off-peak consumption as shown in **Figure 15**. Peak consumption of registered Commercial Contestable Customers was generally observed from around 0900H to 2000H.

The highest hourly average energy consumption of registered commercial Contestable Customers during the second quarter of 2019 was recorded in July 2019 at 1500H (about 1,172 MWh) while the lowest average energy consumption was noted in September 2019 at 0400H (about 448 MWh).

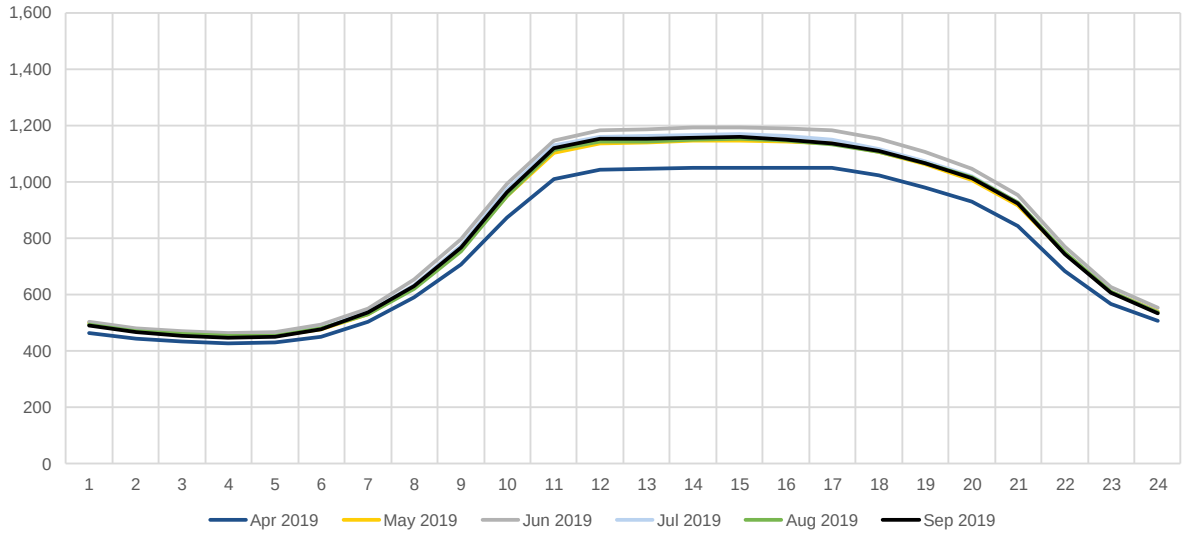

Figure 15. Hourly Average Energy Consumption (in MWh), Commercial CCs, Apr to Sep 2019

E. Load Factor

Figure 16 shows the monthly load factor[12] of registered Contestable Customers, which was calculated based on their actual electricity consumption. The load factor of registered Contestable Customers was kept relatively high during the third quarter of 2019. By the end of September 2019, the load factor stood at about 80 percent coming from 81 percent in June 2019.

The high load factor reflects a generally efficient electricity usage of registered Contestable Customers[13].

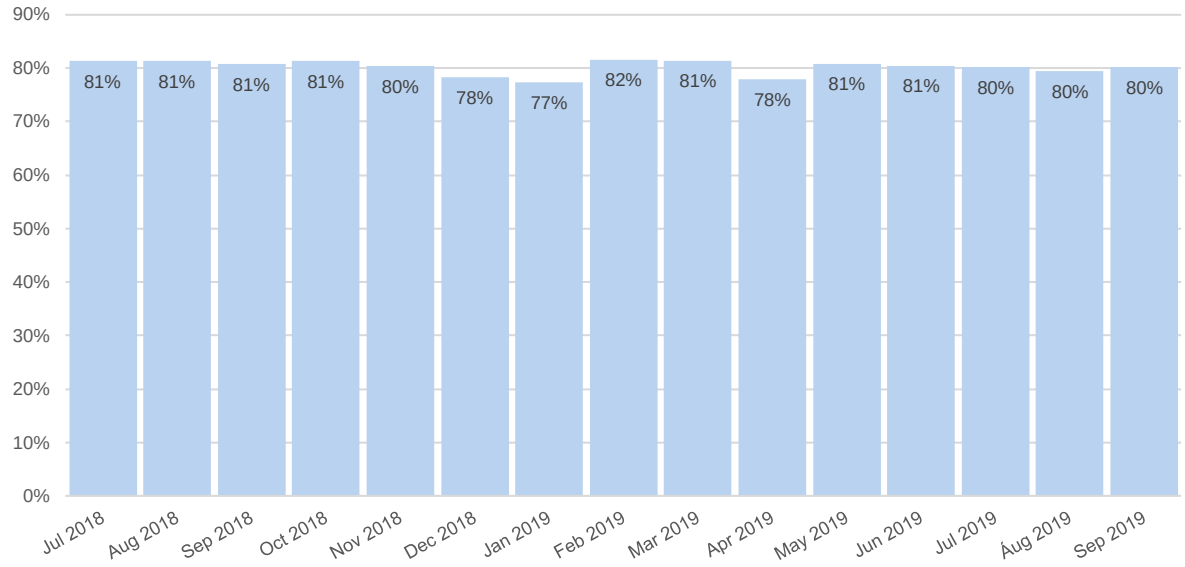

Figure 16. CC Load Factor, Sep 2018 to Sep 2019

III. RETAIL ACTIVITY

A. Customer Participation Level

The registered Contestable Customers in the commercial sector maintained its share of about 52 percent by the end of September 2019 billing month. The quarterly share of registered commercial and industrial Contestable Customers by the end of September 2018 to the current quarter in review is shown in **Figure 17**.

[12] Based on Metered Quantity (MQ)

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

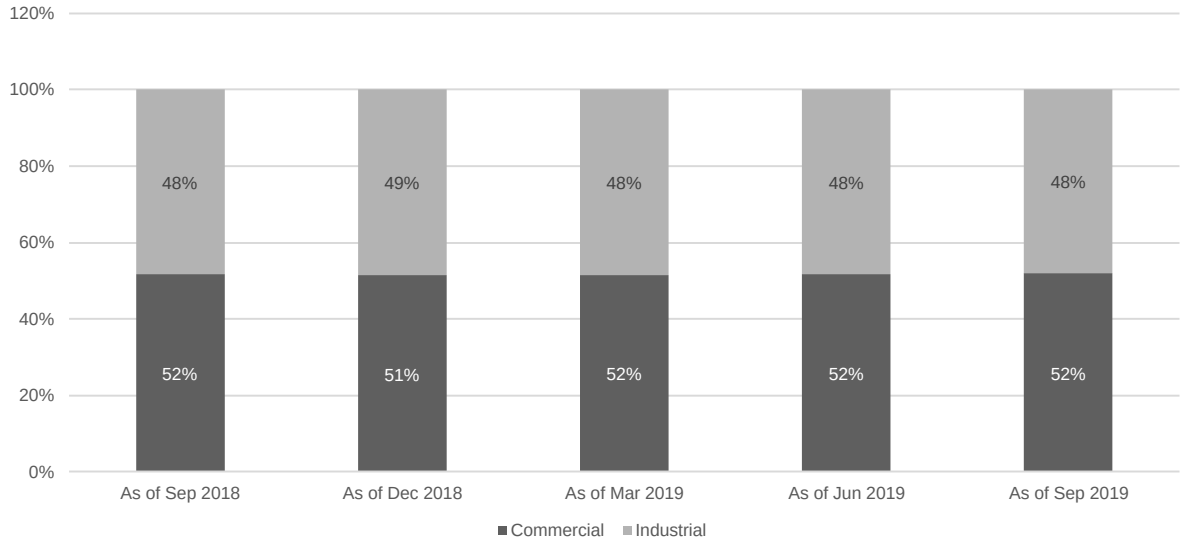

Figure 17. Percentage of CCs Per Industry Type, Sep 2018 to Sep 2019

B. Customer Switching Rate

Table 7 shows the switching rate among registered Contestable Customers for the period covered in this report. Based on the data, ten (10) switches from one Supplier to another were recorded during the July to September 2019 billing months. Eight (8) of the switches were from Retail Electricity Supplier to Retail Electricity Supplier, while the remaining two (2) of the switches were from Retail Electricity Supplier to Local Retail Electricity Supplier.

Table 7. Customer Switching Rate

Particulars	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019
Switching Rate (Luzon)	**0.10%**	**0.00%**	**0.19%**	**0.00%**	**0.28%**	**2.04%**	**0.64%**	**3.72%**	**0.54%**	**0.36%**	**0.00%**	**0.68%**	**0.17%**	**0.41%**	**0.08%**
Total No. of CCs	1,008	1,028	1,034	1,045	1,059	1,080	1,091	1,103	1,119	1,126	1,144	1,177	1,196	1,212	1,221
Total No. of CCs that Switched	*1*	*0*	*2*	*0*	*3*	*22*	*7*	*41*	*6*	*4*	*0*	*8*	*2*	*5*	*1*
LRES to RES						*4*						*1*			
RES to LRES					1	2	3	17	1			3	2		
RES to RES	*1*		*2*		*2*	*16*	*4*	*24*	*5*	*4*		*4*		*5*	*1*
SOLR to RES															
Switching Rate (Visayas)	**1.04%**	**0.00%**	**0.97%**	**0.88%**	**0.00%**	**5.93%**	**5.08%**	**3.36%**	**0.83%**	**0.00%**	**0.00%**	**3.10%**	**0.76%**	**0.00%**	**0.73%**
Total No. of CCs	96	99	103	114	118	118	118	119	121	122	126	129	131	132	137
Total No. of CCs that Switched	1	0	1	1	0	7	6	4	1	0	0	4	1	0	1
LRES to RES															
RES to RES	*1*		1	1		7	6	4	1			4	1		1
Switching Rate (Luzon-Visayas)	**0.18%**	**0.00%**	**0.26%**	**0.09%**	**0.25%**	**2.42%**	**1.08%**	**3.68%**	**0.56%**	**0.32%**	**0.00%**	**0.92%**	**0.23%**	**0.37%**	**0.15%**
Total No. of CCs	1,104	1,127	1,137	1,159	1,177	1,198	1,209	1,222	1,240	1,248	1,270	1,306	1,327	1,344	1,358
Total No. of CCs that Switched	2	0	3	1	3	29	13	45	7	4	0	12	3	5	2