MAG-RMAR-2020-01

QUARTERLY RETAIL MARKET ASSESSMENT REPORT

26 December 2019 – 25 March 2020

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 December 2019 to 25 March 2020.**

Based on the data of the Energy Regulatory Commission (ERC), there were a total of 2,054 qualified electricity end-users already issued with the ERC's Certificate of Contestability. Of these, 1,445 contestable customers or about 70% have already registered in the market as of the billing month of March 2020. Quarter-on-quarter, additional 25 Contestable Customers were issued with ERC's Certificate of Contestability while additional 37 Contestable Customers registered in the market.

In terms of contestability threshold, the market recorded 1,116 registrants or about 77% in the 1 MW and above contestability threshold. The 329 registrants or about 23% were classified under 750-999 kW contestability threshold. In terms of location, 1,295 Contestable Customers or about 90% of the registered Contestable Customers are in Luzon region while the remaining 150 Contestable Customers or 10% are in Visayas. In terms of the nature of business[1], 758 registered Contestable Customers were engaged in commercial activities while 687 registrants were engaged in industrial activities.

The total energy consumption of the registered Contestable Customers for the first quarter of 2020 resulted to a monthly average at about 1,576 GWh which accounts for 25% of the total energy consumption of the system for the quarter. It may be observed though that with the implementation of the Enhanced Community Quarantine (ECQ) brought about by the Corona Virus 2019 Pandemic (COVID-19 Pandemic), the energy consumption for March 2020 posed lower results as compared to the previous years. Moving forward, the load factor of registered Contestable Customers remained relatively high throughout the period in review.

While high load factor reflects a generally efficient electricity usage by registered Contestable Customers[2], 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 the RES side, determination of the load factor and load profile are crucial in creating a tailor-fit contract with Contestable Customers.

By the end of March 2020 billing month, about 37% of the consumption of all registrants were supplied by the MERALCO group. This was followed by the Aboitiz group and the San Miguel group at about 21% and 20% share, respectively, then by the Ayala group at about 11% share. The participation of new Suppliers, the registration of new Contestable Customers, and the switching of already registered

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

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 yielded a level of a concentrated market.

Of the 109 Suppliers with license from ERC, only 72 Suppliers are registered in the retail market. There were two (2) additional Suppliers that registered during the period thus as of 25 March 2020, the market recorded a total of 33 registered Retail Electricity Suppliers (RES), 14 registered Local RES (LRES), and 25 registered Supplier of Last Resort (SOLR).

During the period in review, eighty-six (86) switches from one Supplier to another were recorded. Of which, fifty-three (53) was from LRES to RES, eight (8) were from RES to LRES while the remaining twenty-five (25) were from RES to a different RES.

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 Suppliers and Contestable Customers registered in the market and does not include other qualified Suppliers with license from ERC and 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

Over the billing quarter in review, an additional 37 contestable customers participated in the market, demonstrating a 3% increase from fourth quarter of the previous year's figures and a steady upward trend since 2019 as shown in **Figure 1**. The total registry of Contestable Customers was at 1,445 or about 70% of the entire population of qualified end-users with a certificate of contestability[3] by the end of the 1st Quarter of 2020.

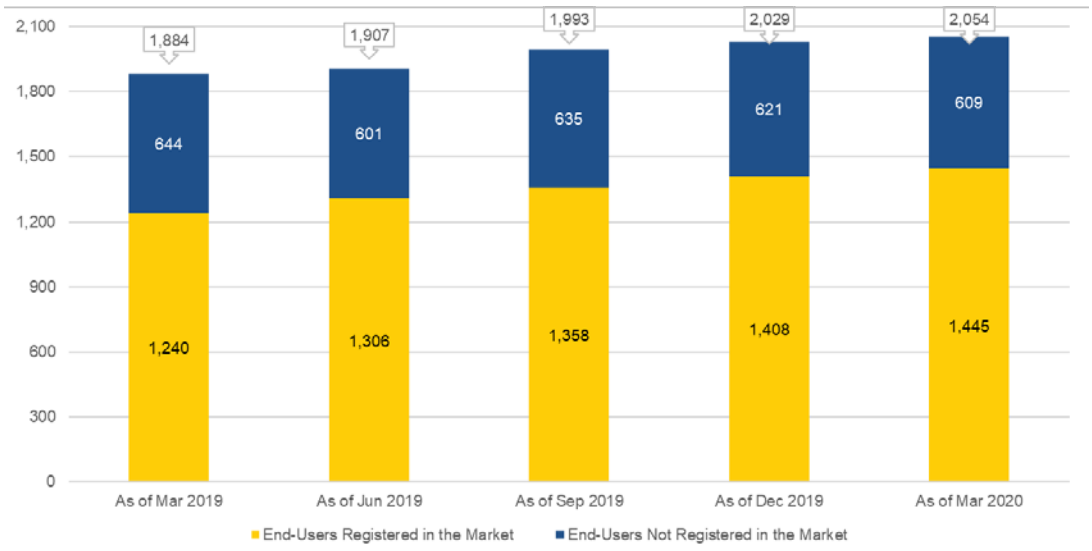


Figure 1. Cumulative Number of CCs, Mar 2019 to Mar 2020

[3] A total of 2,029 qualified end-users as of December 2019 (Source: ERC's Competitive Retail Electricity Market (CREM) Report; Link: www.buyourelectricity.com.ph).

Figure 2 shows the cumulative number of registrants per contestability threshold by the end of each relevant quarter. Out of the total registered Contestable Customers, 1,116 or 77% were registered in 1MW and above thresholds. Meanwhile, the remaining 329 or 23% belonged to the 750-999kW threshold.

Despite the ongoing imposition of the Supreme Court's temporary restraining order (TRO), dated February 2017, which puts halt on the implementation of ERC issuances[4] that provide rules and regulations implementing the Retail Competition and Open Access (RCOA), as well as the DOE circulars[5] defining the latest timeline of RCOA at that time, it can be observed that the voluntary registration of Contestable Customers in the 750-999 kW contestability threshold has continually increased throughout the comparative quarters.

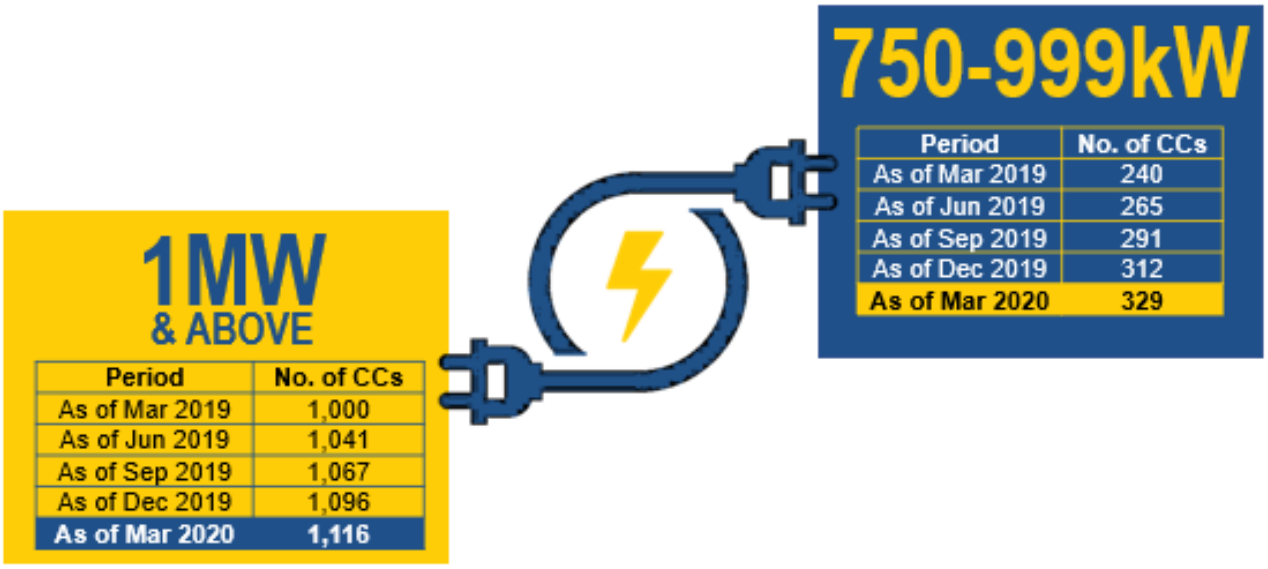
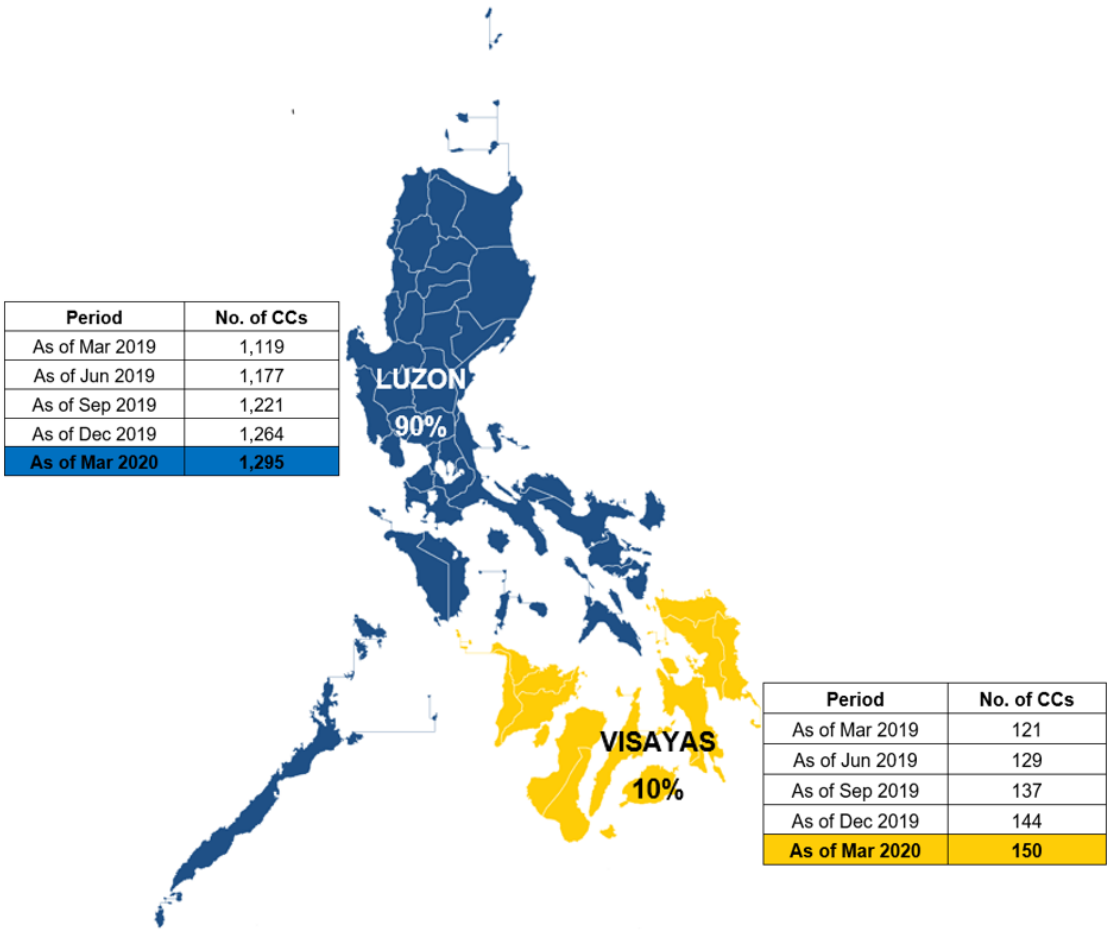


Figure 2. Cumulative Number of CCs Per Contestability Threshold, Mar 2019 to Mar 2020

With regard to location, 90% of Contestable Customers or 1,295 Contestable Customers were located in Luzon while the remaining 10% or 150 Contestable Customers were located in Visayas as shown in **Figure 3,** denoting the concentration of the Contestable Customers in Luzon**.**

[4] ERC Resolution Nos. 05, 10, 11 and 12, all series of 2016
[5] DOE Department Circular DC2015-06-0010



Period	No. of CCs
As of Mar 2019	1,119
As of Jun 2019	1,177
As of Sep 2019	1,221
As of Dec 2019	1,264
As of Mar 2020	**1,295**

Period	No. of CCs
As of Mar 2019	121
As of Jun 2019	129
As of Sep 2019	137
As of Dec 2019	144
As of Mar 2020	**150**

Figure 3. Cumulative Number of CCs Per Region, Mar 2019 to Mar 2020

Meanwhile, **Figure 4** shows the cumulative number of registered Contestable Customers per type of retail activity[6] by the end of each relevant quarter. About 51% or 758 Contestable Customers were within the commercial sector while the other 49% or 687 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 available online.

Figure 4. Cumulative Number of CCs Per Retail Activity, Mar 2019 to Mar 2020

With respect to the energy consumption in the retail market, **Table 1** shows the breakdown of registered Contestable Customers by level of consumption based on the averaged metered quantity (MQ) for the first quarter of 2020. Majority or about 63% of the registered Contestable Customers had average energy consumption of 1MWh and below. This is followed by costumers that are in the 1MWh to 5MWh threshold taking about 32% of the total number, while almost 3% are in the 5MWh to 10MWh level. The rest of the contestable customers belonged to average consumption of 10MWh to 50 MWh. So far, there were no contestable customers that had an average energy consumption above 50MWh.

Table 1. Percentage of CCs Per Level of Average Energy Consumption, 2020-Q1

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	56.01%	29.42%	2.69%	0.69%	0.41%	0.41%	0.00%	89.64%
VISAYAS	7.32%	2.69%	0.07%	0.00%	0.14%	0.14%	0.00%	10.36%
Sub-Total Per Level of Average Consumption	63.33%	32.11%	2.76%	0.69%	0.55%	0.55%	0.00%	100.00%

2. Suppliers

Table 2 shows the cumulative number of Suppliers with License from ERC, vis-a-vis registered Suppliers per category vis-à-vis the number of active Suppliers or those that were currently serving a registered Contestable Customer. There were two (2) new Retail Electricity Suppliers registered during the quarter as follows:

- Mabuhay Energy Corporation – 07 January 2020
- Solar Philippines Retail Electricity, Inc. – 18 February 2020

In addition, majority of the registered Retail Electricity Suppliers were actively participating in the market and serving registered Contestable Customers.

Table 2. Summary of Active Suppliers Per Category, as of 25 March 2020

Category	No. of Suppliers		
	With License	Total Registered	With CCs Served
Retail Electricity Supplier	37	33	30
Local Retail Electricity Supplier	25	14	4
Supplier of Last Resort	47	25	0
Total	**109**	**72**	**34**

The complete list of all registered Suppliers per category is provided in **Table 3** as of the March 2020 billing period.

Table 3. List of Suppliers Per Category, as of 25 March 2020

Category	No.	Market Participant Name	Short Name
Retail Electricity Supplier	33	Aboitiz Energy Solutions, Inc.	AESIRES
		AC Energy Philippines, Inc.(formerly PHINMA Energy Corporation-RES)	ACEPHRES
		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

Category	No.	Market Participant Name	Short Name
		KEPCO SPC Power Corporation	KSPCRES
		Kratos RES, Inc.	KRATOSRES
		Mabuhay Energy Corporation	MECORES
		Manta Energy, Inc.	MANTARES
		Masinloc Power Partners Company Limited	MPPCLRES
		Mazzaraty Energy Corporation	MACRES
		MeridianX Inc.	MERXRES
		Millennium Power RES, Inc.	MPRIRES
		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
		Solar Philippines Retail Electricity, Inc.	SPREIRES
		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

Category	No.	Market Participant Name	Short Name
		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 SMCCPCRES were the top five (5) Suppliers with the most number of served registered Contestable Customers by the end of the quarter in review (highlighted in **Table 4**). Quarter-on-quarter, MRLCOLRE and SMCCPCRES showed the highest increases in number of Contestable Customers.

Table 4. Cumulative Number of CCs Per Supplier, Mar 2019 to Mar 2020

Market Participant Group	As of Mar 2019	As of Jun 2019	As of Sep 2019	As of Dec 2019	As of Mar 2020
Aboitiz Group	**316**	**318**	**328**	**340**	**343**
ADVENTRES	*72*	*67*	*67*	*68*	*62*
AESIRES	*172*	*178*	*186*	*194*	*203*
MACRES	*4*	*3*	*3*	*3*	*2*
PRISMRES	*39*	*39*	*40*	*43*	*43*
SEZLRE					
SFELAPLRE	*1*	*1*	*1*	*1*	*1*
SNAPRES	*28*	*30*	*31*	*31*	*32*
Ayala Group	**155**	**220**	**235**	**238**	**229**
ACEPHRES		*43*	*46*	*47*	*45*

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

Market Participant Group	As of Mar 2019	As of Jun 2019	As of Sep 2019	As of Dec 2019	As of Mar 2020
ACERES	*71*	*88*	*99*	*102*	*98*
DIRPOWRES	*40*	*45*	*46*	*46*	*46*
EPMIRES	*44*	*44*	*44*	*43*	*40*
MERALCO Group	**433**	**452**	**468**	**491**	**527**
CEDCLRE	*6*	*8*	*11*	*11*	*11*
MERXRES			*1*	*1*	*1*
MRLCOLRE	*386*	*403*	*415*	*434*	*466*
MRLCOSLR					
VESMIRES	*41*	*41*	*41*	*45*	*49*
PHENRES	**40**	**0**	**0**	**0**	**0**
PHENRES	40				
San Miguel Group	**140**	**164**	**169**	**173**	**168**
MPPCLRES		**6**	**6**	**6**	**6**
SMCCPCRES	*30*	*48*	*52*	*55*	*83*
SMELCRES	*110*	*110*	*111*	*112*	*79*
Others	**152**	**148**	**154**	**162**	**175**
ANDARES	*2*	*3*	*3*	*3*	*4*
BGIRES	*43*	*47*	*50*	*52*	*46*
BTLC2LRE				*1*	*1*
CESIRES	*2*	*2*	*3*	*4*	*5*
CORERES	*2*	*2*	*1*	*1*	*2*
FDCRESC	*12*	*12*	*12*	*15*	*15*
FGESRES	*13*	*11*	*11*	*11*	*7*
GESCRES	*14*	*15*	*17*	*17*	*20*
GNPLCRES	*4*	*4*	*4*	*4*	*4*
KRATOSRES	*19*	*20*	*21*	*22*	*28*
KSPCRES	*3*	*3*	*3*	*3*	*5*
MANTARES	*2*	*2*	*2*	*1*	*1*
MECORES					
MPPCLRES[8]	*6*				
PERCRES	*12*	*11*	*12*	*12*	*12*
SCRCRES	*1*	*3*	*4*	*4*	*6*
SPREIRES					
TEILRE					
TPECRES	*16*	*11*	*10*	*11*	*18*
VECOLRE					
WAHCRES	*1*	*1*	*1*	*1*	*1*
TOTAL	**1236**	**1,302**	**1,354**	**1,404**	**1,442**

[8] *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 March 2020 billing period.

Quarter-on-quarter review shows that the share of MERALCO group on the total Contestable Customers remained at about 35% for entire 2019, then grew up to about 37% by the end of March 2020. For other groups, namely Aboitiz, Ayala, and San Miguel, their percent share remained generally the same overall leaving MERALCO still at the top.

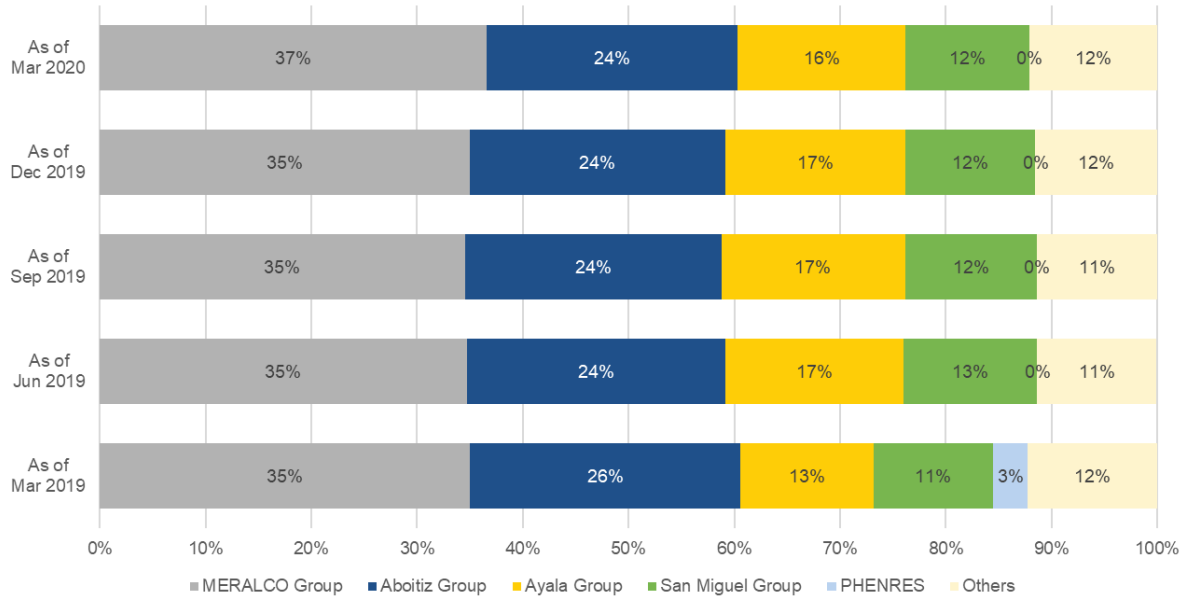


Figure 5. Share in Number of CCs Per Major Participant, Mar 2019 to Mar 2020

As regards the share of major suppliers with the retail energy consumption , **Figure 6** shows that the MERALCO group remained with the largest share at 37% followed by Aboitiz Group, San Miguel Group and then the Ayala Group.

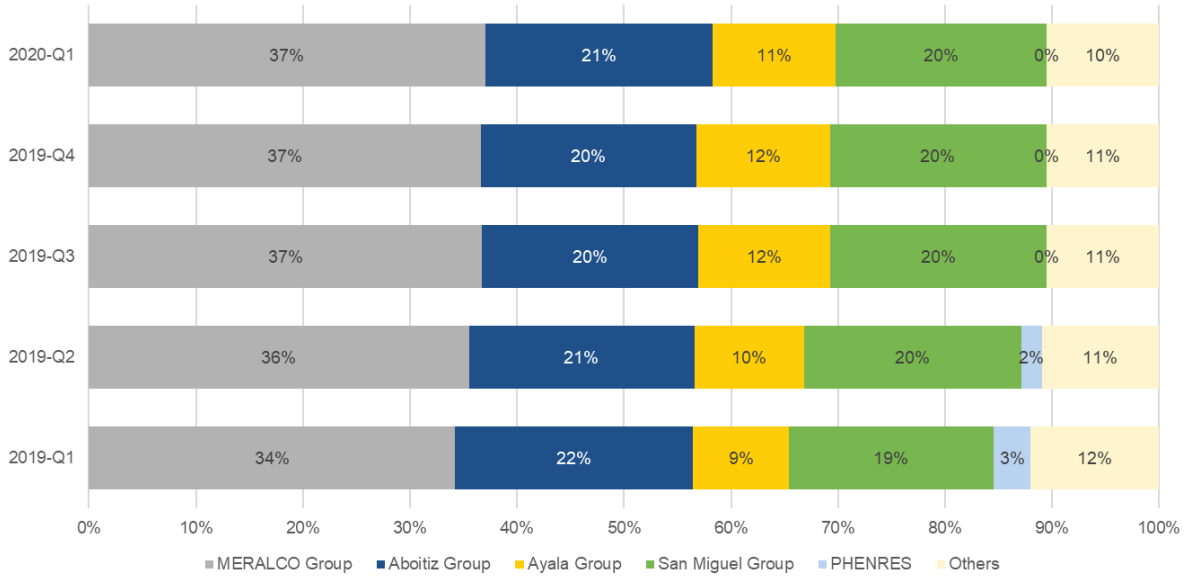


Figure 6. Share in Total Energy Consumption of CCs Per Major Participant, 2019-Q1 to 2020-Q1

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

Table 5. List of Distribution Utility Franchise Areas and Economic Zones

No.	Short Name	Distribution Utility/ Economic Zone	No.	Short Name	Distribution Utility/ Economic Zone
1	AEC	Angeles Electric Corporation	27	LEYECO V	Leyte V Electric Cooperative, Inc.
2	AFAB	Authority of the Freeport Area of Bataan	28	LEZ	LIMA Enerzone Corporation
3	AKELCO	Aklan Electric Cooperative, Inc.	29	LUELCO	La Union Electric Cooperative, Inc.
4	ALECO	Albay Electric Cooperative, Inc.	30	MECO	Mactan Electric Company
5	ANTECO	Antique Electric Cooperative, Inc.	31	MERALCO	Manila Electric Company
6	BATELEC I	Batangas I Electric Cooperative, Inc.	32	MEZ	Mactan Economic Zone
7	BATELEC II	Batangas II Electric Cooperative	33	NEECO I	Nueva Ecija I Electric Cooperative, Inc.
8	BEZ	Balamban Enerzone Corporation	34	NOCECO	Negros Occidental Electric Cooperative, Inc.
9	BLCI	Bohol Light Company, Inc.	35	NORECO II	Negros Oriental II Electric Cooperative, Inc.
10	BOHECO I	Bohol I Electric Cooperative, Inc.	36	OEDC	Olongapo Electricity Distribution Company
11	CAGELCO I	Cagayan1 Electric Cooperative, Inc.	37	PANELCO III	Pangasinan III Electric Cooperative, Inc.
12	CAGELCO II	Cagayan II Electric Cooperative, Inc.	38	PECO	Panay Electric Co., Inc.
13	CASURECO II	Camarines Sur II Electric Cooperative, Inc.	39	PELCO I	Pampanga I Electric Cooperative, Inc.
14	CEBECO I	Cebu I Electric Cooperative, Inc.	40	PELCO II	Pampanga II Electric Cooperative, Inc.
15	CEBECO II	Cebu II Electric Cooperative, Inc.	41	PELCO III	Pampanga III Electric Cooperative, Inc.
16	CEDC	Clark Electric Distribution Corporation	42	PENELCO	Peninsula Electric Cooperative, Inc.
17	CELCOR	Cabanatuan Electric Corporation	43	PEZA	Philippine Economic Zone Authority
18	CENPELCO	Central Pangasinan Electric Cooperative, Inc.	44	QUEZELCO I	Quezon I Electric Cooperative, Inc.
19	DECORP	Dagupan Electric Corporation	45	SAMELCO I	Samar I Electric Cooperative, Inc.
20	DORELCO	Don Orestes Electric Cooperative, Inc.	46	SEZ	Subic EnerZone Corporation
21	FIT	First Industrial Township Utilities, Inc.	47	SFELAPCO	San Fernando Electric Light and Power Company, Inc.
22	ILECO I	Iloilo I Electric Cooperative, Inc.	48	TARELCO I	Tarlac I Electric Cooperative, Inc.
23	INEC	Ilocos Norte Electric Cooperative, Inc.	49	TARELCO II	Tarlac II Electric Cooperative, Inc.
24	ISECO	Ilocos Sur Electric Cooperative, Inc.	50	TEI	Tarlac Electric, Inc.

No.	Short Name	Distribution Utility/ Economic Zone	No.	Short Name	Distribution Utility/ Economic Zone
25	ISELCO I	Isabela I Electric Cooperative, Inc.	51	VECO	Visayan Electric Company, Inc.
26	LEYECO II	Leyte II Electric Cooperative, Inc.	52	NGCP[9]	National Grid Corporation of the Philippines

Moreover, majority or about 71% of the registered Contestable Customers were located within the franchise area of MERALCO. It should be noted, however, that not all of them were being supplied by the Meralco Group, as some availed the services of other Suppliers for their energy requirements as shown in **Figure 7(a)**. About 6% were within the VECO franchise and 13% were scattered across the other franchise areas and economic zones. Meanwhile, 10% 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 in said franchise area.

Within the MERALCO franchise area, 45% of the energy consumption of registered Contestable Customers was supplied by MRLCOLRE and its other affiliate suppliers, while the remaining 56% were supplied by other Suppliers as shown in **Figure 7(b)**.

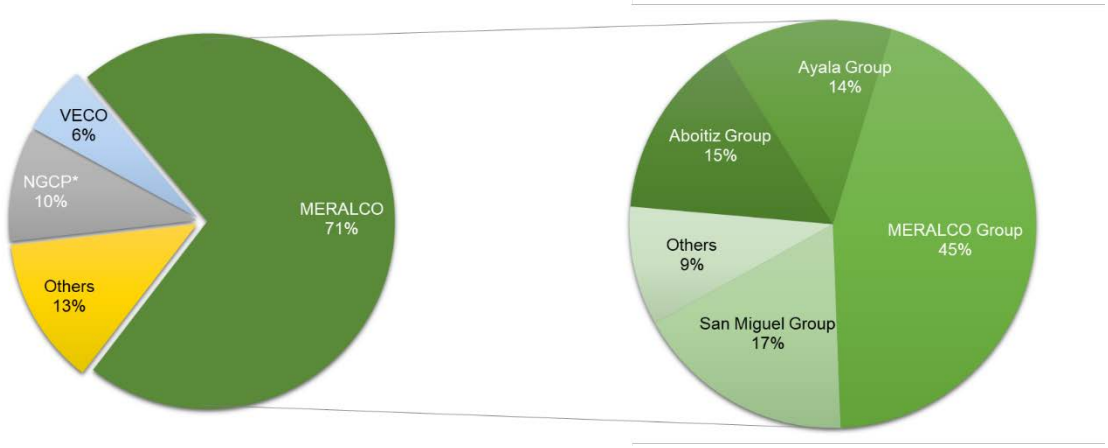


Figure 7. (a) Energy Consumption of CCs by Franchise Area, 2020-Q1; (b) Energy Consumption by Supplier within MERALCO Franchise Area, 2020-Q1[10]

2. Herfindahl–Hirschman Index (HHI)

[9] For Directly Connected Contestable Customers
[10] Corrected as approved by the MSC 10 December 2020

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)[11] in both categories, consistently fell within the concentrated area throughout the quarters in comparison. The HHI values based both on the number of registered Contestable Customers and on consumption conservatively increased during the quarter which is attributable to the increase in customers of most suppliers in the market. The steady upward trend in market concentration despite an increasing number of Contestable Customers and Suppliers imply that the existing major players are able to accumulate enrollments from new and current customers alike.

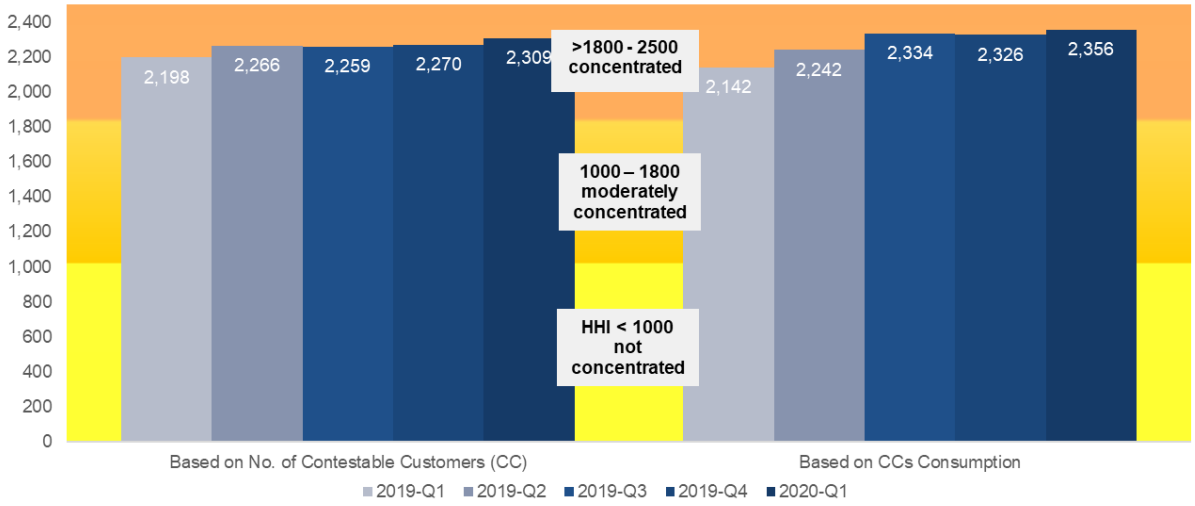


Figure 8. HHI Values Based on Number of CCs and CC Consumption, 2019-Q1 to 2020-Q1

3. Four-Firm Concentration Index (C4)[12]

The four-firm index or C4 values based both on the number of registered Contestable Customers and their consumption were still high at about 88 and 89%, respectively, 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.

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

[12] 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%

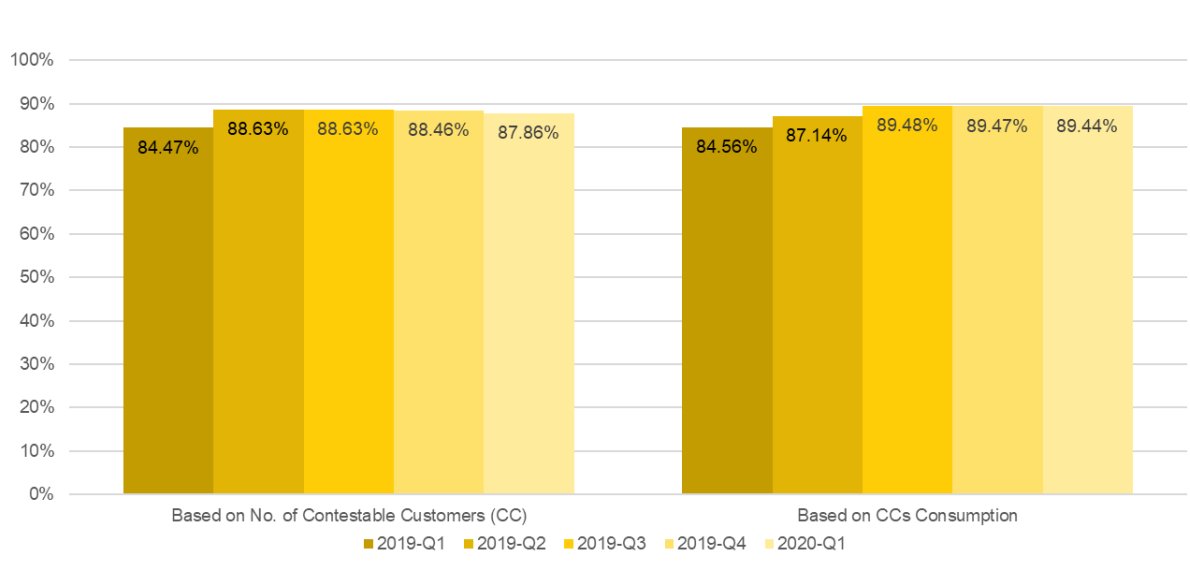


Figure 9. Four-Firm Index, 2019-Q1 to 2020-Q1

4. Supplier Structure

Table 7 shows the degree of integration among the Suppliers, Generation Companies, and Distribution Utilities as of December 2019[13]. 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	33	28	19	14
Local Retail Electricity Supplier	14	3	5	3
Supplier of Last Resort	25	5	7	4
Total	**72**	**36**	**31**	**21**

[13] Based on latest available ERC data.

II. MARKET PERFORMANCE

A. Total Energy Consumption

The quarter-on-quarter total energy consumption which includes both that of the Captive[14] and registered Contestable Customers is shown in **Figure 10**. The consumption is a function of both the demand for electricity and the change in number of participants in the retail market.

A further decrease of 6.72% in the first quarter of 2020 compared to 2019's fourth quarter was driven by the lower temperature during the period particularly during the December - February billing months. It was also noted that quarter-on-quarter decrease mirrored the decline in consumption of the captive customers which accounted for 75% of the total consumption. Contestable customers, on the other hand, almost retained their level of quarterly consumption.

Meanwhile, year-on–year, both contestable and captive customers recorded increases in consumption indicating growth in number of customers and in economic activities.

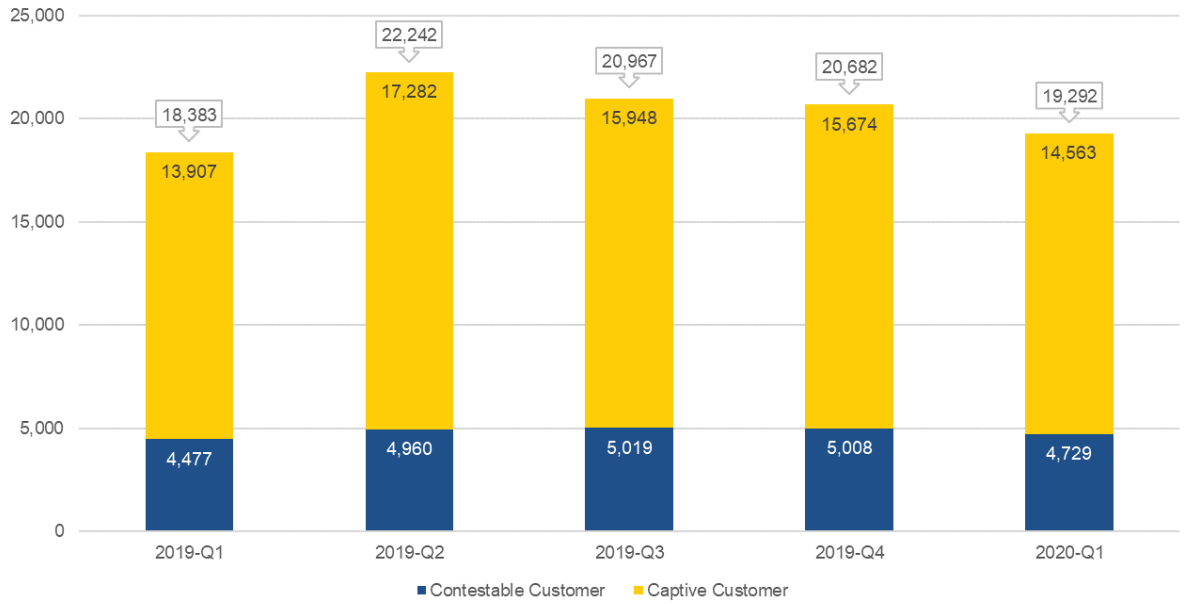


Figure 10. Total Energy Consumption (in GWh), 2018-Q4 to 2019-Q4

It should however be noted that there was another factor that contributed on the reduction of demand during the period in review due to the

[14] 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.

implementation of the Enhanced Community Quarantine (ECQ)[15] brought about by the Corona Virus 2019 Pandemic (COVID-19 Pandemic) which led to the slowing down of the economic activities in the country. **Figure 11** shows the sudden decrease in demand come March 2020 when the ECQ has been fully implemented.

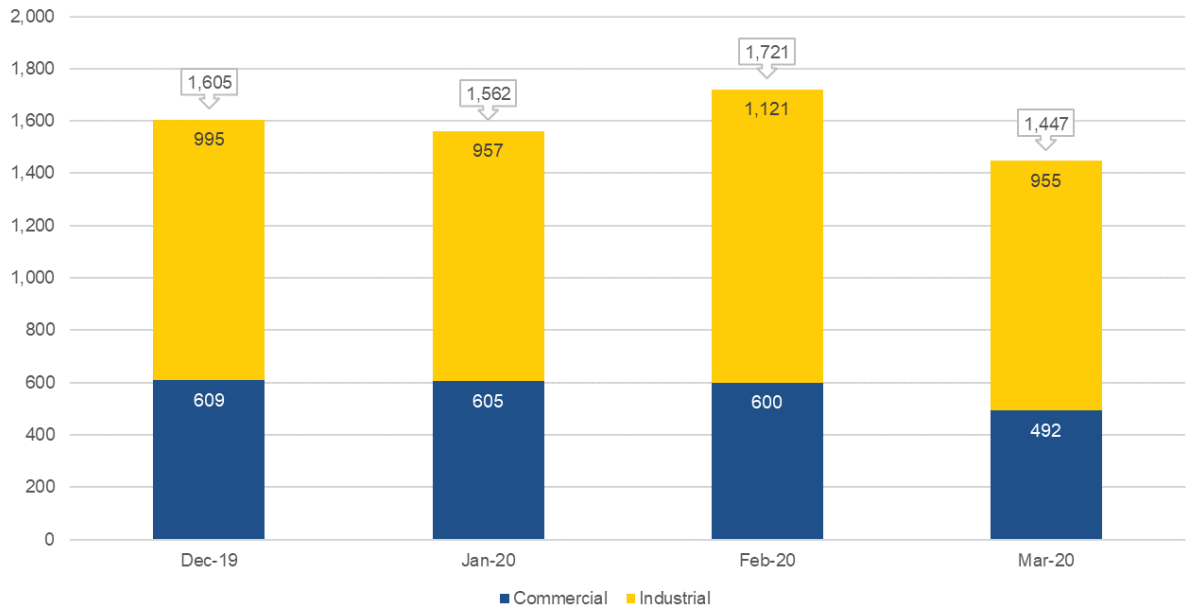


Figure 11. Total Energy Consumption of CC by Industry Type (in GWh) Dec 2019 to Mar 2020

B. Hourly Energy Consumption Profile of Registered Contestable Customers

Figures 12 and 13 show the hourly average consumption per month of registered industrial and commercial Contestable Customers, respectively, for the billing months October 2019 to March 2020. The consumption profile demonstrated how their electricity consumption varied over the course of a 24-hour period.

As shown in **Figure 12,** 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 likely operate on three shifts. 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 about the same for any given month.

[15] **Section 2** of Proclamation No. 929 *"Declaring a State of Calamity throughout the Philippines due to Corona Virus Disease 2019"* dated 16 March 2020

Furthermore, the month-on-month comparison of their hourly consumption profile denotes that the level of consumption changes depending on the month, with the least consumption recorded during the December and January billing months which may be related to the long holidays during these periods. Meanwhile, the February and October billing months recorded the highest consumption throughout the six months. In relation to the implementation of ECQ in the country which mandated a pause in operations of non-essential activities to minimize the movement of the population, March 2020 posed a low load level as compared to the data recorded for the same 6-month period comparison wherein March normally tops the chart as a result of increasing economic activities and the start of summer period.

It is interesting to note that the consumption pattern of industrial customers present an opportunity to shift their loads to off-peak hours when prices from WESM or other generators are usually lower.

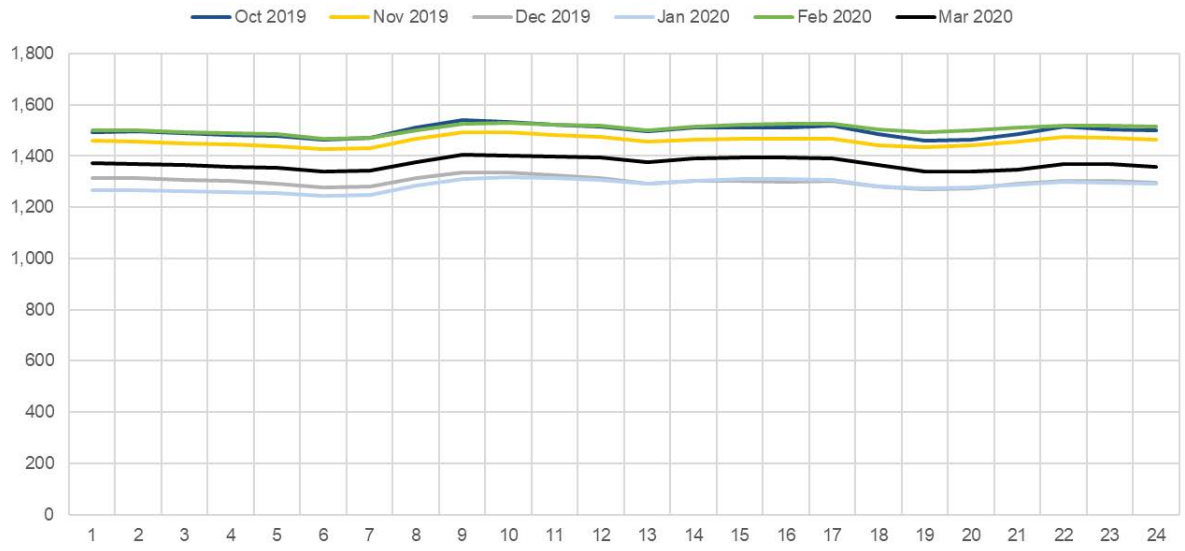


Figure 12. Hourly Average Energy Consumption (in MWh), Industrial CCs, Oct 2019 to Mar 2020

The registered commercial Contestable Customers, on the other hand, showed a substantial variation in their peak and off-peak consumption as shown in **Figure 13**. Peak consumption of registered Commercial Contestable Customers was generally observed from around 0900H to 2200H.

Meanwhile, month-on-month comparison showed that the level and hourly pattern of consumption were almost unchanged during the last six months except on the trading intervals 2200H-2400H of December 2019 when a higher level of consumption was noted attributable to the extended business hours of commercial establishments e.g. malls and restaurants prevalent during the holiday season.

On another note, consistent with the observation on the effects on load profile of the implementation of ECQ, March 2020, which normally poses the highest resulting load profile for the 6-month comparison, posed the lowest for the said period.

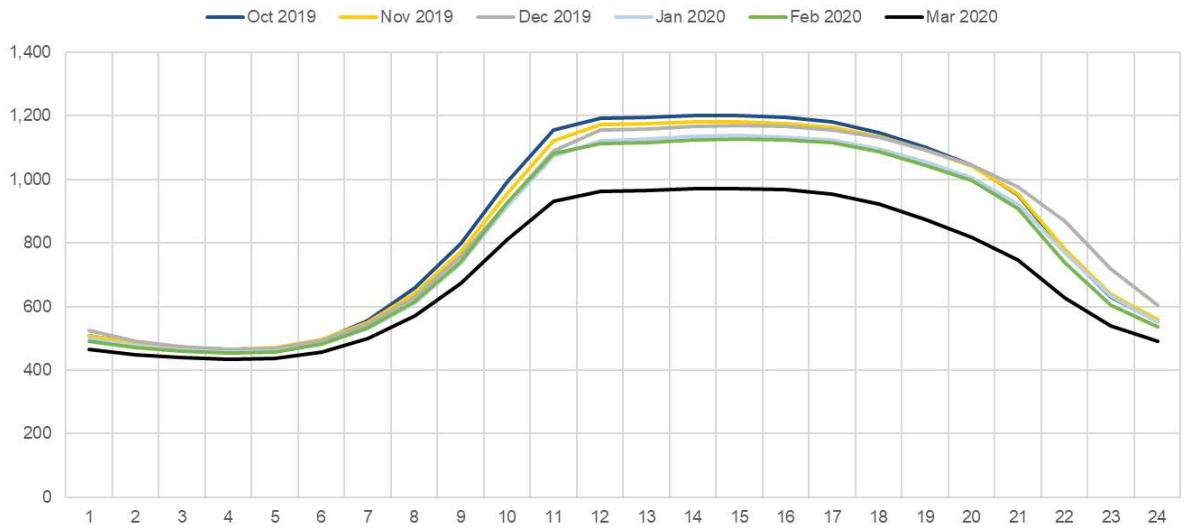


Figure 13. Hourly Average Energy Consumption (in MWh), Commercial CCs, Jul to Dec 2019

C. Load Factor

Figure 14 shows the monthly load factor[16] of registered Contestable Customers, which was calculated based on their actual electricity consumption. The high load factor reflects a generally efficient electricity usage of registered Contestable Customers[17].

The load factors of registered Contestable Customers for January and February of 2020 were typical in general. However, a very low load factor was recorded particularly during the March billing month at 70%. This is again related to the decrease in the total demand for the month due to the implementation of ECQ. It should be noted that during the first half of March 2020, the economic activities were normal thereby recording a high maximum consumption from the Contestable Customers. These activities were subsequently placed on pause during the second half of the month which decreased the total energy consumption of Contestable Customers during the month. The relation between the two elements drastically affected the resulting load factor of Contestable Customers for the month.

[16] Based on Metered Quantity (MQ)
[17] Dr. C.R. Bayliss CEng FIET, B.J. Hardy CEng FIET, in Transmission and Distribution Electrical Engineering (Fourth Edition), 2012

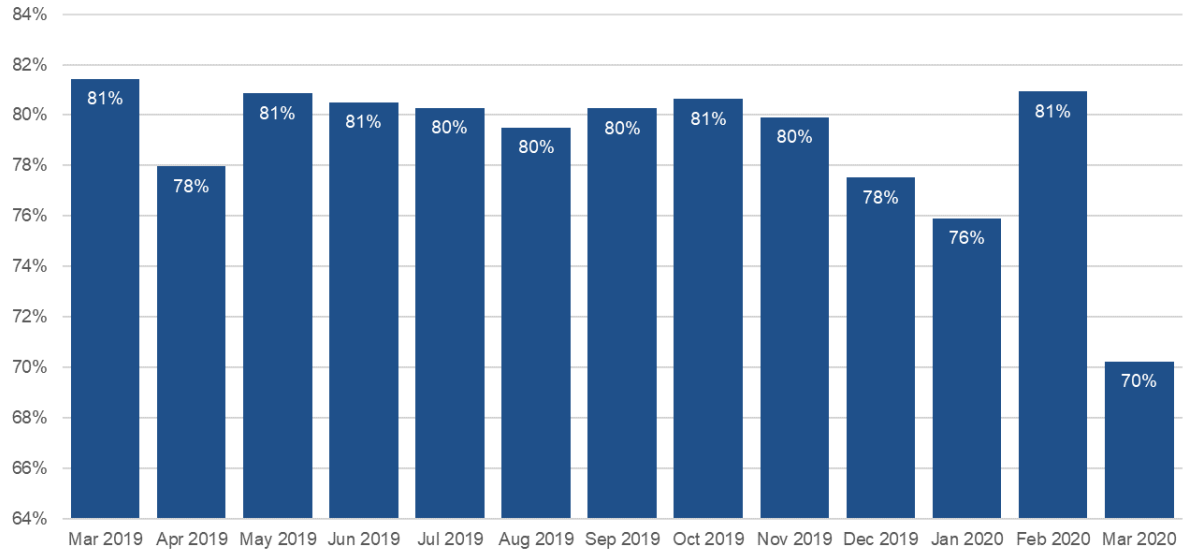


Figure 14. CC Load Factor, Mar 2019 to Mar 2020

III. RETAIL ACTIVITY

A. Customer Participation Level

The quarterly share of registered Contestable Customers per industry type for the period is shown in **Figure 15**. The registered Contestable Customers in the commercial sector maintained its share of about 52% throughout the comparative quarters.

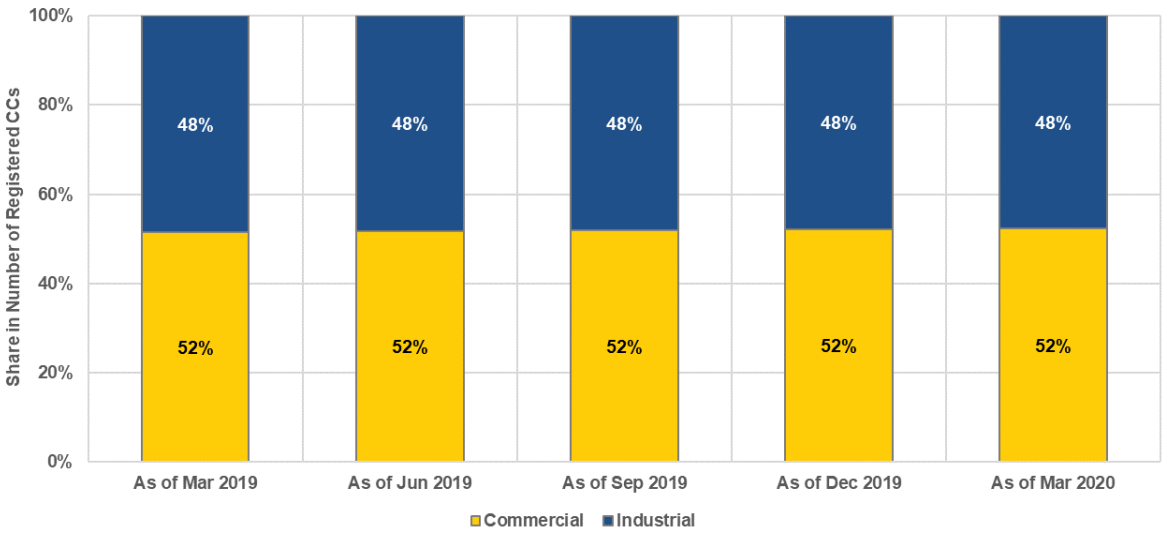


Figure 15. Percentage of CCs Per Industry Type, Mar 2019 to Mar 2020

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, eighty-six (86) switches from one Supplier to another were recorded during the January to March 2020 billing months with February and March recording the highest switching rates for the period in review. These switches were attributable to the end of contract dates between the Suppliers and the Contestable Customers.

Table 7. Customer Switching Rate

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	Jan 2020	Feb 2020	Mar 2020
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%**	**1.17%**	**2.48%**	**2.63%**
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	1283	1288	1295
Total No. of CCs that Switched	*7*	*41*	*6*	*4*	*0*	*8*	*2*	*5*	*1*	*1*	*1*	*2*	*15*	*32*	*34*
LRES to RES						*1*						*1*	*6*	*30*	*17*
RES to LRES	3	17	1			3	2			1		1	5	2	1
RES to RES	*4*	*24*	*5*	*4*		*4*		*5*	*1*		*1*		*4*		*16*
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%**	**2.07%**	**0.00%**	**1.33%**
Total No. of CCs	118	119	121	122	126	129	131	132	137	138	143	144	145	148	150
Total No. of CCs that Switched	6	4	1	0	0	4	1	0	1	1	0	0	3		2
LRES to RES															
RES to RES	*6*	4	1			4	1		1	1			3		2
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%**	**1.26%**	**2.23%**	**2.49%**
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	1428	1436	1445
Total No. of CCs that Switched	13	45	7	4	0	12	3	5	2	2	1	2	18	32	36