Market Surveillance Committee
Annual Retail Market Assessment Report

26 December 2020 to 25 December 2021

March 2022

This Report is prepared by the
Philippine Electricity Market Corporation –
Market Assessment for the
Market Surveillance Committee

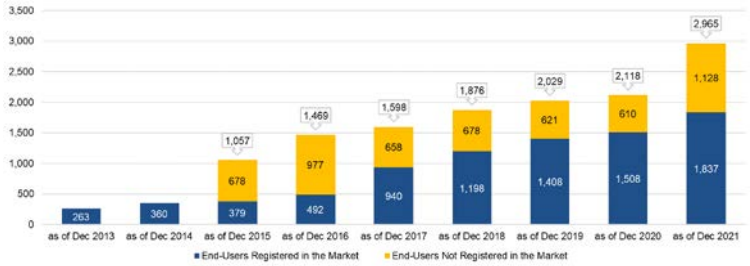
ANNUAL RETAIL MARKET ASSESSMENT REPORT

(26 December 2020 – 25 December 2021)

MARKET SURVEILLANCE COMMITTEE ARMAR-2021

CONTESTABLE CUSTOMER PROFILE

YEARLY CUMMULATIVE NUMBER



- At the end of 2021, additional 329 registered Contestable Customers (CC) were recorded which demonstrated a 22% increase from the previous the year
- A total of 1,837 eligible customers have already participated in the market equivalent to 62%

Note: Increase in unregistered customers due to new market threshold (500kW-749kW) starting 26 February 2021

PER RETAIL ACTIVITY

COMMERCIAL

Period	No. of CCs
As of Dec 2013	100
As of Dec 2014	129
As of Dec 2015	139
As of Dec 2016	171
As of Dec 2017	478
As of Dec 2018	616
As of Dec 2019	735
As of Dec 2020	802
As of Dec 2021	**966**

INDUSTRIAL

Period	No. of CCs
As of Dec 2013	163
As of Dec 2014	231
As of Dec 2015	240
As of Dec 2016	321
As of Dec 2017	462
As of Dec 2018	582
As of Dec 2019	673
As of Dec 2020	706
As of Dec 2021	**871**

53% of the total registered CCs were engaged into commercial activities and the remaining 47% were into industrial activities

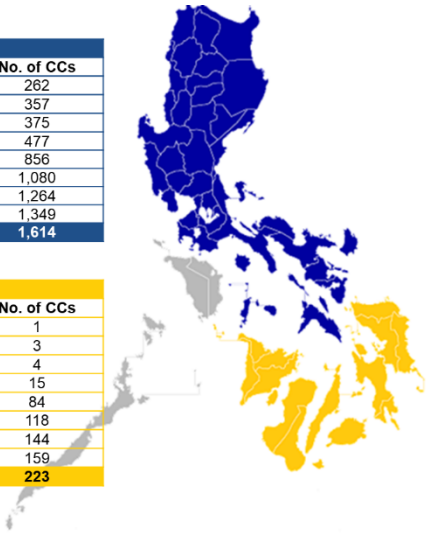
PER LOCATION

LUZON

Period	No. of CCs
As of Dec 2013	262
As of Dec 2014	357
As of Dec 2015	375
As of Dec 2016	477
As of Dec 2017	856
As of Dec 2018	1,080
As of Dec 2019	1,264
As of Dec 2020	1,349
As of Dec 2021	**1,614**

VISAYAS

Period	No. of CCs
As of Dec 2013	1
As of Dec 2014	3
As of Dec 2015	4
As of Dec 2016	15
As of Dec 2017	84
As of Dec 2018	118
As of Dec 2019	144
As of Dec 2020	159
As of Dec 2021	**223**



88% of registered CC were located in Luzon while the remaining 12% were based in Visayas

Note: RCOA is only implemented in regions with WESM operations

THRESHOLDS

500-749kW

Period	No. of CCs
As of Dec 2021	223

Registrants accounted to 12%

750-999kW

Period	No. of CCs
As of Dec 2016	39
As of Dec 2017	78
As of Dec 2018	223
As of Dec 2019	312
As of Dec 2020	373
As of Dec 2021	**410**

Registrants accounted to 22%

1MW & ABOVE

Period	No. of CCs
As of Dec 2013	263
As of Dec 2014	360
As of Dec 2015	379
As of Dec 2016	453
As of Dec 2017	862
As of Dec 2018	975
As of Dec 2019	1,096
As of Dec 2020	1,135
As of Dec 2021	**1,204**

Registrants accounted to 66%

- The voluntary registration of Contestable Customers has continually increased throughout the comparative years
- 68% of the new CC registrants for year 2021 were under the 500-749kW threshold (RCOA phase III)

BY AVERAGE CONSUMPTION

Region	1 MWh and below	Above 1 MWh to 5 MWh	Above 5 MWh to 10 MWh	Above 10 MWh to 15 MWh	Above 15 MWh to 20 MWh	Above 20 MWh to 50 MWh	Sub-Total Per Region
LUZON	61.88% ▲	21.90% ▼	2.41% ▼	0.48% ▼	0.59% ▲	0.37% ▲	87.63% ▼
VISAYAS	10.22% ▲	1.77% ▼	0.11% ▲	0.00% -	0.11% ▼	0.16% ▲	12.37% ▲
Sub-Total Per Level of Average Energy Consumption	72.11% ▲	23.66% ▼	2.52% ▼	0.48% ▼	0.70% ▲	0.54% ▲	100.00% -
Total Percent Change from the previous Year	3.21% ▲	2.97% ▼	0.18%▼	0.51%▼	0.31%▲	0.15%▲	

- Majority of the Contestable Customers had average energy consumption of 1MWh and below during 2021.
- The increase in 1MWh and below CC average consumption share for the year 2021 was mainly caused by the implementation of the RCOA Phase III.
- So far, there has not been a recorded average consumption above 50MWh.

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SUPPLIER PROFILE

YEARLY CUMULATIVE NUMBER

There were significant changes in the number of registered Suppliers per category during the year 2021, as follows:

Newly Registered RES

- AP Renewables Inc. – 12 February 2021
- Therma Luzon, Inc. – 12 February 2021
- SN Aboitiz Power - Magat, Inc. – 05 March 2021
- PetroGreen Energy Corporation – 20 April 2021
- EEI Energy Solutions Corporation – 26 April 2021

Delisted RES

- San Miguel Electric Corporation – Cessation approved 01 October 2021

Newly Registered LRES

- Nueva Ecija I Electric Cooperative, Inc. – 30 September 2021

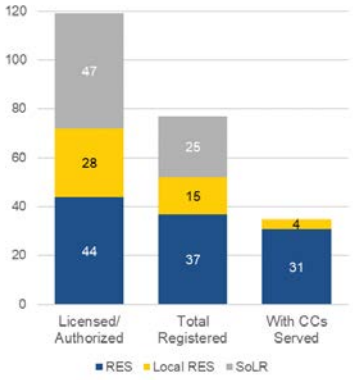
Supplier	Period								
	Dec 2013	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020	Dec 2021
RES	15	16	17	19	28	30	31	33	37
LRES	5	11	12	12	12	14	14	14	15
SoLR	2	5	6	6	24	24	25	25	25

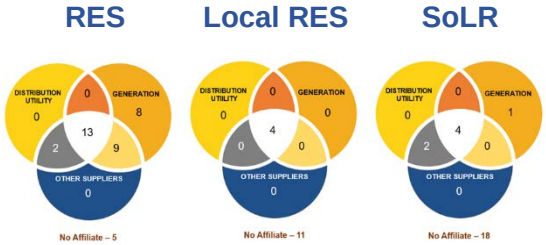
List of registered Suppliers are provided as Annex A

ACTIVE SUPPLIERS

About 45% of registered suppliers have effective contract with CC.

Based on available data, a newly licensed RES will take an average of seven (7) months before it can fully participate in the retail market which may be the time spent in completing registration requirements of the retail market.



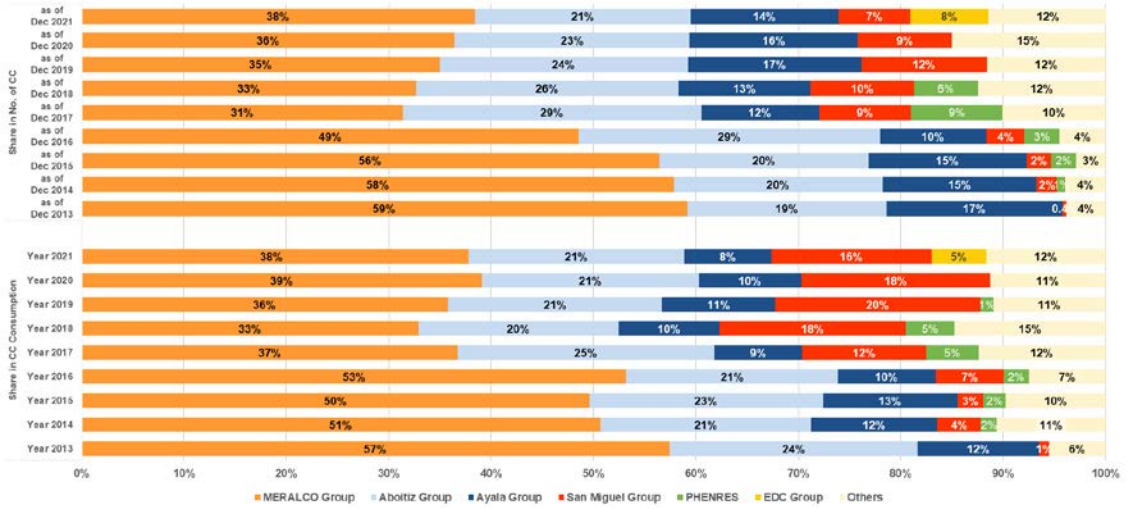


Majority of the Suppliers were affiliated to generator participants.

SHARE IN CC (BY NUMBER AND CONSUMPTION)

MERALCO Group remained the top entity with the most contracted Contestable Customers and largest share in the total consumption both measured at 38%.

Majority of the groups have consistent percent shares in both measures (no. of contracted CC and CC consumption) except for the San Miguel and Ayala groups. This indicates the wide disparity in consumption scale present between their clienteles.



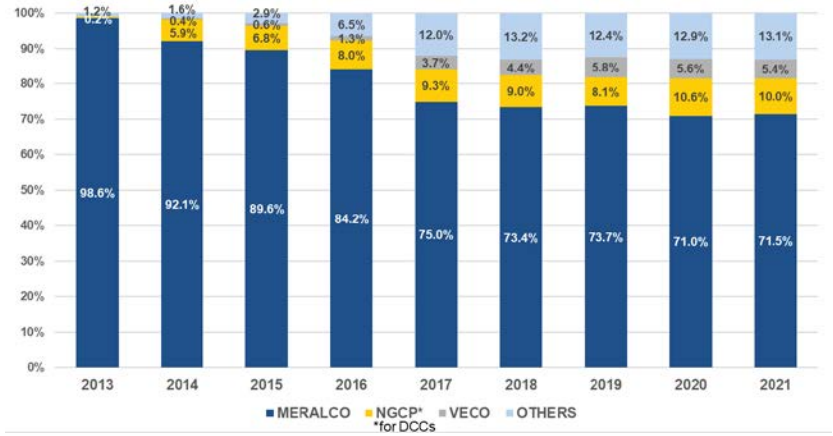
EDC Group is new major grouping assigned by the ERC in January 2021 recording 8% share in the no. of CC and 5% share in CC consumption by the end of 2021.

There were three (3) suppliers under EDC group, as follows:

- Bac-Mac Geothermal, Inc.
- First Gen Energy Solutions, Inc.
- Green Core Geothermal, Inc.

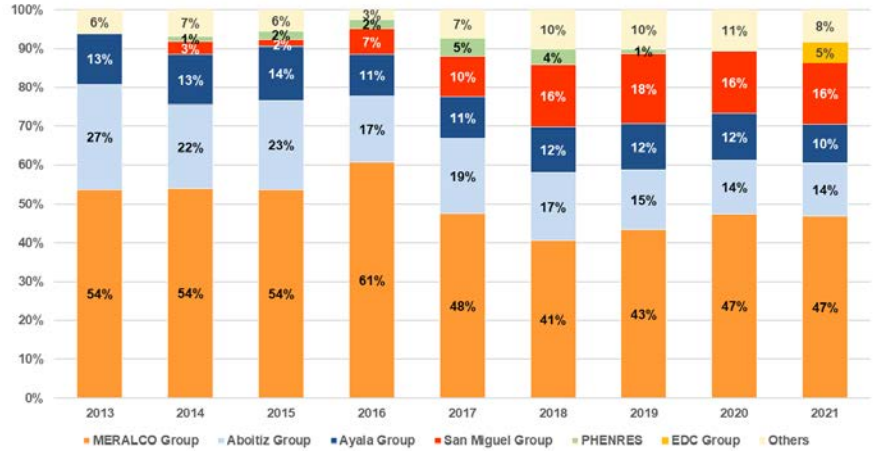
MARKET STRUCTURE

FRANCHISE AREA



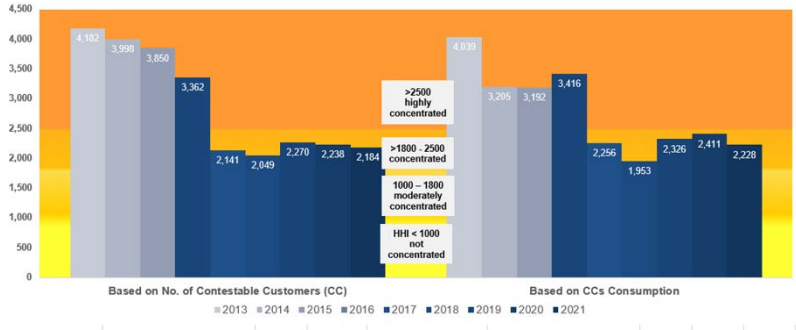
List of registered DUs and ECs are provided as Annex B

71.5% of CCs total consumption 2021 were recorded to be in MERALCO's Franchise Area (Luzon) and 5.4% were in the VECO's Franchise Area (Visayas) while the 10% were Directly-Connected to the grid and the remaining 13.1% were scattered among other franchise areas.



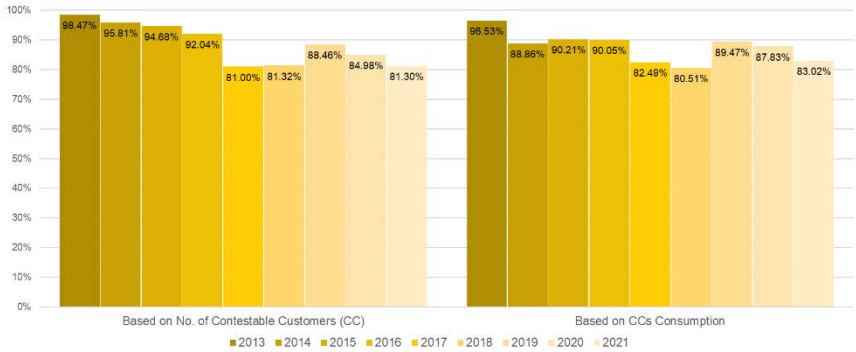
- Inside MERALCO franchise area, 47% were served by the MRLCOLRE (MERALCO Local RES) and its affiliates.
- Ayala group and other Suppliers experienced decline in percent share which may be attributed with the introduction of new major grouping: EDC.

HERFINDAHL-HIRSCHMAN INDEX (HHI)



- Year 2021 posed a Concentrated Market both in terms of share in number of CCs and energy consumption
- Although concentrated, it was on a declining trend due to the influx of CCs as a result of ERC's implementation of the RCOA phase III (500-749kW threshold).
- The entry of EDC group also contributed in the decline of concentration which signals better competition for the market.

FOUR-FIRM INDEX (C4)

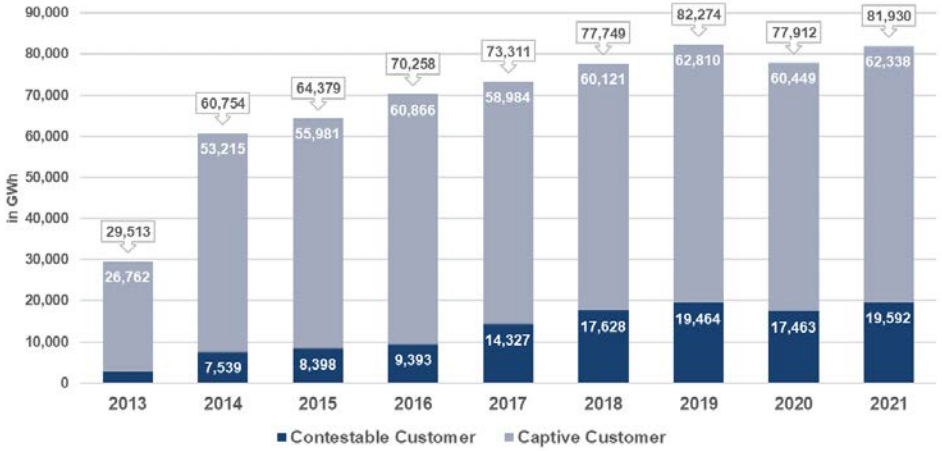


C4 values remained high in 2021 both at above 80% in terms of share in number of CCs and energy consumption. It is noted, however, that the trend is decreasing, generally demonstrating improvement in the market competition.

MARKET PERFORMANCE

Amidst the continuous implementation of quarantine protocols, the market has started progressing due to the increasing number of vaccinated citizens against the Corona Virus Disease 2019 (COVID-19) resulting to high mobility and the relaxation of quarantine classification.

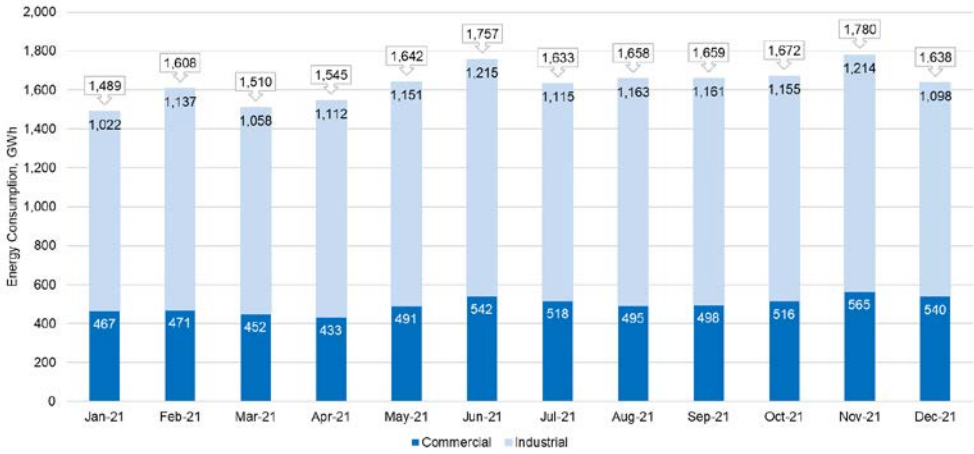
TOTAL ENERGY CONSUMPTION



- A 5% increase in total consumption was observed in 2021 as compared to the previous year. Meanwhile, a 12% increase from the CC and 3% increase from the captive customer were noted in comparison to the previous year.
- The highest energy consumption, at about 22,089 GWh, was observed during the 2nd quarter of the year when the government gradually eased the implementation of the community quarantine allowing the re-opening of commercial and public establishments but not without stringent protocols, and the normal trend experienced during summer season.
- Continuous implementation of work-from-home scheme by various businesses, citizens staying at home in compliance with the community quarantine, and the conduct of online classes for students caused the increase in the consumption of the household customers which forms part of the Captive market.

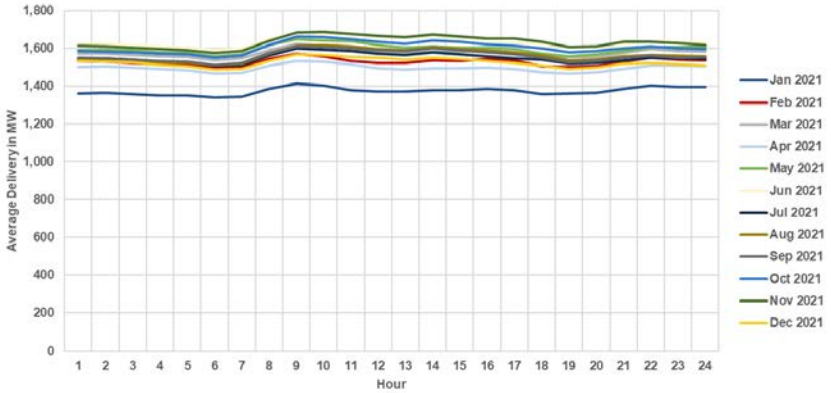
TOTAL ENERGY CONSUMPTION – INDUSTRY TYPE

- The months of June and November were recorded the highest in consumptions for both commercial and industrial type of CC.
- With the lesser quarantine in the NCR for April and the released of the Amendments to Omnibus Guidelines on the Implementation of Community Quarantine in the Philippines by the Inter-Agency Task Force (IATF) for the management of emerging infectious diseases on the second half of April, causing CC's demand started to increase.
- Starting May, the demand was slowly picking up signaling that the economic activities were slowly going back to normal due to a much more relaxed community quarantine protocol.
- The rainy season and the changes of quarantine measures contributed in the static demand on the months of July to October.



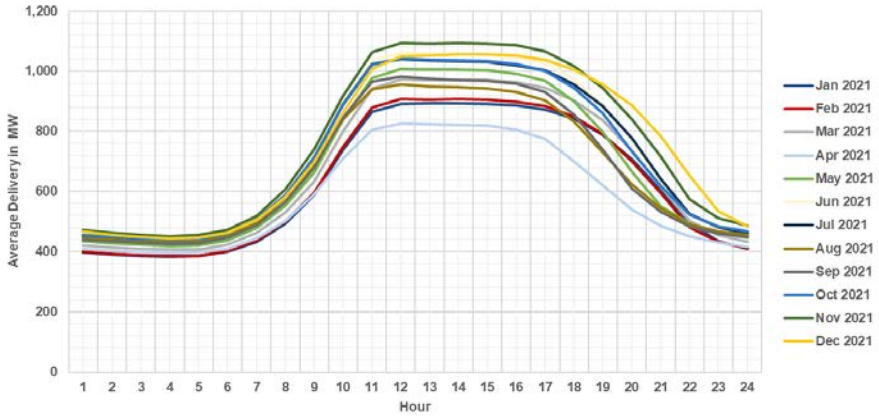
MARKET PERFORMANCE

LOAD PROFILE - INDUSTRIAL



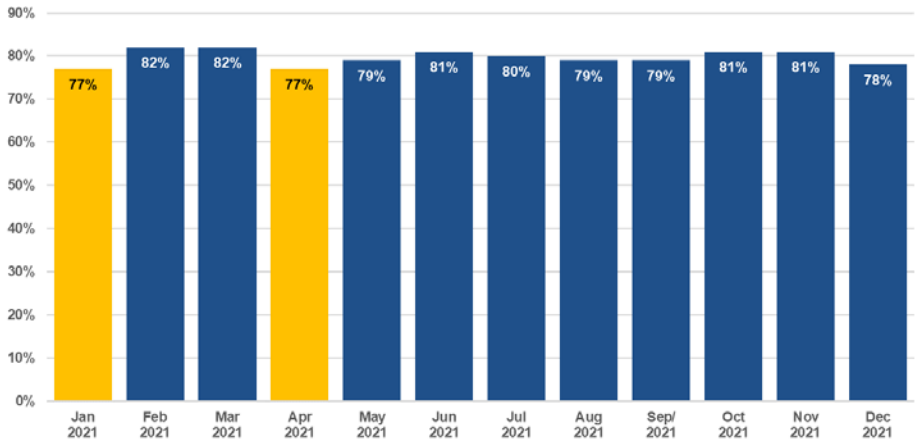
Aside from the expected difference in levels every month, there were no substantial peak and off-peak variation in the hourly average energy consumption of industrial CCs. The month-on-month comparison of their hourly consumption profile denotes that regardless of seasonal changes and varying temperatures throughout the year, the pattern of electricity consumption during the course of a day was approximately the same for any given month, with a dip on the average demand during intervals of 0600H and 1800H implying the exchange on the shifts of employees.

LOAD PROFILE - COMMERCIAL



In contrast, commercial CCs had substantial changes in the load profile for a 24-hour observation. The peak intervals shifted from 1000H-2100H to just 1000H-1700H denoting the shortened hours of operation for commercial establishments during periods of stricter protocols, still to minimize the spread of the virus among the population.

LOAD FACTOR



- Monthly load factors were calculated based on CCs' actual electricity consumption.
- The CC load factor hovered within the range of 77% to 82%.
- The load factors were **typical in general** and were almost of the same trend when compared to year 2019 (pre-pandemic year). This only shows that the CCs have already adjusted their activities even if the quarantine measures are still in place.
- Low load factors for **January** and **April** were primarily caused by **celebration of holidays** (New Year, Holy Week, etc.) during the said months leading to certain days with **low consumption** which coincides with summer months and eventual return to offices which entails higher consumptions, thereby affecting the relationship of variables used for the calculation of load factors.

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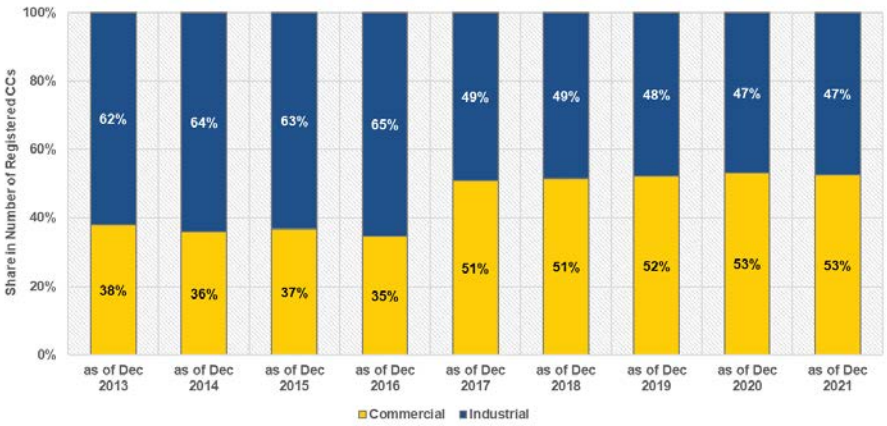
MARKET SURVEILLANCE COMMITTEE ARMAR-2021

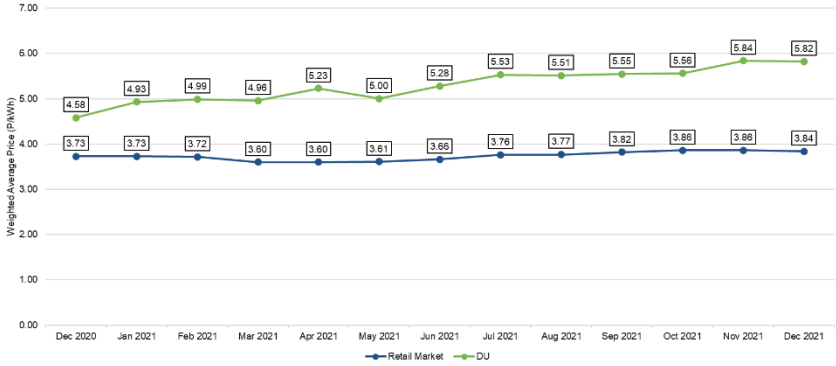
RETAIL ACTIVITY

CUSTOMER PARTICIPATION



The commercial sector comprised more than half of the Contestable Customers' participation in the retail market, outnumbering the registered industrial Contestable Customers by a few percent.

WEIGHTED AVERAGE PRICE



For the year 2021, the recorded weighted average contract price under the blue line for the retail market, ranged from PhP3.60/kWh to PhP3.86/kWh or with an average rate of around PhP3.74/kWh.

On the other hand, the green line for the DU's weighted average generation price to its captive customers for 2021, ranging from PhP4.58/kWh to PhP5.84/kWh or with an average rate of around PhP5.29/kWh.

In comparison, the weighted average retail rate is much lower of around 27%-51% than the DU's weighted average generation rate to its captive customer.

SWITCHING RATE

- One hundred eighty-eight (188) effective switches were recorded during the year 2021
  - About 37% of switches were between Supplier affiliates
- February and July recorded the highest switching rates for the period in review which were highly attributable to the end of contract dates between the Suppliers and the Contestable Customers

Particulars	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	Jun 2021	Jul 2021	Aug 2021	Sep 2021	Oct 2021	Nov 2021	Dec 2021
Switching Rate (Luzon)	**0.74%**	**1.03%**	**2.09%**	**1.41%**	**0.62%**	**0.88%**	**2.98%**	**0.45%**	**0.51%**	**0.38%**	**0.13%**	**0.06%**
Total No. of CCs	1,356	1,362	1,385	1,416	1,442	1,476	1,508	1,540	1,559	1,570	1,590	1,614
Total No. of CCs that Switched	*10*	*14*	*29*	*20*	*9*	*13*	*45*	*7*	*7*	*6*	*2*	*1*
LRES to RES	*2*		*1*		*1*			*3*				
RES to LRES	1	10	14	3				1		3		
RES to RES	*7*	*4*	*14*	*17*	*8*	*13*	*45*	*3*	*8*	*3*	*2*	*1*
SOLR to RES												
Switching Rate (Visayas)	**1.85%**	**0.61%**	**4.82%**	**2.96%**	**1.12%**	**0.55%**	**2.20%**	**0.00%**	**0.00%**	**0.47%**	**0.00%**	**0.00%**
Total No. of CCs	162	165	166	169	179	181	182	188	191	212	217	223
Total No. of CCs that Switched	3	1	8	5	2	1	4			1		
LRES to RES												
RES to RES	*3*	1	*8*	*5*	*2*	*1*	*4*			*1*		
Switching Rate (Luzon-Visayas)	**0.86%**	**0.98%**	**2.39%**	**1.58%**	**0.68%**	**0.84%**	**2.90%**	**0.41%**	**0.46%**	**0.39%**	**0.11%**	**0.05%**
Total No. of CCs	1,518	1,527	1,551	1,585	1,621	1,657	1,690	1,728	1,750	1,782	1,807	1,837
Total No. of CCs that Switched	13	15	37	25	11	14	49	7	7	7	2	1

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ANNEX A – LIST OF SUPPLIERS

Category	No.	Market Participant Name	Short Name
Retail Electricity Supplier	37	Aboitiz Energy Solutions, Inc.	AESIRES
		AC Energy Philippines, Inc.	ACEPHRES
		AC Energy, Inc. (formerly AC Energy Holdings, Inc.)	ACERES
		AdventEnergy, Inc.	ADVENTRES
		Anda Power Corporation RES	ANDARES
		AP Renewables Inc.	APRIRES
		Bac-Man Geothermal, Inc.	BGIRES
		Citicore Energy Solutions, Inc.	CESIRES
		Corenergy, Inc.	CORERES
		DirectPower Services, Inc.	DIRPOWRES
		Ecozone Power Management, Inc.	EPMIRES
		EEI Energy Solutions Corporation	EEIRES
		FDC Retail Electricity Sales Corporation	FDCRESC
		First Gen Energy Solutions, Inc.	FGESRES
		Global Energy Supply Corporation	GESCRES
		GNPower Ltd. Co.	GNPLCRES
		Green Core Geothermal, Inc.	GCGIRES
		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
		PetroGreen Energy Corporation	PGECRES
		Premier Energy Resources Corporation	PERCRES
		Prism Energy, Inc.	PRISMRES
		SEM-CALACA RES CORPORATION	SCRCRES
		SMC Consolidated Power Corporation	SMCCPCRES
		SN Aboitiz Power- Magat, Inc.	SNAPMIRES
		SN Aboitiz Power- RES, Inc.	SNAPRES
		Solar Philippines Retail Electricity, Inc.	SPREIRES
		Solvre, Inc.	SOLVRERES
		TeaM (Philippines) Energy Corporation	TPECRES
		Therma Luzon, Inc.	TLIRES
		Vantage Energy Solutions and Management, Inc.	VESMIRES

Category	No.	Market Participant Name	Short Name
Local Retail Electricity Supplier	15	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
		Nueva Ecija I Electric Cooperative, Inc.	NEECO1LRE
		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.	BHCO1SLR
		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

ANNEX B – LIST OF DISTRIBUTION UTILITIES AND ELECTRIC COOPERATIVES

No.	Short Name	Distribution Utility/ Economic Zone	No.	Short Name	Distribution Utility/ Economic Zone
1	AEC	Angeles Electric Corporation	30	LEYECO V	Leyte V Electric Cooperative, Inc.
2	AFAB	Authority of the Freeport Area of Bataan	31	LEZ	LIMA Enerzone Corporation
3	AKELCO	Aklan Electric Cooperative, Inc.	32	LUELCO	La Union Electric Cooperative, Inc.
4	ALECO	Albay Electric Cooperative, Inc.	33	MECO	Mactan Electric Company
5	ANTECO	Antique Electric Cooperative, Inc.	34	MERALCO	Manila Electric Company
6	BATELEC I	Batangas I Electric Cooperative, Inc.	35	MEZ	Mactan Economic Zone
7	BATELEC II	Batangas II Electric Cooperative	36	MORECO	MORE Electric and Power Corporation
8	BENECO	Benguet Electric Cooperative	37	NEECO I	Nueva Ecija I Electric Cooperative, Inc.
9	BEZ	Balamban Enerzone Corporation	38	NOCECO	Negros Occidental Electric Cooperative, Inc.
10	BLCI	Bohol Light Company, Inc.	39	NONECO	Northern Negros Electric Cooperative, Inc.
11	BOHECO I	Bohol I Electric Cooperative, Inc.	40	NORECO II	Negros Oriental II Electric Cooperative, Inc.
12	CAGELCO I	Cagayan1 Electric Cooperative, Inc.	41	OEDC	Olongapo Electricity Distribution Company
13	CAGELCO II	Cagayan II Electric Cooperative, Inc.	42	PANELCO III	Pangasinan III Electric Cooperative, Inc.
14	CAPELCO	Capiz Electric Cooperative	43	PECO	Panay Electric Co., Inc.
15	CASURECO II	Camarines Sur II Electric Cooperative, Inc.	44	PELCO I	Pampanga I Electric Cooperative, Inc.
16	CEBECO I	Cebu I Electric Cooperative, Inc.	45	PELCO II	Pampanga II Electric Cooperative, Inc.
17	CEBECO II	Cebu II Electric Cooperative, Inc.	46	PELCO III	Pampanga III Electric Cooperative, Inc.
18	CEDC	Clark Electric Distribution Corporation	47	PENELCO	Peninsula Electric Cooperative, Inc.
19	CELCOR	Cabanatuan Electric Corporation	48	PEZA	Philippine Economic Zone Authority
20	CENECO	Central Negros Electric Cooperative, Inc.	49	QUEZELCO I	Quezon I Electric Cooperative, Inc.
21	CENPELCO	Central Pangasinan Electric Cooperative, Inc.	50	SAMELCO I	Samar I Electric Cooperative, Inc.
22	DECORP	Dagupan Electric Corporation	51	SEZ	Subic EnerZone Corporation
23	DORELCO	Don Orestes Electric Cooperative, Inc.	52	SFELAPCO	San Fernando Electric Light and Power Company, Inc.
24	FIT	First Industrial Township Utilities, Inc.	53	SORECO II	Sorsogon II Electric Cooperative, Inc.
25	ILECO I	Iloilo I Electric Cooperative, Inc.	54	TARELCO I	Tarlac I Electric Cooperative, Inc.
26	INEC	Ilocos Norte Electric Cooperative, Inc.	55	TARELCO II	Tarlac II Electric Cooperative, Inc.
27	ISECO	Ilocos Sur Electric Cooperative, Inc.	56	TEI	Tarlac Electric, Inc.
28	ISELCO I	Isabela I Electric Cooperative, Inc.	57	VECO	Visayan Electric Company, Inc.
29	LEYECO II	Leyte II Electric Cooperative, Inc.	58	NGCP[1]	National Grid Corporation of the Philippines

[1] For Directly Connected Contestable Customers