38th Electric Power Industry Reform Act (EPIRA) Implementation Status Report

(For the Report Period April 2021)

Prepared by the
Department of Energy

With Contributions from

Energy Regulatory Commission
Philippine Electricity Market Corporation
National Power Corporation
National Electrification Administration
Power Sector Assets and Liabilities Management Corporation
National Transmission Corporation

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I. EXECUTIVE SUMMARY

The 38th Status Report on Republic Act No. 9136 titled "Electric Power Industry Reform Act (EPIRA) of 2001" covers the implementation period November 2020 to April 2021. This highlights significant accomplishments, strategies and policies undertaken by the Department of Energy (DOE), the Energy Regulatory Commission (ERC), the DOE Attached Agencies as well as other private sector instrumentalities so mandated by the EPIRA.

Following are the significant accomplishments and developments in the power sector through the DOE, its attached agencies and the private sector, as mandated under the EPIRA:

1. The Power Sector Assets & Liabilities Management Corporation (PSALM) continued the activities for the privatization of the government's remaining assets focusing for the report period on the preparations for the 3rd Round of the Negotiated Sale of the Malaya Thermal Power Plant (MTPP) and its underlying Land to be held on 23 April 2021. Similarly, a study through the assistance of the Asian Development Bank is being conducted to determine options in the privatization of Casecnan Multi-Purpose Project (CMP) and CBK Hydroelectric Power Plants (CBK)

2. Power demand in 2020 continued to be lower than the 2019 level as non-coincident peak demand was recorded at 15,282 MW, which is 299 MW or 1.9% lower than the previous year level. This decline in demand is attributed to the COVID-19 pandemic, which put the country under different levels of community quarantine beginning 15 March 2020. On the supply side, there was 662.7MW new power generation capacity for grid and off-grid areas that went on commercial operation during the report period, November 2020 to April 2021 (if there was no capacity that went on commercial operation, we can state that the limited and restricted movements of people and materials have affected the timely completion of the power projects despite the support provided by the DOE in the issuance of IATF IDs for local backliners and endorsements to concerned government agencies for the entry of foreign experts).

3. The "Advisory on the Moratorium of Endorsements for Greenfield Coal-fired Power Projects in line with Improving the Sustainability of the Philippines' Electric Power Industry", was published on 22 December 2020. This directive aims to support and effectively implement policies issued by the DOE with the aim of improving energy sustainability, reliability, and flexibility by: (1) Increasing the Renewable Energy (RE) share in the energy mix; (2) Promoting new technologies; (3) Increasing system flexibility; and (4) Adhering to higher environmental standards. With this moratorium, the DOE will not process applications for greenfield coal-fired power generation facility projects requesting for endorsements.

4. A minimal growth in the Wholesale Electricity Spot Market (WESM) registered capacity was observed in February 2021 compared to September 2020 despite the entry of new power plants. The decelerated growth by 3.29% was attributed by the decrease in capacities and cessation of registration of some power plants. The electricity demand was observed to have an unusual trend compared to previous years due to the implementation of community quarantine brought about by the COVID-19 pandemic. Further, the average system demand consistently decreased as the year progressed from September 2020 to January 2021. The lower demand was due to the cooler weather during the season, as well as the prevalence of holidays, which had a significant impact on power demand. This is on top of the several powerful tropical depressions, including Typhoon Quinta, Typhoon Rolly, and Typhoon Ulysses during the latter part of the year, that disrupted the country's power grid and resulted in a drop in demand. However, the average system demand increased after a previous 4-month decline in February 2021. Based on the yearly trend, the uptick in demand this month followed the increasing pattern going into February in previous years. With this, electricity demand plus reserve fell by 9% from an average of 11,278 MW in September 2020 to 10,233 MW in February 2021. The average effective supply also dropped by 3% from September

2020 to February 2021 as fewer capacities were available in the market due to an increase in outage capacity and capacities not offered by generators. As a result of the supply-demand mix, average supply margin increased by 35%. The level of supply margin during the community quarantine period was still at a remarkable high as compared to previous years of similar months.

5. In terms of the market share limitations as provided in Section 45 of the EPIRA, it remained that no power generation entity has exceeded the installed generating capacity and market share limitation of 30% per grid and 25% for the national grid. The country's electricity market reflected a moderately concentrated market, as measured by Herfindahl Hirschman Index, indicating the level of competitiveness of the power industry in the country;

6. In this report, the implementation of Retail Competition and Open Access (RCOA) covered a comprehensive analysis of the retail market performance and RCOA participation rate. As of February 2021, there was a recorded increase of 546% on the number of registered Contestable Customers (CCs) and a 172% on the registration of Suppliers as compared from June 2013 commencement of RCOA implementation. The average monthly metered quantities from October 2020 to February 2021 is recorded at 1,499 GWh of which 90% of the contracted energy was accounted through bilateral contracts and the remaining 10% was transacted through the spot market.

7. In terms of electricity pricing for the retail market as of December 2020, the country's average electricity rate was around PhP8.13/kWh, PhP0.07 centavos lower compared with September 2020 level national average systems rate.

8. For the report period, the household electrification level is around 94.36% based on the latest status of energization provided by the National Electrification Administration, Local Government Unit-Owned Utilities and Private Investor-Owned Utilities. Said level corresponds to 25.10 million energized households, surpassing the 22.98 million identified and targeted household population based from the 2015 Census of the Philippine Statistics Authority (PSA).

9. On March 16, 2021, the Congress' Bicameral Conference Committee unanimously agreed and adopted the DOE's proposed extension of the lifeline rate subsidy by another 30 years starting June 2021, upon expiration of the extension provided under Republic Act No. 10150. Said extension was manifested by the DOE during the deliberation of the Bicameral Conference on the disagreeing provisions of House Bill No. 8145 and Senate Bill No. 1877 where both bills proposed for the extension of the Lifeline Rate Subsidy for only 10 years or until 2031.

10. Lastly, in line with DOE's mandate to ensure continued development and enhancement of policies and programs on the WESM, the DOE promulgated eight (8) policies pertaining to Adoption of Further Amendments to the WESM Rules (Provisions for the Implementation of Independent Market Operator), WESM Industry Code of Ethics, Adoption of Further Amendments to WESM Rules and Market Manual on Procedures for the Monitoring of Forecast Accuracy Standards for Must Dispatch Generating Units for the Implementation of Enhancements to WESM Design and Operations, Load Forecasting Methodology for the Implementation of Enhancements to WESM Design and Operations, Dispatch Protocol for the Implementation of Enhancements to WESM Design and Operations, Management of Net Settlement Surplus, Implementation of Policy and Framework Governing the Operations of Embedded Generators, and Adoption of a General Framework Governing the Operationalization of the Reserve Market in the Wholesale Electricity Spot Market and Providing Further Policies to Supplement DC2019-12-0018.

    Further to this, the DOE drafted three (3) policies on Test and Commissioning of Generation Facilities, additional policies on Ancillary Services and Disconnection Policy, among others.

II. PRIVATIZATION

A. Generating Assets and Independent Power Producer (IPP) Contracts

During the report period, the PSALM Board-approved commencement of the 3rd Round of Negotiated Sale of the Malaya Thermal Power Plant (MTPP) and its underlying Land is pursued wherein the preparatory disposal activities are undertaken from February 2021 to March 2021. For the disposal of said assets, the Terms and Conditions of the Negotiated Procedures, and the Final Asset Purchase Agreement of the 2nd Round Negotiated Sale previously cleared and approved by the Office of the Government Corporate Counsel, shall be adopted for the 3rd Round of Negotiated Sale, and Issuance of the same to interested parties.

On 09 March 2021, a pre-negotiation conference was held wherein the potential bidders were able to discuss the issues and concerns relative to the terms of the sale.

The PSALM Bids and Awards Committee (PBAC) had received five (5) Letters of Interest (LOI) from interested bidders to participate in the negotiated sale process namely: (a) China Gezhouba Group Co., Ltd, (b) Sta. Clara International Corporation, (c) VBB Trucking Trading and Consultancy Services, Inc., (d) Fort Pilar Energy Inc. and (e) AC Energy Philippines, Inc.

The PSALM Board-approved Minimum Offer Price (MOP) for the said assets was lowered with the adoption of the 10% reduction in the value of structures and equipment consistent with the existing guidelines/issuances of the Commission on Audit (COA). The MOP for the package had been substantially reduced to PhP1.8 Billion from the amount offered in the 2nd round of negotiated sale at PhP2.0 Billion.

The Offer Submission Deadline is scheduled on 23 April 2021 at 12:00 noon.

For the remaining generating assets, the latest privatization target is indicated in Table 1.

Table 1. Schedule of Privatization for Generating Assets as of 28 February 2021

Asset Type/ Plant Name	Rated Capacity (MW)	Bid Date	Turnover Date
Owned Generating Plants			
Malaya Thermal Power Plant	650.00	2021[1/]	
Agus 1 & 2 Hydro	260.00	For Rehabilitation Privatization is subject to consultation with Congress and PSALM Board's policy direction	
Agus 4 & 5 Hydro	213.10		
Agus 6 & 7 Hydro	273.00[2/]		
Pulangi Hydro	255.00		

1/ Indicative privatization schedule was approved by the PSALM Board on 18 December 2020
2/Capacity increased by 19 MW as a result of Agus VI Units 1 & 2 Uprating
Source: PSALM

For the selection and appointment of IPP Administrators, the latest privatization target is indicated in Table 2.

Table 2. Indicative Privatization Schedule for the Appointment of IPPAs as of 28 February 2021

Grid	Plant Name	Contracted Capacity (MW)/Energy (GWh)	Commencement of Privatization Process	Turnover Date
Luzon Grid	Casecnan Multi-Purpose Hydro	228.00 GWh	2021	2022

Grid	Plant Name	Contracted Capacity (MW)/Energy (GWh)	Commencement of Privatization Process	Turnover Date
	Caliraya-Botocan-Kalayaan (CBK) Hydro	796.95 MW	2021	2022
Mindanao Grid	Mindanao Coal-Fired	200.00 MW	2022	2022-2023

Source: PSALM

During the report period, the Asian Development Bank (ADB) had provided technical assistance to PSALM for the conduct of a study on the options and possible structures for the privatization of Casecnan Multi-Purpose Project (CMP) and CBK Hydroelectric Power Plants (CBK). Mr. Guido Alfredo A. Delgado, who is the consultant engaged by ADB provided recommendations on the privatization options for Casecnan and CBK as follows:

1. For CMP, it may be privatized through outright asset sale, similar to the sale of the adjoining Pantabangan-Masiway Hydroelectric Power Plants. This is the easiest and will not involve any complex issues or policy changes; and

2. For CBK, it may be privatized through an appointment of an IPP Administrator (IPPA) with asset transfer by the end of the IPPA contract. This will be necessary as there are still 5 years remaining in the Build-Rehabilitate-Operate-Transfer Agreement between the IPP and PSALM.

The results of the privatization study for CBK and CMP will then be submitted and presented to the PSALM Board for approval and further instructions.

The privatization of CBK and Casecnan HEPPs is targeted for 2021.

B. Other Disposable Assets

For the sale of other disposable assets which include real estate and unserviceable assets, waste and junk materials, following are the updates on PSALM's bidding activities:

1. Disposal of Real Estate Assets (REA) through Option Existence Notice (OEN)

   a. Land Underlying Masinloc Coal-Fired Thermal Power Plant (Masinloc CFTPP)

      PSALM Board approved the inclusion of parameters that would allow PSALM to issue OEN for remaining leased premises under its Land Lease Agreement (LLA) with Masinloc CFTPP. List of lots under the LLA ready for issuance of OEN pursuant to the principle of "just cause of exclusive possession" was also provided to MCFTPP.

   b. Land underlying Panay Diesel Power Plant

      PSALM is currently prioritizing the titling process for lots underlying Panay Diesel Power Plant covered by Land Lease Agreement.

   c. Land Underlying Batangas Coal-Fired Thermal Power Plant (BCFTPP)

      PSALM requested for approved, technical description and lot data computation of REA located in Calaca, Batangas through a letter sent on 01 December 2020 to the Department of Environment and Natural Resources (DENR). PSALM is awaiting response from the DENR.

On 18 February 2021, PSALM received a reply letter from DENR dated 15 February 2021, informing PSALM that the copies of the approved plan, technical description, and lot data computation of PSALM properties in Calaca, Batangas are already available in Land Records Office situated in Brgy. Lalakay, Los Baños, Laguna.

The Municipal Assessor of Calaca, through a letter dated 26 February 2021, informed PSALM that the property is located in Brgy. San Rafael, Calaca, Batangas in response to PSALM's query on the exact location of the property.

2. Disposal of REA through Public Bidding

   a. Land underlying the previous site of Manila Thermal Power Plant (MTPP)

      The negotiated sale was declared a failure on 09 December 2020 due to non-receipt of bids.

      On 07 January 2021, MERALCO informed PSALM of its intent to acquire the Paco-Manila Property with the purpose of extending and expanding the capacity of its Tegen Substation to ensure energy security and improve adequacy and reliability of electric service in Metro Manila including some of the vital installations in the City of Manila, i.e. Malacañang Palace, DOF, BoC, PGH and U.S. Embassy. Further, MERALCO also requested that it will be given an opportunity to negotiate with PSALM for the acquisition of the said property.

      On 26 January 2021, PSALM informed MERALCO that it is currently evaluating MERALCO's request to negotiate with PSALM for the acquisition of the said property.

      The property is subject to third-party appraisal in CY 2021.

   b. Puerto Azul Condominium Units and Club Share

      On 20 January 2021, the bid submission was declared a failure after non-receipt of bids.

   c. Master Planning Diliman Property

      On 10 December 2020, PSALM presented to the PSALM Board Review Committee the results of the Feasibility Study, privatization updates and policy concerns on the Diliman Property particularly the long lease structure as well as the plan to develop the property into a prime mixed-use development.

      On 22 December 2020, an instruction from the Department of Finance was given to PSALM to consult terms of privatization with the Bases Conversion and Development Authority (BCDA). Subsequently, PSALM requested for BCDA's comments/inputs on PSALM's privatization plan through a letter dated 05 January 2021.

   d. Magdalena Property

      PSALM requested NPC for a joint and technical survey of the Magdalena Property through a letter sent on 17 December 2020.

      NPC, in a letter dated 29 January 2021 received by PSALM on the same day, confirmed the schedule for the joint inspection and technical survey of the property

to be conducted on 11 February 2021. NPC also invited representatives from DENR-CENRO and Municipal Assessor's office to join the said inspection and survey.

The property is subject to Third-Party Appraisal in 2021.

e. Sudipen Property

The Sudipen Property, comprised of two (2) lots with an aggregate area of 1,649 square meters was lined-up for disposal through public bidding in 2020.

The property is subject to third-party appraisal in CY 2021.

f. Puerto Azul Condominium Units and Club Share

On 02 February 2021, PSALM Bids and Award Committee (PBAC) declared a failure of bidding and recommended the commencement of 3rd round of bidding for the property. Procurement of a third-party appraisal (TPA) was also recommended by the PBAC.

PSALM met with the resident PSALM CoA on 10 February 2021 to clarify the guidelines for downward adjustment of the MBP due to failed biddings.

The procurement of TPA for Puerto Azul Property and other REAs commenced on 08 February 2021. The pre-bidding conference was conducted on 19 February 2021.

g. Loboc Property

The bidding for the Loboc Property was held on 02 December 2020, however, it was declared a failure after only one bid was received.

Pursuant to IB-21 of the Bidding Procedures, PSALM may negotiate with the lone bidder and its bid shall be considered an offer to buy the property, thus PBAC conducted the negotiated sale proceedings with the lone bidder, Sta. Clara Power Corporation (SCPC).

On 09 December 2020, PBAC approved the issuance of Notice of Award (NOA) to SCPC after TWG's presentation on the favorable results of the post qualification evaluation conducted on SCPC.

SCPC received the NOA on 11 December 2020 and acknowledged the same on 14 December 2020.

On 13 January 2021, PSALM transmitted the Deed of Absolute Sale (DOAS) to SCPC through a letter dated 08 January 2021.

h. Calamaniugan Property

On 02 December 2020, the bidding for Calamaniugan Property was held however it was declared as failure after only one bid was received.

Pursuant to IB-21 of the Bidding Procedures, PSALM may negotiate with the lone bidder and its bid shall be considered an offer to buy the property thus PBAC conducted the negotiated sale proceedings with the lone bidder., CAGELCO II.

The virtual post qualification evaluation was conducted on 07 December 2020 and the lone bidder was compliant.

Upon approval of the PBAC, CAGELCO II received the NOA on 11 December 2020. Thereafter, a notice of payment for back rentals to CAGELCO II was issued on 17 December 2020 through a letter dated 14 December 2020.

The amount of PhP2.9 Million was received from CAGELCO II as full payment for the property.

PSALM transmitted the DOAS to CAGELCO on 14 January through a letter dated 13 January 2021.

On 20 January 2021, PSALM received the amount of PHP202,756.21 as CAGELCO's payment for back rentals for the period January to December 2020.

Further, on 08 February 2021, PSALM released the draft Waiver of Liability to CAGELCO for the release of Camalaniugan Property's DOAS and TCT.

i. Mexico Property

The 2nd round of bidding for the property commenced with the publication of an ITB which was also posted on PSALM's website on 05 January 2021.

To attract more participants to the bidding process, PSALM has undertaken the following:

- Requested Philippine Economic Zone Authority's assistance in the promotion/marketing of the sale of the said property;
- Press releases for the sale of the property posted in PSALM social media account;
- Installed tarpaulin at the site for the sale of the property;
- Letter of invitations (dated 21 January 2021) were sent to all prospective bidders to participate in the bidding process, and
- Invited the LGUs of Pampanga to participate in the bidding process as well as posting of the ITB in their respective municipal hall.

The pre-bidding conference was held last 10 February 2021. Further,Amendments to the bidding activities were issued through SBB No. 1 on 16 February 2021.

j. General Santos Property

On 02 December 2020, the bidding for the property was declared a failure as no bids were received.

k. Magdalena Property

The property is subject to Third-Party Appraisal in 2021.

l. Baguio Property

PSALM and LGU Baguio agreed to separately discuss their respective comments on the appraisal with LBP. PSALM and LGU Baguio further agreed to discuss their comments on the appraisal but the said meeting, that was scheduled on 11 February 2021, did not push through. As of date, PSALM and LGU Baguio have yet to meet and discuss the appraisal report of the LBP.

m. Loboc Property

On 10 February 2021, Sta. Clara transmitted the signed DOAS for Loboc property. It was then signed by PSALM PCEO on 11 February 2021.

n. Limay Housing Property

A negotiation meeting between the Provincial Government of Bataan (PGB) and PSALM was conducted on 03 December 2020. It was agreed that PGB will request the Landbank of the Philippines (LBP) to conduct appraisal on the land within Limay, Bataan to include lots underlying the Bataan Housing and Bataan Thermal Power Plant. PSALM then informed LBP through a letter dated 15 December that PGB will seek their assistance to conduct the land valuation/appraisal.

3. Disposal of REA through Other Modes

a. Bagac Property

The execution of a new Contract of Lease of the property between PSALM and PCG was approved by the PSALM Board on 27 January 2021. The new contract of lease is being reviewed by the OGCC.

PSALM received OGCC's review on the Contract of Lease on 15 February 2021. Subsequently, PSALM transmitted two (2) copies of the signed and notarized Contract of Lease to PCG, including other pertinent annexes through a letter dated 18 February 2021.

The property is subject to third-party appraisal.

b. Tiwi Geothermal Power Plant (Tiwi GPP) Land

The property is subject to third-party appraisal.

On 18 January 2021, PSALM requested AP Renewables, Inc. (APRI) for assistance in the conduct of Third-Party Appraisal for the Putsan Property on 18 January 2021.

The property is subject to third-party appraisal in CY 2021.

On 15 February 2021, Value Metrics, Inc. submitted its initial appraisal report.

c. General Santos City Property

i. Reconveyance to Previous Owner

04 January 2021, PSALM requested OGCC's legal opinion on the following:

- Propriety of granting heirs of Mr. Allado, the vendor in the Deed of Absolute Sale (DOAS), the right to repurchase the property since there was no clear provision on whether or not the heirs should be considered as Vendors; and

- The most feasible action to apply to protect the interest of PSALM considering the huge difference between purchase price in the DOAS and the current value of the property.

On 15 February 2021, PSALM received OGCC opinion dated 10 February 2021, recommending that the heirs of Honorario T. Allado, Sr. cannot exercise the right to repurchase PSALM's General Santos property.

ii. Disposal of General Santos Property

In 2020, PSALM conducted two (2) failed biddings for the disposal of General Santos City property due to no bids received, 30 September 2021 and 02 December 2021, respectively.

The property is scheduled for third-party appraisal.

d. Paranaque Properties

In December 2020, PSALM met with SHFC, LGU-Paranaque, Urban Mission Areas Development Office (UMADO), LGU Local Housing and Chairman of Barangay BF Homes to discuss the project.

On 23 February 2021, PSALM sent a letter to the City Mayor of Paranaque requesting confirmation of the LGU's intention to acquire the property and its final offer price for the said lots.

e. Limay (Housing) Property

A negotiation meeting between the Provincial Government of Bataan (PGB) and PSALM was conducted on 03 December 2020. It was agreed during the meeting that PGB will request the Land Bank of the Philippines (LBP) to conduct appraisal on the land within Limay, Bataan to include lots underlying the Bataan Housing and the Bataan Thermal Power Plant. PSALM then informed LBP through a letter on 15 December 2020 that PGB will seek their assistance to conduct the land valuation/appraisal.

On 21 January 2021, PSALM informed PGB that Land Bank granted their request to appraise the property.

PSALM on 02 February 2021 coordinated with and informed TransCo through a letter of the on-going negotiation with the Provincial Government of Bataan (PGB) and requested for confirmation of any transmission assets within the property.

On 11 February 2021, the site visit by the LBP was facilitated for the conduct of appraisal.

f. Bataan Thermal Power Plant (BTPP) Property

The BTPP property is the site of the decommissioned BTPP located in Brgy. Luz, Limay Bataan, about 1.6 kms. South of Limay, Municipal hall and adjacent to the Limay housing property, the former housing compound for NPC employees during the construction of BTPP. It is comprised of nine (9) lots with a total area of 75,744 sq. m. with two (2) lots registered in the name of NPC and seven (7) lots transferred to the PGB due to the foreclosure sale of fourteen (14) properties of NPC for the supposed local franchise tax delinquency for the sale of the electricity from BTPP and the Bataan Combined Cycle Power Plant. The SC, in its resolution dated 02 September 2020, denied with finality PGBs motion for reconsideration of the 21 April 2014 decision that declared null and void the foreclosure sale of the 14 properties in Limay, Bataan.

Due to the foregoing, the PGB expressed interest to acquire the two (2) BTPP lots registered in the name of NPC and its willingness to settle the pending litigation covering the lots that it plans to acquire.

Further, on 24 February 2021, PSALM Management secured its Board approval on the grant of authority to the PSALM President & CEO to negotiate for Bataan TPP land property with any local government unit.

g. Sucat Property

The Sucat Property is located in TM Road, Barangay Sucat, Muntinlupa City and is the site of the former 850MW Decommissioned Sucat Thermal Power Plant. It has a total land area of about 198,466 square meters or 19.8466 hectares. It comprises three (3) lots, two (2) of which are under the name of the Republic of the Philippines while the other lot is a reclaimed land which is still unregistered.

On 04 February 2021, PSALM met with the Department of Transportation (DOTr) to discuss the intention of DOTr to acquire the Sucat property. DOTr has expressed its plans to use the site for its North-South Commuter Railway Project (NSCR) and PNR South Long-Haul Project (SLH).

The NSCR is a 147km mass transportation railway system linking Region 3, the NCR and Region IV-A, while the SLH is a 639km railway system linking the NCR, Region IV-A and Region V. Both projects were approved by the National Economic and Development Authority (NEDA) Board on 15 November 2018 and 12 September 2017, respectively.

In order for the proposal by the DOTr to commence, PSALM Board, on its 24 February 2021 meeting, granted the authority to the PSALM PCEO to negotiate for Sucat Property with the DOTr.

C. Disposal of Other Disposable Assets

The disposal activity covers Other Disposable Assets defined under Section 5.03 of the Manual of Approvals to include, among others, the excluded assets from sold plants (serviceable or unserviceable) such as spare parts, equipment and scrap/junk materials, waste oil from decommissioned plants, items in warehouses and other items from abandoned and completed projects and scrap materials and other disposable items from PSALM-owned generating plants. The excluded assets are composed of items which were: a) delivered after the Closing Date; b) not listed in the NPC books of accounts i.e., excess construction materials; and c) not included in Schedule A (Purchased Assets) and Schedule B (Excluded Assets) of the corresponding Asset Purchase Agreement (APA) when the power plant was sold to the Successor Generating Company.

a. Sale of Packages 1,2,3 and 4 in CY 2020

On 26 February 2020, the PSALM Board approved through Board Resolution No. 2020-0226-05 the Commencement of Sale/Disposal of the following Other Disposable Assets (Unserviceable Assets, Junk and Scrap Material) located in various locations through Public Bidding:

Asset/Package	Location
Package 1: Various junk/scrap from heavy equipment/engine block/engine crankshaft.	Naga Power Plant Complex (NPPC), City of Naga, Cebu.

Asset/Package	Location
Package 2: Various retired equipment, used/obsolete spare parts and scrap materials.	Kalayaan Pumped Storage Power Plant (KPSPP), in Kalayaan, Laguna and Caliraya Hydroelectric Power Plant (CHEPP), in Caliraya, Laguna.
Package 3: Various old structures, retired equipment, used/obsolete spare parts and junk/scrap materials.	Makiling-Banahaw Geothermal Power Plant (MGPP) – Philippine Geothermal Production Corporation (PGPC) and Aboitiz Power Renewables, Inc. (APRI) Facilities located in Calauan and Bay, Laguna and Sto. Tomas, Batangas, and items from Calaca Coal-Fired Thermal Power Plant (CCFTPP), stored in Mexico Central Warehouse.
Package 4: Various Ormat Binary equipment &	Bacon-Manito Geothermal Power Plant (BGPP) in Manito, Albay and Tublijon, Sorsogon, Ligao

During the bid submission deadline on 05 November 2020, Packages 1 and 3 were declared a failure as there were no bids received by the Disposal Committee, while for Packages 2 and 4, Dukes Project Trading (DPT) was declared as the highest bidder.

On 19 January 2020, the Notices of Award (NOAs) for Packages 2 and 4 were issued to, and received by, DPT as the Winning Bidder for the sale of Packages 2 and 4. Under the Bidding Documents, from the date of receipt of the NOAs, DPT has ten (10) days to issue the required performance securities and fourteen (14) days to remit full payment, or 29 January 2021 and 2 February 2021, respectively.

In a letter dated 27 January 2021 (received by PSALM via email on 28 January 2021), DPT requested for the extension of the payment of the performance securities and full payment of the purchase price in relation to the NOAs issued on 19 January 2021. In a letter dated 29 January 2021, PSALM denied DPT's request for extension of payment citing relevant provisions in the Bidding Documents and the NOAs.

On 29 January 2021, DPT was able to post the required performance securities. It, however, failed to remit its full payment for the purchase price by 02 February 2021.

In a letter dated 22 February 2021, PSALM informed DPT that the previously issued NOAs are considered void due to DPT's non-payment of the full amount of purchase price within the prescribed period. Consequently, the performance securities posted by DPT were forfeited.

The Disposal Committee declared a failure of bidding due to DPT's non-compliance with the requirements of Clause 25.2 of Section II (Instructions to Bidders) of the Bidding Documents, and the NOAs.

To prepare for another round of bidding and for updating of MBP, PSALM conducted a canvass of prevailing prices at local communities and coordinated with site managers for validation of actual condition of the assets and drafted the materials for the commencement of another round of bidding.

The commencement of another round of bidding is for discussion of the Disposal Committee, ExeCom and PSALM Board in March 2021.

D. Privatization Proceeds

As of February 28, 2021, PSALM, through the privatization of generation assets, the transmission business, and the IPP contracted capacities, has generated a total of PhP907.8 billion. The actual collection to date amounted to PhP647.8 billion as of February 2021, including interest income on placements, were exclusively utilized for the liquidation of financial obligations amounting to PhP699 billion as of February 2021.

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Table 3. Privatization Proceeds Generation and Collection as of 28 February 2021 (in PhP Billion)

Privatization Assets	Generated	Collected
Generating Assets	160.92	160.92
Appointment of IPPAs	482.50	293.82
Transmission Concession	260.54	189.09
Decommissioned Plants	0.55	0.55
Other Priva-Related	3.27	3.27
TOTAL	**907.77**	**647.84**

Source: PSALM

Table 4. Privatization Proceeds Utilization as of 28 February 2021 (in PhP Billion)

Particulars	Amount
Debt Prepayment	63.11
Regular Debt Service	419.94
Lease Obligations	215.97
Subtotal	***699.02***
Others	4.95
TRANSCO Opex	0.05
TOTAL	**704.02**

USD1:PhP48.637 (BSP Guiding Rate dated 28 February 2021)
Source: PSALM

PSALM utilizes its privatization proceeds to cover maturing obligations such as regular debt service, debt prepayment, IPP obligations, TransCo operating expenses, and other privatization-related expenses.

E. Concession of the National Transmission Network

Pursuant to the Concession Agreement (CA) between the Government and the National Grid Corporation of the Philippines (NGCP), Republic Act (RA) No. 9511 or the Franchise Law and the Construction Management Agreement (CMA), the National Transmission Company (TransCo) continues to monitor the performance and compliance of NGCP to these Agreements.

During the report period, the Joint PSALM-TransCo Technical, Regulatory, Financial and Legal Compliance Assessment Team (TRFLAT) in their letters dated 14 December 2020 and 26 February 2021 to NGCP emphasized that conducting physical and/or virtual inspections of NGCP books and records for CYs 2018, 2019 and 2020 shall still proceed and adherence to continuing business activity amidst the pandemic crisis is still an annual contractual obligation under the CA.

The Joint PSALM-TransCo TRFLAT proposed measures to NGCP to implement the 2018-2019 Inspection of Books of Records (IBR) that will also minimize the risks for all parties as follows:

1. Scheduled virtual meetings in preparation for the IBR;
2. Limited number of persons in each scheduled physical inspection with established safety protocols suitable for the given space. For example, the number of inspectors and NGCP

representatives at a given time should only be up to the extent allowable in the NGCP Technical Document Center Area; and
3. Conduct of a serial instead of parallel inspection with a longer inspection period.

Further, in the alternative, the parties may agree on the following:

1. Submission by NGCP of the copies of documents/photos/videos needed for inspection;
2. Transmission by the TransCo and PSALM IBR Teams of written questions in lieu of live meetings; and
3. Transmission by NGCP of confirmation letters to address requirements for records.

Accordingly, the checklists for inspections shall likewise be provided to the NGCP.

In view of the above, the NGCP has yet to respond to the proposals/arrangements of the Joint PSALM-TransCo TRFLAT.

Meanwhile, as provided under CA, NGCP as the sole regulated entity before the Energy Regulatory Commission (ERC) has pending rate cases filed with the Commission. Annexes 1 and 2 show the status of TransCo Inspection Report Based on Concession Agreement and NGCP related petitions to ERC, respectively.

F. Sale of Sub-Transmission Assets (STAs)

The sale of TransCo's sub-transmission assets involves 199[1] sale contracts with 107 interested distribution utilities (DUs), most of which are electric cooperatives. The sub-transmission assets include around 6,990 ckt-km. of mostly 69 kV transmission lines and 865 MVA of substation capacity.

As of 28 February 2021, TransCo has concluded 118 sale contracts with 95 DUs/ECs/consortia amounting to PhP6 billion. These sales cover an aggregate length of 3,858 ckt-kms of sub-transmission lines and 34,430 sub-transmission structures and 835 MVA of substation capacity. Of the 118 sale contracts, 64 contracts with total sale price of PhP4.1[2] billion have been approved, approved with modification, and disapproved. As of February 28, 2021, nine (9) contracts amounting to PhP373 Million were disapproved/dismissed by the Energy Regulatory Commission (ERC). The rest of the sale contracts are for filing with the ERC or pending approval by the ERC.

Following the EPIRA provision to extend concessional financing to ECs, TransCo implemented Lease Purchase Agreements (LPAs) with an amortization period of 20 years. Of the 118 sale contracts already signed, 81 are mostly under LPAs with 68 ECs/consortia, valued at around PhP4 billion. The remaining 37 involved sales to private DUs/consortia.

[1] *Number of sale packages pertaining to STAs Divestment with updates as of December 2020*

[2] *The total ERC approved amount of PhP3.005 Billion is lower compared to the total approved/disapproved/dismissed contract amount of PhP4.074 Billion due to the following reasons:*

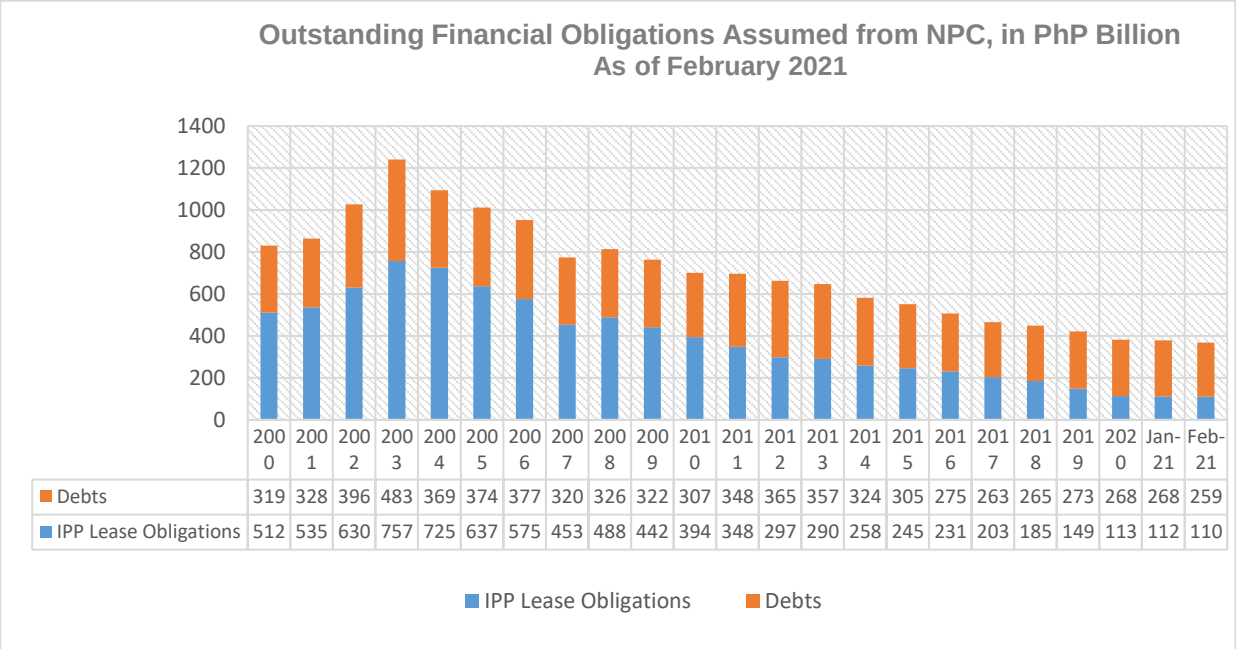
a. *Exclusion of some assets from the ERC approval due to reclassification from sub-transmission to transmission assets;*
b. *The lower amount of valuation was used as basis of the ERC approval;*
c. *Exclusion of some assets from the ERC approval since said assets are not yet connected to the sold assets;*
d. *Exclusion of some assets from the ERC approval due to decommissioning;*
e. *DU withdrawal from the Joint Application pertaining to the divestment of sub-transmission assets; and*
f. *The STAs in the sale contract/s should have been sold to a consortium instead of a single DU because the STAs were in a super loop configuration.*

III. PSALM LIABILITY MANAGEMENT

As of 31 January 2021, PSALM's financial obligations was reduced to PhP379 billion or a decrease of PhP861 billion from the 2003 level of PhP1,241 billion from 2003 peak level of PhP1.2 trillion. In terms of currency, more than half (62%) of PSALM's Financial Obligations (FOs) is denominated in dollars, amounting to PhP235 billion. Peso-denominated FOs of PhP127 billion accounts to 34%, while the remaining FOs amounting to PhP17 billion equivalent to 5% is in Japanese Yen.

Figure 1 below shows the movement of the financial obligations of PSALM from 2000 to 28 February 2021.

Figure 1 - PSALM's Outstanding Financial Obligations Assumed from NPC



Source: PSALM

Table 5. Financial Obligations (FOs) as of 28 February 2021

	PhP Equivalent (In Billions)
Debts	258.47
IPP Lease Obligations	110.30
Total	**368.77**

Source: PSALM

Table 6. Financial Obligations by Currency as of 28 February 2021

Currency	Amount in PhP Equivalent (In Millions)	% to Total
USD	232,267.21	63%
PHP	119,574.55	32%
JPY	16,935.08	5%
Total	**368,776.84**	**100%**

Exchange Rates Used: BSP Guiding Rate dated 28 February 2021
USD: PhP 1.00 = 48.6170 JPY: PhP 1.00 = 0.4579
Source: PSALM

Debt Financing/Loan Financing

On 08 January 2021, PSALM remitted the amount of PhP8 Billion to the Bureau of Treasury (Btr) representing TransCo's dividends for the years 2016-2019.

Moreover, on 12 January 2021, PSALM settled the amount of PhP842 Million (excluding taxes) for its debt obligations.

PSALM settled the amounts of PhP8.840 Billion (including Guarantee Fee to BTr of PhP237.5 Million) and USD 57.161 Million Peso/USD denominated debt obligations.

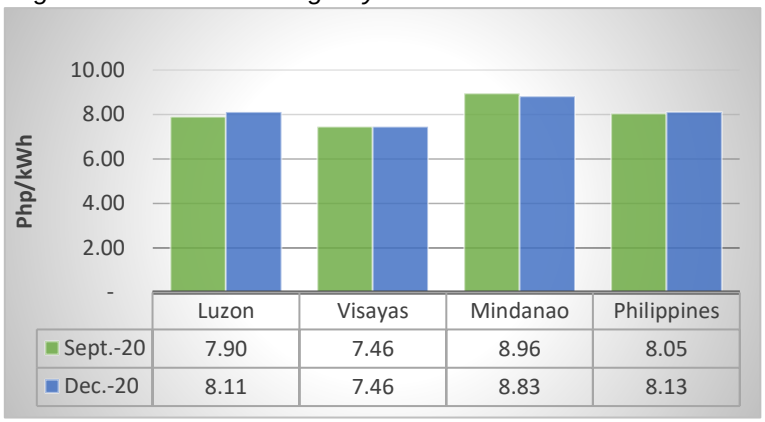
IV. ELECTRICITY RATES

The information contained in the DOE's EPIRA Reports are intended only to provide the Joint Congressional Energy Committee (JCEC) and the public an idea on the level of electricity prices. The average values are indicative values of available data gathered by the DOE. The relevant movement in prices should be examined more closely on a per utility basis. In this regard, the data cannot be used or attributed directly to the policies being adopted by the DOE.

A. Average Electricity Rates

The country's average electricity rates as of December 2020 is around PhP8.13/kWh, PhP0.08/kWh lower compared with the September 2020 national average systems rate. The Luzon Grid rate showed an increase from PhP7.90/kWh in September 2020 to PhP8.11/kWh in December 2020 or PhP0.21/kWh increase, Visayas Grid rate has the same or equivalent value with September 2020 rate which is PhP7.46/kWh, while Mindanao Grid rate decrease by PhP0.13/kWh from PhP8.96/kWh to PhP8.83/kWh.

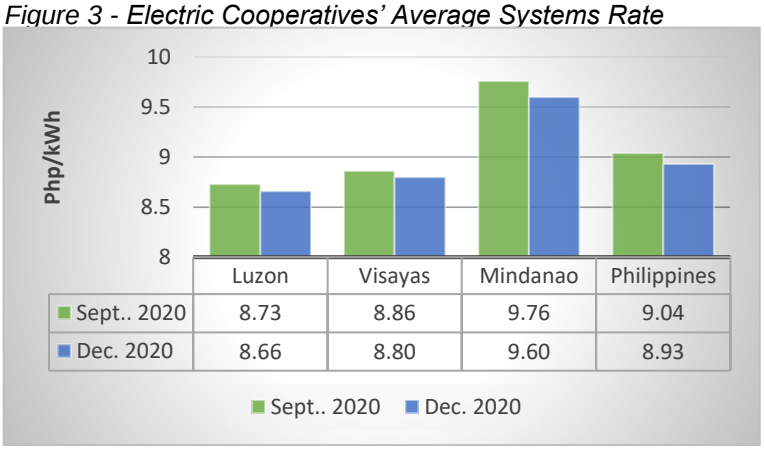
Figure 2 - National Average Systems Rate



Source: NEA and Monthly Operations Report of PDUs

Meanwhile, the ECs' average systems rate for December 2020 is at PhP8.93/kWh, PhP0.11/kWh lower compared to September 2020 rate. Luzon, Visayas and Mindanao grids, decrease in rate by PhP0.07/kwh, PhP0.06/kwh and PhP0.16/kwh, respectively.

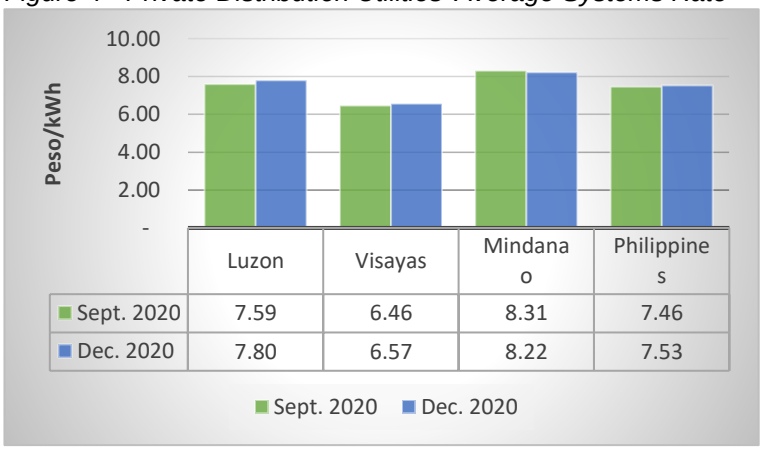
Figure 3 - Electric Cooperatives' Average Systems Rate



Source: NEA and Monthly Operations Report of PDUs

The national average systems rates of Private Distribution Utilities (PDUs) & Ecozones posted an overall increase by PhP0.07/kWh from PhP7.46/kWh in September 2020 to PhP7.53/kWh in December 2020. Luzon & Visayas grids posted an increase by PhP0.21/kWh and PhP0.11/kWh while Mindanao grid decreased by PhP0.09/kWh, respectively.

Figure 4 - Private Distribution Utilities' Average Systems Rate



Source: Monthly Operations Report of PDUs

The increase in the Luzon & Visayas grids was expected from October to December 2020. The initial data suggest that generation charge costs will have a possibility of slight increase due to higher demand in the Luzon grid and more generation capacity on outage. Also, most areas in Luzon returned to general community quarantine (GCQ) last September, following a two-week stricter lockdown or modified enhanced community quarantine (MECQ) in August, electricity demand went up mainly due to increased economic activities. Aside from the forced outages and scheduled downtimes of power plants, the power firm executive stated that the other compounding factor was the gas restriction experienced by the Malampaya field on the latter part of August, which then prompted gas plants to shift to more expensive liquid fuels. The timeframe of the gas output limitation had fallen on the last supply month, and with the lag time, this will then be reflected in October billings. Though in December 2020 some electricity rates reduced/lowered for the Christmas season but still the average systems rates increase because of the Christmas season also.

The decrease in rate was due mainly to the activities, programs and initiatives that distribution utilities did to assist consumers to lower the cost of electricity service. Some of the distribution utilities' initiatives in lowering the rate of electricity rate during the time of pandemic are the following: a) coordinated with NGCP to reinstate is power factor discount; b) implemented energy conservation campaign to maintain low system loss cap; c) invoke force majeure provisions in its bilateral contract with power suppliers; d) availed low market price at WESM; e) negotiated with power suppliers for the reduction of capital recovery fee; f) accurate load forecasting for WESM Trading and conducted analysis of the market including daily price curve; g) requested power supplier to suspend portion of CRF in the monthly power bill; h) installed solar power on selected loads; i) coordinated with NGCP for installation of capacitor banks; j) increase of energy sales and supply capacity coming from embedded RE sources; k) ensured prompt payment of obligation to generation power suppliers to avail the 3% PPD so that 50% of such amount be returned to the member-consumer-owners through reduction of rates; and l) negotiated with suppliers during the ECQ to reduce the contracted capacity as needed, among others.

As reflected in Table 7, the ECs' on-grid national average unbundled residential electricity rate for December 2020 was PhP8.76/kWh. Mindanao grid still has the highest average unbundled residential electricity rates at around PhP9.38/kWh of which generation costs comprise 55.7%. On the average, generation costs comprise the bulk of ECs residential rates at around 53.4% followed by distribution, supply, and metering charges (DSM) at 19.8%.

Table 7. ECs' Unbundled Average Residential Electricity Rates, December 2020

Bill Subgroup	LUZON		VISAYAS		MINDANAO		NATIONAL	
	PhP/kwh	% share	PhP/kwh	% share	PhP/kwh	% share	PhP/kwh	% share
Generation	4.57	53.3	4.30	51.3	5.22	55.7	4.68	53.4
Transmission	1.11	12.9	0.93	11.1	0.93	9.9	1.01	11.5
System Loss	0.61	7.1	0.57	6.8	0.75	8.0	0.64	7.3
DSM[1]	1.71	19.9	1.83	21.8	1.69	18.0	1.74	19.8
RFSC[2]	0.38	4.5	0.35	4.2	0.49	5.3	0.40	4.6
Other Charges[3]	(0.17)	(2.0)	0.05	0.6	(0.07)	(.7)	(0.07)	(0.7)
Subsidy Charges[4]	0.04	0.5	0.06	0. 7	0.06	0.6	0.05	0.6
Universal Charges[5]	0.26	3.0	0.27	3.3	0.26	2.7	0.27	3.0
Other Taxes[6]	0.07	0.8	0.02	0.3	0.05	0.5	0.05	0.6
Total	**8.58**	**100.0**	**8.38**	**100.0**	**9.38**	**100.0**	**8.76**	**100.0**

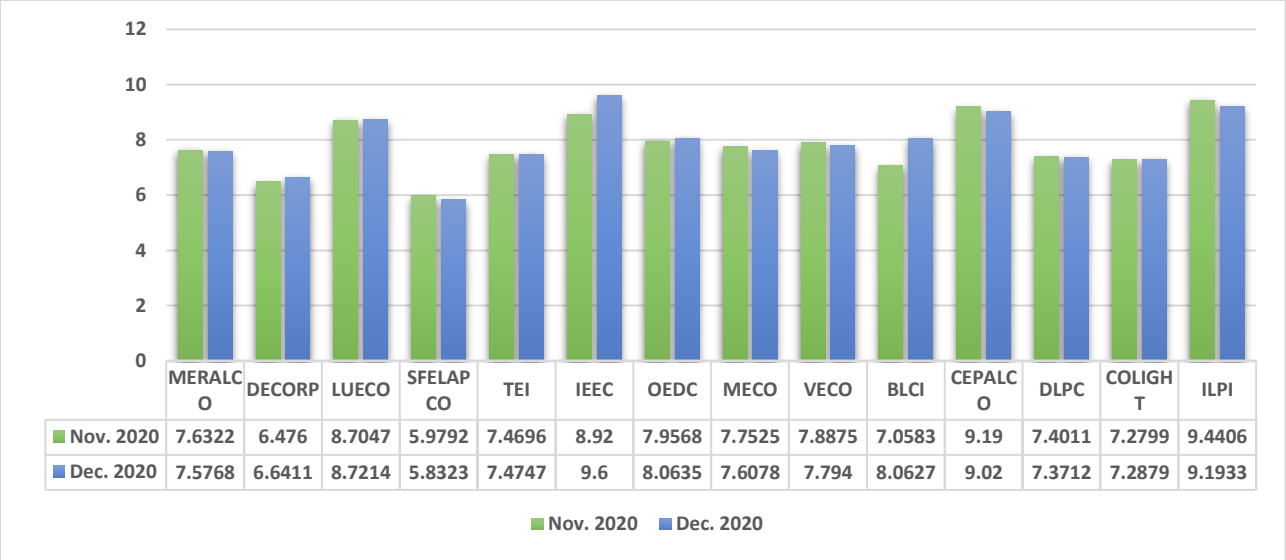
Source: NEA

[1] Distribution, Supply and Metering Charges
[2] Reinvestment Fund for Sustainable CAPEX
[3] Loan Condonation & PEMC-SPA Charge
[4] Lifeline & Senior Citizen Subsidy/Discount
[5] Missionary Electrification, Environmental Charges, NPC Stranded Cost
[6] Local Franchise &Business Taxes, Real Property Tax

Among the Private Investor-Owned Utilities (PIOUs), Ibaan Electric & Engineering Corporation (IEC) in Luzon posted the highest average power rates for the billing month of December 2020 PhP9.6/kWh followed by Iligan Light & Power Company at PhP9.2/kWh. On the other hand, the lowest average rate was noted for San Fernando Electric Light & Power Company (SFELAPCO) in Luzon at PhP5.83/kWh, lower by PhP0.015/kWh compared to its November 2020 average systems rate.

The average systems rate of MERALCO, the largest distribution utility in the country, slightly grew by 0.003% from PhP7.5766/kWh in September 2020 to PhP7.5768/kWh in December 2020. However, from October to November 2020, MERALCO's average rates moved upward due to higher generation cost driven by tighter supply in the Luzon grid, forced outages of several power plants and maintenance shutdown of Malampaya, due to high IPPs and PSAs charges, lower average dispatch and weakening of peso against the US dollar.

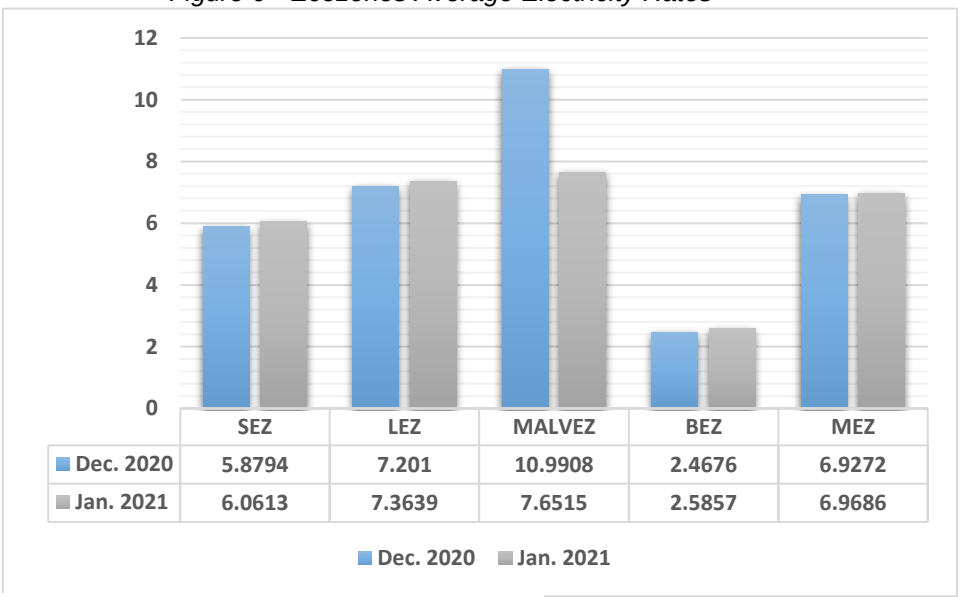
Figure 5 - Private Investor-Owned Distribution Utilities Average Electricity Rates



	MERALCO	DECORP	LUECO	SFELAPCO	TEI	IEEC	OEDC	MECO	VECO	BLCI	CEPALCO	DLPC	COLIGHT	ILPI
Nov. 2020	7.6322	6.476	8.7047	5.9792	7.4696	8.92	7.9568	7.7525	7.8875	7.0583	9.19	7.4011	7.2799	9.4406
Dec. 2020	7.5768	6.6411	8.7214	5.8323	7.4747	9.6	8.0635	7.6078	7.794	8.0627	9.02	7.3712	7.2879	9.1933

Source: Monthly Operations Report of PDUs

Figure 6 - Ecozones Average Electricity Rates



	SEZ	LEZ	MALVEZ	BEZ	MEZ
Dec. 2020	5.8794	7.201	10.9908	2.4676	6.9272
Jan. 2021	6.0613	7.3639	7.6515	2.5857	6.9686

Source: Monthly Operations Report of PDUs

The average electricity rates of Ecozones in December 2020 was recorded at PhP6.69/kWh or 8.40% lower than PhP7.31/kWh in November 2020. The change was affected by the sudden decrease in average rate of Malvar Enerzone in December 2020 which is PhP1.61/kWh. Malvar Enerzone gained the highest average rate while Balamban Enerzone was the lowest.

Among the different customer classes, MERALCO has the highest residential electricity rates at PhP9.03/kWh followed by commercial at PhP7.78/kWh and industrial customers with PhP6.44/kWh.

Table 8. Summary of MERALCO Unbundled Power Rates, February 2021 (PhP/kWh)

Bill Sub-Group	Residential	%	Commercial	%	Industrial	%
Generation	4.43	49.0	4.41	56.7	4.39	68.1
Transmission	0.74	8.2	0.78	10.1	0.62	9.6
Systems Loss	0.29	3.2	0.24	3.0	0.17	2.7
DSM	2.51	27.8	1.33	17.1	0.60	9.2
Cross Subsidies	(0.18)	-2.0	0.09	1.1	0.09	1.4
Universal Charges	0.20	2.2	0.20	2.6	0.20	3.1
Gov't Taxes	0.95	10.5	0.64	8.2	0.29	4.4
Fit-All Charges	0.10	1.1	0.10	1.3	0.10	1.5
TOTAL	9.03	100.0	7.78	100.0	6.44	100.0

Source: MERALCO

On the other hand, MERALCO's rate per consumption level in March 2021 ranged from PhP8.32/kWh to PhP9.53/kWh of which the highest component was generation costs at PhP4.37/kWh. Meanwhile, MERALCO distribution charges for its different residential customer classes comprised 20.2% to 28.9%% of the total effective residential rates equivalent to about PhP1.68/kWh and PhP2.75/kWh, respectively. Systems loss charges on the other hand was 29-centavos/kWh.

Meralco's rate per consumption level is lower by PhP0.57/kWh compared to its year ago level of PhP8.89/kWh brought mainly by MERALCO's implementation of distribution rate true-up refund brought about by the discrepancies in the actual weighted average tariff and the interim average rate.

Table 9. Summary of MERALCO Residential Unbundled Power Rates as of March 2021 (PhP/kWh)

BILL SUBGROUP	0 to 200 kWh	% Share	201 to 300 kWh	% Share	301 to 400 kWh	% Share	Over 400 kWh	% Share
Generation	4.37	52.6%	4.37	50.7%	4.37	48.9%	4.37	45.9%
Transmission	0.74	8.9%	0.74	8.6%	0.74	8.3%	0.74	7.8%
System Loss	0.29	3.5%	0.29	3.4%	0.29	3.2%	0.29	3.0%
Distribution	1.68	20.2%	1.96	22.7%	2.24	25.0%	2.75	28.9%
Subsidies*	0.13	1.5%	0.13	1.5%	0.13	1.4%	0.13	1.4%
Government Taxes	0.81	9.8%	0.85	9.8%	0.88	9.8%	0.94	9.9%
Universal Charge	0.20	2.4%	0.20	2.3%	0.20	2.2%	0.20	2.1%
Fit-All Renewable	0.10	1.2%	0.10	1.1%	0.10	1.1%	0.10	1.0%
TOTAL	8.32	100%	8.64	100.0%	8.95	100.0%	9.53	100.0%

Source: MERALCO

Table 10 provides information on generation costs in reference with MERALCO power supply agreements, WESM procurement and the regulated generation costs of PSALM. MERALCO's blended generation costs showed a declining trend from August 2020 to September 2020 which can be largely attributed to MERALCO's invoking of the Force Majeure provision in its power supply agreements for the duration of lockdown, reducing fixed charges for generation capacity that would have been charged by suppliers. However, the MERALCO's blended generation cost increased in October 2020 due to the higher demand in the Luzon grid and more generation capacity on outage. In November and December 2020, the blended generation cost was on a downward trend due mainly to the improved supply situation, reduction in charges from WESM, repricing of Malampaya gas

prices and a slight peso appreciation. In January 2021, MERALCO rates increased due to higher generation charge from power supply agreements and Independent power producers. However, in February 2021, MERALCO rates decreased due to lower fixed charges of generation costs in line with their power supply agreements and decreased prices due to the refund for excess collections as ordered by the ERC. In March 2021, MERALCO rates further decreased due to the implementation of the distribution rate true-up refund which was due to the discrepancies in the actual weighted average tariff and the interim average rate which will be given within two years starting March 2021.

Table 10. MERALCO/PSALM Generation Costs

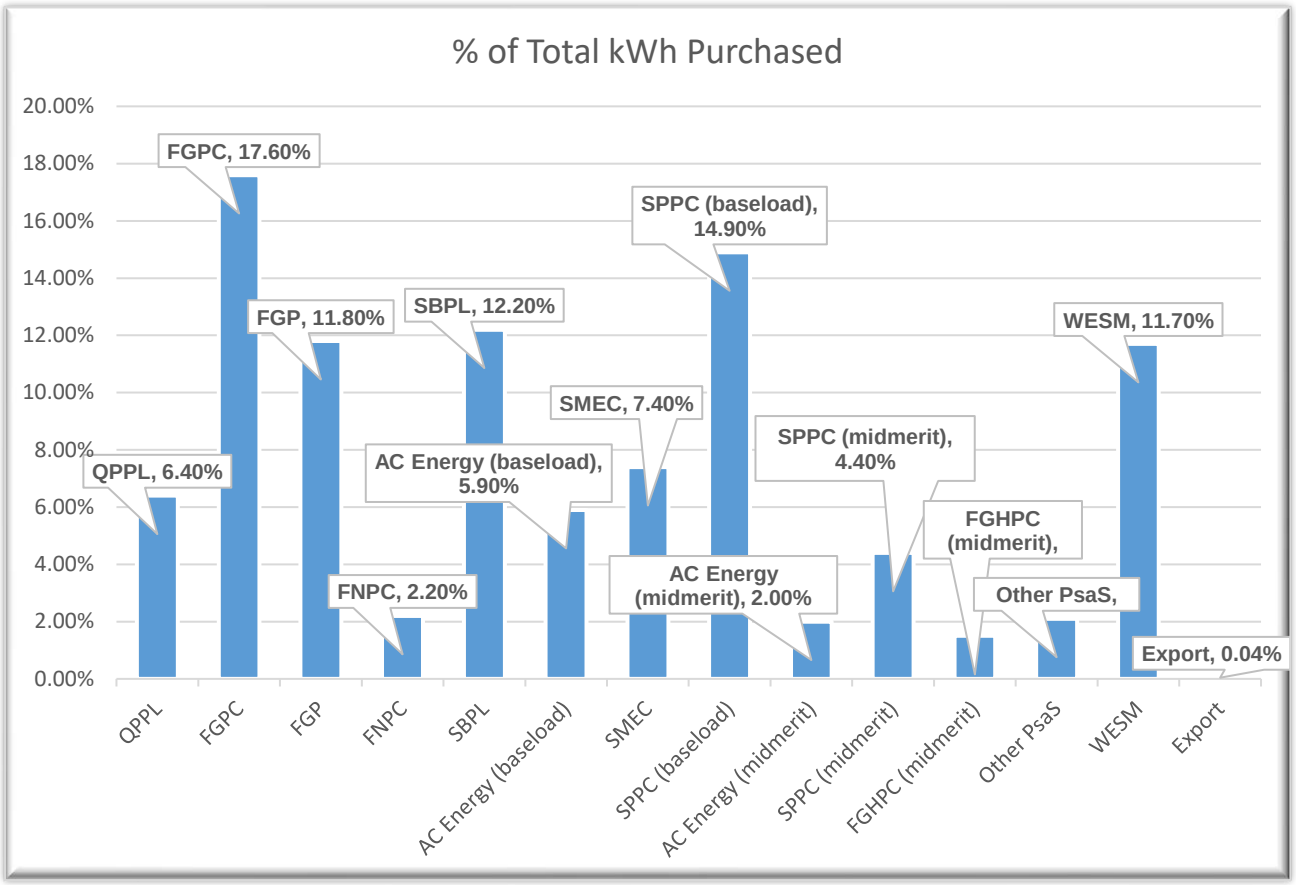
Particular	Sept.-20	Oct. 2020	Nov.-20	Dec. 2020	Jan. 2021	Feb. 2021	Mar. 2021
MERALCO BLENDED GENERATION COST	4.09	4.22	4.20	4.15	4.46	4.42	4.33
QPPL	*6.65*	*5.24*	*6.20*	*6.56*	*6.71*	*7.30*	*6.72*
FGPC - STA.RITA	*4.25*	*4.61*	*4.33*	*3.85*	*4.01*	*4.27*	*4.64*
FGP - SAN LORENZO	*4.12*	*4.07*	*3.83*	*3.78*	*4.12*	*4.08*	*4.14*
TLI	*3.67*	*3.01*	*3.54*	*6.78*	*4.98*	-	-
First Natural Gas Power Corp. - San Gabriel (FNPC)	*4.26*	*6.54*	*10.00*	*8.81*	*5.70*	*4.57*	*6.35*
San Buenaventura Power Ltd. Co. (SBPL)	*3.80*	*4.21*	*3.80*	*3.90*	*4.32*	*4.03*	*4.08*
AC Energy (baseload)	4.33	4.28			*4.10*	*4.61*	*4.33*
SMEC	*4.14*	*4.15*	*4.09*	*3.82*	*4.52*	*4.24*	*4.24*
SPPC (baseload)	*4.14*	*4.15*	*4.13*	*3.82*	*4.51*	*4.24*	*4.24*
AC Energy (midmerrit)	6.48	4.89			5.02	5.04	4.99
SPPC (midmerit)	*5.25*	*5.25*	*4.86*	*4.92*	*5.60*	*4.80*	*4.80*
First Gen Hydro Power Corp. (FGHPC) (midmerrit)	*4.24*	*4.24*	*4.24*	*4.24*	*5.19*	*6.12*	*5.19*
Others	*2.94*	*3.95*	*5.79*	*4.61*	*3.75*	*2.22*	*4.05*
WESM	*2.41*	*3.57*	*2.29*	*2.10*	*1.49*	*2.44*	*2.46*
Export Energy from Net Metering Customers	*4.24*	*7.91*	*4.23*	*3.88*	*4.51*	*4.39*	*4.70*
WESM ESSP	*3.52*	*2.07*	*1.84*	*1.96*			
NPC/PSALM Generation Cost - LUZON	4.39	4.39	4.39	4.39	4.39	4.39	4.39
NPC/PSALM Generation Cost - VISAYAS	*3.74*	*3.74*	*3.74*	*3.74*	*3.74*	*3.74*	*3.74*
NPC/PSALM Generation Cost - MINDANAO	*2.85*	*2.85*	*2.85*	*2.85*	*2.85*	*2.85*	*2.85*

Source: MERALCO and PSALM Websites; values were rounded off.

MERALCO's bulk purchase comes from First Gas Power Corp. (FGPC) - Sta. Rita, South Premier Power Corporation (SPPC), and First Gas Power Corp. (FGP) – San Lorenzo, which are all-natural gas-powered plants. Further, MERALCO also sources a considerable amount of supply from WESM.

Also, MERALCO's average bulk power purchase for the month of March 2021 which came from First Gas Power Corp. (FGPC) - Santa Rita at 17.6%, South Premier Power Corporation (SPPC) at 14.9%, San Buenaventura Power Ltd. Co. (SBPL) at 12.2% and FGP Lorenzo (FGP) at 12.2% which are all-natural gas-powered plants. About 11.7% percent of MERALCO's power supply requirement is bought from the WESM.

Figure 7 - Sources of MERALCO Power Supply Requirement



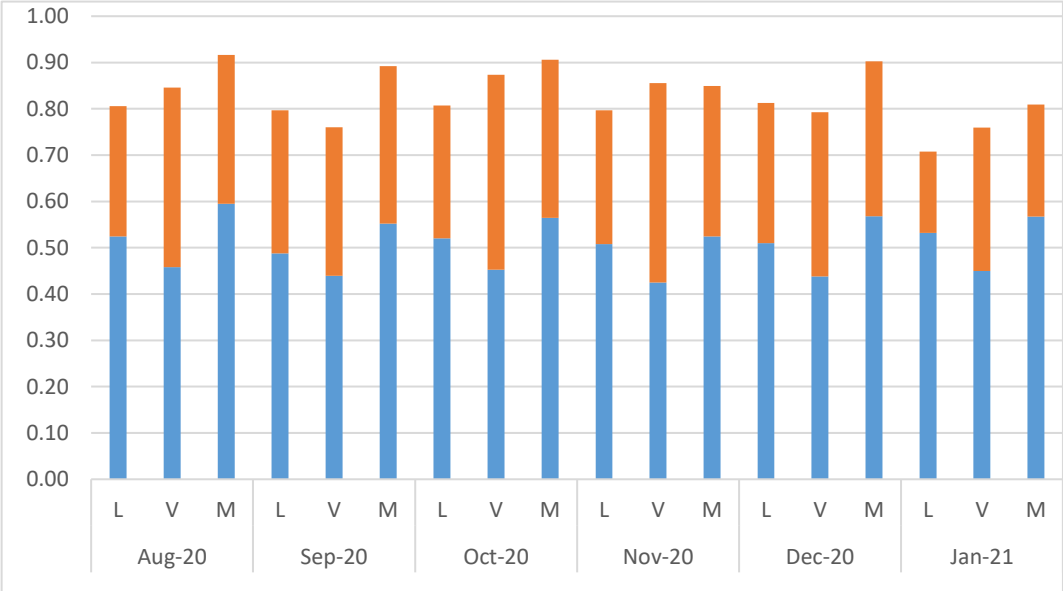
Source: MERALCO

Meanwhile, transmission charges, on the average, comprise around 8% to 9% of a DU's average electricity rates. Transmission charges have two major components, namely, power delivery charges (PDS) and Ancillary Service (AS) charges. The PDS share around 49.7 to 63.7% on the average of the total transmission costs while ancillary service is around 36.3 to 50.3% of the total transmission costs.

For the period August 2020 to January 2021, Mindanao Grid recorded the highest transmission charges at PhP0.92kWh of which 60 centavos was paid for the power delivery service while 32 centavos/kWh went to ancillary services. The Luzon grid has the lowest average transmission cost in January 2021 at 71 centavos of which power delivery service was around 53 centavos/kwh while ancillary services cost 18 centavos/kWh. The highest transmission cost for the report period was noted in the Mindanao Grid at about PhP0.92/kWh in August 2020.

On 13 February 2020, ERC Case No. 2019-086 RC granted the NGCP an Interim Relief to implement an Interim Maximum Annual Revenue (Imar) 2020 in the amount of PhP47,051.64Million. However due the Pandemic, the NGCP maintained the approved iMAR2016 of PhP43,789.05Million The Interim Relief reduced the existing Transmission Charge by PhP0.0413 from PhP0.5114/kWh in 2019 to PhP0.4701/kWh for 2020. This is to provide relief to all electricity consumers during this Pandemic time.

Figure 8 - Transmission Cost



Source: NGCP

Measures Implemented to Provide Relief to Electricity Consumers during the General Community Quarantine (GCQ) Period

During the report period, the DOE issued an Advisory dated 05 February 2021 enjoining all distribution utilities to implement no disconnection for lifeline customers which was presented on 03 February 2021 Cabinet Meeting as one of DOE's plan to assist the marginalized electricity consumers.

All DUs were directed to implement a NO DISCONNECTION POLICY due to non-payment of bills falling due by March 2021 for all electricity consumers whose consumption level is within the lifeline rate set by the Energy Regulatory Commission (ERC) for the DU's franchise area. The Advisory also applied to all unpaid regular bills and installment payments relative to various advisories of the DOE and the ERC. Also, all electricity consumers (lifeline and non-lifeline customers) who are still unable to pay may coordinate with their DUs to enter into socially equitable and manageable payment terms to prevent eventual disconnection of electricity services. Further, those consumers who are capable to pay to settle their bills within the original due dates to help manage the cash flow in the energy supply chain and ensure the continuous supply of electricity.

B. Universal Charge (UC)

This section provides development on the implementation of UC pursuant to Section 34 of the EPIRA. Highlights include status of collection and disbursements, updates on PSALM's application for the recovery of stranded contract costs and stranded debts, and the implementation of UC collection from self-generating facilities.

1. Universal Charge Remittances, Interests & Disbursements Charge Remittances, Interests & Disbursements

As of 28 February 2021, the total collections of Universal Charge amounted to PhP209 billion with interest earnings from deposits and placements of UC funds amounted to PhP0.3 Billion. On the other hand, UC fund disbursement amounted to PhP209 Billion.

Below are the details of UC remittances, interests and disbursements:

Table 11. UC Collections as of 28 February 2021 (in Billion PHP)

Particulars	Remittances	Interests	Disbursements
Special Trust Fund – Missionary Electrification (ME) NPC-SPUG	114.00	0.05	114.03
Special Trust Fund – ME Renewable Energy Developer Cash Incentive (REDCI)	0.89	0.02	0.32
Special Trust Fund – Environmental Charge (EC)	2.56	0.16	1.49
Special Trust Fund – Stranded Contract Cost (SCC)	80.88	0.07	80.39
Stranded Debts	9.41	0.00	9.75
TOTAL	**207.74**	**0.30**	**208.95**

Source: PSALM

2. UC Remittances

For November 2020 to February 2021, PSALM received PhP6 Billion in UC remittances.

3. UC Disbursements

For November 2020 to February 2021, PSALM disbursed PhP6 billion to NPC-SPUG to fund the missionary electrification functions, chargeable against the UC-ME fund.

The aforementioned UC disbursement is pursuant to the following ERC Decisions/Orders:

ERC Case No.	Date Approved	Particulars
2012-085 RC	12 August 2013	ERC Decision on CY 2011 True-up Adjustments (PhP4.651 billion)
2012-046 RC	10 October 2013	ERC Decision on CY 2010 True-up Adjustments (PhP2.566 billion)
2014-135 RC	03 November 2013 & 17 August 2015	ERC Order on CY 2015 UC-ME Subsidy
2012-085 RC	20 April 2015	ERC Order on CY 2014 UC-ME Subsidy (PhP2.763 billion)

In accordance with the ERC decision dated 28 January 2013 under Case No. 2011-091 RC, the amount of PhP0.30 billion was transferred from the UC-SD to the UC-SD Special Fund Account for the period December 2020.

4. ERC-Approved UC Rates

The table below shows the ERC-approved UC rates being implemented as of 28 February 2021:

Type of UC	PhP/kWh
UC-ME	0.1544
ME – REDCI (Renewable Energy Developers Cash Incentive	0.0017
UC-EC	0.0000[1/]
UC-SCC	0.0000[2/]
UC-SD	0.0428
Total	**0.1989**

*1/ Collection of **UC-EC of PhP0.0025/kWh** from all electricity end-users by all collecting entities, including NGCP, has been suspended effective 22 May 2020, until further notice from the ERC.*

*2/ Collection of **UC-SCC of PhP0.0543/kWh** from all electricity end-users by all collecting entities has ceased effective February 2020 in view of full recovery of ERC-approved SCC amount of PhP5.117 billion.*

5. Updates on UC Rate Applications

a. UC for Missionary Electrification (UC-ME)

The NPC filed the following petitions before the ERC for the availment of the ME share from the UC which are still pending resolution by the ERC:

ERC Case No.	Date Filed	Purpose	Amount (In PhP)
2013-191 RC	20 September 2013	Shortfall of CY 2012 Subsidy	5,370,284,135.27
2014-089 RC	20 June 2014	Shortfall of CY 2013 Subsidy	5,462,754,938.54
2014-135 RC	14 September 2014	CY 2015 Subsidy	12,093,887,870.00
		CY 2016 Subsidy	11,371,002,556.00
2016-008 RC	26 January 2016	Shortfall of CY 2014 Subsidy	5,895,588,224.47
2016-134 RC	26 May 2016	CY 2017 Subsidy	10,324,139,351.43
2017-006 RC	27 January 2017	Shortfall of CY 2015 Subsidy	1,111,902,576.28
2017-054 RC	30 May 2017	CY 2018 Subsidy	13,304,273,206.97
2018-076 RC	13 July 2018	CY 2019 Subsidy	17,804,818,088.38
2019-004 RC	11 January 2019	Surplus of CY 2016	(1,483,845,466.76)
2019-069 RC	12 September 2019	CY 2020 Subsidy	18,460,843,967.62
2019-084 RC	28 October 2019	True up for 2017	849,455,932.62
2020-004 RC	23 January 2020	True up for CY 2018	5,918,612,399.05
2020-011 RC	13 March 2020	CY 2021 Subsidy	20,730,183,569.03
TOTAL			**127,213,901,348.90**

In pursuance of formulating an evidence-based policy, the DOE has engaged the technical assistance of the European Union-funded Access for Sustainable Energy Programme for the conduct of the policy research entitled “Rationalizing the UC-ME Subsidy for Electricity End-Users in Off-grid Areas: A More Targeted, Efficient and Sustainable Quantitative-based Subsidy System”. This policy research aims to improve the energy gap and bridge the energy poverty gap in off-grid areas through rationalization of the consumption subsidy for missionary electrification.

This policy research is in line with the initiative of the DOE on the issuance of Policy for UC-ME Rationalization and Graduation. The policy will lay down the holistic approach to achieve graduation and rationalization of subsidies in missionary areas. It shall focus on the implementation of optimal generation mix in off-grid areas to reduce the cost of generation over time, the customer-level rationalization of subsidies and the implementation of energy efficiency programs in off-grid areas. Furthermore, it shall highlight the interconnection of the major large off-grid provinces such as Mindoro, Palawan, Marinduque, Masbate and Catanduanes to the main grid of Luzon to facilitate the full graduation of these areas from UC-ME subsidies.

b. UC for Environmental Charge (UC-EC)

The following petitions for the availment of the EC share from the Universal Charge were filed by NPC before the ERC for its resolution:

ERC Case No.	Date Filed	Purpose	Amount (In PhP)
2014–021 RC	12 March 2014	CY 2014 UC-EC Availment	320,008,239.75
2015-050 RC	12 March 2014	CY 2015 UC-EC Availment	426,875,421.95

ERC Case No.	Date Filed	Purpose	Amount (In PhP)
2016-019 RC	14 March 2016	CY 2016 UC-EC Availment	426,710,057.72
2017-021 RC	15 March 2017	CY 2017 UC-EC Availment	431,192,804.80
2018-103 RC	15 March 2018	CY 2018 UC-EC Availment	239,350,386.41
2019-021 RC	03 March 2019	CY 2019 UC-EC Availment	240,425,017.78
TOTAL			**2,084,561,928.41**

In its effort to find ways to reduce the cost of electricity, the DOE conducted a thorough review on the utilization of the Universal Charge for Environment (UC-EC) by the National Power Corporation (NPC). The UC-EC is among the five (5) Universal Charges (UC) identified under Section 34 of the EPIRA to be utilized solely to maintain and rehabilitate watershed areas. The NPC was mandated by the EPIRA to manage the fund including the task to rehabilitate and maintain the watersheds. The amount collected for the UC-EC from the electricity end-users is equivalent to PhP0.025 per kWh.

Based on the review, the remittance to NPC depends on the approval of ERC, and even the without ERC approval and remittance to the ERC, the end-users continue to pay the UC-EC as it was indicated in the EPIRA law. The continuous remittances of the Collecting Entities to PSALM make the amount accumulate. As of June 2019, remittances amount to PhP1,106,959,649.54. Relatively, the government was looking for way to help the electricity end-users to mitigate the impact of the pandemic bought about by COVID-19 virus. As a result, the ERC in its Advisory dated 22 May 2020 then directed the suspension of the collection of the UC - EC from electricity customers until further notice. Such advisory was also in line with the government's declaration placing certain areas of the country under Modified Enhanced Community Quarantine (MECQ) until May 31, 2020.

c. Pending UC-SCC and UC-SD filed before the ERC

In view of the effectivity of the Murang Kuryente Act (MKA) and its implementing Rules and Regulation (IRR), ERC in its Order dated 28 May 2020, dismissed the following PSALM UC-SCC applications:

ERC Case No.	Date Applied	Purpose	Amount Applied
No. 2017-066 RC	06 July 2017	CY 2016 UC-SCC Availment	3,686,192,736.05
No. 2019-048 RC	31 July 2018	CY 2016 UC-SCC Availment	5,228,678,356.46

For UC-SD, the CY 2014 True-Up Adjustment Motion for Reconsideration filed by PSALM on 06 June 2019 amounting to PhP1,578,164,643.22 was declared moot and academic by ERC in its order dated 28 May 2020 as posted in their website.

The following UC-SD True-Up Adjustment applications were likewise dismissed due to the effectivity of the MKA and its IRR:

ERC Case No.	Date Applied	Purpose	Amount Applied
No. 2016-150 RC	30 June 2016	CY 2015 UC-SD True-Up Adjustment	27,670,386,541.73
No. 2017-069 RC	31 July 2017	CY 2016 UC-SD True-Up Adjustment	34,642,180,036.26
No. 2018-087 RC	31 July 2018	CY 2017 UC-SC True-Up Adjustment	11,804,635,030.22

ERC Case No.	Date Applied	Purpose	Amount Applied
No. 2019-047 RC	25 June 2019	CY 2018 UC-SC True-Up Adjustment	4,722,490,975.31

Meanwhile, during the report period, the Department of Budget and Management (DBM) released the PhP8,000,000.00 allocation as part of the Power Sector Assets and Liabilities Management Corporation's (PSALM) FY 2021 budget under the Murang Kuryente Act (MKA) for Automatic Appropriation in the Special Account under the General Fund (AA-SAGF). The said FY 2021 budget allocation represents the amount earmarked for the payment of stranded debts, stranded costs, and anticipated shortfalls of PSALM pursuant to the MKA, chargeable against the Malampaya Fund.

C. Lifeline Rate Subsidy

The Lifeline Rate Subsidy is mandated under Section 73 of the EPIRA and is considered a socialized pricing mechanism called a lifeline rate for the marginalized end-users shall be set by the ERC, which shall be exempted from the cross-subsidy phase-out under the Act for a period often (10) years, unless extended by law. The level of consumption and the rate shall be determined by the ERC after due notice and hearing. The said provision was extended for another ten (10) years upon enactment of Republic Act No. 10150 in June 2011 and is again set to expire in June 2021.

In its pursuit for the continued support for the marginalized electricity end-users, the DOE proposed for the extension of the lifeline rate subsidy by another 30 years starting June 2021, upon expiration of the extension provided under Republic Act No. 10150. Said extension was manifested by the DOE during the deliberation of the Bicameral Conference on the disagreeing provisions of House Bill No. 8145 and Senate Bill No. 1877 where both bills proposed for the extension of the Lifeline Rate Subsidy for only 10 years or until 2031. Lifeline rate subsidy is among the support mechanisms provided under the EPIRA to assist the electricity end-users who cannot pay for their electricity bills at full cost.

In the DOE's position, it has emphasized that the lifeline subsidy has a very minimal impact to the electricity rates of subsidizing customers or the non-lifeline customers by presenting a simulation of Lifeline rates which is one of the many instruments that the government can use to mitigate the burden of cost of electricity to the poor.

The DOE presented two (2) scenarios simulation to support its proposal for the extension of Lifeline Rate Subsidy until 2051. For Base Case, the subsidy is estimated from a high of 8.50 centavos/kWh and estimated to go down to 0.80 centavos by end of 2051. The Base Case scenario assumes that despite the pandemic, the economic targets under *Ambisyon Natin 2040* will be minimally affected and that the poverty level will remain unchanged and will continue to go down.

Meanwhile, in the light of the recent economic projections providing that at least the number of poor Filipinos could rise by 1.5 million due to 10% contraction in income, the estimated subsidy will be around 9.15 centavos/kWh in a COVID Scenario. The DOE highlighted its optimism that the economy will come back to achieve the goals for the economy under *Ambisyon Natin 2040.* The DOE showed that the lifeline subsidy will continue to be lower through time as more families are expected to move above the poverty level with an improved standard of living which would then result in higher per capita consumption of electricity.

Ambisyon Natin 2040 sets the country's economic social equity framework where the continuous provision of a lifeline subsidy, albeit in minimal amounts, would make a difference in further ensuring that our marginalized sector would be able to meet their basic needs especially during these challenging times.

To achieve and realize the country's goals embodied in *Ambisyon Natin 2040**,*** with the Philippines becoming a middle-class economy by 2040, the number of households requiring a lifeline rate subsidy

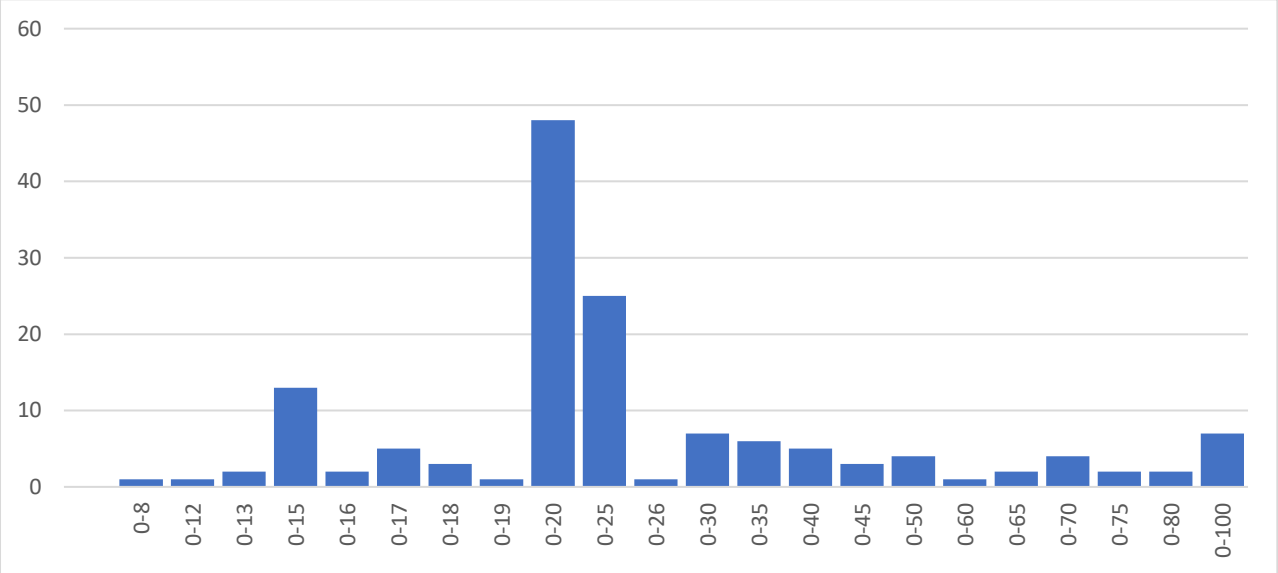
diminishes over time due to improvement in income levels of a greater number of households in the marginalized sector, allowing them to enjoy a higher standard of living and thereby leaving the lifeline consumption threshold.

For a lifeline customer, the subsidy provides great relief in supporting their cost of living, particularly those considered in the marginalized sector being targeted by the draft legislation. The benefit of the lifeline subsidy for each lifeline customer may far outweigh the cost for each of the non-lifeline customers who shared only a very minimal amount per kilowatt-hour. On the other hand, the continued provision of the subsidy will address the threat of disconnection especially for those who are truly marginalized and use electricity only for basic necessities such as lighting and ventilation (electric fans).

As such, the lifeline subsidy can be considered fair and necessary in further assisting the poor, in such a manner that part of their income can be allocated to other necessities. Lifeline rates are seen as one of the many instruments that the government can use to mitigate the burden of increased electricity rates on the poor.

As of December 2020, almost all distribution utilities in the country are implementing the lifeline rate at varying thresholds and discount structures.

Figure 9 - Lifeline Threshold Level per DU



Source: ERC

Out of the 148 distribution utilities implementing the lifeline rate, 79 have a threshold level of 20 kWh and below. On the other hand, the highest lifeline threshold approved by the ERC is up to 100 kWh of consumption per month and it is being implemented by seven (7) DUs which are all privately owned and that includes MERALCO, Davao Light, Iligan Light, CEPALCO and Visayan Electric Company (VECO), in Cebu. It can be noted though that except for Cebu City, none of the said DUs are in franchise areas that belong to the top 20 poorest provinces showing potential disparity in the distribution of lifeline rate subsidy.

The smallest amount of subsidized consumption was up to 8 kWh which is being implemented by Cagayan de Sulu Electric Cooperative (CASELCO). The most common threshold of lifeline consumption being implemented is 0-20 kWh which is being implemented by 48 ECs, followed by 0-25 kWh which is being implemented by 25 ECs. There are also 13 ECs that are implementing subsidized consumption of up 15 kWh.

As of November 2020, the average amount of subsidized consumption in the MERALCO franchise area averaged 43.4 kWh which is way above the minimum subsidized consumption of 20kWh. For

other private DUs, the average subsidized consumption is at 43.3 kWh which is a little lower than the previous report period which was recorded at 44 kWh. Average consumption subsidized at the ECs franchise areas was recorded at about 12.8 kWh. The average subsidy provided to lifeline customers during the month was at PhP33.7 per lifeline customers. The amount of subsidy added to the bill of non-lifeline customers per kWh amounted to 5 centavos/kwh in the MERALCO franchise area, 5 centavos/kWh in the ECs franchise areas, and for other DUs, at PhP6 centavos per kWh.

The said subsidy translated to an average discount to lifeline customers of about PhP1.67/kWh in the MERALCO area, PhP2.30/kWh in the ECs franchise areas, while PhP2.16/kWh in the franchise areas of other private DUs. This is equal to a nationwide average of PhP1.87/kWh. The said discount cuts across all the lifeline threshold levels of all DUs.

Table 12. Average Monthly Subsidy and Benefits to Lifeline End-Users

Particulars	MERALCO	Electric Cooperatives	Other PDUs	Grand Total
Average Number of Lifeline Customers per Month	2,351,192	2,496,183	606,003	4,760,490
Average Number of Non-Lifeline Customers per Month	4,585,694	6,827,883	1,291,965	12,705,542
Average Total Monthly Consumption of Lifeline Customers (kWh)	102,121,977	31,953,386	26,296,386	160,371,749
Average Monthly Consumption of Non-Lifeline Customers (kWh)	3,569,421,042	1,496,230,928	940,768,472	6,006,420,442
Average Total Monthly Subsidy to Lifeline Customers (P/Mo.)	170,618,326	73,354,784	56,701,954	300,675,064
Average Monthly Amount of Subsidy Provided by Non-Lifeline Customers (in PhP)	170,498,499	69,336,384	58,529,819	298,364,702
Average Monthly Consumption per Lifeline Customer (kWh)	**43.43**	**12.80**	**43.39**	**33.69**
Average Amount of Subsidy Provided to Lifeline Customers, in PhP/kWh	**1.67**	**2.30**	**2.16**	**1.87**
Average Amount of Subsidy Provided by Non-Lifeline Customers, in PhP/kWh	**0.05**	**0.05**	**0.06**	**0.05**

Source: ERC

D. Mandatory Rate Reduction (MRR)

Upon the effectivity of the EPIRA, residential end-users shall be granted a rate reduction from NPC rates of thirty centavos per kilowatt-hour (P0.30/kWh). Such reduction shall be reflected as a separate item in the consumer billing statement. Pursuant to this provision of the EPIRA, NPC is continuously granting residential customers with the mandatory discount of 30-centavos/kWh. From the commencement of implementation of the MRR in 2001, the NPC was able to provide a total subsidy amounting to PhP31.6 Billion to residential consumers at an average of about PhP6.2 Million per month.

Table 13. NPC Total Amount Incurred Due to Mandatory Rate Reduction

Billing Month	TOTAL LUZON	VISAYAS	MINDANAO	TOTAL
2001-December 2019	3,474,638,051.05	3,254,434.73	5,594,501,835.04	31,532,335,006.60
20-Jan	2,941,005.32	398,185.99	2,599,232.61	5,938,423.92

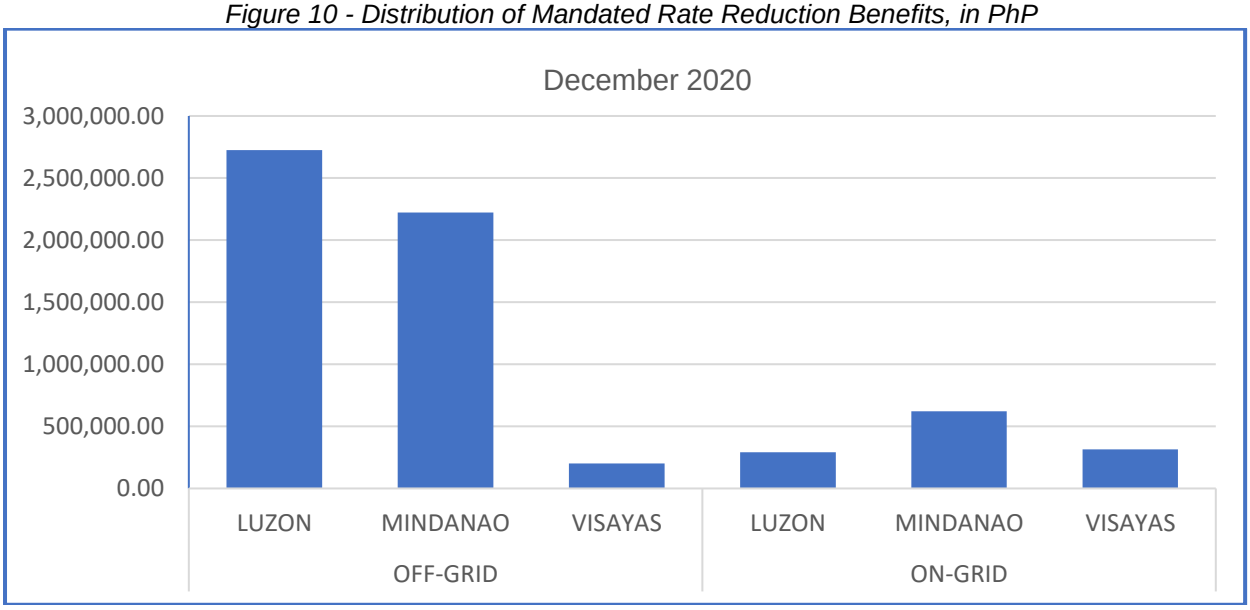
Billing Month	TOTAL LUZON	VISAYAS	MINDANAO	TOTAL
20-Feb	3,048,343.79	472,958.76	2,588,058.23	6,109,360.78
20-Mar	2,813,156.00	502,510.24	2,525,969.56	5,841,635.80
20-Apr	3,433,780.90	558,445.60	2,640,828.06	6,633,054.56
20-May	3,701,995.55	605,201.38	2,774,469.12	7,081,666.05
20-Jun	3,527,103.44	653,215.60	2,806,772.16	6,987,091.20
20-Jul	3,385,213.38	589,463.96	2,723,942.34	6,698,619.68
20-Aug	3,318,808.44	578,223.55	2,726,251.59	6,623,283.58
20-Sep	3,489,192.11	603,217.69	2,725,210.83	6,817,620.63
20-Oct	2,210,689.89	577,062.66	2,718,006.10	5,505,758.65
20-Nov	3,374,521.93	513,626.09	2,744,676.75	6,632,824.77
20-Dec	3,015,149.59	516,210.30	2,844,367.77	6,375,727.66
TOTAL	**3,512,897,011.39**	**9,822,756.55**	**5,626,919,620.16**	**31,609,580,073.88**

Source: NPC

Majority of the rate reduction were applied in the off-grid areas and the largest was recorded in Region IV-B with Marinduque taking the biggest reduction amounting to PhP11.4 Million from January 2020 to December 2020 alone. In the Visayas, Camotes Island got a fair share of reduction with PhPPhP2.3 Million while Basilan in Mindanao took the second highest share of rate reduction at PhP9.1 Million from January to December 2020.

For On-Grid DUs, Sultan Kudarat Electric Cooperative (SUKELCO) got the biggest share of rate reduction amounting to PhP6.3 Million while Aurora Electric Cooperative (AURELCO) got PhP1.3 Million. Northern Samar Electric Cooperative in the Visayas got PhP1.1 Million from January to December 2020. The MRR is extended only to residential customers of DUs which has a supply contract with NPC.

Figure 10 - Distribution of Mandated Rate Reduction Benefits, in PhP



Source: NPC

Based on the latest data, for December 2020, the provision of MRR was heavily concentrated in Off-Grid areas particularly in Luzon and Mindanao. This is in consideration that NPC's remaining operation is already concentrated in the Off-Grid areas. The biggest beneficiary provinces are Palawan, Mindoro, Marinduque, Masbate, Catanduanes, Sulu, Tawi-Tawi, Romblon, and other smaller islands where NPC is in operation.

V. COMPETITION

This section provides an update on key areas of competition covering the period from September 2020 to February 2021 on the operation of the Wholesale Electricity Spot Market (WESM) and monitoring of compliance to Section 45 of the EPIRA.

A. WESM Operational Highlights

As of 25 February 2021, a total of 275 registered participants are in the integrated WESM (Luzon and Visayas) consisting of 136 generation companies and 139 customers.

In February 2021 billing month, only one (1) Generation Company has registered in the WESM namely, GIGASOL3, Inc. Meanwhile, two (2) Directly Connected Customers (DCC), International Rice Research Institute and Waterfront Mactan Casino Hotel, Inc., Inc., were removed in the list of DCCs January 2021 due to change in category from DCC to Contestable Customer.

While there are no changes on WESM Registration in December 2020, Malvar Enerzone Corporation registered as a new Private Distribution Utility (PDU) in November 2020.

In October 2020, Cenon Cordero & Sons Enterprises Inc., ceased their WESM registration as DCC. Likewise, National Power Corporation and First Gen Energy Solutions, ceased their registration in September 2020 as DCC and Wholesale Aggregator, respectively. In the same month, Bataan 2020, Inc., registered as the new Generator.

The breakdown of the Generation Companies and Customer Trading Participants is shown in the table below.

Table 14. Registration Update as of 25 February 2021 (Luzon and Visayas)

CATEGORY	REGISTERED						
	TOTAL	DIRECT			INDIRECT		
		LUZ	VIS	LUZ/VIS	LUZ	VIS	LUZ/VIS
Generation Companies	**136**	**88**	**45**	**2**	**1**	**0**	**0**
Customers	**139**	**46**	**38**	**1**	**46**	**7**	**1**
PDU & Local government utilities	20	10	5	0	5	0	0
Electric cooperatives	71	29	28	0	14	0	0
DCC	48	7	5	1	27	7	1
TOTAL PARTICIPANTS	**275**	**134**	**83**	**3**	**47**	**7**	**1**

Source: PEMC

Capacity Profile

The WESM registered capacity for the billing month of February 2021 is recorded at 20,871.37 MW, an increase of 663.90 MW compared from a total of 20,207.47 MW registered in September 2020. Of the said total capacity, only about 65% or an average of 13,038.17 MW were offered in the market.

During the report period from September 2020 to February 2021, several changes in the registered capacity of power plants in the WESM were recorded as follows:

1. Increase in capacities:
   a. PetroWind Energy Inc. solar plant from 21 MW to 36 MW

2. Decrease in capacities:
   a. Cagayan Biomass Energy Corporation biomass plant from 15 MW to 13.5 MW;
   b. Millennium GTPP from 100 MW to 85 MW;
   c. Nabas DPP from 6.8 MW to 6.4 MW;
   d. Vivant Sta. Clara Northern Renewables Generation Corporation's hydro plant from 76 MW to 74 MW;
   e. Philippine Power and Development Company's from 1.6 MW to 1.5 MW; and
   f. Palakpakin and Balugbog HEP from 1.2 MW to 1.1 MW.

3. New entries:
   a. Bataan 2020, Inc. coal plant 25-MW; and
   b. GNPower Dinginin Ltd. Co. coal plant 668-MW

Supply and Demand and Market Outcome

The electricity demand was observed to have an unusual trend compared to previous years due to the implementation of community quarantine brought about by the COVID-19 pandemic. Further, the average system demand consistently decreased as the year progressed from September 2020 to January 2021. The lower demand was due to the cooler weather during the season, as well as the prevalence of holidays, which had a significant impact on power demand. However, the average system demand increased after a previous 4-month decline in February 2021. Based on the yearly trend, the uptick in demand this month followed the increasing pattern going into February in previous years.

For the October and November 2020 billing month, several powerful tropical depressions, including Typhoon Quinta, Typhoon Rolly, and Typhoon Ulysses, disrupted the country's power grid and resulted in a drop in demand. Several 69 kV, 230 kV, and 500 kV transmission lines became inaccessible during the period as a result of all of the typhoons that hit the Philippines, causing widespread damage to the power grid, especially in Region IV-A (CALABARZON) and Region V (Bicol). With this, electricity demand plus reserve fell by 9.3% from an average of 11,278 MW in September 2020 to 10,233 MW in February 2021.

During the report period from September 2020 to February 2021, the average effective supply was recorded at 12,866 MW. The effective supply dropped in September 2020 as fewer capacities were available in the market due to an increase in outage capacity and capacities not offered by generators. Meanwhile, the effective supply slightly increased in October 2020 due to the decline in outages and capacities being not offered this month. However, the effective supply was recorded with 3rd consecutive drop from November 2020 to January 2021 due to the outage of few generators and transmission lines brought about by several powerful tropical depressions. In February 2021, the effective supply slightly increased by 5.1% due to the decrease in level of plant outages all throughout the month, which in turn improved power supply.

As a result of the supply-demand mix, average supply margin for the covered billing months was at 2,333 MW. Lowest supply margin was recorded in September 2020 which was aggravated by the SPEX Malampaya facility's gas supply restrictions, which resulted in lower energy production from natural gas plants that relied on the facility for supply. Nevertheless, the level of supply margin during the community quarantine period was remarkably high as compared to previous years of similar months.

The average market price during the cover period is at PhP2,479/MWh with the lowest rate of PhP1,983/MWh in November 2020 and highest rate of PhP3,657/MWh in September 2020. While there are no yellow and red alerts declared from the System Operator, price spike events were recorded on the following intervals:

Date	No. of Price Spikes	Remarks
28 August 2020	2	In general, the cause of the price spike events was thin supply margin coming from the outage of several plants. This outage coincided with the gas supply restriction from the SPEX Malampaya facility which caused some natural gas plants to have limited energy output; thus, causing high-priced generators to clear the market. All the price spike events this month breached the upper price spike threshold for peak and off-peak hours during the rainy season.
30 August 2020	1	
04 September 2020	1	
05 September 2020	4	
06 September 2020	1	
07 September 2020	7	
28 October 2020	3	The price spike events were caused by thin supply margins coming from the outage of power plants due to the onslaught of Typhoon Quinta. After the passage of the typhoon, demand during these intervals was gradually catching up to the supply causing a narrow supply margin.
14 January 2021	1	The price spike coincided with the tripping of Naga-Daraga 230kV line at 0514H resulting in island mode operations of several geothermal plants.
25 January 2021	1	The price spike coincided with the limitation on the inter-island transfer of additional capacity from Negros and Panay to Cebu, due to the congestion in the Bacolod – Barotac line 1 (Negros-Cebu interconnection).

The details of the demand and supply situation and the Average Market Prices are shown in the table below.

Table 15. Demand and Supply Situation (September 2020 to February 2021))

Month	Demand + Reserve (MW)	Effective Supply (MW)	Supply Margin (MW)	Average Market Price (Php/MWh)
August 2020	10,599	13,251	2,652	2,017
September 2020	11,278	13,141	1,864	3,657
October 2020	10,878	13,191	2,313	2,034
November 2020	10,437	13,013	2,576	1,983
December 2020	10,423	12,981	2,468	2,169
January 2021	9,857	12,127	2,270	2,749
February 2021	10,233	12,740	2,508	2,281
Average	**10,518**	**12,866**	**2,333**	**2,479**

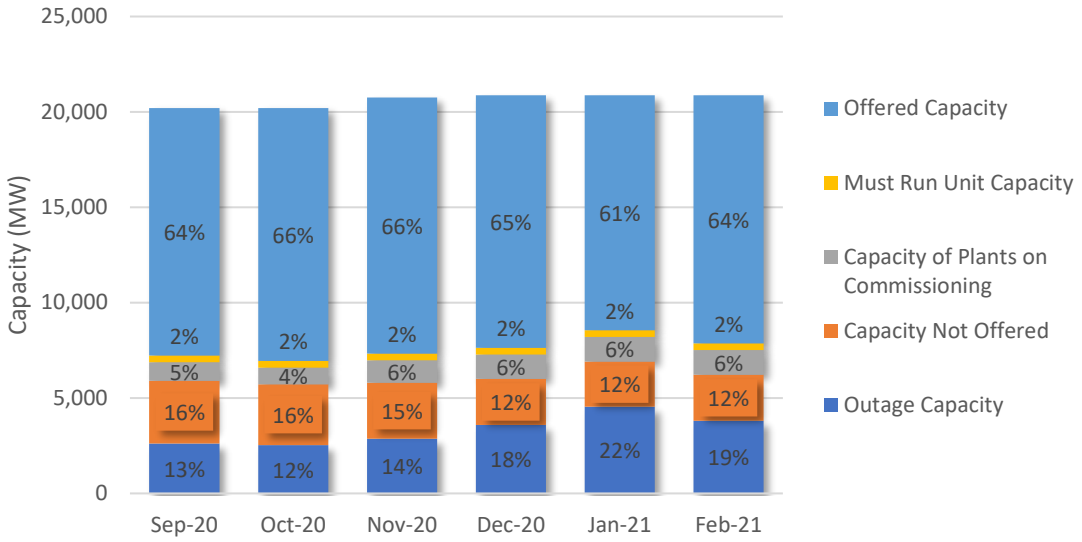
Source: PEMC

Outage Capacity

During the report period, an average of 16% of the total registered capacity equivalent to 3,324 MW was on outage.

The January 2021 billing month experienced the highest level of outage at 4,541MW, of which the majority or 59% was classified as forced outages due to the unavailability of the large generators prior to the billing month, such as San Gabriel NGPP, Sual CFTPP unit 2, Masinloc CFTPP unit 3, Kalayaan PSPP unit 4, and Calaca CFTPP unit 2. Further, the month-on-month rise in planned and maintenance outages increased the overall outage capacity from 647 MW to 903 MW and 336 MW to 938 MW, respectively.

Figure 11 - Capacity Profile for September 2020 to February 2021



Based on the type of resource, coal power plants consistently topped in terms of outage at about 54% of the time or an average of 1,816.60 MW. This was mainly on account of the long outage period from coal plants. Meanwhile, natural gas plants recorded an average of 603.60 MW or 19% of the total outages. Geothermal plants recorded an average of 332.40 MW or 10% level from outage capacity. It was observed that geothermal and hydrothermal plants were observed with a significant drop in outage capacity from 10% and 18% in December 2020 to 4% in January 2021. Additionally, hydro plants posted with an average of 7 percent of outage capacity. Meanwhile, oil-based plants were recorded with an average of 12% of outage capacity wherein majority of the outage capacity of oil-based plants consisted of the prolonged outage of Malaya TPP unit 1 (300 MW) due to problems in the unit generator since 03 May 2019.

Capacity Profile in the WESM for the covered period is summarized in the following table.

Table 16. Summary of Capacity Profile for September 2020 to February 2021

	Registered Capacity (MW)	Outage Capacity (MW)	Capacity Not Offered (MW)	Capacity of Plants on Commissioning (MW)	Must Run Unit Capacity (MW)	Offered Capacity (MW)
September 2020	20,207.47	2,623	3,289	961	350	12,973
October 2020	20,205.97	2,525	3,202	860	350	13,269
November 2020	20,858.57	2,868	2,934	1,175	350	13,425
December 2020	20,873.57	3,584	2,414	1,290	350	13,229
January 2021	20,871.57	4,541	2,368	1,290	350	12,323
February 2021	20,871.37	3,803	2,418	1,290	350	13,010
Average	**20,533.27**	**3,324.00**	**2,770.83**	**1,144.33**	**350.00**	**13,038.17**

Source: PEMC

B. Updates on WESM Governance Activities

PEM Audit Committee (PAC)

During the report period, the PAC supervised the following activities:

1. Audit of the PDM-related Enhancements to the New Market Management System (NMMS) and Central Registration and Settlement System (CRSS)

After the conclusion of the audits of the New Market Management System (NMMS), Central Registration and Settlement System (CRSS), and Tools/Systems for the Net Settlement Surplus/Net Settlement Deficit (NSS/NSD) calculations based on the revised NSS Rules, the PAC submitted to the PEM Board on 16 October 2020 the Audit Reports which provide an executive summary of the results of the following:

a. Independent software audit of the NMMS and the CRSS for the enhanced WESM design and operations; and
b. Independent software audit of the enhancements to the NSS/NSD tool for the 1-hour market and CRSS-NSS module for the 5-minute market.

Said reports were likewise published in the PEMC website and disseminated for information of all Market Participants on 22 October 2020.

After IEMOP's presentation of the NMMS and CRSS enhancements to address the ERC directives relating to the PDM application, the PAC agreed to conduct a pre-certification audit of the said enhancements and to negotiate the conduct of audit with Intelligent Energy Systems Pty Ltd (IES), the external auditor for the recently concluded audits on NMMS and CRSS.

On 24 November 2020, the IES submitted the Proposal, which was reviewed and approved by the PAC on 25 November 2020. The proposal contains the preliminary audit methodology, deliverables and timeline, and financial proposal. Subsequently, the IES submitted a revised Proposal on 16 December 2020 to address PEMC comments to the initial Proposal. PEMC and PAC thereafter concurred with the Proposal, with revisions made as of 16 December 2020.

Based on the revised proposal, the audit will commence in January 2021 and is set to be concluded in March 2021.

To officially start the activities for the audit, the Kickoff Meeting among PEMC, PAC, IEMOP and IES was conducted on 11 January 2021 to discuss the audit work plan, schedule of activities, scheduling of interviews/walkthroughs, among others.

Then, during its regular meeting on 10 February 2021, the PAC reviewed and accepted the final draft audit Inception Report. The provision and review of test cases for NMMS and CRSS started thereafter.

Noting the delay in the status of audit activities, the original audit completion timeline of March 2021, will be adjusted/extended to 2nd Week of April 2021.

2. Audit of Philippine Renewable Energy Market System (PREMS) and Vulnerability Assessment and Penetration Testing (VAPT)

The PREMS Software Certification Audit and VAPT will be conducted under the supervision of the PAC.

On 13 January 2021, the PAC approved the results of Limited Source Bidding for the engagement of External Auditor for the conduct of PREMS Software Certification Audit and VAPT. Thereafter, PEMC issued the Notice of Award/Notice to Proceed to the winning bidder, Reyes Tacandong & Co (RT&Co), on 22 January 2021.

To officially start the audit activities, the Kickoff Meeting among PEMC – RE Market Project Team, PAC and RT&Co was conducted on 04 February 2021 to discuss the audit work plan, schedule of activities, scheduling of interviews/ walkthroughs, among others.

The audit is targeted to be concluded in April 2021.

3. Joint 7th Market Operations Audit and 4th Review of Metering Installations and Arrangements

The 7th Market Operations Audit was conducted remotely by the external auditor RSM Australia Pty Ltd. (RSM). The first progress report was submitted last 07 Oct 2020.

On 06 November 2020, RSM requested for a three (3) month extension for submission of final deliverables which is attributable to delay in receipt of all required documentation brought about by difficulty in remote retrieval of archived files and readiness of market assessment and compliance monitoring systems that will undergo software certification. This has impacted the external auditor's ability to review the supporting documentation and to commence detailed testing.

For the 4th Review of Metering Installations and Arrangements Inception Report, RSM has submitted the final version of the report and corresponding checklists on 05 November 2020. The same was then reviewed by and presented to PAC on 11 November 2020 during their regular meeting. The final PAC acceptance of the RMIA4 inception report was on 27 November 2020 which stipulates that the fieldwork for metering review is still set (tentatively) to commence in January 2021 subject to COVID-19 travel related restrictions.

The PAC accepted the external auditor's proposed three (3) month extension for submission of final deliverables which in effect will slide the completion of the MO Audit from Dec 2020 to March 2021.

The table below sets out the status of each market operations audit activity per RSM's third monthly report submitted on 09 December 2020.

Ref.	Scope Area	% Completed
Task 1.1	Market Software and System Review	90%
Task 1.2	Process and Compliance Review	75%
Task 1.3	Bid to Bill Analysis	40%
Task 3.1	Procedure/Process and Compliance Review of PEMC	98%
Task 3.2	Software Certification Audit of PEMC Systems intended for Enhanced WESM Design and Operations	0%
Task 4	Review of Market Maturity	60%

For the 4th Review of Metering Installations and Arrangements Inception Report, the January 2021 tentative commencement of onsite work as stipulated in the PAC approved RMIA4 inception report will be imminently moved in consideration of persistent travel restrictions here in the Philippines and in Australia. Following the queries of the parties (Metering Service Providers) to be reviewed, the PEM Audit Committee issued an advisory that the January 2021 commencement is postponed. The proposed new start date shall be determined by PAC based on the proposal of the External Auditor.

The PAC formally informed the RSM through its letter dated 26 January 2021, on the acceptance of the proposed extension on the timeline of deliverables for the MO Audit. The PAC also relayed PEMC's request to further extend the completion of Task 3.2 Software certification of CPEMS and NMAS until May 2021 since the systems would be ready for audit at the start of April 2021.

On 15 January 2021, the PAC received RSM's letter with its proposed slide in commencement of on-site inspection from January 2021 to July 2021 in relation to the 4th Review of Metering Installations and Arrangements Audit. The PAC initially acknowledged the proposed revised timeline which was due to international and domestic travel restrictions caused by the pandemic.

Finally, on 11 February 2021, RSM proposed a new schedule for 7th MO Audit deliverables in view of the additional supporting documentation provided by the auditees on 29 January 2021 to resolve the preliminary findings in the 7th MO Audit Third Progress Report. Upon assessment and deliberation, the PAC adopted the said request and accordingly endorsed the same for PEMC's consideration per its memorandum dated 22 February 2021.

4. Conduct of Market Readiness Assessment for the Implementation of the Enhanced WESM Design and Operations in Luzon and Visayas and WESM in Mindanao

   The Market Readiness Assessment activity is conducted to assess the readiness of the Market Operator (MO), System Operator (SO), PEMC, Metering Services Providers (MSPs), and WESM participants for the implementation of the enhanced WESM design and operations in Luzon and Visayas, and WESM in Mindanao.

   The Market Readiness Steering Committee (MRSC), which is led by PEMC President and composed of members from IEMOP, NGCP, PEMC and PIPPA, conducts regular meeting with the Work Stream Champions to discuss updates on their respective action plans. It is noted that while the PAC oversees the MRA activity, the action plans and activities of the MRSC to address issues arising from the MRA are independent from the PAC.

   The status of remaining Go-live conditions including the recommended new Go-live date was regularly discussed during the MRSC Meetings and was reported to the PEM Board and the DOE. The last report was submitted on 07 January 2021.

5. Audit of the Accounts Management System

   The PAC supervised the software certification audit of the enhancements to the Accounts Management System (AMS) of the Independent Electricity Market Operator of the Philippines (IEMOP), conducted by R.G. Manabat & Co., KPMG in the Philippines.

   The audit was conducted to identify the consistency of the enhanced AMS components with the applicable Market Rules and Manuals, relevant ERC issuances, and software specifications. This activity was handled by the R.G. Manabat & Co., KPMG in the Philippines, the third-party expert commissioned by the PAC.

   To kick-off the audit, the PAC participated in the Planning Meeting with KPMG and the AMS Audit Project Team, composed of point persons from IEMOP and PEMC, held on 05 October 2020.

   The PAC reviewed and issued the Certificate of Acceptance dated 20 October 2020 indicating its acceptance of the Inception Report submitted by KPMG.

   After the conclusion of audit, KPMG issued a final report incorporating the factual audit findings and the software certificate indicating the compliance of the enhancements with respect to the applicable Market Rules and Manuals, relevant ERC issuances, and software specification. PAC thereafter issued the Certificate of Acceptance stating its acceptance of the final report and software certificate.

In accordance with the provisions under the PEM Audit Manual, the PAC submitted its Audit Report providing an executive summary of the results of the AMS enhancements audit on 24 November 2020, for the PEM Board's review.

The PAC likewise presented the audit results during the PEM Board meeting on 16 December 2020. Following the Board's confirmation of the AMS enhancements audit and in compliance to the PEM Audit Manual, the PAC Audit Report was published on the same date in the PEMC website for information of market participants.

6. Market Operator Performance Monitoring Report for 26 September – 25 December 2020

   The PAC reviewed the results of MO Performance Monitoring covering the period 26 September – 25 December 2020 and endorsed the same to the PEM Board on 10 February 2021. The PEM Board approved the report on 24 February 2021 and submitted the same to DOE on 01 March 2021.

   Likewise, on 11 November 2020, the PAC reviewed and endorsed to the PEM Board the results of Annual MO Performance Monitoring covering the period 26 September 2019 – 25 September 2020. The PEM Board approved the report on 25 November 2020 and submitted the same to DOE on 26 November 2020.

7. Proposed Market Operator Performance Standards (MOPS) under the Enhanced WESM Operations

   On 9 November 2020, a coordination meeting was held to further discuss the proposed MO performance metrics and come up with a set of performance standards agreeable among PEMC, PAC and IEMOP. The recommendations on the proposed MO performance metrics were presented to and approved by the PEM Board on 25 November 2020.

8. Monitoring of Developments and Implementation of Audit Recommendations

   In accordance with the provisions under the PEM Audit Manual, the PAC commenced its monitoring of the developments and implementation of the audit recommendations and requested IEMOP, as the auditee, for its action plans to address the recommendations in the reports for the following recently concluded audit:

   a. Seven (7) NMMS modules;
   b. First and second supplemental audits of the enhancements/fixes to the NMMS and modules/enhancements to the CRSS; and
   c. Enhancements to the Accounts Management System.

   The PAC thereafter prepared its Audit Assessment Report for the period January to November 2020 containing the action plans provided by IEMOP including information on the audits as follows:

   a. List of audits in process and the stage of each audit is still not finalized;
   b. Summarized description of the scope, main finding and recommendations of the audits, assessment and reviews finalized during the period; and
   c. Any recommendation that may arise from the experiences in audit procedures established in the PEM Audit Manual or otherwise observed.

The said report was submitted to the PEM Board on 21 December 2020.

Rules Change Committee (RCC)

During the period the RCC accomplished the following:

1. Proposed Amendments to the WESM Rules and WESM Manuals on Validation Timeline Adjustment in Metering and Billing

   IEMOP initiated a Rules Change proposal relative to the validation timeline adjustment in metering and billing to address issues on inconsistency in the Rules and Manuals on metering correction timeline. The proposal intends to:

   a. Address issue on inconsistency in Rules and Manuals on metering correction timeline;
   b. Provide additional validation time for the Market Operator (MO);
   c. Improve compliance of Metering Service Providers (MSPs) to the timely submission of monthly metering data;
   d. Provide clearer timelines in metering data correction; and
   e. Reduce issuance of settlement adjustments.

   During the 173rd RCC Meeting (15 January 2021), the RCC approved the publication of the said proposed amendment in the PEMC website for comments. On 18 January 2021, the said proposal was posted on the PEMC website for comments. During the 174th RCC Meeting (19 February 2021) the proponent presented the additional information requested at the last 173rd RCC Meeting, the RCC noted the additional information provided and approved the publication of the supplemental information in the PEMC Website.

2. Proposed Amendments to the WESM Rules and WESM Manuals on the Rationalization of Billing Adjustment Timelines

   IEMOP submitted to the RCC on 10 September 2020 a proposal to reduce the financial risks of the WESM Trading Participants due to billing adjustments by providing shorter and clearer timelines in reporting and correcting errors or discrepancies in settlement.

   During the 169th RCC Meeting (18 September 2020), the RCC approved the publication of the proposal in the PEMC website to solicit comments from industry stakeholders and interested parties. The RCC deliberated on the proposal and subsequently approved for endorsement to the PEM Board, during the 171st RCC Meeting (20 November 2020). The RCC made additional minor changes for clarity and approved the proposal for submission to the PEM Board, during its 172nd RCC Meeting (11 December 2020).

3. Proposed General Amendments to WESM Rules and WESM Manual on Bilateral Contract Quantity (BCQ) Declaration

   Pagbilao Energy Corporation (PEC) submitted a proposal to the RCC on 06 July 2020, to amend the Market Manual on Billing and Settlement concerning BCQ, to provide procedures covering the scenario of non-submission, non-confirmation and nullification by the Trading Participant of bilateral contract quantities, resulting to bilateral contract declarations not being accounted during settlement. During the 167th RCC Meeting (17 July 2020), the RCC approved the proposal for posting in the PEMC website to solicit comments from the stakeholders and other interested parties.

   Deliberations were made during the 169th (18 September 2020), 170th (16 October 2020) and 171st (20 November 2020) RCC Meetings, discussing various comments received. The RCC resolved to approve the proposal for endorsement to the PEM Board at its 171st RCC Meeting (20 November 2020).

4. Proposed General Amendments to WESM Rules and WESM Manual on Billing and Settlement on Prudential Requirements

   IEMOP submitted to the RCC on 17 July 2020, the proposed general amendments to the WESM Rules and Market Manual on Billing and Settlement to incorporate the following:

   a. Addition of settlement by request of prudential requirements;
   b. Inclusion of force majeure and large reduction in load served as considerations for replacement month in the computation of maximum exposure;
   c. Revision of the basis for security amount from average price and monthly quantities to hourly price and hourly quantities;
   d. Revision of the grounds for exempting a WESM Member from prudential requirement;
   e. Revision on the allowed forms of security; and
   f. Clarification on the process of refund.

   The RCC during its 168th RCC Meeting (14 August 2020) approved the proposal for publication in the PEMC website, to solicit comments from the stakeholders and other interested parties. The RCC then deliberated on the comments received during the 170th RCC Meeting (16 October 2020) and subsequently approved the proposal for endorsement to the PEM Board during the 171st RCC Meeting (20 November 2020).

5. Proposed Amendments to the WESM Rules and WESM Manuals on Clarifications on Indirect WESM Membership

   WESM Rules Clause 2.2.4.2 provides that “no person or entity shall be allowed to inject or withdraw electricity from the grid unless that entity or person is a registered member of the WESM” · However, IEMOP observed that eight (8) grid customers, which were initially served by NPC/PSALM under the Default Wholesale Supplier (DWS) agreement, are still yet to register in the WESM. The non-registration of these entities may pose an issue on the accounting and settlement of their transactions once their bilateral contracts expire. · IEMOP initiated a review of the WESM Rules to identify possible changes that could better facilitate and streamline the registration process of all grid customers in the WESM and submitted a Rules Change proposal on the same. During the 171st RCC Meeting (20 November 2020), the RCC approved the proposal for publication in the PEMC website to solicit comments from the stakeholders and other interested parties.

   During the 173rd RCC Meeting (15 January 2021), the RCC decided to defer the discussion of the said proposal and the comments received, to provide the proponent enough time to respond to the questions. The RCC, during the 174th RCC Meeting (19 February 2021), continued the deliberations and subsequently agreed to defer the endorsement to the PEM Board pending the proponents rectification of the concerns identified.

6. Corporate Strategic Plan 2021-2022

   During the 171st RCC Meeting (20 November 2020), the secretariat presented the RCC Corporate Strategic Plan for 2021-2022. The RCC noted the information provided and agreed to provide inputs specifically on the rules review process.

7. Survey of Rules Changes for Rules Effectiveness Study

   The proposal is based on the Market Assessment Group’s (MAG) initiative to: (1) determine whether market rules changes achieved the intended goals or benefits of the proposal; (2) fill the gaps in understanding what rules change worked and did not work; and (3) recommend enhancements to the rules change process.

The RCC, during the 172nd RCC Meeting (11 November 2020) approved the three (3) topics proposed by the MAG on the conduct of rules change effectiveness study, which include must-run units, prudential requirements and registration.

Technical Committee (TC)

During the covered period, the TC accomplished the following:

1. Market Operator (MO) – System Operator (SO) – Distribution Utility (DU) – Embedded Generator (EG) Coordination Protocol

   The TC continued its discussion on the finalization of the proposed MO-SO-DU-EG Coordination Protocol following NGCP's approval to include in the protocol its Dispatch Protocol for Embedded Generators providing Ancillary Services.

   The TC targets to submit the proposed protocol to the PEM Audit Committee (PAC) within 1Q 2021.

2. TC Study on Battery Energy Storage System (BESS)

   During the TC Regular Meeting No. 2020-11 on 11 November 2020, the TC agreed that the scope of their study will include BESS participating in the energy market and BESS providing ancillary services.

   The TC will continue drafting the proposed framework for BESS including its requirements as support to variable renewable energy (VRE) resources and will be finalized by 2021.

3. TC Study on Demand-Side Bidding

   The TC conducted an initial assessment on the existing framework of Demand-Side Bidding (DSB) based on WESM Rules and Manuals. Based on the assessment and directives from the ERC, the TC proposed to conduct a consultation to determine the appetite and preparedness of the participants on this new market feature.

   In line with this, the TC started their development of a consultation paper on demand-side bidding by finalizing the outline of the paper which will provide information and background on the demand-side bidding in the Philippine setting. Specifically, the consultation paper aims to:

   a) Provide relevant information on demand-side bidding; and
   b) Solicit inputs from the participants on their interest and preparedness on the possible implementation of demand-side bidding in the WESM.

   The TC is expected to submit to the PEM Board a position paper on demand-side bidding by 2Q of 2021 based on the results of the consultation to be conducted in March 2021.

4. MSC Study Request on the Review of the 2018 PEMC Proposed Methodology for the Determination of New Threshold for the Price Substitution Methodology

   On 25 November 2020, the TC conducted a special meeting to discuss the results of the threshold calculation based on the PEMC 2018 proposal and provide their initial assessment on the subject matter.

Based on the results of the calculation and further discussions, the TC provided the following initial insights on the proposed methodology:

a) The proposed methodology reflects the worst case scenario but does not reflect system behavior;
b) The rules should not be based on outliers rather it should be based on central tendencies and should take into account some variance;
c) Adding the threshold loss and threshold congestion may not be a good practice since these values are not comparable; and
d) Maximum PTF may not be the right basis for the threshold.

The TC agreed to do a re-calculation using the final settlement prices noting that the initial data that was used have prices beyond the range of acceptable values. The TC further discussed the updated results of the threshold calculation considering the separate market runs due to price separation based on regional pricing conditions and HVDC status.

To aid in the discussion of the results, the TC conducted a meeting with PEMC Market Assessment Group (MAG) on 20 January 2021 and with IEMOP on 19 February 2021 to discuss and solicit inputs to the results of the TC threshold calculation.

Based on the discussions and inputs gathered from the meetings, the TC agreed to finalize their response to the MSC and provide recommendations on the matter.

The TC will likewise provide inputs and comments to the threshold calculation and proposal by PEMC, for the latter's compliance to the ERC's directive to conduct a review and propose regional thresholds within three (3) months from the promulgation of the proposed Price Determination Methodology (PDM) Manual for the NMMS.

5. PEMC Strategic Plan and Market Development Studies for 2021-2022

On 11 November 2020, the TC provided inputs to the Committee's specific strategies that are part of the PEMC Strategic Plan for 2021-2022. The plan includes regular activities, carryover activities, and new strategies for the next two years.

The following are the studies assigned to the TC that is part of the 2021 Corporate Plan:

a) Study on the proposed design for Demand-Side Bidding/Participation; and
b) Study on the nature of VRE participation in WESM (possibility to change status from must-dispatch to scheduled).

6. TC 2020 Annual Report and 2021 Work Plan

On 09 December 2020, the TC reviewed the list of their 2020 Accomplishments in preparation for the drafting of their annual report. The TC also reviewed the draft TC 2021 Work Plan and is scheduled to be approved by the first quarter of 2021.

7. MSC Study Request on the Impact of Different Metering Configurations and the Appropriateness of the Procedures in Deriving the Settlement Quantities of Generator Nodes

During the February 2021 TC Regular Meeting, PEMC-MAG presented the details of the MSC Study Request highlighting the case of Sta. Barbara nodes and corresponding metering configuration. Based on the presentation, the TC provided the following insights:

a. WESM Meters and Remote Terminal Units (RTU) should have one-to-one correspondence and are expected to be co-located; and

b. The WESM should keep the integrity of Metered Quantities (MQ).

The TC will finalize their response to the MSC and provide recommendations on the matter.

Market Surveillance Committee (MSC)

During the covered period, the MSC accomplished the following activities:

1. Assessment of Market Outcomes

The MSC assessed the results of the WESM operations for four (4) billing months or for the period 26 August to 25 December 2020, as reported in the Monthly Market Assessment Report of the MAG (MMAR-2020-09 to 12). The details of submission of these reports are contained in the following table:

Billing Month	MMAR Number	DOE/ERC Submission Date
September 2020	2020-09	06 November 2020
October 2020	2020-10	04 December 2020
November 2020	2020-11	29 December 2020
December 2020	2020-12	05 February 2021

The MSC had an extensive discussion on the effects of line congestion on the WESM outcomes. It was agreed by the Committee to identify and provide prominence to these transmission lines that affect the market outcomes.

It has been noted that apart from other occurrences in the market, the Malampaya gas restrictions contributed to the reasons for the price spikes that occurred during the covered period. The first instance for 2020 of year-on-year increase in demand and the highest recorded weighted average price for the year was also noted.

The MSC also noted unusual events such as prolonged implementation of the community quarantine and the issuance of four (4) Weather Disturbance Alert Notices (WDAN) due to tropical depressions in the Philippine area of responsibility (PAR).

Finally, the WESM Luzon region was also placed under Market Intervention/Suspension for a total of forty-seven (47) intervals due to power system disturbances caused by Typhoon Ulysses.

2. Grid Operation and Maintenance Program (GOMP)

The MSC noted the presentation regarding the revisions on the National Grid Corporation of the Philippines' (NGCP's) GOMP as made available in July 2020. The GOMP was compared with the Market Assessment System (MAS) data which involved the schedule of planned, forced, and maintenance outages.

Following the presentation, the MSC agreed to conduct another discussion regarding the changes in the GOMP which shall involve the impact of changes in the supply and demand condition of the market with respect to reserve, price, and supply.

3. Results of the GOP Monitoring for the Second Quarter of 2020

The MSC reviewed the results of the Grid Operating and Maintenance Program (GOMP) Generator Outage Monitoring for the Second Quarter of 2020 as compared with the Daily Operations Report (DOR) which are both submitted by the NGCP.

The MSC was provided a highlight on the effects of the outages on the supply and price in an identified interval. It was also noted that these schedules on outages should be strictly complied with, similar to the dispatch scheduled in the market as it has economical effects. A study regarding the matter which shall determine the manner of monitoring to be done on outages was also recommended as a way forward.

Following the notable differences between the two references and non-conformance of generating units to the planned outage schedule, the MSC agreed to request for clarification on the matter from the NGCP.

4. Consolidated Report on Interesting Pricing Events (IPER)

The MSC furnished the PEM Board, the DOE, and the ERC a copy of its Interesting Pricing Events Report covering the billing period from September 2018 to December 2019.

The Consolidated IPER provides an analysis of the interesting pricing events during the subject period. Interesting pricing events refer to intervals determined to have price outliers based on the relationship of market price and supply margin. Prices within the upper and lower reference price thresholds are considered as “normal prices”, while prices outside or beyond these thresholds are tagged as “interesting pricing events” and subject to further analysis and assessment.

Most of the 271 interesting pricing events during the subject period were mostly affected by high levels of outage capacity. In addition, high demand drove the market price up in several trading intervals. On 21 December 2018 and 01 January 2019, there were intervals when the prices breached the lower threshold brought about by the low demand during the New Year celebration.

5. Assessment of Over-Riding Constraints

During the report period, the MSC analyzed the over-riding constraints imposed on generators for the four (4) billing months of September to December 2020.

The MSC noted that for all the 4 billing months, the over-riding events were on account of non-security limit events. For April to August 2020, the impositions of over-riding constraints were mainly attributable to the conduct of testing and commissioning of various generation facilities for all the trading intervals which accounted for 95 to 99% of time. For the July to August 2020 billing month, the MSC took note that the higher number of non-security limit events was mainly due to the increase in the activities of generation facilities related to generating unit limitation and commercial and regulatory requirements.

The MSC agreed to write the MO regarding the observations in the updates on plants under testing and commissioning.

The details of submission of these over-riding constraints are listed in the following table:

Billing Month	No. of Over-riding Events
August 2020	5, 764
September 2020	5, 815
October 2020	6, 055
November 2020	5,757
December 2020	6, 100

6. Assessment of the Retail Market

The MSC assessed the performance of the retail market for the third and fourth quarter of billing year 2020, as provided under the Retail Market Assessment Report covering the period 26 June to 25 September 2020 (MAG-RMAR-2020-03) and 26 September to 15 December 2020 (MAG-RMAR-2020-04).

There was a total of 2,118 qualified electricity end-users already issued with the ERC's Certificate of Contestability. Of these, 1,508 CCs or about 71% have already registered in the market as of the billing month of December 2020. Additional 29 CCs registered in the market during the fourth quarter of 2020.

In terms of contestability threshold, the market recorded 1,135 registrants or about 75% of the total registered contestable customers in the 1 MW and above contestability threshold. The remaining 373 registrants or about 25% were classified under 750-999 kW contestability threshold.

During the period of review, thirty-nine (39) switches from one Supplier to another were recorded. Of which, two (2) were from LRES to RES, thirty (30) were from RES to a different RES, and seven (7) were from RES to LRES.

By the end of December 2020 billing month, about 39% of the consumption of all registrants were supplied by the MERALCO group. This was followed by the Aboitiz group, the San Miguel group and the Ayala group at about 21%, 18% and 10% share, respectively.

MSC STUDY ON THE RETAIL MARKET

1. Conduct of Dialogue with Contestable Customers re: MSC Study on the Retail Market

The MSC held a Dialogue with the officers and representatives of the various Contestable Customers on 28 August 2020 to solicit inputs and comments on the MSC Study on the Retail Market. PEMC Officers were also present during the MSC-CC Dialogue.

The Dialogue was in line with the MSC's recognition that the CC, being the Consumers directly involved in the RCOA Market, have valuable inputs which may lead to enhancements to better the experience in joining/participating in the market. Through the said Dialogues, the MSC likewise expressed its intention to work hand in hand with the CCs in the conduct of the Study.

2. Conduct of Survey with Contestable Customers

The MSC conducted an RCOA Survey which was participated by 46 respondents from various categories in the market.

Recommendations of the MAG:

b. Consumer empowerment;
c. Enhance consumer portal;
d. Enhancements to and proper implementation of Rules on Retail Supply Contracts;
e. Prohibition of saves and win-backs ;
f. Provision of inactive consumers list to suppliers;;
g. Strict implementation and compliance with ERC and DOE Issuances
h. Enhancements to licensing rules;
i. Adoption of aggregation in RCOA market; and
j. Use of Vertical Integration as Market Index.

3. Review of Compliance Monitoring and Assessment

   Compliances of Generator-Trading Participants (TP) with the Real Time Dispatch (RTD) schedule. The Must-Offer Rule (MOR) and the rule on Nomination of Loading Level and Projected Output (NOM) for the billing months of August to October 2020. The said compliances were contained in the Compliance Monitoring and Assessment Report (CMAR) prepared by the Enforcement and Compliance Office (ECO) for the MSC.

4. Review of ECO Investigation Reports

   The MSC reviewed the highlights of the ECO Investigation Reports for the billing period of September 2020 to December 2020. A total of twenty-one (21) reports involving sixteen (16) generator-TPs were reviewed for the subject period. The MSC reviewed the same with respect to ECO's compliance with the procedures set forth in the MSCEM for the conduct of the investigation and the validity and completeness of the data and documents upon which factual findings are based.

   The results of MSC review and recommendations on the ECO IRs for the subject period were submitted for the PEM Board's approval.

5. Offer Pattern Analysis – Enhanced Community Quarantine (OPA-ECQ)

   The MSC discussed the OPA-ECQ report which covers the period 15-25 March 2020 when the ECQ has been initially implemented in the country. The report emanated from an inquiry form the PEM Board regarding possible gaming by and among market participants during the lockdown. The report included discussions on Market Outcomes and Offer Pattern Analysis.

6. Review of Total Trading Amounts (TTA)

   The MSC was apprised that the IEMOP submitted its report and additional information on the case of an electric cooperative having an unusual TTA result. The ways forward proposed by IEMOP to address concerns on similar cases include (1) communication with generation companies on their responsibility and inform them on the impact of non-updating of data (2) proposed rule changes to ensure that real-time data is communicated accurately and reliably and (3) propose ways to introduce real-time estimations to mitigate related issues.

7. Transmission Development Plan Status Updates

   In view of the frequent congestions in the Samboan-Amlan line in Visayas as noted by the MSC in the course of its monitoring and assessment functions, the National Grid Corporation of the Philippines (NGCP) informed the MSC of the slated transmission development projects which shall address the said congestion. The Cebu-Negros-Panay (CNP) 230kV backbone which is divided into three (3) main stages is expected to be completed in December 2022 and shall relieve the line congestions in the region.

   The stages of the project are as follows:

   a. Stage 1: Bacolod – E.B. Magalona 230kV line;
   b. Stage 2: Cebu Substation; and
   c. Stage 3:
      - Phase 1: Cebu – Calatrava 230 kV line; and
      - Phase 2: Calatrava – E.B. Magalona 230 kV line

8. Results of Nodal Monitoring and Analysis

In the course of the exercise of its monitoring functions, the MSC noted the information with regard to unusual metered quantity whereby the metered quantity was higher than the maximum capacity of the participant.

After the thorough discussion on the issue, the MSC agreed to refer the matter to the Technical Committee to have a comprehensive analysis on the metering configurations and relevant procedures in order to exhaust all possibilities and prevent re-occurrence of these cases.

9. Review of the Proposed Enhancements to the Catalogue of Market Monitoring Data Indices (CMMDI)

The MSC reviewed and approved the proposed enhancements to the CMMDI which consider the shorter dispatch intervals to the NMMS. The proposed changes include the following:

a. New Market Indices;
   - o Spot Price Indices; and
   - o Generator Offer Indices

b. Incorporation of changes related to the Enhanced WESM Design and Operations; and
c. Enhancements on the current list of market monitoring data indices.

10. Market Suspension Report for 12 – 13 November 2020

The MSC assessed the Market Suspension report issued by the MO on 24 November 2020 which provided information on its actions undertaken during the market suspension implemented by the Energy Regulatory Commission (ERC). Said suspension was triggered by multiple tripping of major transmission lines and generators due to the occurrence of Typhoon Ulysses.

The MSC concluded that the MO observed all required procedures during the occurrence of the market suspension. With regard to the non-submission of the SO of the Market Suspension Report, which is a requirement for the MSC to proceed with its assessment report on Market Suspension, the MSC agreed to write the NGCP for expediency of the submission.

11. Survey Paper on the Competition Framework in Other Jurisdictions

The MSC assessed and approved a survey paper presented by MAG which aims to survey how electricity markets define or view competition and identify the best practices and methodologies used in other jurisdictions that may be adopted in the WESM.

The study noted that policymakers from other jurisdictions promulgate policies to create and improve a “workable competition” as well as protect their consumers. Also, the use of screening thresholds in other markets was utilized in order to determine any behavior that may harm competition.

It was observed that having market power is not uncommon/illegal in nature but exercising that power to take advantage of the market, creating barriers to entry, and distorting the actual market conditions is what is considered as illegal.

12. MSC Competitiveness Analysis on Reserves

In preparation for the establishment of the Reserve Market, the MSC and the MAG conducted a study on the adequacy of reserves and its competitiveness and level of concentration in the current regime where procurement of reserves is being done only through the contracting of the SO with different reserve providers.

The study assessed the competitiveness of the Regulating, Contingency, and Dispatchable Reserves in the Luzon and Visayas regions, based on the day-ahead ancillary service schedules and contracts of certified plants by the SO during the covered billing years January 2018 to December 2019. Conclusions and recommendations consistent with the assessment results were made at the end of the study.

13. Seasonal Market Assessment Report for the Rainy Season 2020

The MSC submitted its Market Assessment Report for Rainy Season 2020 covering period 26 May to 25 November to the DOE last February 2021. The report provides an assessment on the results of the integrated Luzon and Visayas operations of the Wholesale Electricity Spot Market (WESM) for the Rainy Season 2020, and how the market performed compared with the previous year.

The Rainy Season of 2020 observed higher demand compared to the Hot Dry Season of 2020 (26 March to 25 May 2020) but still lower than the previous years. This higher demand is attributable to the imposition of the Modified Enhanced Community Quarantine (MECQ) to the National Capital Region (NCR) from 17 March to 15 May; downgrading of NCR to General Community Quarantine (GCQ) dated 1 June to 30 November, to reactivate the economy; and imposition of MECQ to NCR and nearby provinces for 3 to 18 August.

Dispute Resolution Administrator

Atty. Jesusito G. Morallos is the Dispute Resolution Administrator (DRA) who is tasked to administer and ensure the effective implementation and operation of the WESM dispute resolution process, as well as facilitate in the resolution of disputes within the objectives established under the WESM Rules.

1. Proposed Amendments to the WESM Dispute Resolution Manual Issue No. 6

    a. The DRA has finalized the first part of the proposed amendments to the WESM Dispute Resolution Manual which involves Dispute Resolution Processes under the Retail Rules for submission to the Rules Change Committee (RCC) to undergo the rules change process;

    b. The DRA is now finalizing the other proposal to incorporate into the Dispute Resolution Market Manual the protocol and/or guidelines on the conduct of video conferencing for remote hearings during arbitration and conferences which will also be submitted to the RCC for the rules change process;

    c. In addition, the DRA has planned to add to its proposed amendments by streamlining the post-arbitration procedure and remedies in the Dispute Resolution Manual in order to harmonize them with the principles of an agreement-based arbitration; and

    d. During the preparation of the proposals, the DRA during its December 2020 monthly meeting also planned to include an additional item for amendment of the WESM Rules and Dispute Resolution Manual relative to the provisions impleading the PEM Board of Directors as party to the disputes.

    All the foregoing proposals will be included in the DRA Work Plan for 2021 and will be submitted to the Rules Change Committee by the first quarter of 2021.

2. Activities in line with the objective to implement an awareness campaign for the WESM Dispute Resolution Process among Market Participants and continuous education and training for the accredited pool of Mediators, Arbitrators and Dispute Management Protocol (DMP) Focal Persons.

The DRA has created proposals for consideration of PEMC Management in terms of the logistical and financial requirements of the possible conduct of virtual seminars as part of its awareness campaign among the Market Participants. There are continuous plans to regularly collaborate with various networks and the country's top alternative dispute resolution practitioners for the conduct of trainings and seminars for the DMP Focal Persons and the continuing education of the WESM-Accredited Mediators and Arbitrators. These activities and plans include:

a. Continuous coordination with PIArb for alternative methods to showcase the processes of WESM Arbitration;

b. Continuous coordination with various entities to consider the possibility of featuring WESM Arbitration in Arbitration Conventions and participation in other ADR-related programs, lectures or events organized by external strategic partners for the continuing education of WESM-accredited Mediators/Arbitrator; and

c. Preparation for the conduct of seminars for the WESM Pool of Accredited WESM Mediators and Arbitrators on the topics of Negotiation and Mediation, Emergency Arbitration, Dispute Avoidance Modes and facilitation of training on the Retail Market and the Reserve Market as well as updates on changes in the WESM Dispute Resolution Process.

C. Market Development Updates

Enhanced WESM Design and Operations (EWDO)

In April 2013, the WESM Design Study[3] was undertaken as a result of various WESM operational concerns identified by the Special WESM Rules Review Committee[4], and Independent Market Operations Audits which were undertaken separately in 2010, 2011 and 2012.

Consistent with the objectives of the WESM Rules, the Department of Energy (DOE) deemed appropriately and reasonably that changes should be implemented based on the recommendations of the WESM Design Study. Thus, on 23 October 2015, the DOE issued Department Circular No. DC2015-10-0015 providing various enhancements in the WESM design and operations.

In line with the PEMC's responsibilities stipulated under the DC2015-10-0015, it facilitated the engagement of the New Market Management System's (NMMS) supplier. With the separation of the market operation and governance functions, effective 26 September 2018, various amendments on WESM Rules and Manuals were not proposed solely by PEMC. Some of the amendments originated from the new Market Operator (MO), i.e. Independent Electricity Market Operator of the Philippines (IEMOP).

To ensure the effective transition to and implementation of the EWDO in Luzon and Visayas, various coordination meetings and initiatives were carried out. Among these is the conduct of Market Readiness Assessment (MRA) activity[5] that includes the Parallel Operations Program (POP) by the MO. During the POP, the MO, System Operator (SO), PEMC, and the Market Participants will be able to try out for themselves the revised WESM processes, specifically the trading, dispatch, and settlement (i.e. bid to bill) processes with 5-minute dispatch intervals. The MRA activity also identified concerns arising from the corresponding changes in the WESM

[3] *An independent consultant, IES, was commissioned by the PEMC to undertake WESM Design Study*

[4] *Created by the DOE in March 2008.*

[5] *MRA activity was directed by the PEM Board. The PEM Board also approved the commissioning of Sapere Research Group Limited, a third-party expert to conduct the MRA activity under the supervision of the PEM Audit Committee.*

systems, processes, and paradigms. The Market Readiness Steering Committee (MRSC)[6] was then formed in order to take ownership of addressing remaining go-live issues.

Due to the Covid-19 pandemic, critical targets and schedules were significantly affected. In a letter dated 26 November 2020, the PEM Board recommended to further defer the go-live date from 26 December 2020 to 26 June 2021.

With the Energy Regulatory Commission's approval of the Price Determination Methodology for the NMMS on 29 December 2020, the following are the only remaining items prior the implementation of the EWDO:

- Additional Software Changes and Audit[7]
- PEM Board Certification of EWDO Readiness[8]

On the other hand, the DOE already enjoined the WESM participants to actively participate in the POP. The IEMOP also conducted various activities to address concerns and apprise the WESM participants of the latest updates in the market system readiness. Further, IEMOP continues to communicate regularly with the WESM participants, and conducts Focus Group Discussions to brief the said participants on the updated timeline, market system updates, upcoming activities, and their relevant readiness checklist that needs to be accomplished to ensure their readiness for the EWDO.

Establishment of the Wholesale Electricity Spot Market (WESM) in Mindanao

With WESM already established in Luzon and Visayas, Mindanao remains without an electricity market in operation.

On 04 May 2017, the DOE issued DC 2017-05-0009 titled "Declaring the Launch of Wholesale Electricity Spot Market (WESM) in Mindanao and Providing for Transition Guidelines." Said DC provides for the following: a) commencement of registration of WESM participants; b) application of the Interim Mindanao Dispatch Protocol until commercial operations is declared by the DOE; and c) termination of the Interim Mindanao Electricity Market (IMEM).

On 28 June 2017, WESM was formally launched in Mindanao and it is seen as a medium for providing an efficient scheduling, dispatch and settlement of energy withdrawal and injections in the grid. The market also embodies competition and transparency that is aimed at the Mindanao electricity consumers. This also signaled the commencement of the Trial Operations Program (TOP) that was participated in by the MO, SO and trading participants.

For its part, the DOE monitors all preparatory activities related to the full commercial operation of WESM in Mindanao. The DOE conducted Focus Group Discussions, Information, Education and Communication Campaigns, Registration Drive, and Hands-on-Trainings on 2017-2019. As such, the declaration of full commercial operation will be made once the criteria set forth is complied with – systems and procedure, TOP, operationalization, trainings, PDM and NMMS. The DOE also continues to work with both MO and SO to ensure the systems and infrastructure readiness for WESM's commercial operation.

On 29 December 2020, the ERC issued the Decision approving with modification the application for a new PDM for the WESM subject to various conditions. The approval of the PDM is a significant milestone towards the operationalization of WESM in Mindanao. Further, all development and

[6] *MRSC is composed of PEMC, IEMOP, National Grid Corporation of the Philippines and the Philippine Independent Power Producers Association.*

[7] *The target completion of Software Audit Certification is in Q1 of 2021.*

[8] *Contingent to MRSC's recommendation*

testing of market systems were completed in December 2020. As of February 2021, the certification from an independent auditor of the remaining software changes, as directed by ERC in relation to its approval of the WESM PDM, is expected to be completed by the end of March 2021. Subsequently, the final Market Readiness Assessment Report is targeted to be completed in April 2021.

Another significant criterion in the declaration of commercial operation of WESM in Mindanao is the registration of power industry participants. As of February 2021, below is the registration status of target participants in the WESM Mindanao.

Membership Type	Expected Participants	Have Not Yet Applied	Signed-Up and Pending Submission of Requirements	On-going Completion of Requirements	Pending Completion of IPR (Customers Only)	Registered
Grid Connected Generator	14	-	-	1	-	13
Embedded Generator	29	-	10	15	-	4
Electric Cooperative	28	1	5	8	14	-
Private Distribution Utility	4	-	-	-	4	-
Directly Connected Customer	12	2	5	4	-	1
Total	**87**	**3**	**20**	**28**	**18**	**18**

The WESM in Mindanao will be operationalized once the overall readiness of the system is certified. The target commercial operation or Go-live is on 26 June 2021.

D. Retail Competition and Open Access (RCOA)

The implementation of Enhanced Community Quarantine (ECQ) in the Philippines from 17 March 2020 extending to April 30, 2020, affected the performance of the retail market. The consumption shifted from a constantly increasing trend to a sudden drop. With the surge from impending economic downfall due to hampered business activities and citizen's mobility brought by ECQ, the Government decided to lift the quarantine guidelines to a Modified ECQ (MECQ) in some parts of the Philippines on 16 May 2020. It was later lifted to General Community Quarantine (GCQ) on 01 June 2020 until the first two weeks of July 2020. However, due to the continuous increase in the number of cases seen in the succeeding weeks of July, the government decided to place Metro Manila and adjacent provinces back to MECQ. After being in MECQ for two weeks, it was later reverted to GCQ on 18 August 2020 which continued until December 2020. Metro Manila's imposition of GCQ experienced relaxed community guidelines such as easing of age restriction, allowing 15-65 years old for outside mobilization and shortened curfew hours. The GCQ status of Metro Manila and other adjacent cities was further continued until February 2021.

There was a 1% increase in the number of prospective participants in February 2021 as compared from October 2020.

Table 17. Summary of RCOA Prospective Participant

Membership Category		Prospective						
		Jun-13	Apr-20	Oct-20	Feb-21	June 2013 vs. Feb 2021	Apr 2020 vs. Feb 2021	Oct 2020 vs. Feb 2021
Contestable Customers	D ≥ 1MW	892	1,446	1,446	1,457	63%	1%	1%
	750kW ≥ D > 1MW	-	637	649	659	-	3%	2%
	500kW ≥ D > 750kW	-	-	-	*nda*	-	-	-
	Total	*892*	*2,083*	*2,095*	*2,116*	*137%*	*2%*	1%
Suppliers	RES	19	37	43	44	132%	19%	2%
	LRES	13	25	25	25	92%	0%	0%
	Total	*32*	*62*	*68*	*69*	*116%*	*11%*	1%
SOLR		9	47	47	47	422%	0%	0%
RMSP		28	54	54	56	100%	4%	4%
Grand Total		**961**	**2,246**	**2,264**	**2,288**	**138%**	**2%**	**1%**

Source: ERC, PEMC

As of February 2021, the total number of RCOA prospective participants gradually improved, noting significant increase during the GCQ period. The total Contestable Customer (CCs) comprises 69 percent customers on 1-MW threshold while 31 percent is at 750 MW – 1 MW threshold. Within the observed period from October 2020 to February 2021, there were three registered entrants in the supplier's side. The three new participants were enlisted – two on Retail Metering Service Providers (RMSP) and one Retail Electricity Supplier (RES).

Table 18. Summary of RCOA Registration

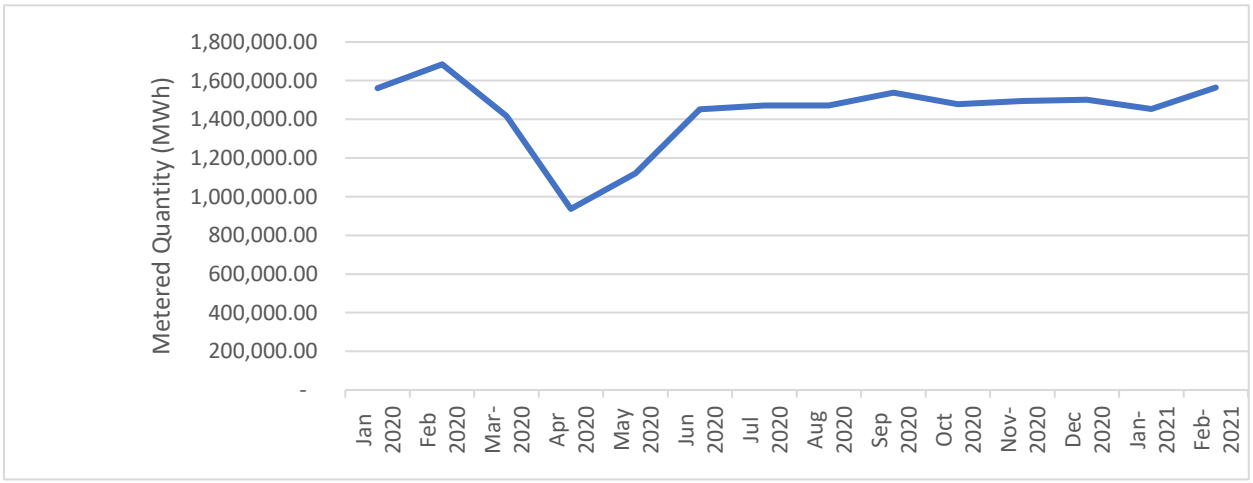
Membership Category		Registered						
		Jun-13	Apr-20	Oct-20	Jan-21	June 2013 vs. Feb 2021	Apr 2020 vs. Feb 2021	Oct 2020 vs. Feb 2021
Contestable Customers	D ≥ 1MW	240	1,120	1,133	1,155	378 %	3 %	1 %
	750kW ≥ D > 1MW	-	330	363	383	-	16 %	6 %
	500kW ≥ D > 750kW	-	-	-	13	-	-	-
	Total	*240*	*1,450*	*1,496*	*1,551*	*546 %*	*7 %*	4 %
Suppliers	RES	15	33	33	35	133 %	6 %	6 %
	LRES	3	14	14	14	367 %	0 %	0 %
	Total	*18*	47	47	*49*	172 %	*4 %*	4 %
SOLR		0	25	25	25	-	0 %	0 %
RMSP		29	54	54	56	93 %	4 %	4 %
Grand Total		**287**	**1,576**	**1,622**	**1,681**	**486 %**	**7 %**	**4 %**

Source: ERC, PEMC

Actual participation in the RCOA as reflected in the list of registered participants from the Central Registration Body (CRB), increased by 7% from 1,496 registered CCs in October 2020 to 1,551 in February 2021. As of February 2021, the total registered participants are 92% Contestable Customers, 3% Suppliers, 2% SOLR and about 3% RMSP.

There was a ladder-step increase in the CC's energy consumption, measured through Metered Quantity (MWh) from April 2020 to June 2020 after the decline experienced in February (before ECQ) and March 2020 (initial implementation of ECQ). There was a seen recovery after transitioning to MECQ in May and GCQ in June from the strictest among guidelines - the full ECQ implementation in April 2020. The change in quarantine rules provided an avenue for continuation of, if not most, commercial, and industrial establishments particularly in Metro Manila. The slight increase in consumption was observed in September 2020 yet absorbed steadily decreased in October and November 2020. The energy consumption was consistently maintained in December 2020 yet slightly decreased in January 2021. A surge in consumption was observed in February 2021.

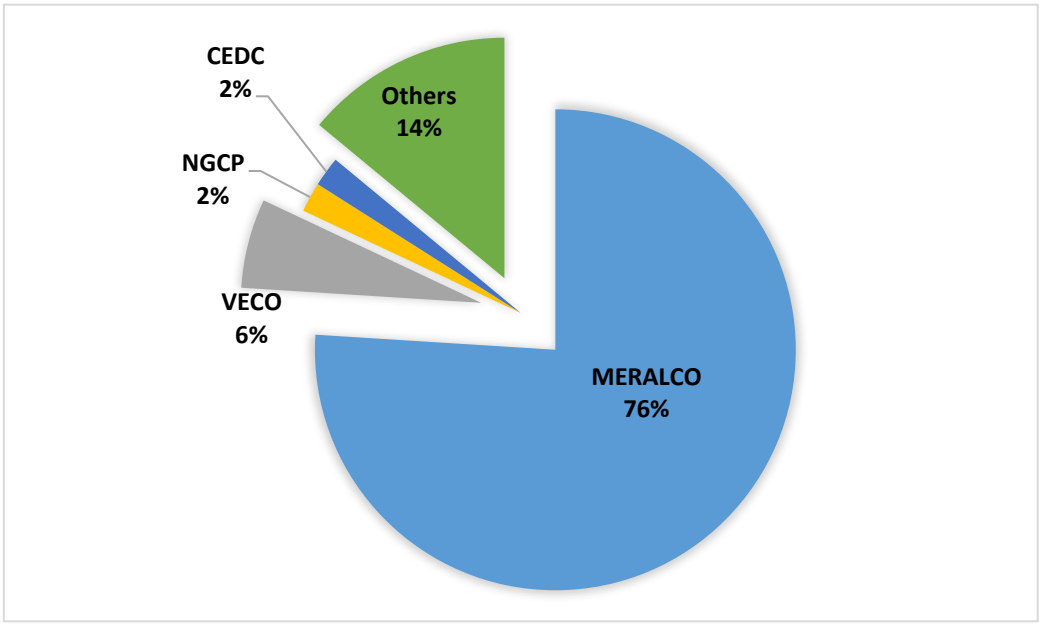
Figure 12 – Total Energy Consumption of Contestable Customers January 2020 to February 2021



Data Source: ERC, PEMC

Figure below illustrates that the majority of the CCs are situated within the franchise area of MERALCO at 76%. 6% is in the franchise area of VECO, while NGCP has accounted for the 2% from the Directly Connected Contestable Customers (DCCC). Clark Electric Distribution Corporation (CEDC) has 2% as well, and the remaining 14% were distributed among the 46 other franchises.

Figure 13 - Registered Contestable Customers per Franchise Area as of 28 February 2021



Source: ERC, PEMC

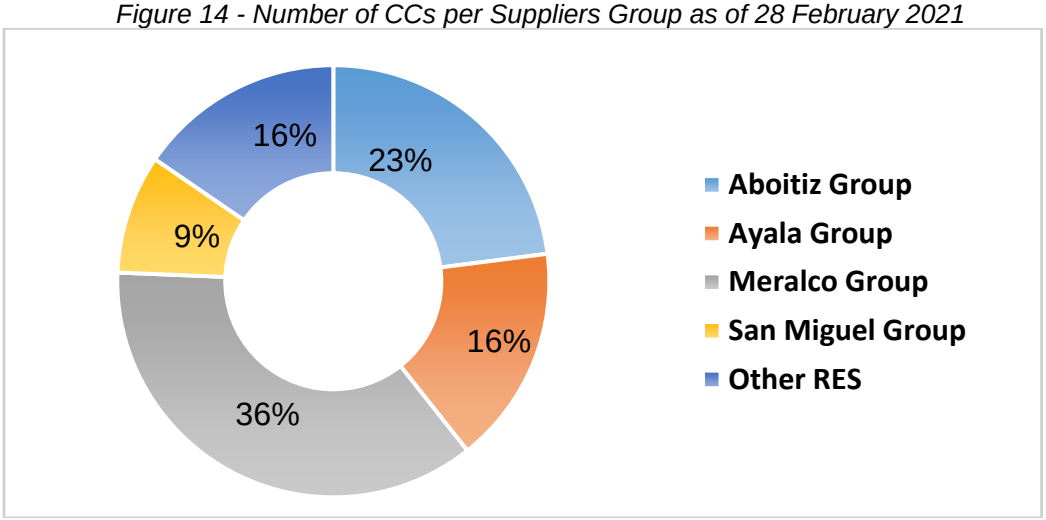
Of the 45 registered Retail Electricity Suppliers, 33 are currently transacting with CCs, mostly associated with the four biggest groups of companies having more than one RES or Local RES. These affiliated RES/LRES accounts for 38% of the total number of registered suppliers.

Table 19. List of Suppliers with Contestable Customers as of 28 February 2021

Aboitiz Group	**Number of CCs**
Aboitiz Energy Soutions, Inc.	198
AdventEnergy, Inc.	60
SN Aboitiz Power – RES Inc.	37
San Fernando Light & Power	1
PRISM Energy, Inc.	42
Mazzaraty Energy Corporation	1
Ayala Group	
Ecozone Power Management, Inc.	43
DirectPower Management, Inc.	52
AC Energy, Inc.	82
AC Energy Phils., Corp. (formerly Phinma)	72
San Miguel Group	
San Miguel Electric Corp.	3
SMC Consolidated Power Corp.	111
Masinloc Power Partners Co., Ltd.	20
MERALCO Group	
Manila Electric Co. (MPower)	496
Vantage Energy Solution and Management, Inc.	56
Clark Electric Distribution Corporation	9
MeridianX Inc.	1
Others	
First Gen Energy Solutions	10
Global Energy Supply Corp.	25
GNPower Ltd. Co.	4
TEAM (Phils.) Energy Corp.	24
Manta Energy, Inc.	3
KEPCO SPC Power Corporation	6
Premier Energy Resource Corp.	15
FDC Retail Electricity Sales Corporation	17
Kratos RES Inc.	28
Bac-Man Geothermal, Inc.	67
Citicore Energy Solutions	8
Corenergy, Inc.	5
Anda Power Corporation	4
SEM-Calaca RES Corporation	8
Batangas II Electric Cooperative, Inc. – Local RES	1
Mactan Electric Company	14
Waterfront Mactan Casino Hotel, Inc.	0

MERALCO group has the greatest number of contracted CCs with 37% of the total share as of February 2021. Consolidated number of CCs for the Aboitiz group ranked second with 22% and followed by the Ayala Group with 16%. San Miguel Group garnered nine percent while the RES/LRES without affiliation accounted for the remaining 16%.

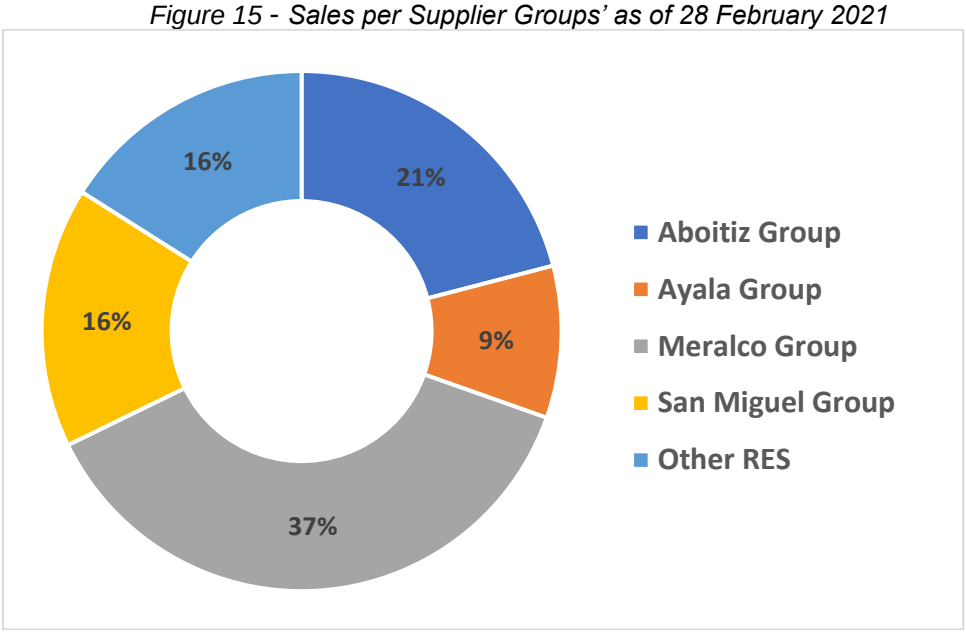
Figure 14 - Number of CCs per Suppliers Group as of 28 February 2021



Source: ERC, PEMC

Similarly, MERALCO group has the largest share of energy sales with 37% as of February 2021. Aboitiz and San Miguel group have 21% and 16% energy shares, respectively. Ayala group has 9% of the total energy sales from CCs. The remaining 16% of the share was attributed from the other Suppliers.

Figure 15 - Sales per Supplier Groups' as of 28 February 2021



Source: ERC, PEMC

The average metered quantity from October 2020 to February 2021 is 1,499 GWh of which 90% of the contracted energy was accounted through bilateral contracts and the remaining 10% was transacted through the spot market.

There were 67 CCs switching from October 2020 to February 2021. Among these, 60 out of 67 CCs (90%) can be found in Luzon. The highest number of customers switching were recorded in October and November 2020 months tallying with 16 cases each.

Regulatory Issuance on RCOA

On 03 December 2020, the Energy Regulatory Commission (ERC) issued Resolution No. 12, series of 2020 which provides expansion of the RCOA coverage with the inclusion of customers with an

average monthly peak demand of at least 500 kW in the succeeding 12 months. The application of the end-users will be on a voluntary basis. Upon securing Certificate of Contestability and approval from ERC, 500 kW to 749 kW customers can transact in the retail market.

E. Generating Capacity Market Share and Concentration

Section 45 of the EPIRA provides that "*No company or related group can own, operate or control more than thirty percent (30%) of the installed generating capacity of a grid and/or twenty-five percent (25%) of the national installed generating capacity*".

Relatively, following are the updates on the compliances of the generation sector to market share limitations:

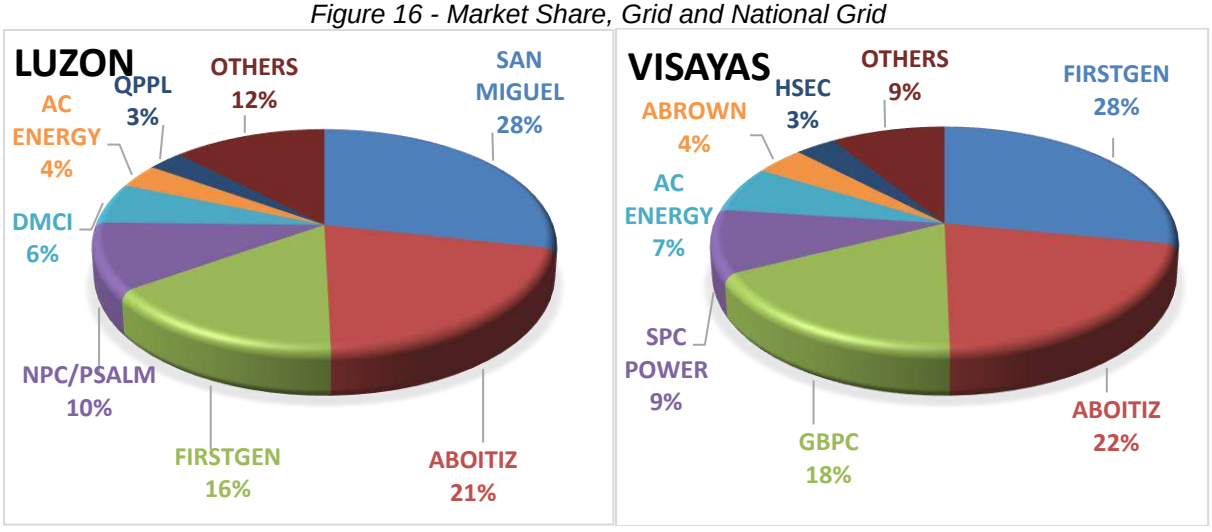
Table 20. Market Share Determination per Grid and National Grid

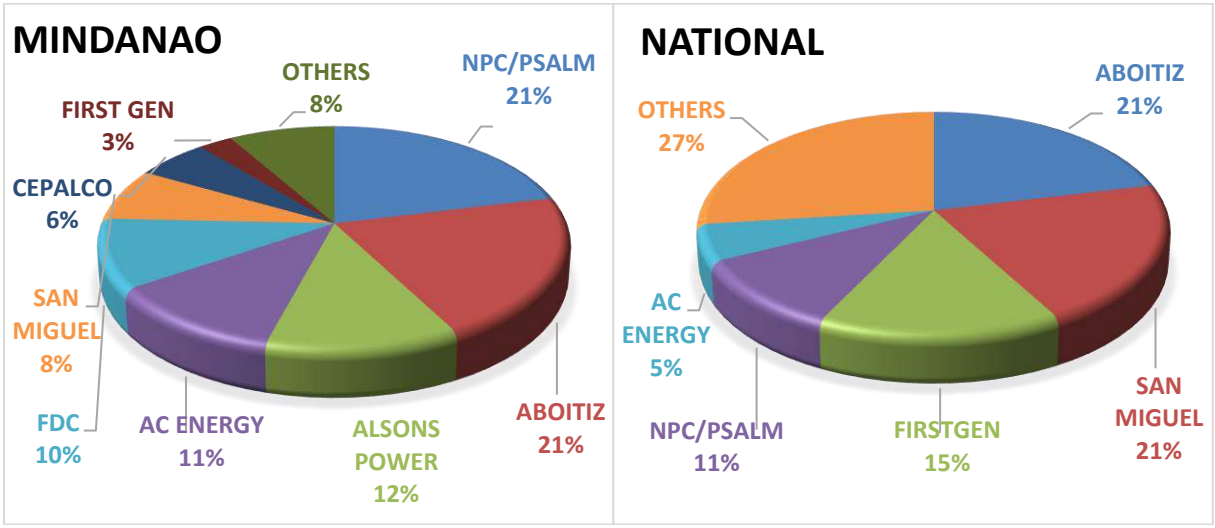
Grid	Installed Generating Capacity (MW)	% Market Share Limitation as per R.A. 9136	Installed Generating Capacity Limit (MW)
Luzon	16,044,000	30%	4,813,200
Visayas	3,366,558	30%	1,009,967
Mindanao	3,999,096	30%	1,199,967
National	23,409,654	25%	5,852,414

Source: ERC Resolution No. 02, Series of 2020

Below is the graphical presentation of the dominant power market players with their respective percentage market share:

Figure 16 - Market Share, Grid and National Grid





Source: ERC Resolution No. 02, Series of 2020

In Luzon, San Miguel Power Corporation with 4,556.0 MW total installed generating capacity is on top of the list of the power generation business which reaches 28% of the total installed capacity of 16,044.0 MW in Luzon Grid. It is followed by the Aboitiz Power Corporation with 3,401.7 MW total installed generating capacity or 21% of the Luzon market share. The other generation company that topped the list is the First Gen Power Corporation with a total installed generating capacity of 2,518 MW or 16% market share. This is followed by the PSALM having an installed generating capacity of 1,615.8 MW or 10% of the market share. None of the market participants in Luzon exceeded the market share limitation of 30%.

In Visayas, the FirstGen Corporation with 941.5 MW covers 28% of the total installed generating capacity of 3,366.6MW. The Aboitiz Power follows with 22% or 730.8 MW installed generating capacity. No generating company in Visayas exceeded the market share limitation of 30%.

In Mindanao, the Government still holds the main portion of the power generation business through the IPP contracts of the PSALM and the NPC having an installed generating capacity of 847.1 MW or 21.2% share in the total installed generating capacity of 3,999.1 MW of the Mindanao Grid. The Aboitiz Power seconds on the list with 840.9 MW installed generating capacity or 21% followed by Alsons Power with 12%, AC Energy with 11%, and FDC Utilities with 10%. None of the market participants in Mindanao exceeded the market share limitation of 30%.

In the National Grid, the Aboitiz Power Corporation gains the largest market share in totality, holding 21.3% of the 23,409.7 MW national installed capacity, followed by the San Miguel Power Corporation with 20.7% and FirstGen Power Corporation with 15% while the Government thru PSALM still has 11% market share remaining. For the reporting period, no power generation entity has exceeded the installed generating capacity and market share limitation of 25% for the national Grid.

To measure the current Philippine power market concentration, the DOE uses the Herfindahl-Hirschman index (HHI) computation. HHI[9] is the most common measure used to assess concentration from shares of industry participants. In the US, the market with an HHI of less than 1,500 is a competitive marketplace, an HHI of 1,500 to 2,500 to be a moderately concentrated marketplace, and an HHI of 2,500 or greater to be a highly concentrated marketplace.

Luzon, Visayas and Mindanao indicate a moderately concentrated market or reasonably competitive market having an HHI of 1,786, 1,828, and 1,420 respectively.

[9] *https://www.investopedia.com/terms/h/hhi.asp*

Generally, the HHI for the national grid of 1,982 reflected a moderately concentrated market which means that the energy market of the Philippines is still competitive and quite far from a monopoly.

Table 21. HHI Computation Luzon

Luzon				
Ranking	**Market Players**	**Installed Generating Capacity**	**Market Share**	**% Share (squared)**
1	SAN MIGUEL	4,556,000	28%	784
2	ABOTIZ	3,401,650	21%	441
3	FIRSTGEN	2,518,000	16%	256
4	PSALM	1,615,782	10%	100
5	DMCI	950,000	6%	36
6	AC ENERGY	557,200	4%	16
7	QPPL	460,000	3%	9
8	OTHERS	1,985,368	12%	144
				1786

Source: ERC Resolution No. 02, Series of 2020

Table 22. HHI Computation Visayas

Visayas HHI				
Ranking	**Market Players**	**Installed Generating Capacity**	**Market Share**	**% Share (squared)**
1	FIRSTGEN	941,470	28%	784
2	ABOITIZ	730,840	22%	484
3	GBPC	605,700	18%	324
4	SPC POWER	315,200	9%	81
5	AC ENERGY	223,700	7%	49
6	ABROWN	135,000	4%	16
7	HSEC	108,120	3%	9
8	OTHERS	306,528	9%	81
				1828

Source: ERC Resolution No. 02, Series of 2020

Table 23. HHI Computation Mindanao

Mindanao HHI				
Ranking	**Market Players**	**Installed Generating Capacity**	**Market Share**	**% Share (squared)**
1	PSALM	847,100	21%	441
2	ABOITIZ	840,945	21%	441
3	ALSONS POWER	480,211	12%	144
4	AC ENERGY	454,210	11%	121
5	FDC	405,000	10%	100
6	SAN MIGUEL	300,000	8%	64
7	CEPALCO	229,519	6%	36
8	FIRSTGEN	108,400	3%	9
9	OTHERS	333,711	8%	64
		3,999,096		**1420**

Source: ERC Resolution No. 02, Series of 2020

Table 24. HHI Computation National

National				
Ranking	**Market Players**	**Installed Generating Capacity**	**Market Share**	**% Share (squared)**
1	ABOITIZ	4,973,435	21%	441
2	SAN MIGUEL	4,856,000	21%	441
3	FIRSTGEN	3,567,870	15%	225
4	PSALM	2,462,882	11%	121
5	AC ENERGY	1,235,110	5%	25
6	OTHERS	6,314,357	27%	729
				1982

Source: ERC Resolution No. 02, Series of 2020

VI. POWER SUPPLY SECURITY AND RELIABILITY

A. Peak Demand

In 2020, the Philippines' total non-coincident peak demand [10]reached 15,282 MW, which is 299 MW or 1.9% lower than the peak demand in 2019. This decline in demand is greatly attributed to the COVID-19 pandemic, which put the country under different levels of community quarantine beginning 15 March 2020. Since the start of the community quarantine, several businesses folded up while a number of commercial establishments closed, resulting in an evident slowdown in the operations of the commercial and industrial sectors. The travel restrictions put in place by the Philippine Government across the entire country limited the movement of the people, further affecting the economy, which hindered the otherwise expected demand growth. Table 1 shows the comparison between the recorded peak demand in 2020 and 2019 for Luzon, Visayas, and Mindanao grids. Among these three, Luzon had the highest decrease in peak demand of 241 MW as Metro Manila, the country's center for economic activity, was adversely hit by the pandemic.

Table 25. 2020 vs. 2019 Peak Demand Per Grid, in MW

Grid	Peak Demand in MW		Difference in MW	Growth Rate in Percent
	2020	2019		
Luzon	11,103	11,344	(241)	(2.1)
Visayas	2,201	2,224	(23)	(1.0)
Mindanao	1,978	2,013	(35)	(1.7)
Philippines	15,282	15,581	(299)	(1.9)

The numerous unforeseeable events have greatly affected the nation’s electricity consumption patterns. Despite these challenges, the power sector continued to remain steadfast in meeting the country’s energy demand.

B. Installed and Dependable Capacity

For 2020, coal-fired power plants continue to dominate the installed capacity mix with a 41.7% share, followed by RE (29.0%), oil-based (16.1%), and natural gas (13.2%).

Table 26. Total Installed and Dependable Capacity Per Technology, Philippines, as of 31 December 2020

FUEL TYPE	PHILIPPINES			
	Installed Capacity		Dependable Capacity	
	in MW	% Share	in MW	% Share
Coal	**10,943.9**	**41.7**	**10,245.3**	**43.8**
Oil Based	**4,236.6**	**16.1**	**3,053.6**	**13.0**
Natural Gas	**3,452.5**	**13.2**	**3,286.1**	**14.0**
Renewable Energy (RE)	**7,616.9**	**29.0**	**6,824.9**	**29.2**
Geothermal	1,928.1	7.3	1,753.1	7.5
Hydro	3,779.3	14.4	3,526.6	15.1
Biomass	447.4	1.7	285.4	1.2

[10] *Total non-coincidental peak demand of Luzon, Visayas and Mindanao grids*

FUEL TYPE	PHILIPPINES			
	Installed Capacity		Dependable Capacity	
	in MW	% Share	in MW	% Share
Solar	1,019.3	3.9	816.9	3.5
Wind	442.9	1.7	442.9	1.9
TOTAL	**26,249.9**	**100.0**	**23,409.9**	**100.0**
Battery Energy Storage System (BESS)	11.0		11.0	

NOTE: Includes Off-Grid generators

As shown in the Table below, a total of 642.5 MW installed capacity was added to the country's grid supply coming from coal (526.8 MW), solar (70.9 MW), oil-based (44.6 MW), and hydro (0.3 MW). Meanwhile, off-grid areas added a total of 20.2 MW installed capacity coming from diesel (12.7 MW) and solar (7.6 MW).

Table 27. 2020 Newly-Operational Power Plants

POWER PLANT		CAPACITY, MW		LOCATION	OPERATOR
Facility Name	Subtype	Installed	Dependable	Municipality/ Province	
GRID-CONNECTED					
TOTAL		**642.5**	**590.5**		
LUZON		**422.9**	**391.8**		
MASINLOC U3	Super Critical Coal	351.8	335.0	Masinloc, Zambales	Masinloc Power Partners Co. Ltd. (MPPCL)
CONCEPCION 2 SOLAR	Ground Mounted Solar PVs	70.9	56.7	Concepcion, Tarlac	Solar Philippines Tarlac Corporation
CALIBATO	Run-of-River type HEPP	0.3	0.1	San Pablo, Laguna	Philippine Power and Development Company (PHILPODECO)
VISAYAS		**44.6**	**40.7**		
TPVI DPP	Bunker/Diesel Internal Combustion Engine	44.6	40.7	Naga, Cebu	Therma Power Visayas, Inc.
MINDANAO		**175.0**	**158.0**		
GNPOWER KAUSAWAGAN U4	Circulating Fluidized Bed (CFB) Coal	150.0	138.0	Kauswagan, Lanao Del Norte	GNPower Kauswagan Ltd. Co.
PSPE	Circulating Fluidized Bed (CFB) Coal	25.0	20.0	Brgy. Kiwalan, Iligan City, Lanao Del Norte	Powersource Philippines Energy Inc. (PSPE)
OFFGRID					
TOTAL		**20.3**	**15.3**		
LUZON		**20.2**	**15.7**		

SUWECO - MARINAWA	Diesel-fired	8.6	4.9	Bato, Catanduanes	Sunwest Water and Electric Company, Inc. (SUWECO)
SUWECO - VIGA	Diesel-fired	4.0	3.2	Viga, Catanduanes	Sunwest Water and Electric Company, Inc. (SUWECO)
TUMINGAD SOLAR	Ground Mounted Solar PVs	7.6	7.6	Tumingad, Odiongan, Romblon	SUWECO Tablas Energy Corporation
VISAYAS		**0.0**	**0.0**		
MINDANAO		**0.1**	**0.1**		
GIBUSONG DPP	Diesel-fired	0.1	0.1	Loreto, Dinagat Islands	National Power Corporation - Small Power Utilities Group (NPC-SPUG)
TOTAL NEW CAPACITY (GRID + OFFGRID)		**662.8**	**605.8**		

C. Power Projects

To abate the challenges brought by the pandemic and lessen the delays in construction due to community quarantine restrictions in 2020, the DOE aided power generation companies through holding virtual meetings, issuing official identification cards, and facilitating the entry of their foreign experts to the country, among others. Moreover, the DOE continued to encourage the private sector to invest and develop power generation projects and facilities to augment the existing power capacity to meet the demand in the coming years.

Table below presents the summary of committed and indicative power projects as of 31 December 2020. About 86% of the total 8,977.1 MW committed capacity is from coal and natural gas, while the remaining 14% is from RE and oil-based power projects. Meanwhile, the total indicative capacity stood at 33,398.6 MW, largely coming from RE (62.0%), coal (21.1%), and natural gas (15.3%) With the recent DOE policy issuance on Energy Storage System (ESS), ESS' committed and indicative capacity reached 910 MW and 412.5 MW, respectively, by the end of 2020.

Table 28. Committed and Indicative Capacities, Philippines, as of 31 December 2020 (in MW)

Fuel Type	Committed			Indicative		
	No. of Proponents	Installed/ Rated Capacity (MW)	% Share	No. of Proponents	Installed/ Rated Capacity (MW)	% Share
Coal	**6**	**4,241.0**	**47.2**	**9**	**7,048.0**	**21.1**
Oil-Based	**4**	**392.0**	**4.4**	**4**	**537.2**	**1.6**
Natural Gas	**3**	**3,500.0**	**39.0**	**3**	**5,100.0**	**15.3**
Renewable Energy (RE)	**34**	**844.1**	**9.4**	**132**	**20,713.4**	**62.0**
Geothermal	3	140.0	1.6	3	226.0	0.7
Hydro	18	144.3	1.6	60	5,473.8	16.4
Biomass	4	19.2	0.2	4	40.0	0.1

Fuel Type	Committed			Indicative		
	No. of Proponents	Installed/ Rated Capacity (MW)	% Share	No. of Proponents	Installed/ Rated Capacity (MW)	% Share
Solar	8	408.6	4.6	46	10,781.2	32.3
Wind	1	132.0	1.5	19	4,192.4	12.6
TOTAL	**47**	**8,977.1**	**100.0**	**148**	**33,398.6**	**100.0**
BESS	7	910.0		9	412.5	

Source: DOE List of Private Sector – Initiated Power Projects as of 31 December 2020

The DOE published on 22 December 2020 the "Advisory on the Moratorium of Endorsements for Greenfield Coal-fired Power Projects in line with Improving the Sustainability of the Philippines' Electric Power Industry", which specifies that the moratorium shall be effective on 27 October 2020.

The said moratorium covers all future applications for greenfield coal-fired power generation facilities. On the other hand, existing and operational coal-fired power facilities, as well as any coal-fired power project considered in any of the following parameters will not be affected by the moratorium:

a. Committed power projects;
b. Existing power plant complexes which already have firm expansion plans and existing land site provision; and
c. Indicative power projects with substantial accomplishments, specifically the following:

    i. With signed and notarized acquisition of land and Lease Agreement for the project; and
    ii. With approved permits or Resolutions from Local Government Units (LGUs) (city/municipality/province) and the Regional Development Council (RDC) where the power plants will be located.

D. Significant Incidents and Actions Taken

PHILIPPINES

During the report period, the COVID-19 pandemic significantly affected the electric power industry in terms of lower demand, operation of facilities, delays in project implementation, contracting and facilitating the entry of foreign technical experts, and payment of electricity bills by consumers, among others. To ensure unimpeded delivery of energy services, and provide assistance to Filipinos during these trying times, the following are the issuances of the DOE:

1. Issuance of COVID-19 Inter-Agency Task Force (IATF) IDs and Rapidpass QR codes allowing cross-province/city travel of essential power sector industry players and stakeholders;

2. Endorsement for Foreign Workers of the contractor to the Department of Foreign Affairs and Bureau of Quarantine to enter the country;

3. Implementation of the Memorandum from the Office of the Executive Secretary dated 13 March 2020 and Ensuring the Unimpeded Delivery of Energy Services signed on 14 March 2020;

4. Advisory Relative to the Extension of the Enhanced Community Quarantine (ECQ) until 30 April 2020 signed on 16 April 2020;

5. Advisory on Providing Grace Period to all Power Sector Bills Falling Due During the Enhanced Community Quarantine (ECQ) as extended until 15 May 2020 signed 7 May 2020;

6. Issuance of Administrative Order 2021-05-0001 and COVID-19 Response Protocol to all energy stakeholders signed on 21 May 2020;

7. Advisory on IDs for movement to work/minimum public health standards signed on 5 August 2020;

8. Advisory to LGU and PNP Units on the travel clearance for the technical personnel of NGCP and concerned Distribution Utilities for the restorations of the Power System Facilities in the Bicol Region affected by Typhoons Quinta and Rolly signed on 4 November 2020

9. Advisory enjoining all Distribution Utilities to implement no disconnection for lifeline customers signed on 6 February 2021;

10. Advisory for all Distribution Utilities on ensuring Reliable and Stable Electric Power Supply During the Government's COVID-19 Vaccine Roll-Out Program signed on 16 February 2021; and

11. Advisory for all Generation Companies on ensuring Reliable and Stable Electric Power Supply During the Government's COVID-19 Vaccine Roll-Out Program signed on 2 March 2021.

LUZON

In addition to the pandemic, the Luzon grid was hit by a series of natural calamities in 2020, which affected power generation, transmission, and distribution facilities and infrastructures located in several areas, as enumerated below:

1. Taal Volcano Eruption, 12 January 2020 – spewed huge amount of ash mostly affecting the CALABARZON region, nearby cities and towns;

2. Typhoon Pepito (International name: “Saudel”), 18-25 October 2020 – brought a maximum sustained wind at 125 km/h affecting Isabela and Aurora provinces;

~~3.~~ Typhoon Quinta (International name: “Molave”), 22-29 October 2020 –brought a maximum sustained wind at 165 km/h affecting the CALABARZON, MIMAROPA, and Bicol Regions;

4. Super Typhoon Rolly (International name: “Goni”), 1 - 6 November 2020- brought a maximum sustained wind at 225 km/h severely affecting the CALABARZON and Bicol Regions;

5. Typhoon Ulysses (International name: “Vamco”), 10 – 13 November 2020- brought a maximum sustained wind at 155 km/h and heavy rains, which flooded the Cagayan and Isabela areas.

Luzon grid also experienced two (2) yellow alerts on 16 January 2020 and 04 June 2020. The 16 January 2020 yellow alert was caused by the unplanned outages and derated output of power plants due to line constraints. On the other hand, the 04 June 2020 yellow alert was mainly attributed to the higher demand due to the mild El Niño phenomenon, series of unplanned outages, and output derating of power plants due to the Malampaya gas restriction.

Further, the delays in commercial operation of committed power projects, caused by the community quarantine restrictions, contributed to the power outages in Luzon.

VISAYAS

Compared with the Luzon Grid, there were five (5) yellow alerts recorded in the Visayas grid on 28 January 2020, 07 September 2020, 21 October 2020, 22 October 2020, and 23 October 2020. These were triggered by capacity reserves being below the system reserve requirement due to forced outages of power plants. Moreover, one red alert occurred on 24 September 2020 where a massive power outage transpired in Negros and Panay Islands due to the failure of a power circuit breaker at Sta. Barbara substation in Iloilo. Another significant incident occurred in the Visayas on 03 July 2020 where an explosion in Power Barge 102 caused an oil spillage into the waters of Iloilo City. The incident has since been resolved by the responsible power generating company, as coordinated with the concerned agencies and local government units, to ensure that any adverse effects have been mitigated. A few grid disturbances were also experienced because of power plants and line trippings, which resulted in load dropping incidents and momentary power interruptions.

MINDANAO

Several natural calamities, such as earthquakes and typhoons, affected various transmission and distribution facilities in Mindanao. However, there were no recorded yellow and red alert occurrences in 2020 due to the current oversupply situation in the region. The COVID-19 pandemic and country-wide community quarantine restrictions brought significant demand reduction and prompted numerous power plants to be put on reserve shutdown. The pandemic also caused a series of delays in the Mindanao-Visayas Interconnection Project and Wholesale Electricity Spot Market – Mindanao. These key projects are envisioned to address the current oversupply situation and frequent manual load dropping incidents caused by the over/under nomination of customers operating the current bilateral dispatch protocol in Mindanao.

E. Status of Transmission Projects

The required transmission expansion, additions, and reinforcement are essential not only to accommodate the entry of new generation capacities in the power system but also to allow reliable delivery of power to load centers. The timely completion of transmission projects is closely monitored by the DOE to ensure sufficient, reliable and continuous conveyance of electricity, as mandated by Republic Act No. 9136, also known as the Electric Power Industry Reform Act of 2001. The steady availability of electric power supply is crucial to economic growth and is a component that fuels the economy of the country.

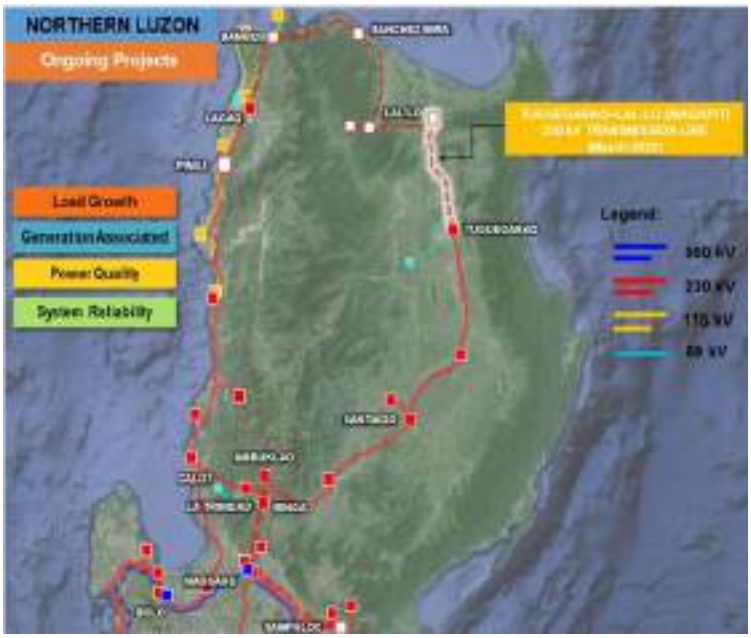
With the implementation of community quarantine in the country due to the Corona Virus Disease 2019 (COVID-19) pandemic situation that impose restrictions on travel and entry of foreign nationals, the development of major transmission infrastructures has been delayed which may become a future constraint in the delivery of generation capacity addition and addressing projected load growth.

Ongoing Transmission Projects:

1. LUZON GRID

Power Quality

- TUGUEGARAO–LAL-LO (MAGAPIT) 230 kV T/L (PQ, LG)



The Tuguegarao–Lal-lo (Magapit) 230 kV Transmission Line project aims to address the imminent overloading of the Tuguegerao– Magapit 69 kV Line due to the forecasted load growth (LG) in the northern part of Cagayan Province. It also aims to improve the power quality (PQ) and reliability of supply in the area, which is presently being served by a very long 69 kV line. As of 31 December 2020, the Transmission Line portion is 53.55% complete and the Substation Portion is 86.70% complete. Due to the implementation of community quarantine due to COVID-19, the expected time of completion of the project was moved to March 2022.

System Reliability

- AMBUKLAO–BINGA 230 kV T/L UPGRADING

The Ambuklao–Binga 230 kV Transmission Line Upgrading project aims to upgrade the existing line to address its old age condition and also to maintain the N-1 contingency provision taking into consideration the repowering of Ambuklao HEPP and the proposed generation capacity additions in the Cagayan Valley area. Thus, during maximum generation of the power plants, this project will prevent the overloading under N-1 contingency condition, i.e, outage of one 230 kV circuit. As of 31 December 2020, the Substation Portion is 94.35% complete which is expected to be completed on November 2021.

- BINGA–SAN MANUEL 230 kV T/L

The Binga–San Manuel 230 kV Transmission Line upgrading project aims to provide N-1 contingency during maximum dispatch of the generating plants. The existing line, as well as the power circuit breakers at Binga Substation, which were constructed/installed in 1956 have already surpassed the economic life. Moreover, there are developments in the power plants affecting the power flow at Binga–San Manuel 230 kV line. As of 31 December 2020, the Transmission Line Portion is in Tendering Stage for the preparation of its bidding documents and the Substation Portion is 95.02% complete. The project is expected to be completed in November 2021.

- SAN MANUEL – NAGSAAG 230 kV T/L

The project aims to address the overloading of the San Manuel– Nagsaag 230 kV tie line, Pantabangan–Cabanatuan 230 kV Line, and the Nagsaag 500/230 kV transformer. During Maximum North condition and the hydro plants are maximized, outage of the San Manuel–Nagsaag 230 kV tie line will result in the overloading of the single circuit Pantabangan–Cabanatuan 230 kV line. Conversely, the outage of Pantabangan–Cabanatuan 230 kV line will result in overloading of the San Manuel–Nagsaag 230 kV tie line. As of 31 December 2020, the transmission line portion is 100% complete while the substation portion is above 89.43% complete. Nonetheless, the project is expected to be completed in June 2021.

- SAN JOSE–ANGAT 115 KV LINE UPGRADING PROJECT

The San Jose–Angat 115 kV Line Upgrading Project aims to ensure the reliability of the existing 115 kV transmission lines connecting Angat HEPP to the Luzon Grid. The 300 MVA capacity per circuit of the project would be sufficient to provide N-1 contingency during maximum dispatch of the 246 MW Angat HEPP. As of 31 December 2020, the Transmission Line Portion is 88.86% complete and is expected to fully constructed by March 2021 due to the COVID-19 pandemic.

- TIWI 230 KV SUBSTATION PROJECT

The project aims to upgrade the old and deteriorated substation equipment at Tiwi A and C Substations to improve the reliability of the system. It is also intended to augment the power requirement of Malinao/Ligao LES by installation of additional power transformer at Tiwi C Substation and will clearly identify asset boundaries within the Tiwi Geothermal Power Plant Complex through construction of NGCP's own control facilities. As of 31 December 2020, the erection of Primary Equipment is already 36.70% completed while and the Secondary Equipment is 91.90% completed. Because of COVID-19, the expected time of completion of the project has to change from December 2020 to December 2021.

- TOWER STRUCTURE UPGRADING OF BICOL TRANSMISSION FACILITIES

The restoration project of Bicol transmission facilities offers the reconstruction of the affected transmission lines destroyed by Typhoon Nina, namely the Naga–Daraga–Tiwi A and Naga–Tiwi C 230 kV Transmission Lines. It will provide permanent solution to address the limitations of the emergency restoration that made use of provisional light-weight modular tower and steel pole structures. The project will involve the erection of 82 new steel tower structure, which are in conformity with the required design standards considering higher wind design criteria replacing the old and toppled structures. As of 30 June 2020, Schedule 1 is already 100% completed while Schedule 2 is nearly completed at 95.41%, which is expected to be fully completed on March 2021.

Load Growth

- CLARK-MABIGA 69 KV TRANSMISSION LINE PROJECT

The Clark–Mabiga 69 kV Line Project aims to provide transmission capacity reinforcement to the Mexico–Clark 69 kV Line, which is currently serving PRESCO, PELCO I, PELCO II, Angeles Electric Corporation (AEC), Quanta Paper Corporation and Clark Electric Development Corporation (CEDC). This project will address not only the load growth in the area of Angeles and Mabalacat together with the new industries in Clark Freeport Zone but also improve the power quality of supply in the area. As of 31 December 2020, the Substation Portion is 93.76% complete. On the other hand, its Transmission Line Portion is for re-routing due as the proposed original route was affected by the Malolos-Clark Railway Project. Due to the COVID-19 pandemic situation, the expected time of completion of the project was moved from December 2020 to December 2021.

- NAVOTAS 230KV SUBSTATION PROJECT

The Navotas 230 kV Substation aims to cater the load growth in Sector 1 of MERALCO and to serve as a connection point for power plants in the area such as the TMO and Millennium Power Plants. With the further increase in load, the existing 230/115 kV substations in Metro Manila become heavily loaded and have been losing already the provision for N-1 contingency. This will expose the Metro Manila loads to supply reliability risk as well as power quality concerns during system peak load condition. The proposed Navotas 230 kV Substation will be initially linked to the grid through cut-in connection along the existing Marilao–Quezon 230 kV Transmission Line and will ultimately terminate in the future Marilao 500 kV Substation. As of 31 December 2020, the project is 88.79% complete. With the circumstances brought about by COVID-19, the expected project completion date was changed from June 2020 to June 2021.

- ANTIPOLO 230 KV SUBSTATION PROJECT

The Antipolo 230 kV Substation aims to cater the load growth in Sector 2 of MERALCO. It involves the construction of a new 230 kV substation that will bus-in along the existing Steel Tower- Double Circuit San Jose-Taytay 230 kV line. Initially, the substation will also be installed with capacitor banks for voltage support. As of 31 December 2020, following is the status of the project's components:1) Site Development Portion is 62.38% complete; 2)Erection of its Primary Equipment is awaiting the completion of the site development; and 3)Secondary Equipment is 65.82% complete. Due to COVID-19, the projected completion date has to change from timeline has to change from March 2021 to April 2022.

- TAGUIG 500 KV SUBSTATION PROJECT

The Taguig 500 kV Substation intends to provide another 500/230 kV drawdown substation to decongest San Jose EHV Substation and provide higher level of reliability to the 500 kV system of the Luzon Grid. It will also address the criticality of the existing 230 kV single-circuit line from Quezon to Muntinlupa during N-1 contingency. Further, this project will address the severe low voltage of the Metro Manila 230 kV Substations due to the single-circuit configuration and heavy loading condition of the Quezon–Muntinlupa 230 kV Line. As of 31 December 2020, the overall accomplishment of the Transmission Line and the Substation Portion is 17.88% complete. Due to the circumstances brought about by COVID-19, the expected time of completion of the project was moved to September 2022.

<u>Generation Entry</u>

- WESTERN LUZON BACKBONE STAGE 1 (Castillejos–Hermosa 500kV T/L Project)

The Western Luzon Backbone (Stage 1: Castillejos–Hermosa 500 kV Transmission Line Project) pertains to the construction of a transmission facility to connect the 2x300 MW RP Energy CFPP to the Luzon Grid through the Hermosa Substation. It is part of the proposed long-term plan for 500 kV backbone loop development from Bolo (Kadampat) down to Hermosa Substation. As of 31 December 2020, the Transmission Line Portion is 84.21% complete. Due to the circumstances brought about by COVID-19, the expected time of completion of the project was moved from December 2020 to June 2021.

- HERMOSA–SAN JOSE 500 KV TRANSMISSION LINE PROJECT

The Hermosa–San Jose 500 kV Transmission Line Project will serve as a new 500 kV corridor for the bulk power generation coming from the existing Limay CCPP, Petron RSFF, Subic Enron DPP, Mariveles CFPP and the programmed generation capacity additions which include RP Energy CFPP and SMC CFPP. As of 31 December 2020, the Transmission Line portion is 17.12% complete while the Site Development of its Substation Portion is 100% complete and the Substation Portion 36.51% complete. Due to COVID-19, the expected time of completion of the project was adjusted from March 2021 to December 2021.

- MARIVELES-HERMOSA 500 KV TRANSMISSION LINE PROJECT

The Mariveles–Hermosa 500 kV Transmission Line Project aims to allow the connection of incoming generations in Bataan Peninsula, which include 2x668 MW GN Power Dinginin CFPP and 8x150 MW SMC Consolidated Power Corporation CFPP. While the Bataan 230 kV Grid Reinforcement Project can increase the capacity of the existing 230 kV corridor in the area, the huge generation capacity addition cannot be accommodated unless a new transmission highway is developed. This new backbone will form part of the loop from Hermosa to Mariveles then to Cavite/Metro Manila upon completion of the future submarine cable. As of 31 December 2020, the Transmission Line Portion is 79.35% complete and the Substation Portion is 24.93% complete. Due to the circumstances brought about by COVID-19, the expected time of completion of the project was adjusted from March 2021 to October 2021.

- PAGBILAO 500 KV SUBSTATION PROJECT

The Pagbilao 500 kV Substation Project will accommodate the connection of incoming power plants in Quezon Province. The Pagbilao EHV Substation Project will address the overloading of Tayabas 500/230 kV transformers and the fault level issue at Tayabas 230 kV Substation As of 31 December 2020, the Transmission Line Portion is 84.97% complete and the Substation Portion is 54.44% complete. Due to the circumstances brought about by COVID-19, the expected time of completion of the project was adjusted from March 2021 to January 2022.

- TUY 500/230 KV SUBSTATION PROJECT/TUY-DASMARIÑAS 500KV T/L PROJECT

The Tuy 500 kV Substation (Stage 1) aims to accommodate the connection of the 2x350 MW SRPGC Coal Plant and allow full dispatch of bulk generation capacity addition in Batangas. The generation capacity addition will turn Calaca Substation into a merging point of more than 2,000 MW of power generation. As of 31 December 2020, the NGCP has yet to issue the Notice-to-Proceed for the Transmission Line component while the Substation component is already 59.73% completed. With the restrictions brought about by COVID-19, the expected time of completion of the project was moved from December 2021 to March 2023.

Island Interconnection

- BATANGAS-MINDORO INTERCONNECTION PROJECT

The proposed interconnection of Mindoro Island with the Luzon Grid was envisioned to provide access to bulk generation sources in the main grid, while at the same time providing the means to export possible excess power once the generation potentials, including RE-based plants, within the island have been developed. The nearest connection point in the Luzon Grid for the planned island interconnection project is the proposed Pinamukan 500 kV Substation, while Calapan would serve as the interconnection point in Mindoro Island. As of 31 December 2020, the NGCP is awaiting the approval of the ERC to commence implementation.

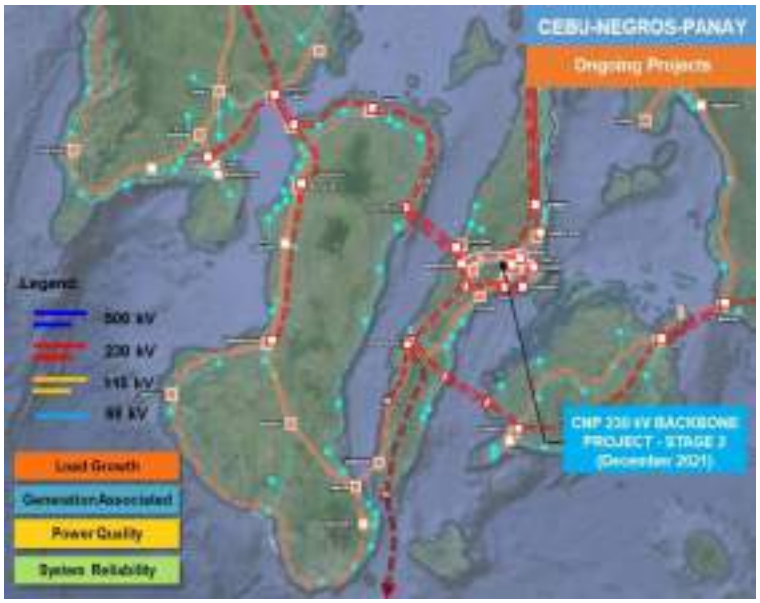
2. VISAYAS GRID

Generation Entry

- CEBU-NEGROS-PANAY 230KV BACKBONE PROJECT – STAGE 1, GE & SR

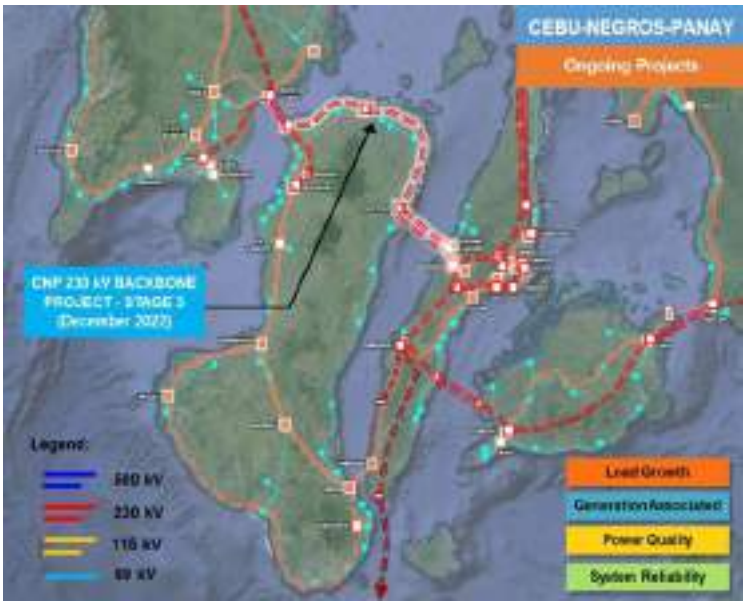
To ensure the effective transmission of excess power generation from Panay towards Negros, a high-capacity transmission corridor is being proposed. Strategically, the project will be designed consistent with the long-term transmission master plan of having a 230 kV transmission backbone in the Visayas by establishing a 230 kV interconnection from Panay to Cebu. The Transmission Line portion is 86.59% complete while the Substation component is already 100% completed. However, with the COVID-19, the expected time of completion of the project was moved from July 2020 to April 2021.

- CEBU-NEGROS-PANAY 230KV BACKBONE PROJECT – STAGE 2, GE & SR



To ensure the effective full generation dispatch of the new power plant, a new transmission corridor, which includes high-capacity transmission line and new substation facilities, is being proposed towards Metro Cebu. As of 31 December 2020, following is the status of the project's components: 1) Transmission Line portion is 100% complete; 2) Substation Portion is 8.50% complete; 3) Underground Cable is 37.11% complete; and 4) Multi-storey facility is 39.17% complete. Due to the circumstances brought about by COVID-19, the expected time of completion of the project was adjusted from December 2020 to December 2021.

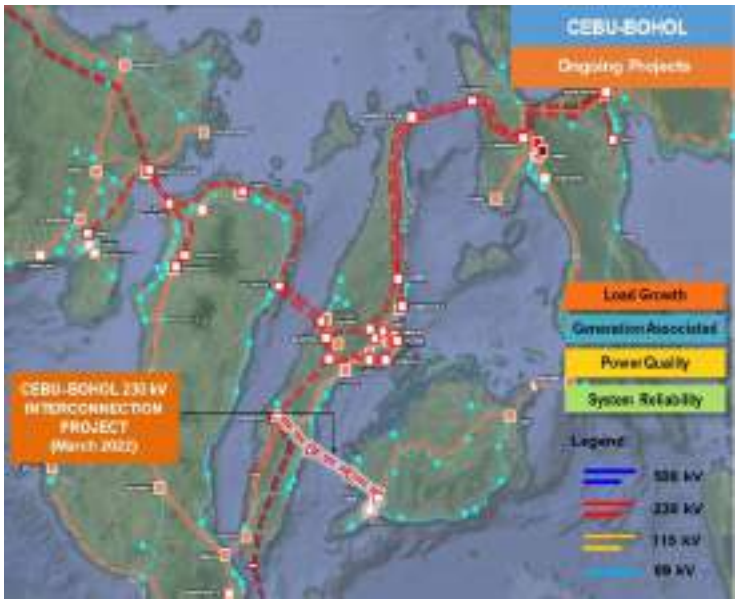
- CEBU-NEGROS-PANAY 230KV BACKBONE PROJECT – STAGE 3



The development of new power plants, including baseload and renewable, in Panay and Negros Islands will result in the increase in power exchange between the islands of Panay, Negros and Cebu. To ensure the effective transmission of excess power generation from Panay and Negros towards Cebu, a high-capacity transmission corridor is being proposed and this will serve as the stage 3 or the final stage for the Cebu–Negros–Panay 230 kV Backbone Project. As of 31 December 2020, the overall accomplishment of the project which consist of three phases is 75.43%. With COVID-19 pandemic situation, the expected time of completion of the project was changed from December 2021 to December 2022.

Load Growth

- CEBU-BOHOL 230KV INTERCONNECTION PROJECT



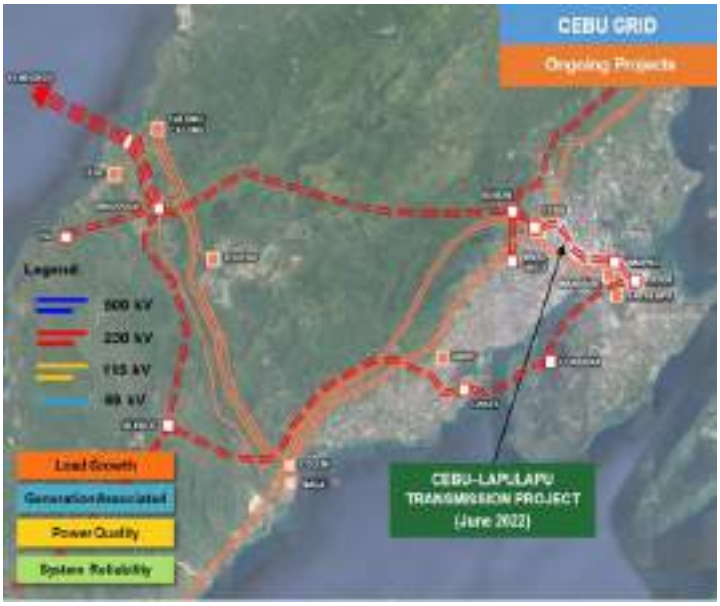
Currently, Cebu, Leyte and Bohol are connected radially. As such, an outage of the Leyte–Bohol 138 kV Interconnection will cause power delivery interruption towards the entire Bohol Island. Since the existing power plants in Bohol do not have sufficient generation capacity to cater the power demand in the island during N-1 contingency condition, there is a need to provide additional transmission backbone towards Bohol. As of 31 December 2020, the Corella Substation project component is for checking of manufacturer's drawings and is currently waiting for the approval of the ERC. The project is expected to be completed in March 2022.

- NAGA (VISAYAS) SUBSTATION UPGRADING PROJECT

To improve the reliability of the Naga Substation, which was commissioned in 1977, equipment shall be replaced. The project involves the construction of new steel tower structures and installation of associated overhead line component. It also involves the use of steel tower structures with higher wind design capability. As of 31 December 2020, its Primary and Secondary equipment is 82.88% complete. Due to the circumstances brought about by COVID-19, the expected time of completion of the project was moved from December 2020 to December 2021.

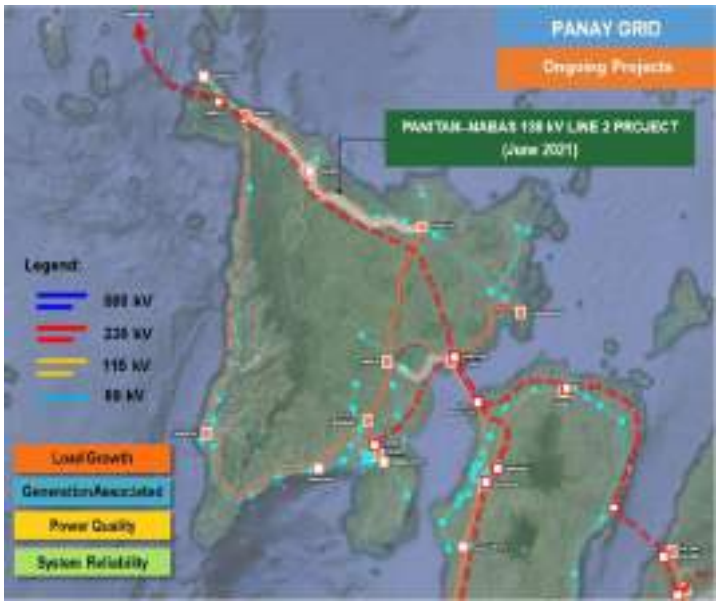
System Reliability

- CEBU-LAPULAPU 230KV TRANSMISSION PROJECT



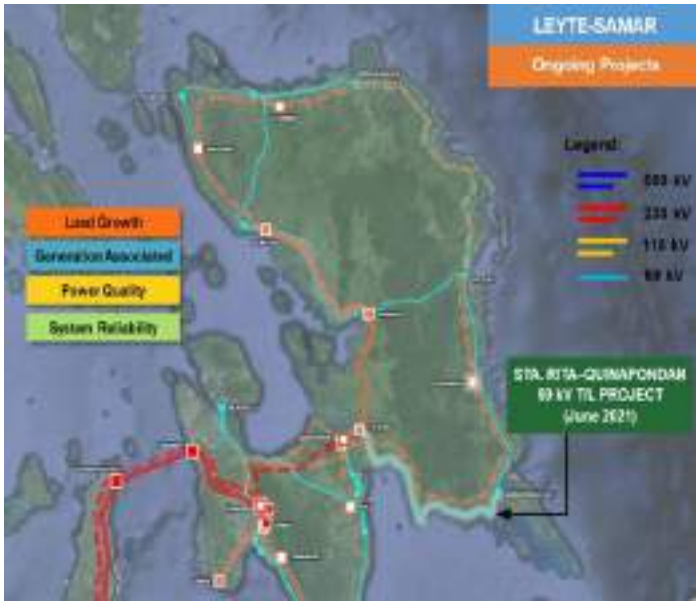
The existing transmission corridors serving the major load centers in Mandaue and Mactan in Cebu do not have N-1 contingency provision. Thus a new transmission corridor, composed of overhead transmission line and submarine/underground cable system, is proposed between Cebu Substation and Lapulapu Substation. As of 31 December 2020, the Substation portion is 97.40% complete. On the other hand, both the Submarine Cable and Overhead Transmission Line components of project are at Tendering stage. Due to the circumstances brought about by COVID-19, the expected time of completion of the project was moved from December 2021 to June 2022.

- PANITAN – NABAS 138 KV TRANSMISSION LINE – LINE 2 (2ND CIRCUIT STRINGING)



The northwestern part of Panay, which includes the Boracay Island, is served by Nabas Substation which normally draws power from the grid through the existing Panitan–Nabas 138 kV Transmission Line. The Nabas Substation is also linked to San Jose Substation by 69 kV transmission line. However, during the outage of the 138 kV line, the 69 kV line will have limited transmission capacity to cater the entire load of the area, hence, will result in power curtailment. To cater the entire power requirement of Nabas Substation even during N-1 condition, a new 138 kV circuit will be installed from Panitan Substation and Nabas Substation. As of 31 December 2020, the Transmission Line component is ready for Energization while the Substation Portion is 98.57% complete. Due to the circumstances brought about by COVID-19, the expected time of completion of the project was moved from December 2020 to June 2021.

- STA. RITA–QUINAPONDAN 69 KV TRANSMISSION LINE

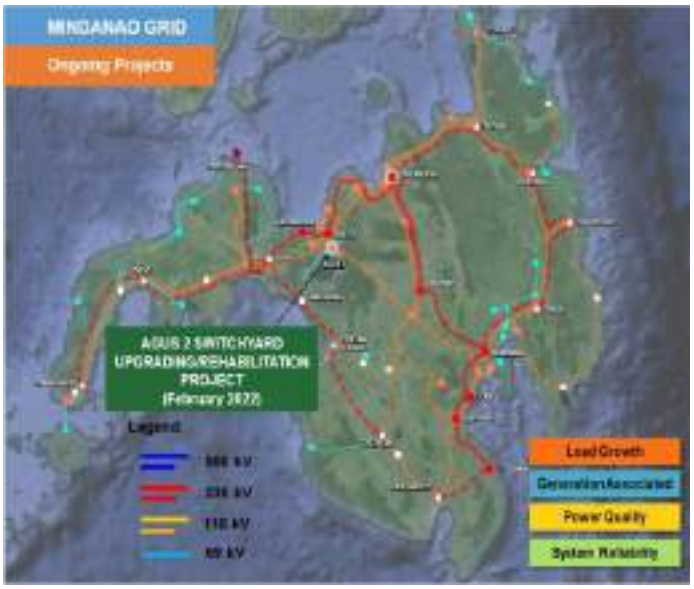


This project involves the construction of a 97 km 69 kV line connecting Sta. Rita and Quinapondan Substation to improve system reliability and power quality in Eastern Samar Area. As of 31 December 2020, the Transmission Line project is almost complete at 99.67%. However, due to the circumstances brought about by COVID-19, the expected time of completion of the project has to change from December 2020 to June 2021.

3. MINDANAO GRID

<u>System Reliability</u>

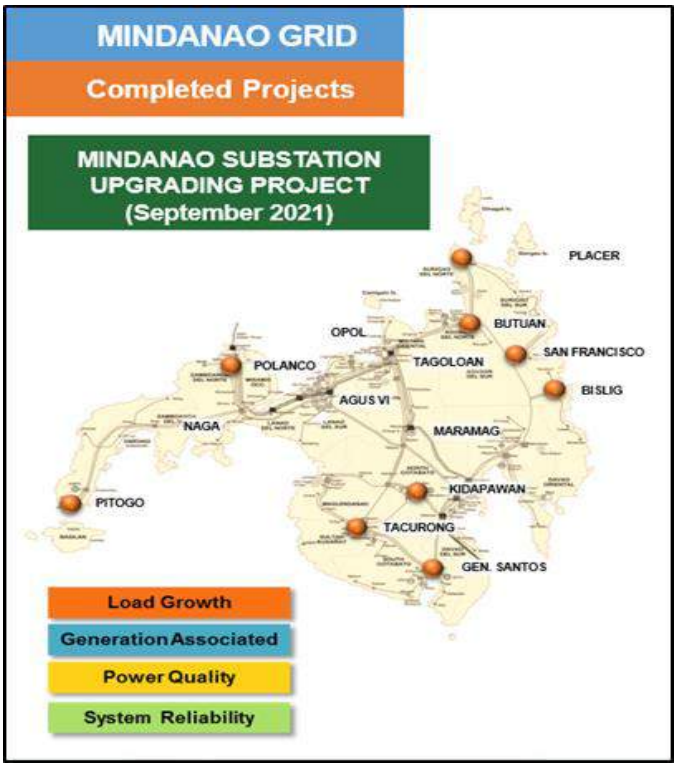
- AGUS 2 SWITCHYARD UPGRADING/REHABILITATION PROJECT



The project enhances the operational stability of the grid that ensures the continuity of service of the power plant's transmission corridor. It involves the replacement of obsolete power circuit breakers, capacitive potential transformers, telecom equipment and other secondary devices. As of 31 December 2020, the transmission project is 94.78% complete. However, with the restrictions brought about by COVID-19, the expected time of completion of the project was adjusted from December 2020 to February 2022.

System Reliability

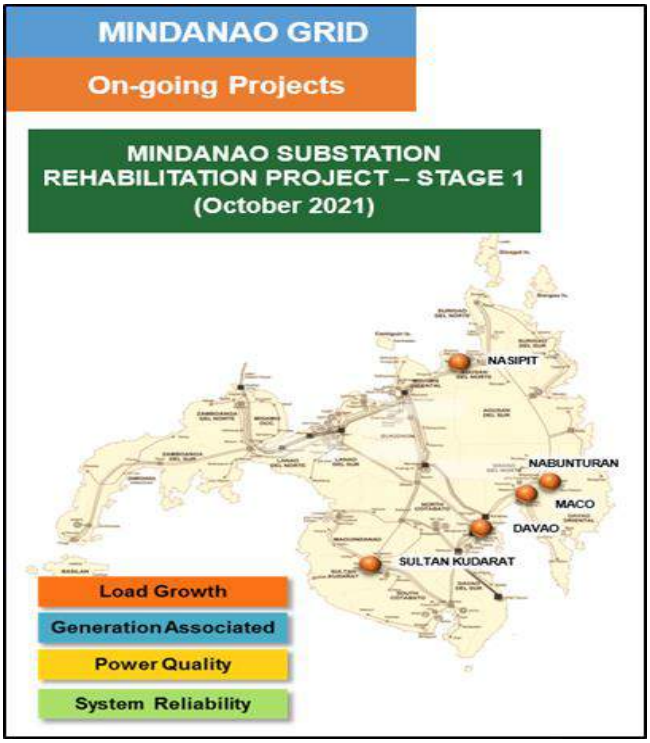
- MINDANAO SUBSTATION UPGRADING PROJECT (MSUP)



The MSUP will provide additional transformers, install capacitor banks, and replace defective, old, obsolete and underrated power circuit breakers (PCBs) to ensure adequate, reliable, and high-quality power transmission system in Mindanao. It also involves the installation of a total of 875 MVA power transformers, 52.5 MVAR capacitor banks, nineteen (19)-138 kV PCBs and twenty-one (21)-69 kV PCBs. Also included as project component is the replacement of eleven (11)-138 kV and twenty-seven (27)-69 kV PCBs in various substations in the grid.

The Project is divided into two (2) Stages. Segments of Stage 1 of the Project is already 85.51% as of 31 December 2020. On the other hand, Stage 2 of the MSUP is already on-going at 75.67%. The MSUP is expected to be completed in September 2021.

- MINDANAO SUBSTATION REHABILITATION PROJECT (MSRP) – STAGE 1



Mindanao Substation Rehabilitation Project (MSRP) will replace power circuit breakers (PCBs) in various substations in Mindanao due to defectiveness, old age, obsolescence and low fault level capacity. Implementation of the project will increase the reliability of the network, reduce/prevent unserved energy, avoid costly maintenance expenses, improve personnel safety and decrease incidents of breaker failures. As of 31 December 2020, Stage 1 of the project is already 66.45% completed. Due to the circumstances brought about by COVID-19, the expected time of completion of the project was adjusted from August 2020 to October 2021.

Island Interconnection

- MINDANAO-VISAYAS INTERCONNECTION PROJECT

Due to the circumstances brought about by COVID-19, the expected time of completion of the project was moved from December 2020 to December 2021. See below table.

However, MVIP will face delay due to severe submarine cable damage as determined during verification surveys done on 3-6 February 2021. The project may extend beyond its adjusted December 2021 target completion due to the damage of several portions of its fiber optic cable connection.

MINDANAO-VISAYAS INTERCONNECTION PROJECT		STATUS (AS OF 31 DECEMBER 2020)
OVERALL ACCOMPLISHMENT		30.85%
Submarine Cable	Santader CTS-Dapitan CTS HVDC	81.38%
Substation	Dumanjug Converter Station & S/S	71.85%
	Lala Converter Station & S/S	
	Aurora S/S (3-138kV PCB)	
	Magdugo S/S (2-230kV PCB)	
	Dumanjug S/S	Tendering Stage
	Umapad GIS S/S	
Transmission Line	Dumanjug-Magdugo HVAC T/L	75.25%
	Kauswagan-Lala HVAC T/L	79.45%
	Aurora-Lala HVAC T/L	
	Dumanjug-Santander HVDC OHTL	76.18%
	Lala-Dapitan HVDC OHTL	
	Alegria-Dumanjug Electrode Line	71.52%
	Kolambugan-Lala Electrode Line	

Completed Transmission Projects:

1. LUZON GRID

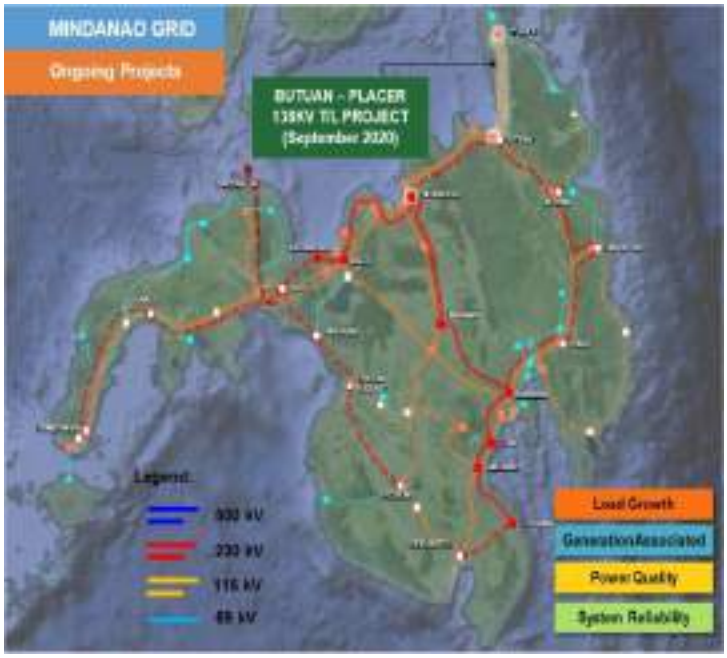
System Reliability

- SAN JOSE–QUEZON 230 kV LINE 3

  The San Jose–Quezon 230 kV Line 3 project intends to address the projected overloading problem during an outage of one of the San Jose–Quezon circuits at peak load condition. Without this project, the dispatch of the power plants delivering power to the 500kV system will have to be limited to maintain the N-1 contingency for the line and this may result in supply adequacy issue and load dropping. The project was energized last 20 November 2020.

- BUTUAN – PLACER 138KV TRANSMISSION LINE PROJECT

  The Butuan-Placer 138 kV Transmission Line Project provides the needed line reinforcement to achieve reliable and continuous power supply to northeastern Mindanao. The project not only satisfies the compliance of the transmission line facility to the single-outage contingency criterion of the PGC but also improves the voltage level in the served area. The project was energized last 09 October 2020.



Load Growth

- NEW NAGA (COLON) SUBSTATION PROJECT

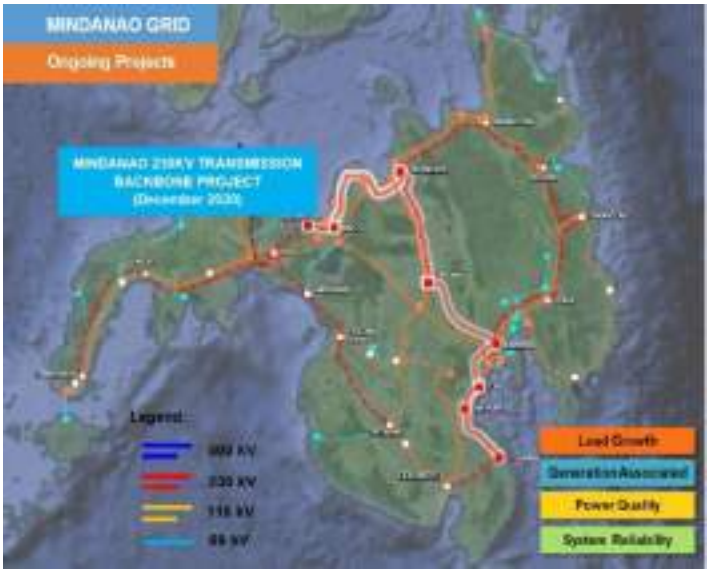
  To accommodate the projected demand of Colon Substation, there is a need to increase the substation capacity. The project involves the installation of 100 MVA transformer at Colon Substation and the transfer of the Naga–Sibonga–Dumanjug and VECO Naga 69 kV feeders from Naga Substation to Colon Substation. The project was energized last 19 December 2020.

- SAN CARLOS – GUIHULNGAN 69 KV TRANSMISSION LINE PROJECT

  The San Carlos-Guihulngan 69kV Transmission Line project is intended to accommodate power demand in the northeastern part of Negros island by building a 69 kV transmission loop from Cadiz to Amlan. The project was energized last 31 August 2020.

Generation Entry

- MINDANAO 230KV TRANSMISSION BACKBONE PROJECT



The project upgrades the thermal capacity of the existing transmission backbone. It entails two (2) major activities: 1) Construction of the Matanao-Toril-Bunawan 230 kV Line; and 2) Energization of the existing Balo-i-Villanueva-Maramag-Bunawan Line to 230 kV voltage level.

The transmission line portion of the project utilizes the existing 230 kV PCBs in Matanao Substation and the installation of transformers in the substations of Toril and Bunawan. The project was energized last 27 November 2020.

F. Distribution Infrastructure Projects

ERC-Approved Capital Expenditure (CAPEX) Projects

Section 43 (f) of the Republic Act No. 9136, otherwise known as the EPIRA, provides that any significant operating costs or projects investment of DU which shall become part of the rate base shall be subject to verification by the ERC to ensure that the contracting and procurement of the equipment, assets and services have been subjected to transparent and accepted industry procurement and purchasing practices to protect the public interest.

On the other hand, the accompanying application for authority to secure loan from the NEA in connection with the funding source for the proposed projects, is being filed pursuant to Section 20 e) of Commonwealth Act No. 146 otherwise known as the Public Service Act, which requires every public service to secure the approval and authorization of the ERC for issuance of any bonds or other evidence of indebtedness payable in more than one year.

During the report period, the ERC approved the Capital Expenditure (CAPEX) Projects applications filed by two (2) Distribution Utilities namely: 1) Aklan Electric Cooperative, Inc. (AKELCO); and 2) Tarlac Electric, Inc. (TEI). Details of these projects are shown in Annex 2.

VII. TOTAL ELECTRIFICATION

Under Sec. 2(a) of the EPIRA 2001, it is the declared policy of the State to ensure and accelerate the total electrification of the country. Said law also mandates the DUs to provide universal service in their franchise areas including unviable areas at a reasonable time. The Government has implemented a massive and focused action to increase and accelerate access to electricity services by the country's unenergized communities and households while contributing to poverty alleviation. Previous programs and activities of the Government resulted in almost 100% barangay electrification, with only eight (8) barangays out of the total of 42,395 potential barangays remaining as unenergized due to geographical and security reasons. The current program of the Government aims to attain 100% total household electrification by 2022.

1. Status of Household Electrification

For the report period, the household electrification level of the country is estimated at 94.36% based on the latest status of energization provided by the NEA, LGUOUs and PIOUs as of September 2020. Said level corresponds to 25.10 million energized HHs out of 22.98 million identified and targeted HH population based on the 2015 Census of the Philippine Statistics Authority (PSA).

Table 29. Household Electrification Level

Distribution Utility	Total Household Population (2015 Census)	Served HHs	Unserved HHs, actual per DU per Province[a]	%HH Level[b]
Electric Cooperatives	14,305,751	15,370,618	1,225,708	91.43%
EC - QTP/NPC-SPUG	28,306	16,560	11,874	58.05%
MERALCO	6,478,982	7,540,873	-	100.00%
Other PIOUs/LGU Owned Utilities	2,171,932	2,178,812	58,706	97.30%
Total	**22,984,971**	**23,229,866**	**1,618,264**	**92.96%**

Source : DOE
Note : [a] Unserved HHs per DU per Prov = (Pot. HHs – Served HHs) per DU per Prov
[b] %HH Level = (Pot. HHs – Unserved HHs per DU per Prov) / Pot. HHs

On previous reports, the electrification level only accounts for the served households of all DUs and it results in higher household electrification level since some DUs have already exceeded the total potential number of households as reported by PSA thus, compensating the DUs with low electrification level. With the new computation, it accounts the actual number of unserved households per DUs per Province. This formula provides accurate representation of the status of household electrification level of the country.

2. On-going and Planned Programs and Activities

- Grid Electrification

  a. NEA's Expanded Sitio Electrification Program (Expanded SEP)

  This refers to NEA's program of attaining 100 percent sitio electrification in the country while providing house wiring and connection assistance to eligible HHs. SEP is the energization of unlit sitio/purok/zone defined as a territorial enclave that forms part of barangay, the location of which may be distant from the center of barangay itself, by providing funds for the construction of distribution lines and house wiring facilities to the

beneficiaries. This provision covers for the two (2) bulbs, 1 (one) convenient outlet, a kilowatt-hour meter, and thirty (30) meters of service drop wire, including the cost of house wiring service).

Under the Sitio Electrification Program (SEP) and the off-grid solar project for 5,000 households, the programs are currently experiencing delays due to the continuing restrictions imposed by the government. NEA revised the number of sitios to be included in the SEP this year from the original target of 2,000 sitios that were submitted to DBM to 932 sitios. As of December 31, 2020, NEA, through the ECs, has completed the energization of 594 sitios.

To help in the country's fight against this global pandemic, the DOE and NEA remitted PhP1.5 billion to the Bureau of Treasury, as requested by the Department of Finance. Of the amount, PhP1.26 billion represents unutilized subsidy funds received in 2016, while the PhP85.71 million given earlier represents dividends to the national government for 2019 operations and the allocated P500 Million of the DOE-Approved LFP-TEP 2019. Hence, implementation of the fund allocated targets for the year may not be met due to this.

b. NEA's Barangay Line Enhancement Program (BLEP)

This aims to rehabilitate those barangays previously energized through solar home system, generator sets and other off-grid solutions but deemed unsustainable. To enhance the program, it shall only cover those off-grid barangays that are already economically feasible for distribution line extension. Funds are provided for grid extension projects such as overhead lines, submarine cable, underground cable and enhancement /upgrading of distribution lines.

Please take note that no budget allocation on BLEP Projects for CY2018-2021 hence, NEA has no targets for CY2021. However, as of 31 December 2021, there are 166 barangays nationwide that need enhancement. NEA plans to fully energize the said identified barangays by 2026 and expects to energize around 9,960 households.

c. Rationalization of Implementation of Energy Regulations 1-94 Electrification Funds

Under this concept, the DOE shall effectively administer ER 1-94 EF to support the total electrification of the identified host barangays and municipalities consistent with the policies set forth under the guidelines. This aims of bringing electricity to all households in the communities hosting the power generating facilities and/or energy resources following the radiating order, prioritizing the host cities/municipalities project proposal for DOE's funding approval under the ER 1-94 Electrification Fund.

As part of the DC2018-08-0021 "Providing for the Amendments of Rule 29 Part (A) of the Implementing Rules and Regulations of Republic Act No. 9136", the DOE have conducted its last leg of Information, Education and Communication (IEC) Campaign in Marquis Events Place, BGC, Taguig City on 05 November 2019. The discussion on the said IEC mainly focuses on the computation and allocation of financial benefits, requirements to facilitate the transfer of financial benefits and the projects to be covered/funded under electrification fund.

For the period of November 2020 to April 2021, with the declarations of State of Public Health Emergency and State of Calamity throughout the Philippines, through Proclamation Nos. 922 and 929, respectively, due to the on-going COVID-19 outbreak in the Philippines, the DOE has issued Department Circular No. DC2020-04-0008 "Rationalizing the Utilization of ER1-94 Funds by Local Government Units in Response to COVID-19 Public Health Emergency" which aims to provide additional fund sources

for Host LGUs to combat COVID-19. Under the Circular, all available and unremitted ER 1-94 Funds with the Department and concerned power generation companies (GenCos) as of 31 December 2020 shall be immediately distributed to the host LGUs for them to have readily available funding to undertake their duty to contain COVID-19 in their respective areas. An Advisory for the Implementation of DC2020-04-008 was issued last 14 July 2020 to provide clarification on particular sections of said DC for the continuity of processes and activities. However, with this effort, the allocated electrification fund under ER 1-94 due for the DUs will be suspended until the State of Public Health Emergency in the country is lifted.

Table 30. Summary of Transfer of ER1-94 Funds to Host LGUs

Fund Type	No. of Host LGUs	Total Amount Transferred (in PhP Million)
Electrification Fund	508	2.07
Development and Livelihood Fund	660	1.12
Reforestation, Watershed Management, Health and/or Environment Enhancement Fund	655	1.14

Source: DOE

d. Nationwide Intensification of Household Electrification (NIHE) Program

Approved in 2014, the NIHE project is a 3-year program that aims to implement measures and grant assistance to intensify household electrification. Under NIHE, DUs are encouraged to adopt more proactive and innovative marketing strategies to fast-track electrification of the remaining unelectrified households both in rural and urban areas of the country. Technical assistance to be undertaken by the NIHE Project include streamlining of connection process, LGU-DU partnership for assistance in connection permits, and policy support to address the issue of slum electrification and flying connections, among others.

However, during the Budget Deliberations in Congress, the House of Representatives has allotted another budget for the program under General Appropriations Act CY2018 to accommodate more requests amounting to PhP300,000,000.00.

For the 2015 NIHE Program, 26,099 households are reported energized out of 30,512 approved and allocated with house-wiring and KWH meter subsidy as of 31 December 2020.

For the 2016 NIHE Program, 83,390 households are reported energized out of 116,592 approved and allocated with house-wiring and KWH meter subsidy as of 31 December 2020.

For the 2017 NIHE Program, 46,604 households are reported energized out of 115,216 approved and allocated with house-wiring and KWH meter subsidy as of 31 December 2020.

For the 2018 NIHE Program, 30,680 households are reported energized out of 81,770 approved and allocated with house-wiring and KWH meter subsidy as of 31 December 2020.

The Department of Energy has encountered some administrative concerns about the implementation of the NIHE Program that affected the timely releases of project funds to the concerned ECs in the past. This delay was further worsened during this COVID-19 pandemic. Other factors that affected the release of these funds to concerned ECs

includes the delayed submission of the pertinent bidding documents from the concerned ECs as well as the closeout of previous completed projects by the concerned ECs.

Following are the lists of NIHE projects with funds released for CY2020:

1. NIHE Projects with Released Project Funds for CY2020

Funding Year	Region	Distribution Utility	No. of HHs	Amount Approved (PhP)	Amount Released (PhP)
2016	CAR	BENECO	5,092	19,095,000.00	15,755,626.75
2017	V	CANORECO	5,777	21,663,750.00	14,924,511.72
2017	VIII	LEYECO III	10,570	39,637,500.00	28,053,837.00
2018	CARAGA	ANECO	2,177	8,163,750.00	5,389,247.00
2018	X	MORESCO I	5,927	22,226,250.00	18,892,312.50
2018	IV-B	MARELCO	4,118	15,442,500.00	15,253,126.88

2. NIHE Projects with Pending Release

Funding Year	Region	Distribution Utility	No. of HHs	Approved Amount (PhP)	Amount for Release (PhP)
2018	I	ISECO	3,367	12,626,250.00	10,175,571.89
2017	IV-A	QUEZELCO I	3,976	14,910,000.00	12,673,500.00
2015	IV-B	BISELCO	100	375,000.00	375,000.00
2017	IV-B	PALECO	638	2,392,500.00	2,032,394.81
2017	VI	AKELCO	1,232	4,620,000.00	3,540,249.40
2016	IX	ZANECO	2,459	9,221,250.00	9,147,480.00
2017	X	FIBECO	1,029	3,858,750.00	3,858,750.00
2017	X	FIBECO	6,880	25,800,000.00	25,275,877.00
2017	XII	COTELCO-PPALMA	21,835	81,881,250.00	69,408,006.25

The DOE is currently preparing advisory guidelines for the ECs on the implementation of Locally Funded Projects in view of the current crisis the country is facing. The DOE is experiencing difficulties in timely releases of the project funds due to the delayed issuance of Notice of Cash Allocation by the DBM and EC's submission of complete bid documents. Also, the DOE received various reports from Distribution Utility (DU) Project Implementers regarding the suspension of majority of activities because of the community quarantine rules imposed by different localities.

As part of IATF's minimum health safety protocol in ensuring safety during Covid-19 pandemic, some of the major activities restrict the completion of projects and likewise conduct technical inspections of completed projects. Thus, thorough, and proper documentation of the project's completion will be required from the corresponding DU implementers.

Despite the current crisis, the DOE assures that it is coordinating with the concerned ECs and continues processing of documents for the release of funds.

- Off-Grid Electrification

1. PV Mainstreaming (PVM) Program:

   Below is the status of the PV Mainstreaming Program with the corresponding funding sources.

   a. DOE Locally Funded Project

   From the previous reporting period, three (3) PVM Projects are up for final technical inspection. To fast-track project closures, the DOE will issue an Advisory which proposes that the concerned Electric Cooperatives and Local Government Units shall conduct the final inspection during this pandemic situation.

   Meanwhile, the DOE has endorsed the ECs' PVM Implementation to the Energy Regulatory Commission (ERC) for the issuance of its Order of Approval for the subject implementation. This is in compliance with the ERC Resolution No. 17, series of 2017 "Resolution Adopting the Rules Governing the Setting of Regulated Solar Home Systems Tariff for the Provision of Electricity Service by the Electric Cooperatives."

2. Qualified Third Party (QTP) Approach

   Following are the updates on the QTP Program being spearheaded by the DOE:

   a. Barangay Rio Tuba in the Municipality of Bataraza, Palawan

   With the expiration of the Provisional Authority last 18 December, 2020, granted by the ERC, the Palawan Electric Cooperative (PALECO) initiated various activities to assume the continuity of the electricity service in the barangay. It has laid down its plans, among which is the interconnection of the barangay to Bataraza town proper. It conducted a series of community assemblies and meetings with the Bataraza Local Government Unit to discuss PALECO's plan in the area. In the meantime, the Bataraza LGU together with the Palawan Provincial Government entered into a Tripartite Agreement with PowerSource Philippines, the QTP in the area, to continue the electricity service until PALECO completed its plan to interconnect the barangay to its main grid.

   On 17 February 2021, ERC issued an Order denying the Verified Motion for Extension of the Transition Period filed by PowerSource Philippines, Inc. (PSPI), the QTP service provider in the area. The ERC also ordered PALECO, among others, to submit a written report of the status of the development and implementation of its interconnectivity plans in the area.

   On 28 February 2021, PALECO completed the line construction from the Bataraza town proper to Riotuba with the help of the community by clearing the heavy vegetation in the area. On 03 March 2021, Riotuba was officially energized by PALECO through its main grid. Tariff to be collected will be based on the existing tariff in the Palawan main grid which is about Pesos 9.50/kWh.

   b. Barangay Cabayugan (Sabang), Puerto Princesa City, Palawan

   SREC continues to provide 24/7 electricity to 560 customers connected to the grid as of 25th Feb 2021. SREC is prepared to connect more customers to grow our demand load and economic activity within our service area, with support from the local government. The effect of COVID-19 has been severe on the local economy, with tourism coming to a halt. As the international and domestic rollout of vaccines

progresses, SREC expects gradual pick-up in tourism and related activities in the second half of 2021 and anticipates some increase in load demand thereon.

SREC has an average daily load of around 2083 kWh SREC is authorized by the ERC to collect PhP12/kWh to the residential and public buildings and PhP 15/kWh for commercial establishments.

For the reporting period, Brgy. Cabayugan experienced 17 unscheduled and 13 scheduled power outages. The scheduled outages were for extensive tree trimming and grid maintenance operations while the unscheduled outages were due to adverse weather conditions, causing tree branches to fall onto the distribution line.

c. Lahuy and Haponan Islands in Caramoan and Quinalasag Island in Garchitorena, Camarines Sur

The ERC issued Provisional Authority to Operate to the First Philippine Island Energy Corporation (FPIEC) in June 2019. FPIEC is authorized to collect PhP12.00/kWh and PhP15.00/kWh for the residential/public buildings and commercial consumers, respectively for all the areas.

Despite the travel restrictions imposed as a result of the pandemic, all equipment and materials for the Project were delivered to the Islands in September 2020. As of February 2021, the civil works and equipment installation in Lahuy and Quinalasag Islands are almost complete and FPIEC is already preparing to test and commission the system in those islands. The civil works in Haponan are experiencing some delays brought about by the travel and transportation restrictions because of COVID-19 but work is proceeding steadily. FPIEC hopes to begin equipment installation in Haponan in the next few weeks and prepare the site for testing and commissioning.

In December 2020, FPIEC filed applications for Certificates of Compliance at the Energy Regulatory Commission for the solar, battery and diesel generator components for each of the Projects in the Islands. As regards the Application to Provide Prepaid Electric Service Using a Prepaid Retail Electric Metering System which FP Island filed at the ERC, neither a Provisional Authority nor an order for Interim Relief has been issued to date.

Below is the summary status of the QTP projects as of December 2020:

PROJECT LOCATION	TECHNOLOGY	TARGET HHs	Served HHs	Electrification Level %	PROPONENT	STATUS
Rio Tuba, Bataraza, Palawan	1.05 MW Diesel - Biomass	5,103	1,009	39.4%	PSPI	Last day of operation on 18 December 2020
Malapascua, Daan-Bantayan, Cebu	750 kW Diesel	1,342	1,270	94.5%	PSPI	Operational, Permanent ATO issued by ERC, 2016
Sabang, Puerto Princesa City, Palawan	Hybrid: 1.4 MW Solar + 1.2 MW Diesel + 2.3 MWh Battery	769	535	69.57%	SREC	Operational, Authority to Operate (ATO) issued by ERC 05 October 2016

PROJECT LOCATION	TECHNOLOGY	TARGET HHs	Served HHs	Electrification Level %	PROPONENT	STATUS
Candawaga & Culasian, Rizal, Palawan	268 kW Diesel	2,151	967	43.9%	PSPI	Operational, Interim Relief, April 2018
Balut Island, Saranggani, Davao Occidental	690 kW Diesel	4,003			PSPI	On-going PIPO activity, Interim Relief, April 2018
Liminangcong, Taytay, Palawan	108 kW Diesel	1,199	987	82.3%	PSPI	Operational, Provisional ATO issued by ERC, 2016
Brgy. Tumbod, Taytay, Palawan	Line extension from Brgy. Liminangcong	395			PSPI	Expository Hearing conducted on 25 April 2019
Lahuy Island, Haponan Island in Municipality of Caramoan and Quinasalag Island in the Municipality of Garchitorena, Camarines Sur	Lahuy Island: 246 kWp Solar + 400 kW Diesel + 79kWh Battery Haponan Island: 51.4 kWp Solar + 100 kW Diesel + 19 kWh Battery Quinalasag Island: 331 kWp Solar + 500 kW Diesel + 80kWh Battery	Lahuy: 550 HHs Haponan: 87 HHs Quinalasag: 705 HHs			FPIEC	On-going construction, Provisional ATO issued by ERC, June 2019
Bgy. Poblacion, Dumaran, Palawan	Hybrid: 132.8 kWp Solar + 144 kW Diesel + 351.1 kWh Battery	497			PSPI	Endorsed to ERC (18 March 2019)
Bgy. Manamoc, Cuyo, Palawan	216 kW Diesel	605			PSPI	Endorsed to ERC (18 March 2019)
Bgy. Port Barton, San Vicente, Palawan	Hybrid: 200 kWp Solar + 609.5 kW Diesel + 200 kWh Battery	1,259			PSPI	Endorsed to ERC (18 March 2019)

VIII. PROMOTION OF RURAL ELECTRIFICATION

Pursuant to Section 58 of the EPIRA, as additional mandate, the National Electrification Administration (NEA) shall develop and implement programs in strengthening the technical capability and financial viability of the rural ECs as electric utilities and to prepare the said ECs to operate and compete in deregulated electricity market, specifically in environment open access and retail wheeling.

1. Financial Assistance

During the report period, NEA released a total of PhP54.9 Million loans to DANECO, SORECO I, and SURSECO I for capital projects. In addition, a total of PhP48.4 Million loan was released to FICELCO and QUEZELCO I for calamity.

Particulars	No.	Electric Cooperatives	Project	Amount (In PhP Million)
Capital Projects	1	Davao Del Norte Electric Cooperative Inc. (DANECO)	Construction of 2-storey office building in Tipaz District, Brgy. Magugpo, East Tagum (3rd release)	12.8
			To cover the cost of various CAPEX projects-poles & wires	4.5
	2	Sorsogon I Electric Cooperative, Inc. (SORECO I)	Construction of 10MVA substation at Load Center Brgy. Lajong, Bulan	20.5
	3	Surigao Del Sur I Electric Cooperative, Inc. (SURSECO I)	Construction of two-storey (Main Office) Administrative Building (final release)	17.1
			Subtotal	*54.9*
Calamity	4	First Catanduanes Electric Cooperative, Inc. (FICELCO)	Rehabilitation of the distribution lines damaged by Typhoons Rolly and Quinta	25.0
	5	Marinduque Electric Cooperative, Inc. (MARELCO)	Rehabilitation of the distribution lines damaged by Typhoons Rolly and Quinta	3.3
	6	Quezon I Electric Cooperative (QUEZELCO I)	Rehabilitation of the distribution lines damaged by Typhoons Rolly, Quinta, and Ulysses	20.1
			Subtotal	*48.4*
			TOTAL	**103.3**

2. Competency Seminars and Training Programs for EC Personnel

Due to the current state of pandemic crisis in the country, NEA pursued to conduct online trainings and competency programs which aimed to increase the learning curve for NEA and EC personnel in the following activities accordingly:

Date	Title of Training/Seminar	No. of Participants
Nov. 03 – 06, 2020	Supervisory Development Course	46
Nov. 9, 10 -12, 13, 2020	Online Internal Audit Engagement – Module 2	43
Nov. 9, 10, 11 -16, 17, 2020	Customer Relationship Management System for Ecs	22
Nov. 16 – 19, 2020	Basic Safety Training for Lineworkers Batch 3 – Visayas Ecs	84

Date	Title of Training/Seminar	No. of Participants
Nov. 23 – 27, 2020	Using Social Media as Customer Communications Channel	27
Nov. 23, 24, 26, 27 – Dec. 1, 2020	Effective Management in Turbulent Environment	37
Dec. 01 – 04, 2020	Supervisory Development Course	53
Dec. 07 – 09, 11, 2020	Customer Relationship Management System for Ecs	24
Jan. 12- Jan. 15, 2021	Basic Safety Training for Lineworkers – Batch 4	74
Feb. 2 – Feb. 5, 2021	Basic Safety Training for Lineworkers – Batch 5	85
Feb. 1-3, 2020; February 8-9, 2021	Effective Management in Turbulent Environments – Batch 3	49
Feb 8-11, 2021	Supervisory Development Course I – Batch 6	33
Feb. 15-19, 2021	Customer Relationship Management System for Ecs – Batch 3	31
Feb. 17-18, 2021; Feb. 23-24, 2021	Internal Auditing Foundational Elements – Module I – Batch 5	48
	TOTAL	**656**

IX. POLICY DEVELOPMENT AND MEASURES

The Department of Energy under Section 37 of the EPIRA is mandated to formulate rules and regulations as may be necessary to implement its objectives; and exercise such other powers as may be necessary or incidental to attain the objectives of the Act.

Following are the policies being approved and promulgated by DOE Secretary Alfonso G. Cusi:

1. Department Circular No. DC2020-10-0021 entitled "Adopting Further Amendments to the Wholesale Electricity Spot Market (WESM) Rules (Provisions for the Implementation of Independent Market Operator)" signed on 22 October 2020. The circular would fulfill the last remaining conditions, as stated in the Department Circular DC2018-01-0002 issued in 2018, which provided policies for the effective and efficient transition to IMO. One of the conditions which was already completed included approval of the Transition Plan, done on 06 February 2018 and the incorporation of the IMO Company on 15 May 2018.

   The IMO shall execute the functions of the Market Operator as espoused in the EPIRA and its IRR, WESM Rules and Market Manuals and other relevant rules/regulations and issuances. The governance function is retained by Philippine Electricity Market Corporation (PEMC) as it will still be responsible for overseeing and monitoring the activities of the IMO for it to perform its obligations as set out in the WESM Rules and Market Manuals.

   With the DOE's issuance of DC2020-10-0021, the only remaining condition left to be fulfilled for the complete transition to IMO is the amendments of the Articles of Incorporation and By-Laws of the PEMC, which is expected to be approved anytime soon.

2. Department Circular No. DC2021-02-0002 entitled "Adopting the Wholesale Electricity Spot Market (WESM) Industry Code of Ethics" signed on 24 February 2021. The circular provides to promote and foster the following:

   - A culture of compliance to the WESM Rules, WESM Manuals, and other applicable laws and regulations;
   - Fairness in dealings amongst WESM participants, WESM members, the Market Operator, the WESM Governance Arm, the PEM Board, and the WESM Governance Committees;
   - Professionalism and integrity, prescribe general standards of behavior which the abovementioned entities are enjoined to follow; and
   - An efficient, transparent and level playing field in the WESM with the end view of promoting consumer welfare.

3. Department Circular No. DC2021-03-0004 entitled "Adopting Further Amendments to the Wholesale Electricity Spot Market (WESM) Rules and Market Manual on Procedures for the Monitoring of Forecast Accuracy Standards for Must Dispatch Generating Units for the Implementation of Enhancements to WESM Design and Operations" signed on 16 March 2021. This policy aims to align the provisions of the Market Manual on Procedures for the Monitoring of Forecast Accuracy Standards for Must Dispatch Generating Units with the forthcoming operation of the new Market Management System and to provide a more appropriate calculation for the forecast percentage error;

4. Department Circular DC2021-03-0005 entitled "Adopting Further Amendments to the Wholesale Electricity Spot Market (WESM) Market Manual on Load Forecasting Methodology for the Implementation of Enhancements to WESM Design and Operations (Provisions for the Load Distribution Factors)" signed on 16 March 2021. The circular Aims

to include the procedures for preparing and updating of Load Distribution Factors (LDFs) in the Market Manual on Load Forecasting Methodology;

5. Department Circular No. DC2021-03-0006 entitled "Adopting Further Amendments to the Wholesale Electricity Spot (WESM) Market Manual on Dispatch Protocol for the Implementation of Enhancements to WESM Design and Operations (Provision for Must-Run Unit)" signed on 16 March 2021. The policy aims to improve the accounting of energy produced due must-run unit dispatch instruction of discrepancy reports;

6. Department Circular No. DC2021-03-0007 entitled "Adopting Further Amendments to the Wholesale Electricity Spot Market (WESM) Rules and Market Manuals on the Management Of Net Settlement Surplus (Harmonization with the Energy Regulatory Commission Resolution No. 07, Series of 2019" signed on 16 March 2021. This policy Aims to harmonize the WESM Rules and Market Manual with the ERC Resolution No. 7, Series of 2019, particularly on transparency and effective determination of settlement surplus/deficit in the WESM;

7. Department Circular No. DC2021-03-0008 entitled "Adopting Further Amendments to the Wholesale Electricity Spot Market (WESM) Rules and Market Manuals for the Implementation of Policy and Framework Governing the Operations of Embedded Generators" signed on 16 March 2021. The circular aims to incorporate the provisions of the Policy for Embedded Generators (DC2019-02-0003) to the WESM Rules and Market Manuals; and

8. Department Circular No. DC2021-03-0009 entitled "Adopting a General Framework Governing the Operationalization of the Reserve Market in the Wholesale Electricity Spot Market and Providing Further Policies to Supplement DC2019-12-0018" signed on 17 March 2021. The policy aims to provide general framework and guidelines for the operations of the Reserve Market, to include the following:

    - Operational design for the initial implementation;
    - Tradeable Reserve categories and initial required levels;
    - Participation Requirements;
    - Pricing and Cost Recovery; and
    - Settlement.

    The circular also provided further supplemental provisions on AS implementation, particularly on third-party AS testing. The policy likewise laid out the responsibilities for the key agencies and power industry participants towards the initial and enhanced operations of the Reserve Market and implementation of AS policies in general.

Meanwhile, despite the implementation of General Community Quarantine (GCQ) in the country which publicly restricts movements and physical appearance of the Filipinos, the DOE continues to fulfill its advocacy and mandate under EPIRA Law to pursue the conduct of virtual public consultations on policy proposals.

Following are the subject policy proposals which include salient features, status and developments:

A. Ancillary Services and Reserve Market

Among the many features of the WESM is the co-optimization of energy and reserves through the Reserve Market. In the Reserve Market, both energy and reserve offers are incorporated in the Market Dispatch Optimization Model (MDOM) of the WESM's Market Management System to determine optimal schedules and prices in order to simultaneously satisfy the energy and

reserve requirements of the grid at any given interval in consideration of constraints such as cost and transmission limits, among others.

Taking off from the recommendations of the AS Technical Working Group on the proposed design for the Reserve Market, the DOE formulated the draft Department Circular "Adopting a General Framework Governing the Operations of the Reserve Market and Providing Further Policies to Supplement DC2019-12-0018" which provides salient features including, among others, the following:

1) Co-optimization of energy and reserves and protocols for the submission of offers, and determination and implementation of dispatch schedules;
2) Operational cap, locational reserve sharing, and scarcity hierarchy for reserves;
3) Tradeable Ancillary Services (AS) categories and their minimum technical specifications and required levels;
4) Criteria for the Readiness of market systems and corresponding responsibilities of the power industry participants, and
5) Appropriate pricing, billing and settlement procedures, mitigating measures, and cost recovery mechanism to ensure consumer protection.

The draft Department Circular has been subjected to public consultations last 26 and 29 January 2021 through online teleconferencing. The draft policy is currently undergoing further review in consideration of the comments from the stakeholders and is targeted for promulgation by 2nd quarter of 2021. With the advent of the 5-minute dispatch interval energy market by 2nd quarter of 2021, the Reserve Market is projected to operationalize within the year. This, however, may be anchored on the finalization and approval of the policy and regulatory frameworks being worked on by the DOE and ERC, respectively, to satisfy the requisites for the Reserve Market and to iron out prevailing issues and concerns on AS implementation in general.

Relatedly, the DOE is currently formulating the guidelines on the Competitive Selection Process for AS Procurement Agreements. The said policy initiative aims to streamline the contracting process of the System Operator to ensure least cost procurement of contracted AS. The draft policy will be subjected to public consultations and stakeholder comments with target promulgation by 2nd quarter of 2021.

B. Policy on Test and Commissioning of Generation Facilities

As reported by the Market Operator, several plants in the WESM were recorded to be on Test and Commissioning status in the WESM for more than 2 months. The extended Test and Commissioning of generation facilities pose material effect to WESM outcomes by displacing scheduled generators while not being required to comply with the mandatory requirements in the submission of offers or projected outputs. Further, determining the definite status of power plants intending to transition to commercial operations is crucial information in planning for short and medium-term supply.

The DOE, cognizant of the need to address any policy gaps and to ensure the optimal utilization of available capacities in the Grid, conducted review of all relevant policies and guidelines, to provide general policies and procedures on the Test and Commissioning of Generation Facilities, specifically including activities conducted to ensure readiness to deliver energy to the Grid or distribution network.

Following are the salient features of the of the Draft Department Circular:

- Affirm the Maximum Allowable Period for the conduct of Test and Commissioning;
- Cease the imposition of security limits and payment for energy injected upon expiry of maximum allowable period;
- Provide guidance on the extension or re-activation of maximum allowable period; and

- Establish guidelines for coordination among Market Operator, System Operator, Transmission Network Provider, Distribution Utilities and concerned Generation Company.

The initial Draft Department Circular was posted for comments in the DOE Website on 15 April 2020 and was subjected to Virtual Public Consultations on 29 June and 01 & 03 July 2020. Subsequent discussions were also made with the stakeholders to further develop the said Draft Department Circular. As a result of the discussions, a second and third version of the Draft Department Circular were posted for comments on the DOE website on 17 September 2020 and 26 February 2021, respectively.

Currently, the DOE is finalizing the Draft Department Circular considering the overwhelming additional comments and recommendations received from the stakeholders.

C. Amendments to WESM Rules and Market Manuals

On 10 and 15 December 2020, 4th Batch of Virtual Public Consultations on Various Draft Department Circulars Related to the WESM were conducted for Luzon, and Visayas-Mindanao Legs, respectively, regarding the following proposals:

a. Adopting Further Amendments to the Wholesale Electricity Spot Market (WESM) Rules and Retail Rules for the operation of the Renewable Energy Market which aims to harmonize the WESM Rules and the Retail Rules with the policies stipulated in Section 8 of the Renewable Energy Act of 2008 and the Renewable Energy Market Rules, by:

   - Adding the Renewable Energy (RE) Registrar in the entities entitled to have direct or remote access to metering data on read only basis;
   - Adding provisions to include the permitted disclosure that enables the Market Operator to disclose the registration and settlement information to the RE Registrar; and
   - Adding definitions for the Renewable Energy Market, REM Rules, and RE Registrar.

b. Adopting the Abolition of Various Market Manuals in view of the Implementation of the Enhanced Wholesale Electricity Spot Market (WESM) Design and Operations which aims to abolish seven (7) WESM Market Manuals that will either be no longer applicable or considered redundant upon commencement of the implementation of the enhanced WESM design and operations.

c. Adopting Further Amendments to the Wholesale Electricity Spot Market (WESM) Rules and Market Manual on the Procedures for Changes to the WESM Rules, Retail Rules and Market Manuals which aims to enhance the rules change process and incorporate policies under the DOE Circulars issued on WESM governance, by:

   - Adding provisions for the extension of the effectivity of urgent amendments;
   - Revising written submission of comments through electronic format only; and
   - Adding a provision to remand the proposal by the PEM Board to the Rules Change Committee for further study.

X. INFORMATION, EDUCATION AND COMMUNICATION (IEC) CAMPAIGN ON EPIRA IMPLEMENTATION

In compliance with Section 76 of the EPIRA, though the outbreak of COVID-19 pandemic still lives on, the DOE in keeping its mandate undertakes continuing nationwide IEC campaign in a virtual manner on the education and protection of end-users particularly for the academe as participants in selected public and private schools in the country.

The conduct of IEC on the implementation of the EPIRA is in continuation of the DOE's effort to provide information to the academe sector in order for them to be empowered with the basic foundation and familiarization on EPIRA law and enable them to cope with the challenges and changes brought about by the restructuring of the electric power industry pursuant to EPIRA.

On 22 March 2021, the IEC on EPIRA Implementation was conducted virtually with the Marikina Polytechnic College (MPC) and was attended by 189 students from Engineering courses and 23 college officials and faculty members headed by the Officer-In-Charge President, Atty. Lily Frelda M. Milla, CESO IV.

The IEC covers presentations of topics on Understanding the Philippine Electric Power Industry, Power Systems 101, Understanding the Electricity Bill, and Magna Carta for Electricity Consumers.

On 14 May 2021, another IEC will be held virtually with the De La Salle University – Dasmariñas. Preparatory activities and coordination with the school are ongoing and being finalized.

ANNEXES

Annex 1. TransCo Inspection Report Based on Concession Agreement as of 28 February 2021

No.	Inspection Report No.	Location	Name of Project/ Transmission Facilities	Inspection Date
LUZON				
1	NLR-D4-21-02	District 4 North Luzon	North Luzon District 4: Bayombong SS, Lagawe LES, Santiago SS, Iligan LES & Tuguegarao SS, Ramon RS, Enrile RS & Iligan RS	February 16-19, 2021
2	SLR-MB-21-04	South Luzon	Maintenance & Testing Division-B South Luzon	February 16-19, 2021
3	SLR-RS-21-09	South Luzon	Lucban Repeater Station (New)	February 23-24, 2021
VISAYAS				
1	VIS-RS-21-10	Visayas	Siquijor RS, Amlan RF Room	February 23-24, 2021
2	VIS-AC-21-08	Visayas	Bohol Area Control Center, Loon Repeater Station, Jagna Station, Buenavista Repeater Station	February 23-24, 2021
MINDANAO				
1	MIN-AC-21-01	Mindanao	Butuan Area Control Center & Carmen RS	February 17-19, 2021
2	MIN-D6-21-03	District 6 Mindanao	Mindanao District 6: GeSan SS, Tacurong SS, Kidapawan SS, Sulatan Kudarat SS and VCA for GSACC, Calumpang RS, Malalag RS, Tupi RS & Ilomavis RS	February 16-19, 2021
3	MIN-D1-21-05	District 6 Mindanao	Mindanao District 1: Aurora SS, NagaMin SS, Zamboanga SS, Pitogo SS and Tumaga LES, VCA for Dinas RS, Ozamis RS, Lopez Jaena RS, ZACC, Sangali RS & Mercedes RS	February 16-19, 2021
4	MIN-RS-21-06	Mindanao	Impasug-ong (KItanglad Repeater Station) (New)	February 23-24, 2021
5	MIN-AC-21-07	Mindanao	Iligan Area Control Center, Manticao RS, Talacugon RS & Maria Cristina RS	February 23-26, 2021

Source: TRANSCO

Annex 2. NGCP Related Petitions to ERC as of February 2021

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
ERC Case No. 2021-008RC/27 January 2021	Application of the National Grid Corporation of the Philippines for the Approval of the Implementation of the Lala-Naga-Mindanao-Zamboanga 230kV TL Project and Zamboanga Peninsula Voltage Improvement Project	• Immediately issue an Order provisionally authorizing the Implementation of proposed CAPEX project; and • Approve, after Notice and Hearing, the Proposed CAPEX Project	Awaiting Initial Order/Notice of Hearing
ERC Case No. 2021-006RC/25 January 2021	Application of NGCP for the Approval of the Implementation of CAPEX Luzon (Group 2) From 2021-2025 and Beyond	• Immediately issue an Order provisionally authorizing the Implementation of proposed CAPEX project	On February 18, 2021, the ERC promulgated its Order dated February 1, 2021, setting virtual hearings on the following dates: 1. April 16, 2021, 2:00 PM – Determination of compliance with Jurisdictional requirements and Expository Presentation; and 2. April 23, 2021, 2:00 PM – Pre-trial Conference and Presentation of Evidence.
ERC Case No. 2021-005RC/25 January 2021	Application of the NGCP for the Approval of the Implementation of the Capas 230kV Substation, Porac 230kV Substation, North Luzon Substation Upgrading II and Acquisition of Transmission Assets	• Immediately issue an Order provisionally authorizing the Implementation of proposed CAPEX project; and • Approve, after Notice and Hearing, the Proposed CAPEX Project	On February 17, 2021, the ERC promulgated its Order dated February 1, 2021, setting virtual hearings on the following dates: 1. April 15, 2021, 2:00 PM – Determination of compliance with Jurisdictional requirements and Expository Presentation; and 2. April 22, 2021, 2:00 PM – Pre-trial Conference and Presentation of Evidence.
ERC Case No. 2021-004RC/18 January 2021	Application of NGCP for the Approval of the Implementation of CAPEX Luzon From 2020-2025 and Beyond	• Immediately issue an Order provisionally authorizing the Implementation of proposed CAPEX project; and • Approve, after Notice and Hearing, the Proposed CAPEX Project	On February 9, 2021, the ERC promulgated its Order dated January 26, 2021, setting virtual hearings on the following dates: 1. April 07, 2021, 2:00 PM – Determination of compliance with Jurisdictional requirements and Expository Presentation for Luzon stakeholders; 2. April 14, 2021, 2:00 PM – Expository Presentation for Visayas Stakeholders; 3. April 21, 2021, 2:00 PM - Expository Presentation for Mindanao Stakeholders; 4. April 28, 2021, 2:00 PM – Pre-Trial Conference and Presentation of Evidence; and

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
			5. May 5, 2021, 2:00 PM – Presentation of Evidence.
ERC Case No. 2021-003RC/18 January 2021	Application of NGCP for the Approval of the Implementation of CAPEX Luzon, Visayas, and Mindanao (Group 3) From 2020-2025 and Beyond	• Immediately issue an Order provisionally authorizing the Implementation of proposed CAPEX project; and • Approve, after Notice and Hearing, the Proposed CAPEX Project	On February 9, 2021, the ERC promulgated its Order dated January 26, 2021, setting virtual hearings on the following dates: 1. April 06, 2021, 2:00 PM – Determination of compliance with Jurisdictional requirements and Expository Presentation for Luzon stakeholders; 2. April 13, 2021, 2:00 PM – Expository Presentation for Visayas Stakeholders; 3. April 20, 2021, 2:00 PM - Expository Presentation for Mindanao Stakeholders; 4. April 21, 2021, 2:00 PM – Pre-Trial Conference and Presentation of Evidence; and 5. May 4, 2021, 2:00 PM – Presentation of Evidence.
ERC Case No. 2021-002RC/18 January 2021	Application of NGCP for the Approval of the Implementation of CAPEX Luzon, Visayas, and Mindanao (Group 2) From 2020-2025 and Beyond	• Immediately issue an Order provisionally authorizing the Implementation of proposed CAPEX project; and • Approve, after Notice and Hearing, the Proposed CAPEX Project	On February 9, 2021, the ERC promulgated its Order dated January 26, 2021, setting virtual hearings on the following dates: 1. April 06, 2021, 2:00 PM – Determination of compliance with Jurisdictional requirements and Expository Presentation for Luzon stakeholders; 2. April 13, 2021, 2:00 PM – Expository Presentation for Visayas stakeholders; 3. April 20, 2021, 2:00 PM - Expository Presentation for Mindanao stakeholders; 4. April 27, 2021, 2:00 PM – Pre-Trial Conference and Presentation of Evidence; and 5. May 4, 2021, 2:00 PM – Presentation of Evidence.
ERC Case No. 2020-039RC/30 October 2020	Application of the National Grid Corporation of the Philippines For the Approval of the Force Majeure Event Regulated FM Pass-Through For earthquake incidents in Mindanao, Typhoon "Tisoy" in Luzon and Visayas, Typhoon "Ursula" in Visayas	• DECLARE the occurrence of Earthquake Incidents in Mindanao, Typhoon "Tisoy" in South Luzon and Visayas, and Typhoon "Ursula" in Visayas which resulted in an increase in costs incurred by the NGCP to restore, repair and rehabilitate various affected transmission assets and facilities in the NGCP	On November 25, 2020, the ERC promulgated its Order dated November 17, 2020 Setting the virtual hearings using MS Teams Application as follows: 1. January 19, 2021(Tuesday) at two 'clock in the afternoon (2:00 P.M.), Determination of compliance with

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
		Operations and Maintenance and System Operations, as a Force Majeure Event (FME); ● Immediately GRANT Provisional Authority to implement and bill the following FM Pass-Through Amounts to Luzon, Visayas and Mindanao customers starting the billing month of January 2021 to December 2025, or until such time that the amounts incurred are fully recovered; ● APPROVE the FME CAPEX and OPEX amounting to Eighty-Eight Million Seven Hundred Forty Thousand Sixteen and 12/100 Pesos (Php 88,740,016.12) incurred by NGCP for the repair, restoration and rehabilitation of the damaged transmission assets and facilities due to Earthquake Incidents in Mindanao, Typhoon "Tisoy", and Typhoon "Ursula"; ● APPROVE and ALLOW the recovery of the Net Fixed Asset Value of the transmission assets and facilities damaged by Earthquake Incidents in Mindanao, Typhoon "Tisoy", and Typhoon "Ursula" amounting to Eighty-Eight Million Six Hundred Sixty One Thousand Three Hundred Sixty Four and 95/100 Pesos (Php 88,661,364.95) given that it would have been fully recovered by NGCP if these transmission assets and facilities have not been damaged or destroyed by the said FMEs; ● APPROVE, after due notice and hearing, the proposed FM Pass-Through Amounts to be collected from the Luzon, Visayas and Mindanao customers starting January 2021 billing month to December 2025 or until such time that the amounts incurred are fully recovered; and	jurisdictional requirements and Expository presentation, and 2. January 27, 2021 (Wednesday) at two o'clock in the afternoon (2:00 P.M.) Pre-trial Conference and Presentation of Evidence.

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
		• EXCLUDE the proposed Pass-Through Amounts from the side constraint calculation.	
ERC Case No. 2020-037RC/ 19 October 2020	Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines and Pagbilao Energy Corporation (For Reactive Power Support)	• Immediately ISSUE a provisional authority to implement the subject ASPA executed on 14 July 2020, granting authority for the procurement and supply, under a per-occurrence basis, of RPS outside the range of 85% lagging and 90% leading power factors, the latter subject to the submission of the accreditation certificate: and • APPROVE, after notice and hearing, the subject ASPA	On 11 November 2020, the ERC promulgated its Order dated October 30, 2020 Setting the determination of compliance with jurisdictional requirements, expository presentation, Pre-trial Conference, and presentation of evidence on December 11, 2020 (Friday) at two o'clock in the afternoon (2:00 P.M.), through a virtual hearing using the MS Teams Application On 2 December 2020, the NGCP filed a Motion to Reset Virtual Hearing; Pursuant to ERC Order dated December 3, 2020, the ERC conducted virtual hearings on: 1. February 11, 2021 – Determination of Compliance with the Jurisdictional Requirements and Expository Presentation; and 2. February 18, 2021 – Pre-Trial and Evidentiary were suspended until NASECORE's intervention is ruled upon the ERC.
ERC Case No. 2020-033RC/ 15 October 2020	Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines and Therma Luzon Inc. (For Reactive Power Support)	• Immediately ISSUE a provisional authority to implement the subject ASPA executed on 14 July 2020, granting authority for the procurement and supply, under a per-occurrence basis, of RPS outside the range of 85% lagging and 90% leading power factors, the latter subject to the submission of the accreditation certificate: and • APPROVE, after notice and hearing, the subject ASPA.	On November 18, 2020, the ERC promulgated its Order dated November 3, 2020 Setting the determination of compliance with jurisdictional requirements, expository presentation, Pre-trial Conference, and presentation of evidence on January 12, 2021 (Tuesday) at two o'clock in the afternoon (2:00 P.M.), through a virtual hearing using the MS Teams Application.

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
ERC Case 2021-008RC/ January 27, 2021	Application of the National Grid Corporation of the Philippines for the Approval of the Implementation Lala-Naga-Mindanao-Zamboanga 230kV TL Project and Zamboanga Peninsula Voltage Improvement Project	• Immediately ISSUE an Order provisionally authorizing the implementation of the proposed CAPEX Project; and • APPROVE, After Notice and Hearing, the proposed CAPEX Project	Awaiting Initial Order/Notice of Hearing
ERC Case No. 2020-039RC/ October 30, 2020	Application of the National Grid Corporation of the Philippines For the Approval of the Force Majeure Event Regulated FM Pass-Through For Earthquake Incidents in Mindanao, Typhoon "Tisoy" in luzon and Visayas, Typhoon "Ursula" in Visayas	• DECLARE the occurrence of Earthquake Incidents in Mindanao, Typhoon "Tisoy" in South Luzon and Visayas, and Typhoon "Ursula" in Visayas which resulted in an increase in costs incurred by the NGCP to restore, repair and rehabilitate various affected transmission assets and facilities in the NGCP Operations and Maintenance and System Operations, as a Force Majeure Event (FME); • Immediately GRANT Provisional Authority to implement and bill the following FM Pass-Through Amounts to Luzon, Visayas and Mindanao customers starting the billing month of January 2021 to December 2025, or until such time that the amounts incurred are fully recovered; • APPROVE the FME CAPEX and OPEX amounting to Eighty-Eight Million Seven Hundred Forty Thousand Sixteen and 12/100 Pesos (Php 88,740,016.12) incurred by NGCP for the repair, restoration and rehabilitation of the damaged transmission assets and facilities due to Earthquake Incidents in Mindanao, Typhoon "Tisoy", and Typhoon "Ursula"; • APPROVE and ALLOW the recovery of the Net Fixed Asset Value of the transmission assets and facilities damaged by Earthquake Incidents in Mindanao, Typhoon "Tisoy", and Typhoon "Ursula" amounting to Eighty-Eight Million Six Hundred Sixty One Thousand Three Hundred Sixty Four and	Pursuant to ERC Order dated November 17, 2020, the virtual hearings using MS Teams Application were conducted as follows: - January 19, 2021 (Tuesday, 2:00 P.M.) - determination of compliance with jurisdictional requirements and expository presentation; and - January 27, 2021 (Wednesday 2:00 P.M.) - pre-trial conference and presentation of evidence.

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
		95/100 Pesos (Php 88,661,364.95) given that it would have been fully recovered by NGCP if these transmission assets and facilities have not been damaged or destroyed by the said FMEs; ● APPROVE, after due notice and hearing, the proposed FM Pass-Through Amounts to be collected from the Luzon, Visayas and Mindanao customers starting January 2021 billing month to December 2025 or until such time that the amounts incurred are fully recovered; and ● EXCLUDE the proposed Pass-Through Amounts from the side constraint calculation.	
ERC Case No. 2020-033RC/ October 15, 2020	Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines and Therma Luzon Inc. (For Reactive Power Support)	● Immediately ISSUE a provisional authority to implement the subject ASPA executed on 14 July 2020, granting authority for the procurement and supply, under a per-occurrence basis, of RPS outside the range of 85% lagging and 90% leading power factors, the latter subject to the submission of the accreditation certificate: and ● APPROVE, after notice and hearing, the subject ASPA	On January 27, 2021, the ERC promulgated its Order dated December 16, 2020, Granting the co-applicant Provisional Authority. On January 6, 2021, the ERC promulgated its Order dated November 25, 2020, Granting Interim Relief to implement the ASPA, subject to some conditions.
ERC Case No. 2020-022RC:/ August 11, 2020	Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines and Therma Mobile Inc. (For Dispatchable Reserve)	● Immediately ISSUE a provisional authority to implement the subject ASPA executed on 14 July 2020; and ● APPROVE, after notice and hearing, the subject ASPA	On January 6, 2021, the ERC promulgated its Order dated November 25, 2020, Granting Interim Relief to implement the ASPA, subject to some conditions.
ERC Case No. 2019-077RC/ 15 October 2019	Application of the NGCP for the Approval of the Ancillary Services Procurement Between NGCP and King Energy Generation, Inc. (Misamis Occidental Power Plant 2 -Panaon)	● Immediately issue a provisional authority to implement the subject ASPA executed on 03 July 2019; and ● Approve, after Notice and Hearing, the subject ASPA.	On 01 February 2021, the ERC promulgated an Order dated 26 November 2020, Granting Interim Relief authorizing the applicants to continue implementation of the subject ASPA.

<table>
<tr><th>DECISION/CASE NO./ DATE OF FILING</th><th>NATURE OF PETITION</th><th>GROUNDS FOR FILING</th><th>STATUS</th></tr>
<tr>
<td>ERC Case No. 2014-127RC/ 29 August 2014</td>
<td>Application of the National Grid Corporation of the Philippines for the Approval of Force Majeure (FM) Event regulated FM pass through for sabotage incidents and landslide due to continuous heavy rains in Mindanao and Typhoons Santi and Vinta in Luzon, in accordance with the Rules for Setting Transmission Wheeling Rates</td>
<td>GRANT Provisional Approval to implement and bill the FM Pass-Through Amounts to Luzon and Mindanao customers starting October 2014 billing month to December 2015 billing month or until such time that the amount incurred is fully recovered;

DECLARE the sabotage incidents and landslide due to continuous heavy rains in Mindanao, and Typhoons Santi and Vinta in Luzon as Force Majeure Events (FME);

APPROVE the CAPEX incurred for the restoration, rehabilitation and repair of the damaged transmission assets and other related facilities due to the sabotage incidents and landslide due to continuous heavy rains in Mindanao, and Typhoons Santi and Vinta in Luzon as FMEs;

APPROVE the proposed pass-through amount representing return on capital, return of capital and taxes associated with emergency responses and the repair and rehabilitation of facilities damaged due to the said events, as shown in the table below:
<table>
<tr><th>Grid</th><th>2014</th><th>2015</th></tr>
<tr><td>Luzon</td><td>0.0338</td><td>0.0083</td></tr>
<tr><td>Mindanao</td><td>0.2830</td><td>0.0703</td></tr>
</table>
APPROVE and ALLOW the recovery of the Net Fixed Asset Value of the transmission assets and other related facilities damaged by the sabotage incidents and landslide due to continuous heavy rains in Mindanao, and Typhoon Santi and Vinta in Luzon, as FMEs during the fourth (4th) Regulatory Period given that the said transmission assets and other related facilities have not been damaged or destroyed by said FMEs;

EXCLUDE the proposed Pass-Through Amount from the side constraint calculation.</td>
<td>On December 7, 2020, TransCo received copy of NGCP Compliance to the ERC Order dated October 29, 2020.</td>
</tr>
</table>

Source: Transco

Annex 3. ERC-Approved Capital Expenditure Projects

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	ERC CASE NO.	DATE FILED/ APPROVED
Tarlac Electric, Inc. (TEI)	**CAPITAL EXPENDITURE PROGRAM**			**2019-036 RC**	17 May 2019/ 16 December 2020
	Upgrading of Maliwalo Substation.	The existing 10MVA power transformer at Maliwalo Substation is expected to be overloaded by year 2020due to the sudden increase in number of commercial and agricultural businesses in the Maliwalo and Matatalaib area.	96,360,373.36		
	Upgrading to Full Supervisory Control and data Acquisition (SCADA) Implementation for San Rafael, LIP, San Vicente, Panganiban, Maliwalo and TPC.	The project is for the automation of all TEI's substations into one (1) complete SCADA system. This project would enable TEI to transition from mere data acquisition to full network control and management.	79,046,578.35		
	Construction of Communication Towers for all TEI Offices and Substations.	The communication towers shall serve as the physical backbone of TEI's wireless infrastructure system for automated feeder switches, Advanced Metering Infrastructure (AMI), Radio Communications and other wireless technologies. The project is also in line with the Department of Energy's (DOE) roadmap for a Smart Grid System for every utility.	52,784,340.73		
	Acquisition of Additional Server and Storage System for Operations Network.	The project is necessary to have a dedicated network infrastructure for technical operations in order to separate the corporate resources and data from the technical operations data. Further, this project would enable TEI to have a dedicated network and application-level security infrastructure for both corporate functions and technical operations.	43,269,080.43		
	Acquisition of Additional TEI Cyber Security and Threat Protection Project.	The project is necessary to protect and secure TEI's data network from threats such as virus, malware, phishing attacks, hackers, and any other cyber security exploits. Any breach or data loss will be detrimental to the company.	19,584,056.47		
	Acquisition of Service Vehicles.	The acquisition of service vehicles aims to replace TEI's nine (9) pick-up trucks identified to be retired due to deterioration and natural wear-and-tear.	9,917,600.00		
Aklan Electric Cooperative , Inc. (AKELCO	**EMERGENCY CAPITAL EXPENDITURE PROJECT**			**2019-089 RC**	29 November 2019/ 13 January 2021
	Construction of new 13.2 kV Three-Phase Primary Backbone Line of Feeder 14 of Boracay Substation.	The implementation of the project has addressed the overloading of Feeder 14 of Boracay Substation due to the energization of Auhana Hotel and Resort with a power demand of 4.4 MW. The project also contributed in maintaining stability and reliability of power supply in Boracay Island in consonance with the directive of the National Government to immediately relocate the power lines in the island.	Funded by DPWH		

Source: ERC