

# 36<sup>th</sup> Electric Power Industry Reform Act (EPIRA) Implementation Status Report

(For the Report Period April 2020)

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Department of Energy

*With Contributions from*

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## I. EXECUTIVE SUMMARY

The 36<sup>th</sup> Status Report on Republic Act No. 9136 titled “Electric Power Industry Reform Act (EPIRA) of 2001” covers the implementation period November 2019 to April 2020. 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.

During the report period, several events occurred that deeply affected the power industry including the devastation left by Typhoon Ursula which ravaged the Northeastern Mindanao, Bicol Region, Central Visayas, CALABARZON, MIMAROPA and Western Visayas, the eruption of Taal Volcano in January 2020 which temporarily displaced about 846,000 resident of Laguna, Cavite and Batangas and the recent pandemic Corona Virus Disease (COVID-19) which put the economic activities of the country at almost stand still. Also in this report, it highlighted the response that the power sector has implemented in order to ensure the uninterrupted supply of electricity and support the government’s effort to prevent the spread and mitigate the impact of the pandemic.

Amid the mobility limitation brought by implementation of Enhanced Community Quarantine (ECQ) and work from home (WFH) arrangements, the sector strived to operate normally while adhering to the norms implemented with the issuance of various regulations in line with Republic Act No. 11469 titled Bayanihan to Heal as One Act, also known as the Bayanihan Act, which was enacted on 25 March 2020 granting the President additional authority to combat the COVID-19 pandemic in the Philippines.

The Department of Energy has implemented emergency measures against the COVID-19 to ensure a continuous supply of energy within the country. These include the issuance of identification cards (IDs) to facilitate movement of workers in the delivery of energy services and fuels, close coordination with other concerned government agencies and corporations including local government officials and the Philippine National Police (PNP) for the unimpeded movement of energy products and services needed for the daily operations and establishment of a 24/7 Bayanihan Energy Service hotline to assist industry players.

Meanwhile, in light of their respective mandates, key energy agencies ensured their continuous operations while at the same time rendering their assistance in providing relief to the general public, as follows:

1. The ERC, while adopting a WFH arrangements, continued to monitor the proper implementation of relevant regulations particularly Among others, it has issued Advisories mandating the Distribution Utilities (DUs) to allow payment extension and staggered payments for electricity bills falling due during the period under ECQ, as well as temporary suspension of the collection of Feed-in Tariff Allowance (FIT All);
2. The Power Sector Assets and Liabilities Management Corporation (PSALM), in compliance with the DOE directives, has ensured the priority allocation of its capacities to Lanao del Sur Electric Cooperative, Inc. (LASURECO), Maguindanao Electric Cooperative, Inc. (MAGELCO) and the Ancillary Services for the entire Mindanao thereby preventing outages in the said electric cooperatives (ECs) and the grid. As to its privatization activities, it moved to later dates the conduct of biddings for its remaining assets while continuously undertaking preparatory activities under WFH. PSALM likewise allowed extension and staggered payment of bills falling due during the ECQ, in accordance with the DOE and ERC Advisories;
3. The Independent Electricity Market Operator of the Philippines (IEMOP) and the Philippine Electricity Market Corporation (PEMC) ensured the normal operations of the Wholesale Electricity Spot Market (WESM) and the Retail Market and continued the preparations for the eventual implementation of WESM Mindanao and the enhanced design for Luzon and Visayas. IEMOP adhered to the DOE’s call to allow payment extension and staggered payments to market participants whose collections from their

- consumers were affected. PEMC on the other hand, continuously conduct governance activities through online meetings;
4. The National Electrification Administration (NEA) ensured the unimpeded service delivery of electric cooperatives through issuance of IDs, implementation of business continuity plans and compliance to the different Advisories by the DOE and the ERC;
  5. The National Power Corporation (NPC) ensured continuous operations in the missionary areas and implemented the DOE and ERC Advisories on extended deadline and staggered payment of electricity bills falling due during the ECQ; and
  6. The National Transmission Corporation continued to monitor the adherence of its concessionaire to their respective agreements. Likewise, as FIT-All Administrator, it observed the various Advisories of the DOE and the ERC on collection deferment and extension and staggered payment to collecting entities.

As a whole, the power sector accomplishments are as follows:

1. The WESM remains under normal operations albeit some incidents of market interventions implemented by the System Operator (SO) and the Market Operator (MO). The average effective supply and supply margin in the market was recorded at 13,148 MW and 2,474 MW, respectively. The lowest supply level was observed in the December 2019 billing month due to the outage of several major power plants. In terms of demand (including reserve schedule) declined by 22 percent from 11,819 MW in October 2019 to 9,259 MW in April 2020. Average demand reduction of 30% and 19% were observed respectively in Luzon and Visayas during the ECQ period. Meanwhile, average market price is at PhP3,623/MWh with the lowest rate of PhP1,494/MWh in April 2020 and highest rate of PhP5,937/MWh in December 2019;
2. Mindanao supply-demand situation shows an average demand reduction of about 25% bringing the supply-margin to a more comfortable gap;
3. The country's average electricity rates for December 2019 was around PhP9.48/kWh, PhP0.34 centavos higher compared with the September 2019 level. national average systems rate;
4. Participation in the Retail Market increased by 1% from 1,532 registered participants in pre-ECQ to 1,543 in April 2020. With the implementation of ECQ, huge decline of Contestable Customer consumption was noted starting in the middle of March 2020 towards April 2020;
5. The generation sector in the country was noted to be moderately concentrated including the three major grids, Luzon, Visayas and Mindanao; and
6. The household electrification level as of October 2019 is around 91.25% based on the latest status of energization provided by the NEA, LGUOUs and PIOUs as of June 2019. Said level corresponds to 22.56 million energized HHs out of 22.98 million identified and targeted HH population based from the 2015 Census of the Philippine Statistics Authority (PSA).

Further, promulgation of policies and legislative measures were achieved as follows:

1. Department Circular No.DC2019-12-0018, "Adopting a General Framework Governing the Provision and Utilization of Ancillary Services in the Grid";
2. Department Circular No. DC2020-04-0008, "Rationalizing the Utilization of ER 1-94 Funds by Host Local Government Units in Response to COVID-19 Public Health Emergency";
3. Republic Act No. 11371 otherwise known as the "Murang Kuryente Act (MKA)" and
4. Republic Act No. 11361, otherwise Known as the "Anti-Obstruction of Power Lines Act".

## II. PRIVATIZATION

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

During the report period, PSALM has commenced the third round of public bidding for the privatization or sale of the 650-Megawatt Malaya Thermal Power Plant (MTTP) and its underlying land. Further, PSALM as directed by the PSALM Board shall secure clearance from the Commission on Audit (COA) on the proposed discounting factors in setting the Minimum Bid Price (MBP). Disclosure of the reserve price of the said assets will be applied for information to the interested parties and participate during the bidding activities for the sale or disposal of the said assets.

On 27 January 2020, the PSALM Board approved the following:

- Salient features of the Bidding Procedures and the indicative timeline for the third (3rd) round of public bidding for the Malaya TPP; and
- In case of failure of the 3rd round of public bidding, negotiated sale process will follow, including the salient features for the Negotiation Procedures and the indicative timeline.

On 31 January 2020 and 01-02 February 2020, PSALM published the Invitation to Bid (ITB) for the 3<sup>rd</sup> Round of Public Bidding for the Sale of the 650 MW Malaya Thermal Power Plant and its Underlying Land in the following newspapers:

- a. Philippine Daily Inquirer
- b. Manila Times
- c. Philippine Star

In February 2020, following activities were conducted:

	<b>Activity</b>	<b>Date</b>
1	Received Panasia Energy Inc.'s Letter of Intent, Confidentiality Agreement, Undertaking and Waiver and Participation Fee for the sale of Malaya TPP	03 February
2	Pre-Bid Conference, which was attended by i. Panasia Energy, Inc.; ii. AC Energy Philippines, Inc.; and iii. Denki Power Corporation	13 February
3	Issued Supplementary Bid Bulletin No. 1 (SBB No.1) informing qualified bidders on Amendment to Section IB-06: Documentary Deliverables	14 February
4	Received Golar Power Ltd.'s Letter of Intent, Confidentiality Agreement, Undertaking and Waiver and Participation Fee for the Sale of Malaya TPP	17 February
5	Issued Certificate of Submission of Documentary Deliverables to Panasia Energy Inc., which was received by the bidder on 20 February 2020	18 February
6	Issued Certificate of Submission of Documentary Deliverables to AC Energy Philippines, Inc., which was received by the bidder on 21 February 2020	18 February
7	Received Documentary Deliverables for initial checking from Panasia Energy, Inc. and AC Energy Philippines, Inc.	28 February

On 28 February 2020, PSALM issued Supplemental Bid Bulletin (SBB) No. 2 informing bidders of the following amendments to Section IB-03 Bidding Schedule:

Activity	From	To
Consortium/Joint Venture Request Deadline	5:00 p.m., 02 March 2020	5:00 p.m., 16 March 2020
Notice to Bidders on its compliance based on initial submission of Documentary Deliverables	06 March 2020	06 March 2020
Final Submission of Documentary Deliverables Deadline	5:00 p.m., 13 March 2020	5:00 p.m., 27 March 2020
Release of Final APA to Qualified Bidders	Not later than 7 days prior to Bid Submission Deadline or 03 April 2020	Not later than 7 days prior to Bid Submission Deadline or 03 April 2020
Release of Minimum Bid Price to Qualified Bidders through a SBB	Immediately after PSALM Board's approval of the Minimum Bid Price	Immediately after PSALM Board's approval of the Minimum Bid Price
Bid Submission Deadline	12:00 noon, 15 April 2020	12:00 noon, 30 April 2020
Bid Opening and Evaluation; Declaration of Highest-Ranking Bidder	Immediately after the Bid Submission Deadline	Immediately after the Bid Submission Deadline
Issuance of Notice of Award and PSALM executed APA to Winning Bidder	30 April 2020 or within 30 days from declaration of the Highest-Ranking Bidder	28 May 2020 or within 30 days from declaration of the Highest-Ranking Bidder
Submission to PCC	04 May 2020	01 June 2020
Issuance of the Certificate of Effectivity of the APA to the Winning Bidder	2 business days from receipt of PCC clearance or 20 May 2020	2 business days from receipt of PCC clearance or 23 June 2020
Closing	Within 30 days from Winning Bidder's receipt of the Certificate of Effectivity or 20 June 2020	Within 30 days from Winning Bidder's receipt of the Certificate of Effectivity or 23 July 2020
Closing Date	2 business days from Closing or 23/24 June 2020	2 business days from Closing or 25 July 2020

On 13 March 2020, the PBAC approved the issuance of SBB No. 3, amending the bidding schedule and setting the new deadlines of certain activities in the bidding process, as follows:

Activity	From	To
Consortium/Joint Venture Request Deadline	5:00 p.m., 15 April 2020	5:00 p.m., 11 May 2020
Final Submission of Documentary Deliverables Deadline	5:00 p.m., 17 April 2020	5:00 p.m., 15 May 2020
Release of Final APA to Qualified Bidders	05 May 2020 or not later than 7 days prior to Bid Submission Deadline	16 June 2020 or not later than 7 days prior to Bid Submission Deadline
Release of Minimum Bid Price to Qualified Bidders through a SBB	Immediately after PSALM Board's approval of the Minimum Bid Price	Immediately after PSALM Board's approval of the Minimum Bid Price
Bid Submission Deadline	12:00 noon, 19 May 2020	12:00 noon, 19 May 2020
Issuance of Notice of Award and PSALM executed APA to Winning Bidder	28 May 2020 or within 30 days from declaration of the Highest-Ranking Bidder	28 May 2020 or within 30 days from declaration of the Highest-Ranking Bidder
Submission to PCC	01 June 2020	03 August 2020

Activity	From	To
Issuance of the Certificate of Effectivity of the APA to the Winning Bidder	2 business days from receipt of PCC clearance or 23 June 2020	2 business days from receipt of PCC clearance or 27 August 2020
Closing	Within 30 days from Winning Bidder's receipt of the Certificate of Effectivity or 23 July 2020	Within 30 days from Winning Bidder's receipt of the Certificate of Effectivity or 23 September 2020
Closing Date	2 business days from Closing or 25 July 2020	2 business days from Closing or 25 September 2020

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

*Table 1. Schedule of Privatization for Generating Assets as of 31 March 2020*

Asset Type/ Plant Name	Rated Capacity (MW)	Bid Date	Turnover Date
<b>Owned Generating Plants</b>			
Malaya Thermal Power Plant	650.00		2020
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*		
Pulangi Hydro	255.00		

\*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 31 March 2020*

Grid	Plant Name	Contracted Capacity (MW)/Energy (GWh)	Commencement of Privatization Process	Turnover Date
<b>Luzon Grid</b>	Casecnan Multi-Purpose Hydro	228.00 GWh	2021	2022
	Caliraya-Botocan-Kalayaan Hydro	797.92 MW	2020	2021
<b>Mindanao Grid</b>	Mindanao Coal-Fired	200.00 MW	2022	2023

Source: PSALM

During the report period, the Asian Development Bank (ADB) has advised PSALM that it has secured funding for the study which will enable ADB to commence the hiring process for the advisors in the conduct of a study that will determine sound privatization options for PSALM's remaining IPP contracts.

On 19 December 2019, the ADB advised PSALM that it has secured funding for the study which will enable ADB to commence the hiring process for the consultant.

In February 2020, PSALM submitted to ADB the draft Memorandum of Agreement (MOA) between the parties and the Confidentiality Agreement for the disclosure of information.

In March 2020, the ADB received the DOF's endorsement to proceed with the study for CBK and Casecan. ADB will proceed with the hiring process for the consultant to be assigned for the said study, which is targeted to be conducted starting April 2020 and completed by August 2020.

For CBK HEPPs, PSALM has revised its privatization timeline from 2019 to 2020/2021.

## 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. PSALM's Real Estate Assets (REA)

#### a. Disposal of REA (lands underlying sold power assets) through Option Existence Notice (OEN)

- The Makban Geothermal Power Plant land comprised of 341 lots with an aggregate area of 1,119,656 square meters is for disposal through OEN. Disposal is targeted in 2019, subject to PSALM's completion of the land titling process and AP Renewables, Inc.'s confirmation of just cause for exclusive possession; and
- The Masinloc Coal-Fired Thermal Power Plant land comprised of two (2) lots with an aggregate area of 12,522 square meters was successfully sold for PhP14.23 million under OEN mode of disposal to Alpha Water Realty Services Corporation (AWRSC), the affiliate/intended assignee of the Masinloc Power Partners Co. Ltd. (MPPCL), the successor generating company of Masinloc CFTPP. Payment was received by PSALM in August 2019 and transfer documents were completed in December 2019, with the Transfer Certificate of Titles (TCTs) transmitted to MPPCL on 27 December 2019.

The TCT of one (1) lot under the name of PSALM is expected to be released in April 2020.

- Land underlying Panay Diesel Power Plant (5 lots)

On 24 January 2020, PSALM met with SPC Island Power Corporation (SPIC) regarding the status of lots underlying the Panay DPP.

A meeting was held on 27 February 2020 between PSALM and SPIC to further discuss the status of lots underlying Panay DPP.

- Land underlying Batangas Coal-Fired Thermal Power Plant (BCFTPP) (3 Lots)

On 31 January 2020, PSALM sent letter to BIR RDO No. 58 – Batangas City requesting for the certification of the current Zonal Value within Dacanlao, Calaca, Batangas. The Zonal Value will be used to determine the purchase price of Optioned Assets.

On 03 February 2020, the OEN was sent to SEM-Calaca Power Corporation (SPPC) for 3 lots, with an area of 19,304 sq. meters.

The notice from SCPC informing PSALM of its intention to exercise its rights over the optioned assets was received on 11 February 2020. Request from SCPC for clarifications and updates on matters pertaining to titling and documentation of



lots under OEN based on the concept of “Just cause of exclusive possession” was also received on the same date.

On 17 February 2020, PSALM replied to SCPC informing them that its requests is being coordinated with the PSALM Legal Group.

On 04 March 2020, PSALM issued the payment instruction to SCPC for the optioned assets- 3 lots with an area of 19,302 sq. m. However, in a letter dated 16 March 2020, SCPC informed PSALM that the said lots were located in San Rafael, Calaca, Batangas, and not in Dacanlao, Calaca, Batangas, therefore SCPC disagrees with the zonal value of the lots.

PSALM replied with SCPC in a letter dated 17 March 2020, informing the latter that it will coordinate with the BIR RDO No. 58 relative to the determination of the correct zonal value for the optioned assets. On the same date, PSALM requested from BIR RDO No. 58 through a letter, for a certification of the current BIR zonal value of the 3 lots.

## 2. Disposal of REA through Public Bidding

- a. The Manila Thermal Power Plant land comprised of eight (8) lots with an aggregate area of 20,975.70 square meters is for disposal through public bidding. Disposal is targeted in 2019. With two (2) failed biddings in 2018 and a failed negotiated sale in January 2019, the asset is targeted for another round of public bidding in 2020.

PSALM provided comments on the Second Draft Valuation Reports submitted by Asian Appraisal Company Inc. (AACI) and AVISO Valuation and Advisory Corp. (AVAC) on 16 January 2020.

The Agency Appraisal Report (AAR) for the 3rd round of public bidding for the sale of this real estate asset, now called Paco-Manila property located in Isla de Provisor, Paco Manila, was updated in February 2020.

On 04 March 2020, the updated AAR for the 3rd round of bidding was submitted to the COA.

The Deed of Absolute Sale (DOAS) was transmitted by PSALM to the OGCC for contract review on 05 March 2020.

- b. The Bauang Diesel Power Plant land comprised of 92 lots with aggregate area of 261,349.32 square meters was disposed through transfer to another government agency. It was transferred to the Provincial Government of La Union (PGLU) on 14 August 2019 with the signing of the Deed of Transfer and receipt by PSALM of PhP524.21 million as payment.
- c. The Cebu Diesel Power Plant land comprised of 21 lots with an aggregate area of 109,415 square meters was successfully disposed in the second round of public bidding which commenced in September 2019. The Panasia Energy, Inc. (PEI) was declared as the winning bidder for its bid of PhP250 million on 06 November 2019. After post qualification of PEI and receipt by PSALM of payment on 20 November 2019, the TCT and the landholdings documents for Cebu property was turned over by PSALM to PEI on 06 and 16 December 2019, respectively.
- d. The Aplaya Diesel Power Plant land comprised of 49 lots with an aggregate area of 139,266 square meters was successfully disposed in the second round of public bidding which commenced in September 2019. The Panasia Energy, Inc. (PEI) was

declared as the winning bidder for its bid of PHP600 million on 06 November 2019. After post qualification of PEI and receipt by PSALM of payment on 20 November 2019, the TCT and the landholdings documents for Cebu property was turned over by PSALM to PEI on 06 and 16 December 2019, respectively.

- e. The Sudipen Property comprised of 2 lots with an aggregate area of 1,649 square meters is for disposal through public bidding in 2020. The review of the revised appraisal report of AACI is on-going.
- f. The Puerto Azul Property comprised of two (2) condominium units and club share is for disposal through public bidding.

With the receipt of final report by PSALM on 23 December 2019, the third party appraisal services provided by AVISO and Asian Appraisal was completed. The report will serve as PSALM's guide in setting the Minimum Bid Price for the disposal of said assets.

PSALM discussed the assessment of the property with the Third Party Appraisers. Thereafter, PSALM updated the Asset Profile based on the valuation reports. PSALM drafted the AAR and the bidding documents.

On 11 February 2020, the PBAC approved the following and presented to the board on 26 February 2020, for information:

1. Bidding Document;
2. Disposal timeline; and
3. Minimum Bid Price (MBP)

On 28 February 2020, the Agency Appraisal Report (AAR) was submitted to COA. The Invitation to Bid (ITB) was already drafted, however, the publication is pending due to the Enhanced Community Quarantine (ECQ).

- g. The Naga (Bicol) Land comprised of one (1) lot with an area of 193 square meters was sold through public auction which commenced on 26 September 2019. Mr. Eric Alfred Yu Chang Cabral was the declared winning bidder in the public auction conducted on 16 October 2019 with a bid price of PHP1.25 million.

PSALM received the full payment for the purchase of the asset in November 2019. The execution of the Deed of Absolute Sale (DOAS) is expected to happen in January 2020.

- h. The Master Planning of Diliman Property requires the conduct of a Feasibility Study to determine the highest and best use of the of the property. This is the next step after the successful conduct of Architectural Design Contest in July 2019.

The procurement of consultancy services for the conduct of Feasibility Study commenced on 17 October 2019 with the publication of Invitation to Bid. Two (2) prospective bidders submitted eligibility documents on the 30 October 2019.

Several procurement activities were undertaken in November 2019 for the Procurement of Consulting Services for the Feasibility Study in the Privatization of Diliman Property which include, among others, the negotiation with Price Waterhouse Coopers (PWCas the bidder with Single Rated Bid.

On 04 December 2019, PSALM conducted a post qualification to PWC Philippines/Isla Lipana & Co. The results of the post qualification was presented to

the PSALM BAC on 05 December 2019. Subsequently, PSALM issued the NOA to PWC Philippines/Isla Lipana & Co. on 23 December 2019.

The following activities were undertaken relative to the Procurement of Consulting Services for the Feasibility Study (FS) of the Diliman Property:

<b>Procurement Activity</b>	<b>Date</b>
Received the Performance Bond	20 January 2020
Contract Signing between PSALM and Isla Lipana & Co.	22 January 2020
Issuance of Notice to Proceed	23 January 2020
Kick-off Meeting	31 January 2020

On 14 February 2020, PSALM received the initial assessment and preliminary reports by PWC. Afterwards, a coordination meeting was conducted on 19 February 2020 between PSALM FS Team and PWC to discuss the initial assessment and preliminary reports.

On 27 February 2020, the PSALM FS team requested from the Office of the General Corporate Counsel (OGCC) to assist in the FS and to discuss the propriety of PSALM crafting its own Joint Venture (JV) guidelines or adopting the NEDA JV guidelines.

PSALM assisted the Asian Appraisal in the conduct of site inspection of the Diliman Property as part of its appraisal activities. On 27 March 2020, PSALM received the PWC submission of the Phase 2 Preliminary Report. The original submission date was on 20 March 2020, however PwC requested for an extension which was approved by PSALM.

- i. The Laoag Property comprised of one (1) lot with an area of 3,530 square meters was successfully disposed in the second round of public bidding which commenced in September 2019. The Panasia Energy, Inc. (PEI) was declared as the winning bidder for its bid of PhP84.72 million on 06 November 2019. After post qualification of PEI and receipt by PSALM of payment on 27 November 2019, PSALM signed the DOAS on 05 Decemebr 2019 and conducted a turnover ceremony on 06 December 2019 to officially close the disposal transaction.
- j. Magdalena Property

On 02-06 December 2019, the following activities were undertaken:

- Asset Profiling;
- Data Gathering;
- Ocular Inspection; and
- Coordination meetings with Other Government Agencies.

- g. Baguio Property

On 21 January 2020, PSALM representatives attended a meeting with Landbank of the Philippines (LBP)'s Property Valuation and Credit Information Department officers to discuss PSALM's request for LBP to conduct real estate appraisal on Baguio Property. During the meeting LBP commits to evaluate the request and submit its proposal to PSALM once approved by the LBP management.

On 07 February 2020, PSALM received from LBP its proposal/quotation for the conduct of Real Estate Appraisal services through a letter dated 04 February 2020.

On 10 February 2020, PSALM sent request to potential 3rd Party Appraisers to submit price quotations for the appraisal of the property. Price quotations from 3rd party appraisers shall be used in the evaluation/cost-benefit analysis of LBP's proposal.

On 11 February 2020, PSALM informed LBP that it shall evaluate LBP's proposal and will communicate its decision on the submitted proposal. Furthermore, it was communicated that PSALM is looking into an Agency-to-Agency Negotiated Procurement for this transaction.

h. Nasipit Property

The PBAC, on 11 February 2020, approved the following:

- Bidding Document;
- Disposal timeline; and
- Minimum Bid Price (MBP).

Subsequently, on 26 February 2020, the PSALM Board through the BRC, approved the commencement of sale. The timeline of disposal as well the the MBP were also presented for the Board's information. The Agency Appraisal Report was submitted to the COA on 28 February 2020 while the the publication of the ITB will be done upon the lifting of the ECQ.

i. Maco Property

The PBAC, on 11 February 2020, approved the following:

- Bidding Document;
- Disposal timeline; and
- MBP.

Subsequently, on 26 February 2020, the PSALM Board through the BRC, approved the commencement of sale. The timeline of disposal as well the the MBP were also presented for the Board's information.

The Agency Appraisal Report was submitted to the COA on 28 February 2020.

The publication of the ITB will be done upon the lifting of the ECQ.

j. Agusan Property

The PBAC, on 11 February 2020, approved the following:

- Bidding Document;
- Disposal timeline; and
- MBP.

Subsequently, on 26 February 2020, the PSALM Board through the BRC approved the commencement of sale. The timeline of disposal as well the the MBP were also presented for the Board's information. The Agency Appraisal Report was submitted to the COA on 28 February 2020 while the publication of the ITB will be done upon the lifting of the ECQ.

### 3. Disposal of REA through Other Modes

- a. The Bagac Property is comprised of 19 lots with an aggregate area of 439,727 square meters. The property has been initially considered for conceptual design and master planning. However, DOE expressed concerns on the privatization of the Bagac Property in view of its potential uses for the nuclear power program that DOE seeks to pursue. Thus, in a letter dated 12 March 2019, PSALM informed DOE that it is suspending the design contest for the master planning of Bagac property.

A portion of the said property is currently under lease with the Philippine Coast Guard, while the hotel and training center facilities are being operated and maintained by PSALM.

- b. The portion of Tiwi Geothermal Power Plant Land comprised of three (3) lots with an area of 110,022 square meters is targeted to be disposed through transfer to another government agency in 2019.

The Local Government Unit of Tiwi expressed interest to acquire portion of the property, however, it deferred the acquisition of the property as funding source still needs to be determined. The Asset Profile of the 3 lots for disposal to Local Government Unit of Tiwi, Albay was drafted on 31 January 2020.

On 13 and 28 February 2020, PSALM received a letter from SUWECO on its proposal to lease a suitable area near Tiwi Plant A in Tiwi GPP, Tiwi Albay, and requesting for further information and documents regarding the area, respectively. The asset property profile for the Tiwi property was already approved on 03 March 2020.

- c. The Gensan Property for reconveyance is comprised of three (3) lots with an aggregate area of 20,031 square meters. The disposal through reconveyance is in compliance with the provisions of the deed of sale when the property was acquired by the government.

The heirs of Mr. Honorio Allado still need to establish their relationship with the deceased owner and to execute an Extra-Judicial Settlement and Deed of Quitclaim or Undertaking, among others, to acquire the estate from PSALM.

On 28 February 2020, the signed Agency Appraisal Documents was submitted to COA for the Sale of General Santos City property located in Calumpang, General Santos City. On 05 March 2020, the DOAS was transmitted to the OGCC for contract review.

- d. Paranaque Properties

On 25 April 2019, the PSALM Board authorized the PSALM Management to negotiate with the National Housing Authority (NHA) the disposal of the 4.1-hectare lots with aggregate area of 40,963 square meters, in line with the implementation of E.O. 68, S. 2002.

As instructed by the PSALM Board, the Parañaque property is subject to valuation of a third party appraiser. On 06 November 2019, PSALM issued a Notice to Proceed (NTP) to the winning third party appraisers which are the Asian Appraisal Company, Inc. and the AVISO Valuation and Advisory Corp. The final appraisal reports were submitted to PSALM on 23 December 2019. These will serve as basis in setting the Minimum Bid Price.

The Asset Profile for the four (4) lots to be disposed to the Local Government Unit of Parañaque City through the National Housing Authority (NHA) was already drafted on 31 January 2020. The asset property profile for the Parañaque property was already approved on 03 March 2020.

e. Disposal of Waste Oil and Sludge at Ilijan Natural Gas Power Plant, Ilijan, Batangas

On 15 November 2019, PSALM through a letter informed COA of the failure of the second round of bidding and PSALM Board approval of the commencement of the Negotiated Sale of this item. On 18 November 2019, BAC-Disposal issued the invitation letters and negotiation documents to the eleven (11) prospective negotiating parties, and the pre-negotiation meeting was conducted on 25 November 2019.

Supplemental Negotiation Bulletins were issued on December 2019 and bid opening is scheduled on February 2020.

C. Privatization Proceeds

As of 31 March 2020, PSALM, through the privatization of generation assets, the transmission business, and the IPP contracted capacities, has generated a total of PhP915 billion. The actual collection to date amounted to PhP612 billion.

Table 3. Privatization Proceeds Generation and Collection as of 31 March 2020, (in PhP Billion)

Privatization Assets	Generated	Collected	Balance
Generating Assets	163.88	163.88	-
Appointment of IPPAs	482.50	262.00	204.88
Transmission Concession	264.80	185.87	78.93*
Decommissioned Plants	0.66	0.66	-
Other Priva-Related	3.09	3.09	-
<b>TOTAL</b>	<b>914.93</b>	<b>612.41</b>	<b>283.81</b>

\* Exclusive of estimated foregone interest resulting from the advance payment made by NGCP to PSALM in 2013 which is now subject of an Arbitration Case between NGCP and PSALM/TRANSCO.  
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.

Total collections of PhP612 billion as of March 2020, including interest income on placements, were exclusively utilized for the liquidation of financial obligations amounting to PhP663 billion as of March 2020.

Table 4. Privatization Proceeds Utilization as of 31 March 2020

Particulars	In US\$ Billion
Debt Prepayment	66.09
Regular Debt Service	391.12
Lease Obligations	200.53
<i>Subtotal</i>	<i>657.74</i>
Others	5.01
TRANSCO Opex	0.05
<b>TOTAL</b>	<b>662.80</b>

USD1:PhP51.044 (BSP Guiding Rate dated 31 March 2020)  
Source: PSALM

D. 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.

For the report period, the Joint PSALM-TransCo Technical, Regulatory, Financial and Legal Compliance Assessment Team (TRFLAT) has completed the Inspection of Books and Records (IBR) for CY 2018. On 19 December 2019, the TRFLAT wrote NGCP transmitting the results of the IBR for the Financial Records and Transmission Assets covering CY 2018 and reiterated that the IBR should be conducted for identified records for various disciplines and not just for financial records.

The TRFLAT provided NGCP checklists for the different areas and corresponding schedule of inspection to be conducted as indicated in the table below.

Areas of Responsibility	Schedule of Inspection	
	TDC 1 (NGCP Head Office)	TDC 2 (Mexico Pampanga)
1. Technical		
• Philippine Grid Code	March 2-4, 2020	March 9-10, 2020
• System Operations	March 4-6, 2020	March 11-13, 2020
• Operation and Maintenance	February 17-21, 2020	March 23-27, 2020
• Planning, Engineering and Construction	March 25-27, 2020	March 23-24, 2020
• Environmental	March 9-10, 2020	March 11-13, 2020
2. Regulatory	March 12, 2020	March 13, 2020
3. Legal	February 18, 2020	February 24, 2020
4. Right-of-Way	March 4-5, 2020	March 6, 2020
5. Administrative, IT, QA, Safety and Security	March 4, 2020	March 5, 2020

Further, TRFLAT advised NGCP to provide the pertinent records on the following:

1. Financial Records

- a. Calculation Sheet of Debt-Equity Ratio (DER) and Debt Service Coverage Ratio – Semi Annual;
- b. Submission of Reports to Congress;
- c. Submission of Financial Reports to Securities and Exchange Commission;
- d. Certified Tabulation of NGCP’s Franchise Tax Payments and Gross Receipts Details CY 2009-2018 (with totals);
- e. Submission of Financial Records to ERC;
- f. Audited Report on Related Business for CY 2018;
- g. Summary of Collection per Charge type per customer per month/year with totals (PDS, FMEs, CC/RSTC, MSPC, SO, etc);
- h. Reporting Obligations:
  - Sworn Statement certifying that:
    - i. Such Responsible Officer has made or caused to be made a review of the financial condition of the concessionaire during the relevant fiscal period and that such review has not, to the best of such Responsible Officer’s knowledge, disclosed the existence of any event or condition existed or exists, the nature thereof and the

corrective actions that the Concessionaire has taken or proposed to take with respect thereto; and

- ii. The Concessionaire currently complies in all material respects with its obligations under this Agreement or if such is not the case' stating the nature of such non-compliance and the corrective actions which the Concessionaire has taken or Proposes to take with respect thereto.

## 2. Transmission Assets

### a. Project Status

### b. Inventory Listings

- Substation (old and new name);
- Transmission lines (old and new name);
- SO equipment per location (Repeater Station, NCC, BLRCC, and ACC) with List of Control Centers and Repeater Stations; and
- Metering Point Equipment per location with List of Delivery Points and Customer Points.

### c. Approved Work Orders (WO) – up to CY 2013 only, as Work Breakdown Structure (WBS) was used in lieu of WO and approved WBS with equivalent WO No. as applicable.

### d. Payment of Capital Expenditure

- Original Disbursement Vouchers with supporting documents of projects under WBS; and
- Scanned copy of Disbursement Vouchers with supporting documents of projects under WBS.

### e. Disposal of Obsolete/Redundant Assets

- Policy and procedures on disposal of obsolete and redundant transmission assets;
- Program for Disposal of transmission assets with time schedule;
- Inventory Report showing the itemized list, complete description and location of redundant assets certified by concerned NGCP group, i.e. Warehouse Management;
- Valuation/Appraisal report of assets for disposal; and
- Deed of sale of assets and Release Order.

### f. Taxes

- Certificate from LGU of Real Property Tax Clearance and/or Exemption; and
- List of Real Property Tax (RPT) payments reviewed by authorized personnel and duly certified correct by the AVP/CFO.

### g. Insurance

List of Insured Properties with Declared Values prepared and reviewed by authorized personnel and certified correct by the AVP/CFO.

## 3. Other documents required from NGCP in order to comply with the conditions under Section 8.05 of the CA<sup>1</sup>:

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<sup>1</sup> *Indebtedness. Until all the Deferred Payments are fully paid and provided no Concessionaire Default has occurred or is continuing, the Concessionaire shall not create, incur, assume or suffer to exist any Indebtedness unless:*



- a. Copy of NGCP's 2018 Audited Financial Statements (a complete set with the corresponding notes to FS);
- b. Copy of the executed loan/bond documents as well as the pricing mechanism of the contemplated bond; and
- c. Status of all projects funded by the borrowings of NGCP.

In view of the above, TRANSCO and PSALM were not able to verify NGCP's compliance to pertinent provisions of the CA and RA No. 9511 as NGCP denied access during the September 2019 inspections of the Financial Team at NGCP's TDCs.

Meanwhile, TransCo continues on the conduct of inspection of the assets condition and Project Under Construction (PUC) accomplishments consistent with the inspection protocol established with the concessionaire. Annex 1 shows the summary of TransCo Inspection Report based on CA.

#### E. Sale of Sub-Transmission Assets (STAs)

The sale of TransCo's sub-transmission assets involves 198 sale contracts with 107 interested distribution utilities (DUs), most of which are electric cooperatives. The sub-transmission assets include around 4,092 ckt-km. of mostly 69 kV transmission lines and 860 MVA of substation capacity.

As of 30 April 2020, TransCo has signed 116 sale contracts with 95 DUs/ECs/consortia amounting to PhP6 billion. These sales cover an aggregate length of 3,836 ckt-kms of sub-transmission lines and 34,184 sub-transmission structures and 835 MVA of substation capacity. Of the 116 sale contracts, 64 contracts with total sale price of PhP4.1<sup>2</sup> billion have been approved, approved with modification, and disapproved. Included in the said 64 contracts are nine (9) contracts amounting to PhP373.3 million disapproved as of April 30, 2020 and posted at the ERC website. The rest of the sale contracts are for filing with the ERC for evaluation and approval.

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 116 sale contracts already signed, 79 are mostly under LPAs with 68 ECs/consortia, valued at around PhP4.136 billion. The remaining 37 involved sales to private DUs/consortia.

- 
- a) *Such Indebtedness is incurred in respect of borrowings from financial institutions reasonably acceptable to PSALM for the purpose of financing New Projects, refinancing the Deferred Payments, or for any other purpose related to carrying out the Concession;*
  - b) *Such Indebtedness shall always rank no higher than pari passu with the Concessionaire's obligations to pay the Deferred Payments and other amounts payable to PSALM or TRANSCO pursuant to this Agreement (both in terms of priority of payment and security); and*
  - c) *The Concessionaire's Deb-Equity will not exceed 4:1 as a result of incurring such Indebtedness.*

*The Concessionaire shall inform PSALM of any Indebtedness by providing information on the creditor, amount, maturity date, interest and relevant terms and conditions thereof.*

<sup>2</sup> *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:*

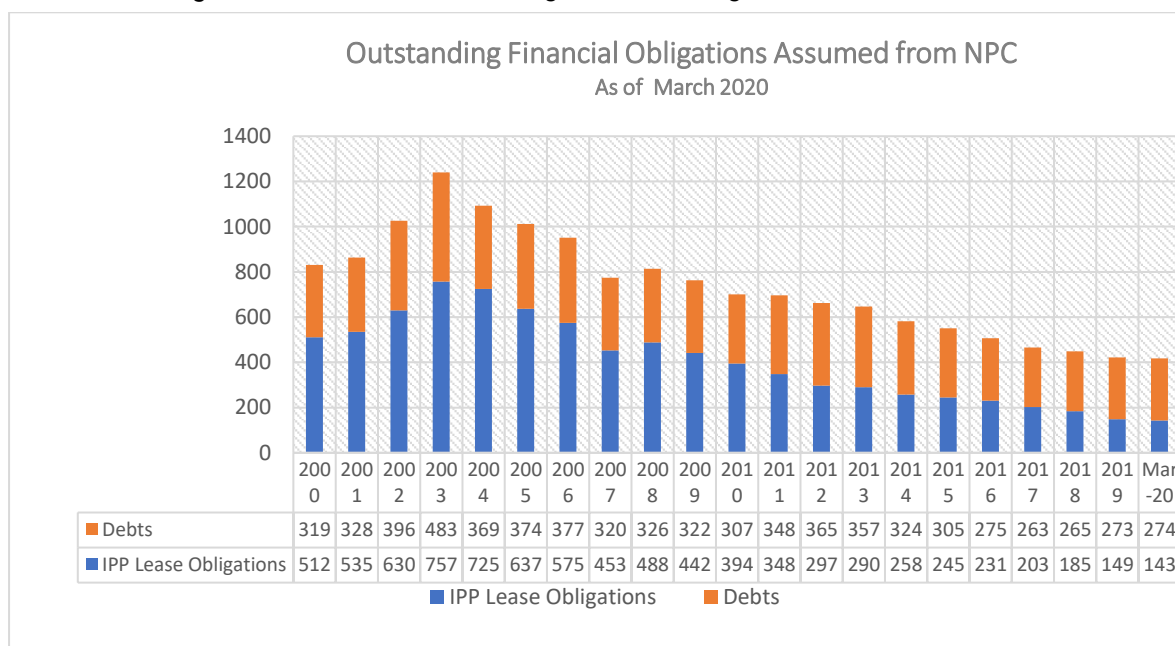
- a. *Exclusion of some assets from the ERC approval due to reclassification from sub-transmission to transmission assets;*
- b. *The lower amount of valuation was used as basis of the ERC approval;*
- c. *Exclusion of some assets from the ERC approval since said assets are not yet connected to the sold 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 March 2020, PSALM's financial obligations was reduced to PhP417.5 billion compared to PhP425 billion in September 2019 or a decrease of PhP823.5 billion versus PhP816 billion in September 2019 from 2003 peak level of PhP1.2 trillion. In terms of currency, more than half (67.7%) of PSALM's FOs is denominated in dollars, amounting to PhP282.57 billion. Peso-denominated FOs of PhP105.72 billion accounts to 25.3%, while the remaining FOs amounting to PhP29.22 billion equivalent to 7.0% is in Japanese Yen.

Figure 1 below shows the movement of the financial obligations of PSALM from 2000 to 31 March 2020.

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



Source: PSALM

Table 5. Financial Obligations (FOs) as of 31 March 2020

	PhP Equivalent (In Billions)
Debts	274.15
IPP Lease Obligations	143.36
<b>Total</b>	<b>417.51</b>

Source: PSALM

Table 6. Financial Obligations by Currency as of 31 March 2020

Currency	Amount in PhP Equivalent (In Millions)	% to Total
USD	282,569.53	67.7%
PHP	105,724.68	25.3%
JPY	29,217.67	7.0%
<b>Total</b>	<b>417,511.88</b>	<b>100%</b>

Exchange Rates Used: BSP Guiding Rate dated 31 January 2020

USD : PhP 1.00 = 51.044 JPY: PhP 1.00 = 0.4734

Source: PSALM

## Debt Financing/Loan Financing

During the report period, PSALM made its final drawdown from the PhP30 billion Loan Agreement with the Landbank of the Philippines in the amount of PhP14.0 billion with a tenor of seven (7) years and will mature on 01 June 2026.

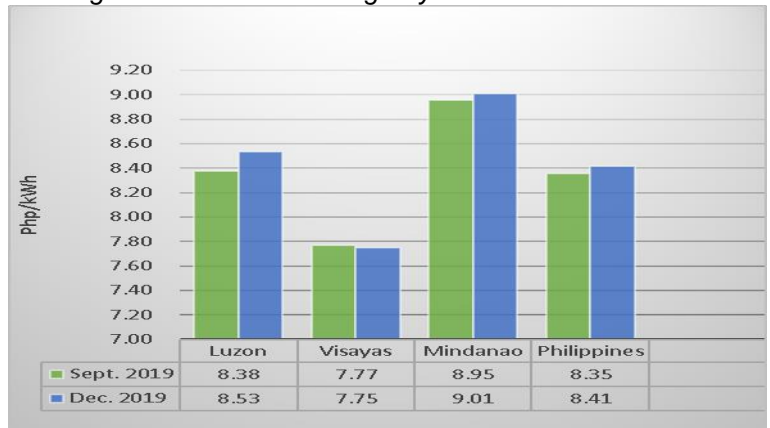
#### IV. ELECTRICITY RATES

This Section provides updates on electricity price data and other related developments based on information from the ERC, TransCo, PSALM, NPC, NEA and DUs, among others.

##### A. Average Electricity Rates

The country's average electricity rates as of December 2019 is around PhP8.41/kWh, 6.00 centavos higher compared with the September 2019 national average systems rate. Only the Visayas Grid rate showed a decline, albeit very minimal, from PhP7.77/kWh in September 2019 to PhP7.75/kWh in December 2019 or a decrease of 2.00 centavos/kWh. Both the the Luzon and Mindanao grid increased by 0.15 centavos/kWh from PhP8.38/kwh to PhP8.53/kWh and 6.00 centavos/kWh from PhP 8.95/kwh to PhP8.41/kWh.

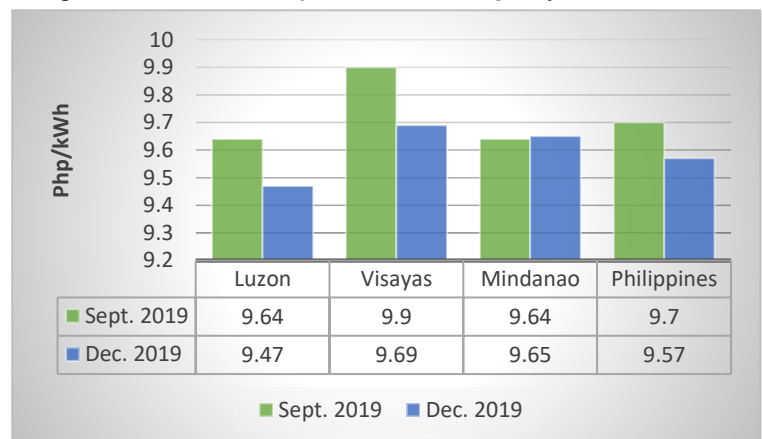
Figure 2 - National Average Systems Rate



Source: NEA and Monthly Operations Report of PDUs

Meanwhile, the ECs' average systems rate for December 2019 is at PhP9.57/kWh, 13 centavos lower compared to September 2019 rate. Among the three grids, only Mindanao grid increased in rate by only 0.01 centavos/kWh. For Luzon and Visayas, the rate decreased by 17 centavos/kWh and 21 centavos/kWh, respectively.

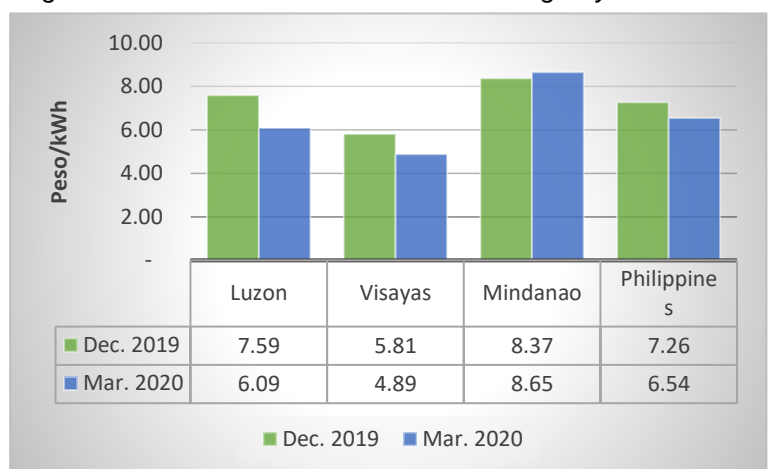
Figure 3 - Electric Cooperatives' Average Systems Rate



Source: NEA

The national average systems rates of Private Distribution Utilities' (PDUs) posted an overall decrease by 72 centavos/kWh from PhP7.26 per kWh in December 2019 to PhP6.54/kWh in March 2020. Mindanao grid posted an increase in per kWh by 28 centavos per kWh while the Luzon and Visayas grids decreased by PhP1.50/kWh and 92 centavos per kWh, respectively.

Figure 4 - Private Distribution Utilities' Average Systems Rate



Source: Monthly Operations Report of PDUs

As reflected in Table 7, the ECs' national average unbundled residential electricity rate for December 2019 was PhP9.48/kWh. Visayas grid still has the highest average unbundled residential electricity rates at around PhP9.67kWh of which generation costs comprise 55%. On the average, generation costs comprise the bulk of ECs residential rates at around 55% followed by distribution, supply and metering charges (DSM) at 18%.

Table 7. EC's Unbundled Average Residential Electricity Rates, December 2019

Bill Subgroup	LUZON		VISAYAS		MINDANAO		NATIONAL	
	PhP/kWh	% share	PhP/kWh	% share	PhP/kWh	% share	PhP/kWh	% share
<b>Generation</b>	5.14	55.6	5.27	54.5	5.24	54.6	5.21	54.9
<b>Transmission</b>	0.91	9.8	0.85	8.7	0.98	10.2	0.91	9.6
<b>System Loss</b>	0.64	7.1	0.68	7.0	0.78	8.1	0.69	7.3
<b>DSM<sup>1</sup></b>	1.68	18.2	1.80	18.6	1.69	17.6	1.72	18.1
<b>RFSC<sup>2</sup></b>	0.37	4.1	0.35	3.6	0.49	5.1	0.40	4.2
<b>Other Charges<sup>3</sup></b>	(0.05)	(0.5)	0.09	0.9	(0.09)	(1.0)	(0.01)	0.1
<b>Subsidy Charges<sup>4</sup></b>	0.01	0.1	0.06	0.7	(0.00)	(0.0)	0.02	0.2
<b>Universal Charges<sup>5</sup></b>	0.50	5.4	0.49	5.1	0.48	5.0	0.49	5.2
<b>Other Taxes<sup>6</sup></b>	0.03	0.3	0.07	0.7	0.03	0.3	0.04	0.4
<b>Total</b>	<b>9.24</b>	<b>100.0</b>	<b>9.67</b>	<b>100.0</b>	<b>9.59</b>	<b>100.0</b>	<b>9.48</b>	<b>100.0</b>

Source: NEA

<sup>1</sup> Distribution, Supply and Metering Charges

<sup>2</sup> Reinvestment Fund for Sustainable CAPEX

<sup>3</sup> Loan Condonation & PEMC-SPA Charge

<sup>4</sup> Lifeline & Senior Citizen Subsidy/Discount

<sup>5</sup> Missionary Electrification, Environmental Charges, NPC Stranded Cost

<sup>6</sup> Local Franchise & Business Taxes, Real Property Tax

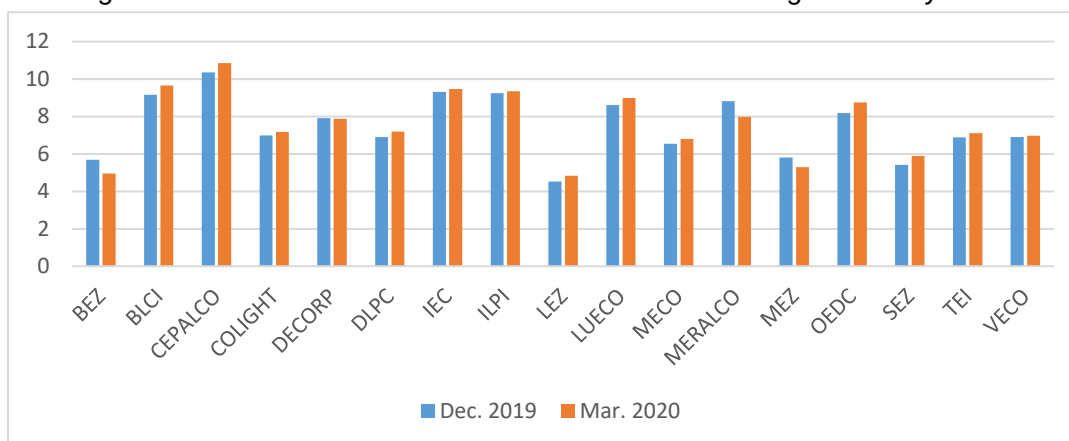
Among the PIOUs, Cagayan Electric Power and Light Company in Mindanao posted the highest average power rates for the billing month of March 2020 PhP10.85/kWh followed by Tarlac Electric Inc. in Luzon at PhP 9.47/kWh. On the other hand, the lowest average rate was noted for Lima Enerzone in Luzon at PhP4.82/kWh which is still lower by 29 centavos compared to its December 2019 average systems rate.

The highest increase in rates was noted for Subic Enerzone at 8.77 from PhP5.41/kWh in December 2019 to PhP5.89/kWh in March 2020. On the other hand, Balamban Enerzone posted the highest decline of PhP0.74/kWh from its December 2019 average systems rate of PhP5.68/kWh.

The average systems rate of MERALCO, the largest distribution utility in the country, went down by 9.53% from PhP8.81/kWh in December 2019 to PhP7.97/kWh in March 2020. However in April 2020, MERALCO's average rates moved upward at PhP8.33/kWh due mainly to the normalization of the universal charge rate, meaning the Universal Charge returning to its normal level following a one-time refund of 14.53 centavos per kWh in Universal Charge-NPC Stranded Contract Costs.

In the months of May and June 2020, MERALCO decreased its rate by 24.83 centavos per kWh and 22.08 centavos per kWh, respectively, due to MERALCO's invoking of the Force Majeure provision in its Power Supply Agreements to reduce the fixed charges from power suppliers. Also, on 29 May 2020, ERC issued MERALCO a Show Cause Order upon the latter's alleged violation of certain directives contained of the ECQ and MECQ measures. The alleged violations are the following among others: 1) the word "ESTIMATE" was not written on the April bill, 2) the cumulative amount of electricity bill was supposed to have fallen due within the ECQ was not amortized in four (4) equal monthly installments, payable in the four (4) succeeding billing months following the end of the ECQ and 3) payments thereof by customers in areas covered by ECQ extension until 15 May 2020 shall commence no earlier than 30 May 2020.

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



Source: Monthly Operations Report of PDUs

Among the different customer classes, MERALCO's residential customers pay the highest electricity rates at PhP9.30/kWh followed by commercial at PhP8.42/kWh and industrial customers with PhP7.27/kWh.

Table 8. Summary of MERALCO Unbundled Power Rates, April 2020 (PhP/kWh)

Bill Sub-Group	Residential	%	Commercial	%	Industrial	%
Generation	4.65	50.0	4.63	55.0	4.62	63.5
Transmission	0.79	8.5	0.96	11.4	0.85	11.7
Systems Loss	0.35	3.8	0.29	3.4	0.19	2.7
DSM	2.49	26.8	1.45	17.3	0.91	12.5
Cross Subsidies	(0.20)	-2.1	0.10	1.2	0.10	1.4
Universal Charges	0.20	2.2	0.20	2.4	0.20	2.8
Gov't Taxes	1.01	10.9	0.78	9.2	0.40	5.5
Fit-All Charges	(0.00)	0.0	(0.00)	0.0	(0.00)	0.0
<b>TOTAL</b>	<b>9.30</b>	<b>100.0</b>	<b>8.42</b>	<b>100.0</b>	<b>7.27</b>	<b>100.0</b>

Source: MERALCO

Meralco's average residential electricity rates in the amount of PhP9.00/kWh was lower by PhP1.56/kWh compared to its year ago level of PhP10.56/kWh brought mainly by lower generation, transmission and universal charges as well as taxes and subsidies. MERALCO's average effective residential rates in April 2020 ranged from PhP9.00/kWh to PhP10.20/kWh of which the highest component was generation costs at PhP4.64/kWh. Meanwhile, MERALCO distribution charges for its different residential customer classes comprised 21.7% to 29.7% of the total effective residential rates equivalent to about PhP1.96/kWh and PhP3.03/kWh, respectively. Systems loss charges on the other hand was 35-centavos/kWh.

Table 9. Summary of MERALCO Residential Unbundled Power Rates as of April 2020 (PhP/kWh)

BILL SUBGROUP	0 to 200 kWh	% Share	201 to 300 kWh	% Share	301 to 400 kWh	% Share	Over 400 kWh	% Share
Generation	4.64	52%	4.64	50%	4.64	48%	4.64	45%
Transmission	0.79	9%	0.79	8%	0.79	8%	0.79	8%
System Loss	0.35	4%	0.35	4%	0.35	4%	0.35	3%
Distribution	1.96	22%	2.24	24%	2.52	26%	3.03	30%
Subsidies*	0.10	1%	0.10	1%	0.10	1%	0.10	1%
Government Taxes	0.96	11%	0.99	11%	1.03	11%	1.09	11%
Universal Charge	0.20	2%	0.20	2%	0.20	2%	0.20	2%
Fit-All Renewable	0.0	0%	0.0	0%	0.0	0%	0.0	0%
<b>TOTAL</b>	<b>9.00</b>	<b>100%</b>	<b>9.31</b>	<b>100%</b>	<b>9.63</b>	<b>100%</b>	<b>10.20</b>	<b>100%</b>

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 October 2019 to April 2020 which can be largely attributed to lower WESM prices specifically during the month of February and April 2020. During these months, MERALCO's WESM purchases was around 10.9% of its total supply, significantly lowering MERALCO's blended generation charges.

Table 10. MERALCO/PSALM Generation Costs

Particular	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20
MERALCO BLENDED GENERATION COST	5.63	5.54	5.41	5.42	4.95	4.51	4.53
QPPL	7.55	5.82	5.72	6.58	10.21	28.44	7.15
FGPC - STA.RITA	4.90	5.11	5.17	5.02	4.86	4.80	4.96
FGP - SAN LORENZO	4.69	4.87	5.20	4.68	4.72	4.44	4.86
MPPCL	4.96	3.99	6.60	5.47			
TLI	5.56	4.56	4.92	3.90	3.86	3.47	4.44
SMEC	6.63	5.18	4.45	4.07	3.89	4.05	4.01
SPPC (baseload)	5.68	5.32	5.36	3.18	4.05	4.05	4.05
Panay Energy Dev. Corp (PEDC)							
TMO							
First Natural Gas - San Gabriel (FNG)	5.55	4.86	4.39	4.48	5.65	4.76	4.66
Philippine Power & Development Co. (PPDC)							
San Buenaventura Power Ltd. Co. (SBPL)	1.74	3.97	3.91	3.92	4.36	3.72	4.47
WESM	1.66	5.46	6.54	8.24	3.05	4.10	3.16
AC Energy					4.24	4.24	4.24
Others	8.36	6.91	5.19	4.89	12.96	6.46	5.20
Export Energy from Net Metering Customers	4.50	4.52	5.03	5.17	4.90	4.50	4.61
WESM ESSP	4.74	5.65	6.68	3.02	3.45	2.47	1.50
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.

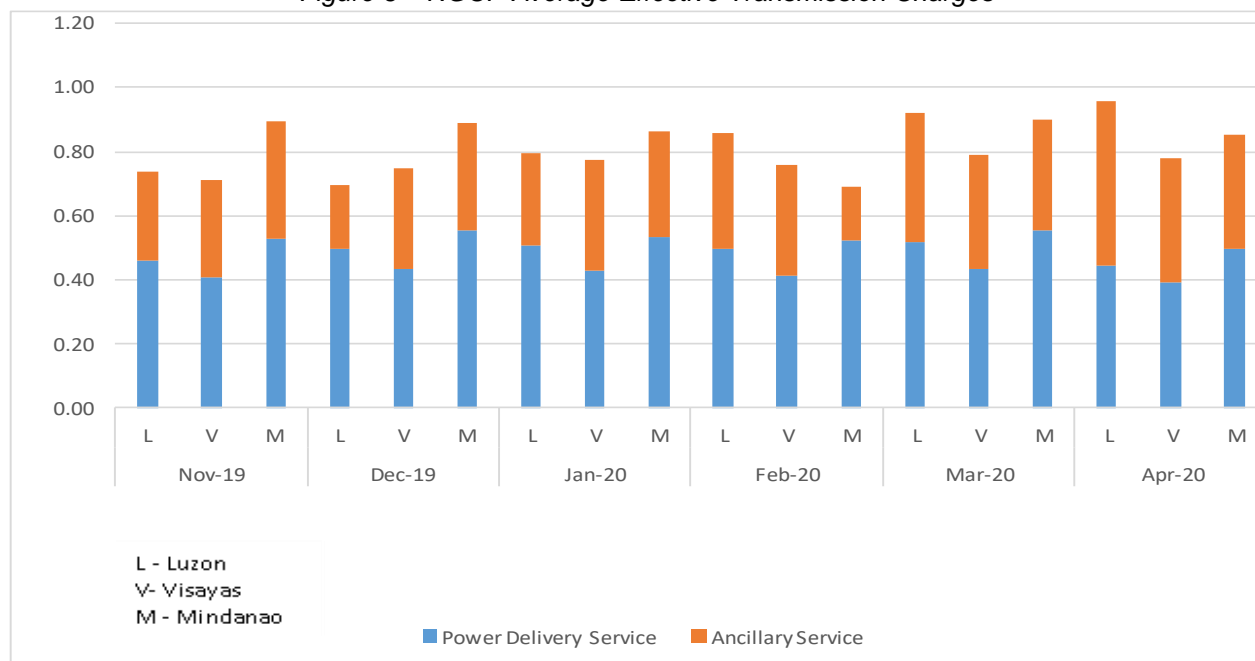
On 06 March 2020, ERC directed distribution utilities, both private and electric cooperatives to refund to their respective consumers the over-recoveries in the Generation Rate (GR), Transmission Rate (TR) System Loss Rate (SLR), Lifeline Subsidy Rate (LSR) and Senior Citizen Subsidy Rate (SrSR), otherwise known as pass through charges effected for a period of twelve (12) months except for MERALCO and Angeles Electric Corporation (AEC) which prayed for a shorter period of refund, starting the next billing cycle thus decreasing the rate on the next bill.

Meanwhile, transmission charges, on the average, comprise around 7% to 9% of a DU's average electricity rates. Transmission charges has two major components, namely, power delivery charges (PDS) and Ancillary Service (AS) charges. The PDS share around 53 to 64% on the average of the total transmission costs while ancillary service is around 38 to 47% of the total transmission costs.

For the period November 2019 to April 2020, Luzon Grid recorded the highest transmission charges at PhP0.96kWh of which 44 centavos was paid for the power delivery service while 51 centavos/kWh went to ancillary services. The Luzon grid has the lowest average transmission cost in December 2019 at 70 centavos of which power delivery service was around 50 centavos/kWh while ancillary services cost 20 centavos/kWh. The highest transmission cost for the report period was noted in Luzon Grid at about PhP0.96/kWh in April 2020.

On 20 April 2020, ERC in a recent Order granted the NGCP an Interim Relief to implement an Interim Maximum Annual Revenue (Imar). 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 6 – NGCP Average Effective Transmission Charges



Source: NGCP

During the report period, the ERC promulgated the FIT-All Allowance for Calendar Year 2019. The ERC's approval, which was embodied in a Decision issued in relation to ERC Case No. 2018-085RC, authorized TransCo to collect a FIT-All rate equivalent to PhP0.0495/kWh. Said approved FIT-All is lower by P0.1976 per kilowatt hour from TransCo's proposed rate of P0.2471 per kWh. Also, in computing the 2019 FIT-All rates, the ERC made use of the actual generation billed and the actual cost recovery rate from January until August 2019, among others. The ERC considered the FIT-eligible plants with certificate of compliance for FIT and the 2019 projected incoming run-of-river (ROR) hydro and biomass plants.

This is in view of the DOE's extension of the installation target for ROR hydro and biomass up to end-2019 or its full subscription, whichever comes first. Moreover, TRANSCO in its manifestation estimated an under-recovery in the amount of PhP122.7 Million. The ERC, however, used the actual over-recovery reflected in the books of TRANSCO as of 07 October 2019 amounting to PhP6.7 Billion.



## **B. Measures Implemented to Provide Relief to Electricity Consumers during the Enhanced Community Quarantine Period**

On March 16, 2020, President Rodrigo Duterte imposed an enhanced community quarantine (ECQ) in Luzon (including its associated islands), which is effectively a total lockdown, restricting the movement of the population except for necessity, work, and health circumstances, in response to the growing pandemic of coronavirus disease 2019 (COVID-19) in the country. Additional lockdown restrictions mandated the temporary closure of non-essential shops and businesses. The ECQ came in after two days of the implementation of the community quarantine in Metro Manila.

The ECQ was originally set to last until April 12, but President Duterte accepted the recommendation of the Inter-Agency Task Force on Emerging Infectious Diseases (IATF-EID) to extend it until April 30. On May 1, it was extended again until May 15 but only on selected places which are considered high-risk areas while low-risk to moderate-risk areas were placed under general community quarantine (GCQ or a less strict quarantine), including the rest of the country. On May 12, the government announced that only Metro Manila and Laguna in Luzon would be under modified ECQ or MECQ from May 16 to May 31 because these areas are categorized as high-risk while moderate risk places are going to be under GCQ. Originally, low-risk areas would neither be under ECQ nor GCQ but it was later clarified that low-risk areas would be under modified GCQ. On May 15, a resolution by the IATF-EID declared additional areas in Luzon under MECQ from May 16 to May 31 namely Bataan, Bulacan, Nueva Ecija, Pampanga including Angeles City and Zambales.

The ECQ caused the mobilization of Philippine government agencies and local government units as well as the passing of Republic Act No. 11469 or the "Bayanihan to Heal as One Act" in order to resolve the COVID-19 pandemic in the Philippines. The economic, environmental, political, social and cultural impact of the lockdown affects around 57 million people under quarantine.

In line with the President's declaration placing the entire Luzon under ECQ which caused to the limitation in the movement of personnel whether from private sector or the government and the general populace as a whole. This further affected the business sector including commercial and industrial sector which generally are the driving force in the Philippine economy.

Further, the manpower which were displaced although temporarily were also heavily affected as many of them are working under a no-work, no-pay arrangement. There could be significant effect to electricity consumers thus the issuance by the DOE and ERC of the following Advisories:

1. DOE Measures to Ensure Continuous Supply of Electricity and Provide Relief to the Electricity Consumers

The Department of Energy has implemented emergency measures against the COVID-19 to ensure a continuous supply of energy within the country. To facilitate movement of energy services and fuels, the Department issued additional 357 IATF IDs, bringing the total of 111,972 IDs issued to the energy industry players. Close coordination has also been done with the concerned government agencies and corporations including local government officials and the Philippine National Police (PNP) for the unimpeded movement of energy products and services needed for the daily operations. The Department sent a request letter to the BOC Commissioner to prioritize entry of petroleum products and ethanol for supply security. A 24/7 Bayanihan Energy Service hotline has been established to assist industry players. More than 200 industry players and consumers were assisted this week on their issues and concerns largely with respect to non-recognition of IATF IDs in checkpoints.

Last 17 March 2020, the DOE likewise directed PSALM to ensure priority allocation of its capacity to LASURECO and MAGELCO and the Ancillary Services requirement of the Mindanao Grid. This is to ensure that there will be uninterrupted supply of electricity particularly to health facilities and hospitals as the region was likewise put under quarantine due to the threat of the pandemic. In parallel, all Mindanao Distribution Utilities were enjoined to prioritize nomination

of bilateral contracts with IPPs to ensure that PSALM's capacity would provide for the requirements of LASURECO, MAGELCO and the ancillary requirements of the Mindanao Grid.

The supply and demand situation in terms of electricity generation remained stable in the entire country despite significant outages of major power plants. This is generally attributed to the lower electricity demand brought by the stoppage of economic activities in the entire country as ECQ was observed starting 16 March 2020. Meanwhile, prices in the WESM during the initial ECQ weeks moved downwards but started to rise in later part of May 2020 as significant power plant capacities went on outage. Amid request of power plants to put their capacities on reserve outage for economic reasons, specifically in Luzon and Visayas, the DOE thru an Advisory dated 23 March 2020 entitled, "WESM Operations Under the State of Public Health Emergency (Proclamation No. 922)".

To provide additional fund sources for Host LGUs to combat COVID-19, the DOE issued on 07 April 2020 the Department Circular No. DC2020-04-0008 entitled "Rationalizing the Utilization of ER 1-94 by LGUs in Response to COVID-19 Public Health Emergency." Under the Circular, all available and unremitted ER 1-94 Funds with the Department and concerned power generation companies (GenCos) as of 31 December 2019 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.

Meanwhile, in its effort to assist the consumers in managing their expenses during the ECQ period, particularly their electricity bills, the DOE issued advisories to public and private corporations in the power sector to extend the payment period up to 30 days from 14 April 2020 for all bills which fall due during the ECQ period. The same extension was sought for affected corporations in the electricity supply chain.

2. The Department of Energy issued the following Advisories in relation to RA 11469 known as "Bayanihan to Heal as One Act":
  - a) Advisory to all public and private corporations in the power sector dated 18 March 2020 entitled, "Solidarity with the Country by Deferring Payments of Obligations and Dues for Thirty (30) Days after 14 April 2020 for the Benefit of Consumers";
  - b) Advisory/letters to the following for submission of daily and weekly accomplishment reports during the Enhanced Community Quarantine period in compliance to the Memorandum of Executive Secretary Salvador Medialdea dated 28 March 2020:
    - i. Power Sector Assets and Liabilities Management Corporation (PSALM) - in ensuring the continuous operation of the generation facilities under its management;
    - ii. Independent Electricity Market Operator of the Philippines (IEMOP) - to ensure continuous operation of the Wholesale Electricity Spot Market (WESM);
    - iii. Philippine Electricity Market Corporation (PEMC) - to ensure continues governance in the operation of the WESM; and
    - iv. National Electrification Administration (NEA) - to ensure continuous operation of electric cooperatives for stable and available supply of electricity during the ECQ period.
  - c) Memorandum to Cabinet Secretary Karlo Nograles and Secretary Carlito Galvez Jr. dated 31 March 2020 reporting measures undertaken by DOE to address electric power industry concerns amidst the ECQ implementation;
  - d) Advisory dated 16 April 2020 entitled, "Advisory Relative to the Extension of the ECQ Until 30 April 2020" addressed to : (1) All Private and Public Corporations in the Power Sector; (2) All Local Government Units; and (3) All Electricity Consumers.

The advisory provides the following:

- i. For Electricity Consumers: A grace period in the payment of electricity consumption and allowed amortization of the same for at least 4 months;
  - ii. For Power companies, 4 months grace period in the payment of all obligations and suspension of interests, fees, penalties and charges to the following:
    - Payments due to NPC, PSALM, NGCP;
    - Payment to fuel sources;
    - Payment to IPPs;
    - Grace period in the payment of Universal Charge to PSALM; and
    - Payment to IEMOP.
  - iii. Suspension of the Fit-All;
  - iv. Encouraged negotiations between a contestable customers and Retail Electricity Suppliers relative to obligations falling within the ECQ period; and
  - v. Requesting consideration of the LGUs in the collection of relative taxes, fees and dues among power companies/facilities.
- e) Advisory dated 07 May 2020 entitled, "Advisory on Providing Grace Period to All Power Sector Bills Falling Due During the Enhanced Community Quarantine which til 15 May 2020. The advisory provides the following:
- i. For Electricity Consumers: A grace period in the payment of electricity consumption and allowed amortization of the same for at least 4 months;
  - ii. For Power companies, 4 months grace period in the payment of all obligations and suspension of interests, fees, penalties and charges to the following:
    - Payments due to NPC, PSALM, NGCP;
    - Payment to fuel sources;
    - Payment to IPPs;
    - Grace period in the payment of Universal Charge to PSALM; and
    - Payment to IEMOP.
  - iii. Suspension of the Fit-All;
  - iv. Encouraged negotiations between a contestable customers and Retail Electricity Suppliers relative to obligations falling within the ECQ period; and
  - v. Requesting consideration of the LGUs in the collection of relative taxes, fees and dues among power companies/facilities.

### 3. Energy Regulatory Commission

In line with the President's declaration placing the entire Luzon under Enhanced Community Quarantine, the ERC hereby issues the following advisories:

- a) ERC Advisory dated 17 March 2020. This advisory contained the following among others:

Item No. 5. Generation Companies with Power Supply Agreements (PSAs) with Luzon and contracts with the National Grid Corporation of the Philippines (NGCP), the Market Operator and the NGCP for the transmission charges are directed to extend the period of payments of the Luzon DUs for 30 days from 14 April 2020, without interest and penalties; and

Item No. 6. Distribution Utilities (DUs) within Luzon are directed to provide a one (1) month extension of payments for customer bills falling due on 15 March to 14 April 2020.

- b) ERC Advisory dated 26 March 2020, was issued in line with the DOE's Memorandum issued on 18 March 2020 calling on public and private sector corporations to defer payments of obligations and dues for thirty (30) days after the conclusion of the Enhanced Community Quarantine period on 14 April 2020 and the President's recent pronouncements, the ERC issues the following directives. Also this Advisory includes the following, among others:
- i. All Distribution Utilities (DUs) and Retail Electricity Suppliers (res) are directed to provide a 30-day extension of payments for customer electricity bills falling due on 15 March to 14 April 2020, however, payments received during the said period are still required to be immediately remitted proportionately to the concerned entities;
  - ii. Payment of all fees due to the generation companies, PSALM, NPC, TransCo, NGCP and the Market Operator (MO) from 15 March 2020 to 14 April 2020 are extended for thirty (30) days from 14 April 2020 without interest and penalties;
  - iii. For the safety of the meter readers and to comply with the physical distancing directive for the containment of COVID-19, Section 3.5.4 of the Distribution Services and Open Access Rules (DSOAR) on the utilization of estimated billing and that corresponding adjustments are made as soon as practicable;
  - iv. All DUs are reminded of their obligation to procure their power requirements in the least cost manner, taking into consideration all attendant circumstances, including the approved contract's minimum contracted capacity and fixed costs, and to ensure efficient and equitable utilization of their approved power supply contracts; and
  - v. All DUs are required to submit their power supply contract utilization report covering the period 15 March to 14 April 2020 not later than 30 April 2020.
- c) ERC Advisory dated 15 April 2020 was issued in view of the National Government's extension of the Enhanced Community Quarantine (ECQ) until 30 April 2020. The advisory contains the following, among others:
- i. For the safety of the meter readers and to comply with the physical distancing directive for the containment of COVID-19, Section 3.5-4 of the DSOAR on the utilization of estimated billing may be applied, provided that the word "ESTIMATE" be clearly written on the consumer bill and that corresponding adjustments be made as soon as practicable;
  - ii. Implementation of the ERC Orders dated 05 December 2019 relating to confirmation of pass through charges if certain DUs may be deferred until 31 July 2020";
  - iii. All DUs and Retail Electricity Suppliers (RES) are directed to provide a grace period to all captive and contestable customers through the deferment of their electricity bill falling due within the period of ECQ or from 16 March to 30 April 2020, without interest, penalties, fees and other charges;
  - iv. The cumulative amount of electricity bill that was supposed to have fallen due within the ECQ shall be amortized in four (4) equal monthly installments, payable in the four (4) succeeding billing months following the end of the ECQ. This shall be reflected as a separate item in the electricity bill due on those succeeding months, provided that the first billing due date following the ECQ shall be no earlier than 15 May 2020;
  - v. Customers who have the ability to pay are encouraged to settle their bills within the original due date to help manage the cashflow in the energy supply chain and ensure the continuous supply of electricity. Consequently, DUs are authorized to adopt

- incentive schemes to encourage early payment of the deferred amount by customers who are able to settle ahead of the four (4) months;
- vi. Availment of PPD will still be in accordance with the parties' approved supply contract;
  - vii. The collection of the FIT-ALL from electricity customers suspended for another billing period to be implemented on the next electricity bill to be issued by the Collection Agents; and
  - viii. All DUs are reminded of their obligation to procure their power requirements in the least cost manner, taking into consideration all attendant circumstances, including the approved contract's minimum contracted capacity and fixed costs, and to ensure efficient and equitable utilization of their approved power supply contract.
- d) ERC Advisory dated 05 May 2020 was issued in line with the government's directive extending anew the ECQ in the NCR and some areas until 15 May 2020. The Advisory contains the following, among others:
- i. DUs and RES operating in areas that continue to be under the ECQ are directed to further extend the grace period for the payment of their consumers' electricity bills falling due within the ECQ period of 16 March to 15 May 2020, without interest, penalties, fees and other charges. The directive on the amortization payment in four (4) equal monthly installments, payable in the four (4) succeeding billing months following the end of the ECQ shall continue to be observed, but payments thereof by customers in areas covered by ECQ extension until 15 May 2020 shall commence no earlier than 30 May 2020;
  - ii. DUs and RES that are operating in areas under the GCQ shall retain the grace period on the due date of their consumers' electricity bills not earlier than 15 May 2020, without interest, penalties, fees and other charges. Similarly, the directive on the amortization of payments in four (4) EMI payable in the four (4) succeeding billing months is hereby reiterated;
  - iii. Actual payments received by the DU during the said period are still required to be immediately proportionately to the concerned entities. Consequently, DUs are authorized to adopt incentive schemes to encourage early payment of the deferred amount by customers who are able to settle ahead of the four (4) months;
  - iv. The word "ESTIMATE" be clearly written on the consumer bill and that corresponding adjustments be made as soon as practicable;
  - v. Government entities that are contestable customers shall observe the regular payment schedule of their electricity bills starting 16 May 2020;
  - vi. The Generators/Suppliers, PSALM, NPC, TransCo NGCP IPPs and IPPAs and MO shall extend the same payment scheme as provided in the preceding paragraph, to the RES, DU and other customers, depending on whether such customer is operating under an ECQ or GCQ. Availment of PPD will still be in accordance with the parties' approved supply contract; and
  - vii. The suspension of the FIT-ALL collection from electricity customers is applicable for March and April billing periods to be implemented on the next electricity bill to be issued by the Collection Agents.

- e) ERC Advisory dated 22 May 2020 was issued in line with the certain areas under MECQ until 31 May 2020. This Advisory contains the following, among others:
  - i. The collection of Universal Charge-Environmental Charge (UC-EC) equivalent to PhP0.0025/kWh is hereby suspended until further notice;
  - ii. DUs are directed to conduct actual meter readings and thereafter issue a new billing reflecting the actual consumption and corresponding amount due, not later than 08 June 2020, except when actual reading is not possible due to the implementation of community quarantine;
  - iii. DUs are directed to allow their electricity customers with monthly consumption of 200 kWh and below in February 2020, a staggered payment of up to six (6) equal monthly installments for their electricity bills falling due within the ECQ and MECQ period, the first monthly amortization to be made not earlier than 15 June 2020, without penalties, interest and other fees;
  - iv. For electricity customers with monthly consumption of above 200 kWh in February 2020, DUs shall allow a staggered payment of up to four (4) EQI for their electricity bills falling due with the ECQ and MECQ periods, the first monthly amortization to be made not earlier than 15 June 2020, without penalties, interest and other fees; and
  - v. Availment of Prompt Payment Discount (PPD) may be subjected to negotiation between the contracting parties.

#### 4. Power Sector Assets and Liabilities Management Corporation (PSALM)

In compliance with the Memorandum from Executive Secretary Salvador C. Medialdea dated 28 March 2020 on implementation of temporary emergency measures, PSALM undertook the following actions pursuant to Republic Act (RA) No. 11469 or the “Bayanihan to Heal as One Act”:

- a) Issued an Advisory dated 26 March 2020 to PSALM Stakeholders throughout the country providing for an extension period of thirty (30) days from 14 April 2020 for PSALM’s billings falling due on 15 March 2020 to 14 April 2020, without imposing interest and penalties. The extension covers distribution utilities (DUs) under power supply contracts with PSALM, Independent Power Producer Administrators (IPPAs) trading capacity/energy of NPC-IPP plants, and Universal Charge (UC) collecting entities (CEs) for UC for Missionary Electrification (ME), Environmental Charge for Watershed Rehabilitation and Management (EC) and Stranded Debts (SD). This Advisory, issued to alleviate the impact of ECQ on electricity consumers, aims to implement the advisories from the DOE and the ERC, the existing contractual arrangements with PSALM, and its credit and collection policies;
- b) Increased temporarily the allocation of power for LASURECO (from 6.8 MW to 42 MW) and MAGELCO (10 MW to 17.88 MW) to ensure stability of power in Mindanao and to avoid power outages during the enhanced community quarantine. The estimated revenues to PSALM for the increased power allocation may not be realized since said ECs have not been paying PSALM for the power they consume, however, if PSALM does not provide the increased allocation, there is a big likelihood that the Mindanao grid will experience power outages;
- c) Allowed the Municipality of Bagac, Bataan to utilize, free of charge, three (3) cottages at PSALM’s Bagac Hotel and Conference Center as transition housing facility from 29 March to 20 April 2020 and further extended to 15 July 2020 (3<sup>rd</sup> extension), for patients discharged from the hospital due to non-COVID-19 ailments but required to still go on quarantine after their hospitalization. PSALM is in discussion with Rep. Jose Enrique S. Garcia III of Bataan

to allow the Bataan Provincial Government to use four (4) cottages in support of the Province of Bataan's COVID-19 response activities;

- d) Issued an Advisory dated 02 April 2020 providing proper guidance to all UC Collecting Entities (CEs) on the extension of deadline for the submission to PSALM of the following: (a) UC Annual Reports, UC Billing, Collection/Remittance Reports for CY 2019 from 30 April 2020 to 1 June 2020; (b) UC Billing, Collection/Remittance Reports and Special Bank Receipts (SBRs) covering February 2020 from 16 March 2020 to 8 April 2020 (scanned copies) and until 4 May 2020 (original signed reports); and (c) March 2020 Billing Report, originally due on 20 April 2020, and Collection/Remittance Reports and SBRs, originally due on 15 April 2020, to 14 May 2020;
- e) Issued an Advisory dated 17 April 2020 to PSALM Stakeholders relative to Billings to implement the ERC and DOE Advisories on the extension of the ECQ, providing for amendments to the earlier-issued PSALM Advisories such that payments due PSALM on power, ancillary services, IPPAs, UC collections by CEs during the original & extended ECQ period from 15 March 2020 to 30 April 2020 are deferred without imposing any interest and penalties, and such accumulated amounts may be settled in 4 equal monthly installments starting the month after the ECQ. The installments shall be reflected as a separate item in PSALM's billings. The extension of the deadlines to file the various UC reportorial requirements were likewise extended;
- f) Released immediately the Energy Regulations (ER) 1-94 funds as of 31 December 2019 with PSALM to LGUs hosting PSALM's owned generating and IPP plants, either directly as a generation company (GenCo) or through the National Power Corporation and IPPs as the GenCo-operators, in accordance with the DOE Department Circular No. DC202-04-0008 dated 06 April 2020. The ER 1-94 funds shall be utilized by all Host LGUs to contain, mitigate and eliminate the transmission of COVID-19 and manage and mitigate the effects thereof to the community and individuals during the period State of Public Health Emergency;
- g) Issued an Advisory dated 06 May 2020 to PSALM Stakeholders providing extended due dates for payments due to PSALM on power, ancillary services and UC collections from Power Customers, NGCP and UC-Collecting Entities operating in areas that continue to be under ECQ until 15 May 2020, without imposing any interest and penalties, and such accumulated amounts may be settled in 4 equal monthly installments starting the month after the ECQ. Said PSALM Advisory further provided that IPPAs shall continue to follow the deadlines mentioned in the PSALM Advisory dated 17 April 2020. IPPA payments due PSALM can be proportionately deferred and subjected to the extensions mentioned in this latest PSALM Advisory only when it can be sufficiently shown to the satisfaction of PSALM that an IPPA supplies electric energy to a DU that serves an area that remains under ECQ beyond 30 April 2020. For clarity, payments from DUs that serve areas that are no longer under ECQ beyond 30 April 2020 shall correspondingly be remitted by these IPPAs to PSALM no later than the extended deadlines mentioned in the PSALM Advisory dated 17 April 2020; and
- h) Issued an Advisory dated 11 June 2020 to CEs of UC pursuant to the Advisory issued by the ERC dated 22 May 2020, advising all CEs nationwide, including the NGCP, to suspend the collection of UC - Environmental Charge (UC-EC) equivalent to PhP0.0025/kWh from all electricity end-users reckoned on the billing period after the 22 May 2020 ERC Advisory and onwards, until further notice from the ERC. Compliance by all CEs shall be monitored through the submission to PSALM of certified copies of power bills issued to end-users for each type of end-users (residential, commercial and industrial) during the month of initial implementation of the suspension and such power bills must show zero UC-EC.

5. The National Electrification Administration (NEA) issued the following Advisories and pronouncements pursuant to the Bayanihan Act as follows:
- a) On 17 March 2020, the NEA ordered all ECs to ensure continuous delivery of electricity services to their consumers, as the entire Luzon was placed under enhanced community quarantine due to corona virus disease 2019 (COVID 19). A memorandum directing the 121 ECs nationwide to activate their respective Vulnerability and Risk Assessment and Emergency Restoration Plans for Crisis Management in which under this protocol, the EC Management and Board are instructed to implement strategies to maintain their operations and support infrastructure while keeping their employees and workers safe. Business Continuity Plans should be in place to ensure their sustainability and viability, considering the economic impact of COVID-19 pandemic, to consider and assume possible delayed payments by consumers, prioritization of payment of obligations, critical loads such as hospitals, medical facilities, government offices, basic utility service providers, PNP and AFP offices should remain undisrupted. Also SPUG areas were advised to coordinate with their power suppliers in the off-grid distribution system to ensure continuous fuel supply;
  - b) On 18 March 2020, the NEA thru Memorandum No. 2020-010 ordered the postponement of district elections of electric cooperatives of all ECs nationwide until the declaration of a state of calamity is lifted;
  - c) On 19 March 2020, the NEA enjoined the ECs to provide a 30-day payment extension for electricity bills in support of the government's efforts to contain the spread of COVID 19, under Memorandum 2020-011. This is in line with DOE's Advisory that urges distribution utilities, including the 121 ECs nationwide, to give to consumers a 30-day extension in settling their electricity bills due from March 15 to April 14, 2020;
  - d) On 05 April 2020, the NEA remitted around PhP1.35 Billion to the National Government to support efforts to mitigate the impact of the COVID 19 pandemic. This was after the NEA Board of Administrators approved the remittance to the unused subsidies and dividends to the Bureau of Treasury as requested by the Department of Finance;
  - e) On 08 April 2020, the Pantawid Liwanag is a corporate responsibility program led by the Philippine Rural Electric Cooperatives Association, Inc. (PHILRECA) to be one with the government's efforts to curb the socioeconomic impact of the COVID-19 pandemic on the poorest of the poor. This program of subsidizing the electricity needs of the ECs consumers in the countryside whose primary sources of income and livelihoods have been severely disrupted by the crisis;
  - f) On 17 April 2020, the ECs are authorized to realign their budget for 2020 which was set aside for some of their institutional activities to fund the initial rollout of their respective Pantawid Liwanag programs. Fund raising activities are also considered but without risking the budgets allocated for their capital expenditures and operating expenses;
  - g) On 02 May 2020, the NEA approved the discontinuance of PhP295 Million worth of rural electrification programs for this year to augment the funding for the government's response to COVID-19 pandemic. These were the projects for the implementation of the Electric Cooperative's Emergency and Resiliency Fund (ECERF) Act and the establishment of Customer Management and Quick Response System for selected ECs. These were the programs recommended by the DBM for discontinuance to partially generate the required amount to help address the pandemic situation in the country;
  - h) On 11 June 2020, the NEA directed the ECs to ensure reliable and sufficient electricity to households in rural communities as the education sector shifts to a "new normal" which is the blended learning approach for student in the coming school year amid the COVID pandemic.



## C. Administration of 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 31 March 2020, the total collections of Universal Charge amounted to PhP193.6 billion with interest earnings from deposits and placements of UC funds amounted to PhP0.5 Billion. On the other hand, UC fund disbursement amounted to PhP191.8 Billion. Accounting for the inflows and outflows of the UC fund leaves it with a balance of about PhP2.1 billion.

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

Table 11. UC Collections as of March 2020 (in Billion PHP)

Particulars	Remittances	Interests	Disbursements	Balance
Special Trust Fund – Missionary Electrification (ME) NPC-SPUG	102.88	0.04	102.92	0.00
Special Trust Fund – ME Renewable Energy Developer Cash Incentive (REDCI)	0.77	0.02	0.30	0.49
Special Trust Fund – Environmental Charge (EC)	2.49	0.14	1.49	1.15
Special Trust Fund – Stranded Contract Cost (SCC)	80.77	0.06	80.39	0.44
Stranded Debts	6.69	0.00	6.70	0.00
<b>TOTAL</b>	<b>193.60</b>	<b>0.52</b>	<b>191.80</b>	<b>2.08</b>

Source: PSALM

### 2. UC Remittances

For the period November 2019 to March 2020, PSALM received PhP9.1 Billion in UC remittances broken down with details reflected in Table 12.

Table 12. UC Remittances to PSALM for the period November 2019 to March 2020 (In Billion PhP)

Month	UC-ME (NPC-SPUG)	UC-ME (REDCI)	EC	SCC	SD	Total/Month
November 2019	1.18	0.01	0.02	0.41	0.32	1.94
December 2019	1.11	0.01	0.02	0.40	0.31	1.85
January 2020	1.09	0.01	0.02	0.38	0.30	1.80
February 2020	1.16	0.01	0.02	0.41	0.32	1.92
March 2020	1.01	0.01	0.02	0.28	0.28	1.60
<b>Total</b>	<b>5.55</b>	<b>0.05</b>	<b>0.10</b>	<b>2.29</b>	<b>1.53</b>	<b>9.11</b>

Source: PSALM

### 3. UC Disbursements

For the November 2019 to March 2020, PSALM disbursed PhP5.6 billion to NPC-SPUG to fund the missionary electrification functions, chargeable against the UC-ME fund.

Table 13. UC Disbursements of PSALM for the Period November 2019 to January 2020 (in PhP Billion)

Month	ME (NPC-SPUG)	ME (REDCI) <sup>1</sup>	EC <sup>2</sup>	SCC	SD	Total/Month
November 2019	1.19	0.00	-	0.41	0.33	1.93
December 2019	1.11	0.00	-	0.39	0.31	1.81
January 2020	1.08	-	-	0.38	0.30	1.75
February 2020	1.16	0.00	-	0.25	0.32	1.74
March 2020	1.02	-	-	-	0.28	1.31
<b>Total</b>	<b>5.56</b>	<b>0.00</b>	<b>-</b>	<b>1.43</b>	<b>1.54</b>	<b>8.54</b>

\*Difference from previous submissions were due to rounding off.

Notes:

1/ No REDCI claim with complete documentary requirements was received from January to May and August 2019.

2/ Awaiting ERC Order/Decision on the disbursement of UC-EC.

Source: PSALM

The above 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 PhP0.319 billion was transferred from the UC-SD to the UC-SD Special Fund Account for the period June 2019.

### 4. ERC-Approved UC Rates

Total UC being charged to customers per kilowatt hour amounts to PhP0.3789 as approved by the ERC.

Type of UC	PhP/kWh	Recovery Period
UC-ME <ul style="list-style-type: none"> <li>• UC-ME Subsidy</li> <li>• Cash Incentive for RE Developers</li> <li>• True-up Adjustment (2011)</li> <li>• True-up Adjustment (2010)</li> </ul>	0.1561	
UC-EC	0.0025	
UC-SCC*	0.1938	Fully recovered
	0.0543	12 months
UC-SD*	0.0428 <sup>1/</sup>	Until June 2026
<b>Total</b>	<b>0.3789</b>	

Note:

<sup>1/</sup>Pursuant to ERC Case No. 2013-195RC promulgated on 28 March 2019, the effectivity of the implementation of the new Universal Charge-Stranded Debts rate is in the amount of PhP0.0428/kWh to be collected by Collecting Entities from consumers to start on April 2019 billing period.

\* UC-SD and UC-SCC currently being collected from electricity end-users until approved amount has been fully recovered.

## D. Lifeline Rate Subsidy Program

Table 14. Discount and Subsidy for Lifeline Rates

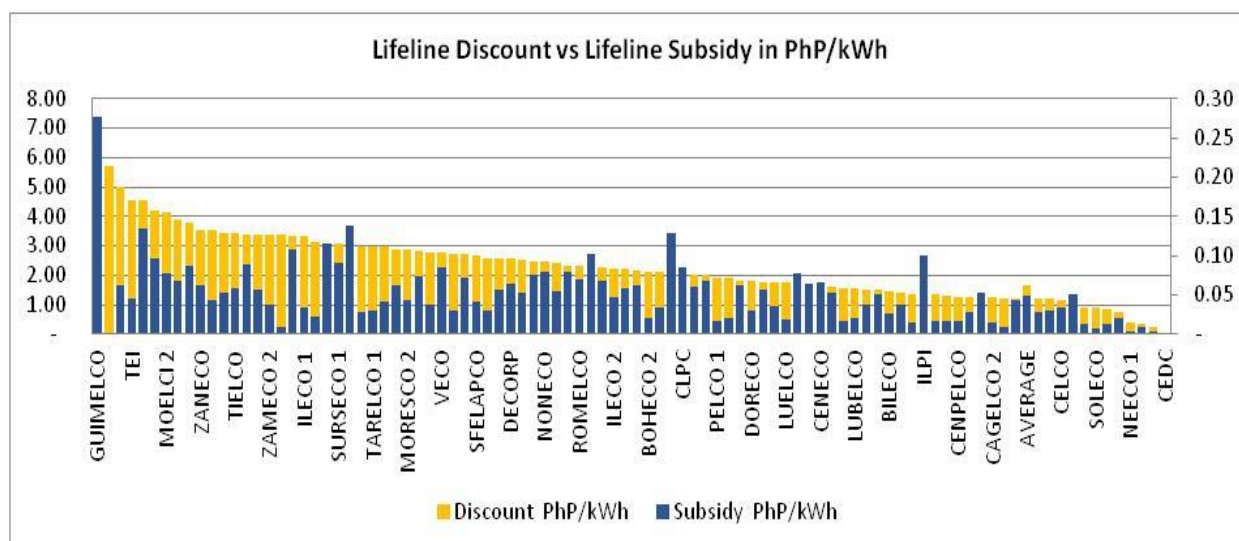
Particulars	MERALCO	On-grid ECs	Other PDUs	Grand Total
Average Number of Lifeline Customers per Month	2,440,953	1,993,121	598,741	4,469,345
Average Number of Non-Lifeline Customers per Month	4,398,472	5,660,289	1,193,518	9,749,645
Average Total Monthly Consumption of Lifeline Customers (kWh)	115,785,876	28,071,472	26,914,676	160,946,939
Average Monthly Consumption of Non-Lifeline Customers (kWh)	3,818,364,114	1,280,790,450	986,632,498	5,620,306,994
Average Total Monthly Subsidy to Lifeline Customers (P/Mo.)	289,106,179	63,056,456	61,621,591	384,499,372
Average Monthly Amount of Subsidy Provided by Non-Lifeline Customers (in PhP)	289,050,163	58,564,062	60,307,245	381,760,856
<b>Average Monthly Consumption per Lifeline Customer (kWh)</b>	<b>47.4</b>	<b>14.1</b>	<b>45.0</b>	<b>36.0</b>
<b>Average Amount of Subsidy Provided to Lifeline Customers, in PhP/kWh</b>	<b>2.50</b>	<b>2.09</b>	<b>2.24</b>	<b>2.37</b>
<b>Average Amount of Subsidy Provided by Non-Lifeline Customers, in PhP/kWh</b>	<b>0.076</b>	<b>0.049</b>	<b>0.062</b>	<b>0.068</b>

Source: ERC, November 2019 data

As of November 2019, the total number of lifeline customers in the country was 4.5 Million with 54% located in MERALCO franchise area, 34% in the EC franchise areas and 11% in other private DUS. About 9.7 Million contributed an average of 6.8 centavos per kWh to help the lifeline customers pay their bills. On the average, each lifeline customer enjoyed a discount of PhP2.37 per kWh. The number of non-lifeline customers reached 4.4 million with a total of 5.6 billion kWh consumption in which 67.5% is consumed by MERALCO customers, 17.6% from the ECs and 14.5% is consumed within the franchise areas of other private DUs.

MERALCO's non-lifeline customers gave the biggest amount of subsidy at 7.5 centavos per kWh mainly due to the higher lifeline threshold for the DU as approved by the ERC. For the EC franchise areas, and other private DUs, subsidies paid by non-lifeline consumers amounted to 4.8 centavos per kWh and 5.7 centavos per kWh respectively. Further, the largest amount of subsidy provided by non-lifeline customers is in the MERALCO franchise area amounting to PhP286 Million giving each lifeline customer a discount of PhP2.47 per kWh.

Figure 10 - Lifeline Discount and Lifeline Subsidy



Source: ERC

Among the DUs, Guimaras Electric Cooperative (GUIMELCO) provides the biggest discount at PhP6.77 per kWh while collecting 28 centavos per kWh subsidy from non-lifeline customers. The lifeline threshold level of the EC is up to 25 kWh while the total consumption of lifeline customers is low at 4% of the total electricity consumption, giving the EC a room to give higher discount to the lifeliners. However, GUIMELCO's implementation of the program should be revisited as it collects the highest rate of subsidy at PhP0.28 per kWh which could be burdensome to subsidizing customers.

GUIMELCO is followed by Subic Enerzone (SCEZ) which provides PhP5.70 per kWh discount while collecting only PhP0.0011 from non-lifeliners. SCEZ's lifeline threshold level is up to 100 kWh however, lifeline customers consumes only about 0.02% of the total electricity consumption in the franchise area which provides the flexibility for the DU to provide higher discount to its lifeline customers despite very low level of subsidy being collected from non-lifeline customers.

Clark Electric Distribution Corporation (CEDC) has no record of subsidy and discounts in the lifeline rate program. It can be attributed to its customer profile who are mostly commercial and industrial companies who are consuming large volume of electricity.

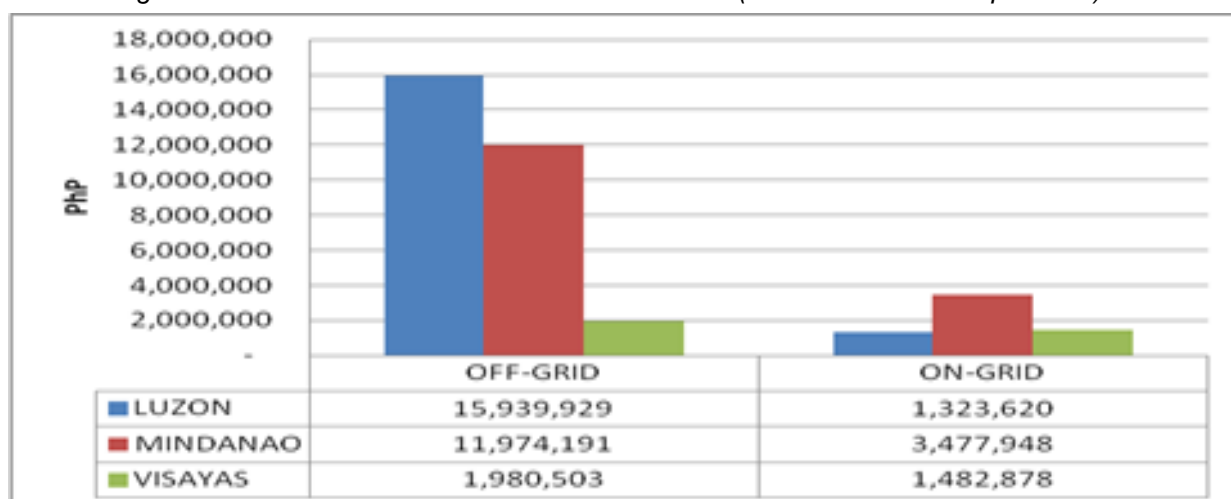
Quezon II, Electric Cooperative (QUEZELCO II) reported the smallest amount of discount per kWh at 27 centavos per kWh while collecting 0.4 centavos per kWh. The lifeline threshold level of the EC is at the maximum of 20 kWh with lifeline customers consuming only about 1.4% of the total electricity consumption. The total number of lifeline customers in the franchise area compose 16% of the total number of the EC customers.

### E. Mandatory Rate Reduction (MRR)

Pursuant to Section 72 of the EPIRA, NPC is continuously granting to residential customers the mandatory discount of 30-centavos/kWh. For this report period, mandated rate reduction for Luzon, Visayas and Mindanao including SPUG areas is considered in the report. It is good to note that NPC/PSALM was able to submit data for the Visayas which were absent during several report period.

Majority of the rate reduction were applied at the off-grid areas and the largest was recorded in Region IV-B wherein the largest off-grid provinces are located. Marinduque and Palawan are among the largest recipients of discount in Luzon and Camotes Island in the Visayas. In Mindanao, Basilan has the largest share of discount provided by NPC followed by Sulu and Dinagat Island Provinces. For On-Grid areas, Mindanao took the biggest share of rate reduction as it still has the biggest power plants owned by PSALM/NPC.

Figure 11 - Distribution of Mandated Rate Reduction (November 2019 to April 2020)



Source: NPC

For the period starting April 2019 to April 2020, a total of PhP71 Million amount of MRR has been granted to consumers in Luzon, Visayas and Mindanao areas. From 2007 when the first major NPC power Plant was privatized, the total amount of MRR has a negative growth rate of 13% per year. From the beginning of implementation of the MRR, a total of PhP31.5 Billion has been given to electricity consumers nationwide until April 2020. The biggest amount of MRR recorded per year was in 2009 with PhP3.7 Billion while records show that the smallest amount of MRR was in 2018 at PhP58 Million. The amount is expected to further go smaller due to continuing privatization and retirement of NPC power plants. Table 15 provides the details of rate reduction implemented by NPC from April 2019 to April 2020.

*Table 15. NPC-Incurred Amount on Grant of Mandatory Rate Reduction*

<b>Year</b>	<b>LUZON</b>	<b>Visayas</b>	<b>MINDANAO</b>	<b>TOTAL</b>
2001-March 2019	3,346,190,120.92	2,462,937,348.15	5,569,539,159.54	31,403,712,550.38
19-Apr	2,510,071.49		2,476,926.76	4,986,998.25
19-May	2,538,031.56		2,382,612.55	4,920,644.11
19-Jun	2,129,649.15		951,881.13	3,081,530.28
19-Jul	1,935,325.81		2,454,950.33	4,390,276.14
19-Aug	3,061,405.77	589,519.12	2,385,503.31	6,036,428.20
19-Sep	2,817,510.58	571,118.25	2,412,424.80	5,801,053.63
19-Oct	2,809,171.89	562,517.08	2,430,996.05	5,802,685.02
19-Nov	2,920,238.66	829,791.16	2,521,484.06	6,271,513.88
19-Dec	2,107,022.68	701,489.12	2,576,566.59	5,385,078.39
20-Jan	2,941,005.32	398,185.99	2,599,232.61	5,938,423.92
20-Feb	3,048,343.79	472,958.76	2,588,058.23	6,109,360.78
20-Mar	2,813,156.81	502,510.24	2,525,969.56	5,841,636.61
20-Apr	3,433,780.90	558,445.60	2,640,828.06	6,633,054.56
<b>TOTAL</b>	<b>3,377,821,054.43</b>	<b>2,467,565,437.87</b>	<b>5,597,845,765.52</b>	<b>31,474,911,234.15</b>

Source: NPC

For DOE's policy consideration, is should contemplate conducting review of the MRR implementation as the said policy continue to lay burden to the government. As mentioned above, areas which took the majority of the said rate reduction subsidy are the same areas that are already enjoying subsidized rates, which make these areas overly dependent on subsidies.

## V. COMPETITION

This section provides an update on key areas of competition covering the period November 2019 to April 2020 on the operation of the Wholesale Electricity Spot Market (WESM), commercial operations of Retail Competition and Open Access (RCOA), implementation of the Reserve Market, and monitoring of compliance to Section 45 of the EPIRA.

### A. WESM Operational Highlights

As of 25 April 2020, the total registered participants in the integrated WESM (Luzon and Visayas) is two hundred seventy-nine (279), consisting of one hundred and thirty-four (134) generation companies and one hundred forty-five (145) customers.

On November 2019, BISCOP, Inc., a new generator from Visayas registered as a new WESM member.

For the month of December 2019, three (3) generation company participants, namely Ecopark Energy of Valenzuela Corp. in Luzon and Isabel Ancillary Services Co. Ltd. and BOHECO I Sevilla Mini Hydro Corp. have entered the market as direct members. Also on the same month, one member, the Universal Robina Corporation, changed its regional registration from Luzon to Visayas.

There are no new WESM registrants for the month of January 2020, while in February 2020, two (2) wholesale aggregator direct members have ceased operation. These are: Trans-Asia Oil and Energy Development Corporation and Manta Energy, Inc.

For the month of March 2020, three (3) new market participants were registered in Luzon grid namely: Pilipinas Shell Petroleum Corporation, GNPowder Dinginin Ltd. Co. and Isabela La Suerte Rice Mill Corporation. Meanwhile, one (1) participant, Angeles Power Inc., ceased its registration.

Lastly, for the April 2020, billing month, a new distribution utility, the MORE Electric and Power Corporation (MORE) and a generation company, SMCGP Philippines Energy Storage Co. Ltd., registered as a new WESM member. Both entities are located in the Visayas.

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

Table 16. Registration Update as of 25 April 2020 (Luzon and Visayas)

CATEGORY	REGISTERED						
	TOTAL	DIRECT			INDIRECT		
		LUZ	VIS	LUZ/VIS <sup>3</sup>	LUZ	VIS	LUZ/VIS
<b>Generation Companies</b>	<b>134</b>	86	45	2	1	0	0
<b>Customers</b>							
Private distribution utilities & Local government utilities	<b>18</b>	8	5	0	5	0	0
Electric cooperatives	<b>71</b>	29	28	0	14	0	0
Directly Connected Customers	<b>55</b>	7	6	1	32	7	2

<sup>3</sup> The Luz/Vis represents generation company which facilities exist in both Luzon and Visayas (PSALM and EDC)

CATEGORY	REGISTERED						
	TOTAL	DIRECT			INDIRECT		
		LUZ	VIS	LUZ/VIS <sup>3</sup>	LUZ	VIS	LUZ/VIS
Wholesale aggregators	1	0	0	1	0	0	0
Total Customer Trading Participants	145	44	39	2	51	7	2
<b>TOTAL PARTICIPANTS</b>	<b>279</b>	<b>130</b>	<b>84</b>	<b>4</b>	<b>52</b>	<b>7</b>	<b>2</b>

Source: PEMC

## **Capacity Profile**

The WESM registered capacity for the month of April 2020 is recorded at 20,191.97 MW, an increase of 214.87 MW from a total of 19,967 MW in October 2019. Of the said total capacity, only about 66 percent or an average of 13,386 MW were offered in the market.

During the report period, the following are the newly registered plants that are the sources of additional capacities in the market:

- 5-MW Pilipinas Shell Petroleum Corporation natural gas plant;
- 5.1-MW Isabel La Suerte Rice Mill Corporation biomass plant;
- 6-MW Green Innovations for Tomorrow Corporation biomass plant,
- 4.4-MW Ecopark Energy of Valenzuela Corp. solar plant;
- 10.8-MW Cleangreen Energy Corporation biomass plant;
- 5.4-MW VS Gripal Power Corporation biomass plant;
- 25-MW North Negros Biopower, Inc. biomass plant;
- 23.5-MW Central Azucarera de Bais, Inc. biomass plant;
- 30-MW Biscom, Inc. biomass plant;
- 10.8-MW Grassgold Renewable Energy Corporation biomass plant;
- 70-MW Isabel Ancillary Services Co. Ltd. oil-based plant;
- 1.2-MW Sta. Clara Power Corporation hydro plant;
- 2.5-MW BOHECO I Sevilla Mini Hydro Corp. hydro plant; and
- 20-MW SMC GP Philippines Energy Storage Co. Ltd. battery plant in Visayas.

## **Supply and Demand and Market Price Outcome**

During the report period, November 2019 to April 2020, average effective supply and supply margin in the market is at 13,148 MW and 2,474 MW respectively. Lowest supply level was observed in the December 2019 billing month due to the outage of several major power plants. Average market price is at PhP3,623/MWh with the lowest rate of PhP1,494/MWh in April 2020 and highest rate of PhP5,937/MWh in December 2019.

The electricity demand plus reserve schedule declined by 22 percent from 11,819 MW in October 2019 to 9,259 MW in April 2020. Compared to previous years, this was an unusual trend amid the hot dry season or the summer months where demand is expected to be at its highest. Apparently, this is due to the implementation of the Enhanced Community Quarantine (ECQ) in parts of Luzon, including Metro Manila, which was declared on 17 March 2020 wherein industrial and commercial customers temporarily ceased their operations.

Further, as a result of reduced demand, supply margin for the month of April 2020, averaging at a high 3,402 MW, was noted to have the highest recorded supply margin since 2014. Market prices

also saw a 65% decline at an average of PhP1,494/MWh in April 2020 from October 2019's PhP4,219/MWh and a 79.6% decrease from last year's PhP7,315/MWh.

Early on, the average effective supply in November to December 2019 was affected by the outage of major power plants. Demand plus reserve during these months are lower given the cooler temperatures recorded. However, both events effectively brought down the supply margin thus market prices climbed to an average of PhP5,114/MWh and PhP5,937 respectively from October 2019's PhP4,219/MWh.

In January 2020, the average effective supply started to increase due to the resumption of several major power plants that went on outage. On the contrary, demand plus reserve schedule decreased given the cooler weather experienced and the observance of holidays. Consequently, supply margin significantly widened by 51% from an average of 1,818 MW to 2,754 MW.

For February 2020 billing month, demand plus reserve schedule increased as a result of the rise in economic activity as Taal Volcano's alert level downgraded, and the absence of holidays this month as compared to January 2020. The month started with high demand coming from January 2020 but began to decrease brought about by cooler temperature all throughout February 2020. Consequently, supply margin narrowed by 7% from an average of 2,754 MW to 2,560 MW.

As a result of these incidents, market prices saw a 52% decline to an average of PhP2,871/MWh for January 2020 from December 2019's PhP5,937/MWh following the wider supply margin in the grid.

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

*Table 17. Demand and Supply Situation*

Month	Demand + Reserve (MW)	Effective Supply (MW)	Supply Margin (MW)	Average Market Price (Php/MWh)
October 2019	11,819	13,720	1,901	4,219
November 2019	11,262	13,087	1,825	5,114
December 2019	10,690	12,509	1,818	5,937
January 2020	10,312	13,066	2,754	2,871
February 2020	10,578	13,138	2,560	3,280
March 2020	10,800	13,857	3,057	2,447
April 2020	9,259	12,662	3,402	1,494
<b>Average</b>	<b>10,674</b>	<b>13,148</b>	<b>2,474</b>	<b>3,623</b>

Source: PEMC

### **Market Transactions**

Customer Spot market transactions (spot market volume) in Luzon and Visayas for the report period were at an average of 765.38 GWh. 82% of these transactions is for Luzon while 18% is for the Visayas grid. It can be noted that the lowest level of transaction was recorded in the month of April 2020 at 486.22 GWh while the highest occurred in January 2020 with 1,032.80 GWh. Lastly, the average generator payment for the Luzon and Visayas grids is at PhP2,441.00 million and PhP1,074.10 million, respectively.

Meanwhile, the customer spot market transactions for the month of April 2020 only translates to 8.78% of the total energy consumed in Luzon and Visayas. The remaining 91.22% of the total volume was transacted and settled outside the market. Luzon spot market transactions were recorded at 339.036 GWh while for Visayas spot market transactions were at 147.187 GWh. Luzon generator payments amounted to PhP548.45 Million while Visayas generator payments were recorded at PhP413.00 Million. Spot market transactions decreased by 44% from 863.30



GWH in March to 486.22 GWH in April, while the generator payments decreased by 83% from PhP5,595.00 million in November 2019 to PhP961.45 Million in April 2020.

Summary of Market Transactions are shown in the following table.

*Table 18. Summary of Market Transactions for November 2019 to April 2020*

Month	Spot Market Transactions for Luzon & Visayas (GWH)	Spot Market Transactions for Luzon (GWH)	Spot Market Transactions for Visayas (GWH)	Luzon Generator Payments (Million PhP)	Visayas Generator Payments (Million PhP)
November 2019	863.30	698.10	165.30	3,633.90	1,961.10
December 2019	732.90	614.00	118.80	3,929.70	1,455.40
January 2020	1,032.80	910.80	122.00	2,603.60	873.80
February 2020	823.90	696.80	127.00	2,646.50	933.80
March 2020	653.16	506.01	147.14	1,283.82	807.48
April 2020	486.22	339.04	147.19	548.45	413.00
<b>Average</b>	<b>765.38</b>	<b>627.46</b>	<b>137.91</b>	<b>2,441.00</b>	<b>1,074.10</b>

Source: PEMC

### **Outage Capacity**

During the report period, an average of 15% of the total registered capacity equivalent to 2,932 MW was on outage.

The highest outage capacity was recorded in December 2019 due to the onslaught of Typhoon Tisoy (International Name: “Kammuri”) on 01 to 06 December, that brought several plants on outage in Luzon and Visayas reaching an outage capacity as high as 5,752 MW on 03 December 2019. This was the highest recorded outage capacity in an interval since August 2014. On top of the existing outages, the following plants went on forced outage following the landfall of the tropical cyclone on 2 to 3 December 2019: a) part of 312 MW of Makban GPP; b) part or 173 MW of Tiwi GPP; c) 140-MW Bacman GPP; d) 28-MW Caliraya HEPP; e) 1200-MW Ilijan NGPP; f) 257.3-MW Sta Rita NGPP unit 1; and g) 455-MW SBPL CFTPP. Given this condition, the Luzon and Visayas grids experienced a number of yellow and red alerts as reserve capacities continued to deplete this month. Also, SO-initiated market interventions were imposed in the Visayas region from intervals 0100H to 0900H on 25 December due to the tripping of Tabango-Kananga lines.

For the month of April 2020, about 13% of the total registered capacity or an average of 2,630 MW was on outage. Majority of the outages or 84% was classified as forced, averaging at 2,253 MW. Planned outages was kept at a low level, maintaining an average of 300 MW. Additionally, maintenance outages, averaging at 85 MW, accounted for only 3% and deactivated shutdown comprised of the remaining 2% or an average of 55 MW.

Based on the type of resource, about 74% or an average of 1,951 MW was mainly on account of the long outage period from coal plants namely: the maintenance outage of CEDC CFTPP unit 2 (82 MW); the planned outages of SLPGC CFTPP unit 2 (150 MW), and SMC CFTPP unit 3 (150 MW); forced outages of TPC Sangi CFTPP unit 1 (60 MW), SMC CFTPP unit 4 (150 MW), THVI CFTPP unit 2 (169 MW), SLPGC CFTPP unit 1 (150 MW), Masinloc CFTPP units 1, 2 and 3 (994 MW), Anda CFTPP (72 MW), CEDC CFTPP unit 1 (82 MW), SLTEC CFTPP units 1 and 2 (244 MW), Pagbilao CFTPP unit 1 (382 MW). It was also noted that for natural gas plants, which recorded an average outage at a low 76 MW, San Gabriel NGPP (420 MW) experienced short episodic forced outages from 20 to 24 April owing to gas supply restriction in the plant. Geothermal plants had consistent level of outage from March 2020's average of 292 MW to this April 2020's 301 MW while hydro plants recorded a 0.43 MW or almost no outage despite the observance of hot dry season this billing month.

Capacity Profile in the WESM for the covered period from November 2019 to January 2020 is summarized in the following table.

*Table 19. Summary of Capacity Profile for November 2019 to April 2020*

Month	Registered Capacity (MW)	Offered Capacity (MW / %)	Outage Capacity (MW / %)	Capacity Not Offered (MW / %)	Capacity of Plants on Commissioning (MW / %)	Must Run Unit Capacity (MW / %)
November 2019	20,082	12,982/ 65%	3,071/ 15%	2,810/ 14%	845/ 4%	350/ 2%
December 2019	20,182	12,367/ 61%	3,979/ 20%	2,523/ 13%	925/ 5%	350/ 2%
January 2020	20,182	13,345/ 66%	2,833/ 14%	2,761/ 14%	967/ 5%	350/ 1%
February 2020	20,162	13,162/ 65%	3,128/ 15%	2,575/ 13%	967/ 5%	350/ 2%
March 2020	20,170	14,098/ 70%	1,952/ 10%	2,797/ 14%	970/ 5%	350/ 2%
April 2020	20,192	13,386/ 66%	2,630/ 13%	2,831/ 14%	981/ 5%	350/ 2%
<b>Average</b>	<b>20,162</b>	<b>13,223/ 66%</b>	<b>2,932/ 15%</b>	<b>2,716/ 13%</b>	<b>943/ 5%</b>	<b>350/ 2%</b>

Source: PEMC

## B. Updates on WESM Governance Activities

The DOE monitors the governance of the WESM through its representation from the different technical committees which undertake regular meetings relative to WESM rules changes, operational audit, conduct of technical evaluation and studies, investigation of breach of the WESM Rules, and management of dispute resolution process. For the covered report period, the following are the activities accomplished by each WESM Governance Committees:

### 1. Market Surveillance Committee (MSC)

During the covered period, the MSC accomplished the following:

#### a. Assessment of Market Outcomes

The MSC assessed the results of the WESM operations for seven billing months or for the period 26 August to 25 March 2020, as provided under the Monthly Market Assessment Report of the MAG (MMAR-2019-9 to 12 and MMAR-2020-01 to 03).

The details of submission of these reports are contained in the following table:

*Table 20. Summary of MMAR Submissions, November 2019 to January 2020*

Billing Month	MMAR Number	PEM Board Submission Date	DOE/ERC Submission Date	Publication Date
September 2019	2019-9	07 November 2019	19 November 2019	11 November 2019
October 2019	2019-10	18 December 2019	26 December 2019	26 December 2019
November 2019	2019-11	17 January 2020	20 January 2020	17 January 2020
December 2019	2019-12	19 February 2020	27 February 2020	19 February 2020
January 2020	2020-01	23 March 2020	23 March 2020	23 March 2020
February 2020	2020-02	13 April 2020	15 April 2020	14 April 2020

Source: PEMC

For the March 2020 billing month, the MSC delved particularly on the unusual decline in the demand and price during the billing month, driven by the implementation of the Enhanced Community Quarantine caused by the Coronavirus Disease 2019 (COVID-19) beginning 15

March 2020. The MSC agreed to present the highlights of their market assessment for March 2020, for the PEM Board's information during its April Meeting.

In February 2020, the MSC noted the high incidence of congestion, thus they agreed to request from the MAG the inclusion of analysis determining the causes of congestion in the MAG's succeeding presentations to the MSC.

The MSC likewise deliberated upon the highlights of the quarterly market assessment for the period 26 June to 25 September 2019 (QMAR-2019-03) and 26 September to 25 December 2019 (MAG-QMAR-2019-04). Some highlights of the quarterly assessment were as follows:

26 September to 25 December 2019:

- An additional 190-MW was registered in the wholesale market during the period bringing up the total WESM registered capacity to 20,182 MW as of 25 December 2019;
- Tighter supply margin was observed at 1,848 MW on average, compared with 2,111 MW during the third quarter. This was driven by the 2.3 percent quarter-on-quarter decrease in effective supply, from 13,419 MW to 13,106 MW attributable to the higher level of outage;
- Slight decrease in the demand was observed, from 11,307 MW in the third quarter to 11,258 MW in the fourth quarter, following the lower temperatures and observance of holidays; and
- HHI calculation indicated a moderately concentrated market.

26 June to 25 September 2019:

- Improved supply margin at 2,111 MW, compared to 1,088 MW in the second quarter driven by the 4.8% quarter-on-quarter increase in effective supply, from 12,802 MW to 13,419 MW attributable to the resumption of operations of plants reported on outage;
- Slight decrease in demand, including reserve schedule, from 11,714 MW in the second quarter to 11,307 MW in the third quarter, following the lower temperatures brought about by the onset of the rainy season; and
- Substantial decline was noted in average market prices in the third quarter sliding down at PhP3,272/MWh, which was 55.1% lower than previous quarter's PhP7,288/MWh.

- Interesting Pricing Events

The MSC reviewed the interesting pricing events (IPEs) which occurred during the November and December 2019 billing month, at 23 and 38 trading intervals, respectively. Similar to previous months, the IPEs were mostly driven by the high forced outage capacity during the affected trading intervals.

Further, the MSC reviewed 19 interesting pricing events which occurred during the October 2019 billing month. Similar to previous months, the MSC observed that the interesting pricing events for the month of October were also driven by outages. High prices were noted in October 7, 12 and 14.

The September 2019 billing month saw an improved demand and supply situation having high number of generators that were online, which sufficiently supplied the whole system requirement. Meanwhile, electricity demand remained relatively low due to cooler weather. Consequently, the market prices for the billing month decreased further by 28.8% to PhP2,139/MWh from PhP3,004/MWh in August 2019.

b. Assessment of the Retail Market

The MSC assessed the performance of the retail market for the third and fourth quarter of billing year 2019, as provided under the Quarterly Retail Market Assessment Report covering the period 26 July to 25 September 2019 (MAG-RMAR-2019-03) and 26 September to 25 December 2019 (MAG-RMAR-2019-04).

As set forth in the Catalogue of Retail Market Monitoring Data and Indices, the Retail Market Assessment Report discusses the results of monitoring indices and provides indications on how the retail market performed during the period in review and how it fared with the previous quarter's performance.

In the 3<sup>rd</sup> Quarter of 2019, there were a total of 1,993 qualified electricity end-users already issued with the ERC's Certificate of Contestability, the bulk of which or about 68% have already registered in the market as of the billing month of September 2019. The registered Contestable Customers marked a 13% increase as the total number of registrants grew to 1,358 at the close of the third quarter. No additional Suppliers were registered during this period reflecting that as of 25 September 2019, the market recorded a total of 31 registered Retail Electricity Suppliers (RES), 14 registered Local RES (LRES), and 25 registered Supplier of Last Resort (SOLR). Also during the period in review, ten (10) switches from one Supplier to another were recorded, eight (8) of which were from Retail Electricity Supplier to Retail Electricity Supplier, while the remaining two (2) of the switches were from Retail Electricity Supplier to Local Retail Electricity Supplier.

For the 4<sup>th</sup> Quarter 2019, there were a total of 2,029 qualified electricity end-users already issued with the ERC's Certificate of Contestability. Of these, 1,408 contestable customers or about 69% have already registered in the market as of the billing month of December 2019. Quarter-on-quarter, additional 36 contestable customers were issued with ERC's Certificate of Contestability while additional 50 Contestable Customers registered in the market. Of the 102 Suppliers with license from ERC, only 70 Suppliers are registered in the retail market. No additional Suppliers were registered during the period, thus, as of 25 December 2019, the market still recorded a total of 31 registered Retail Electricity Suppliers (RES), 14 registered Local RES (LRES), and 25 registered Supplier of Last Resort (SOLR).

The RMAR for Q4 2019 was submitted to the PEM Board on 30 March 2020. The Report was also submitted to the DOE and the ERC on 31 March 2020 and was likewise published in the PEMC website.

Early on, the RMAR for the Q3 2019 was submitted to the PEM Board on 18 December 2019. The Report was also submitted to the DOE and the ERC and published in the PEMC website on 26 December 2019. The RMAR covering the 1st to 3rd quarters of 2019 was presented by the MSC to the PEM Board during its December 2019 Meeting.

c. Assessment of Over-riding Constraints

During the report period, the MSC analyzed the over-riding constraints imposed on generators for the seven (7) billing months of September 2019 to March 2020.

The MSC assessed the over-riding constraints imposed on generator-trading participants for the period 26 February to 25 March 2020. A total of 4,380 over-riding events were recorded during the period involving 26 Luzon generators and 7 Visayas generators. All events were categorized as non-security limit events. The total number of over-riding events in March 2020 was lower by 24.2% as compared with February, not only due to the zero event of security limit, but also on account of the decrease in the number of non-security limit event imposed by the System Operator (SO).

The MSC noted that majority of the non-security limit events reaching 4,118 occurrences was due to the conduct of testing and commissioning involving 20 plants

In February 2020, 5,775 over-riding events were noted involving 30 Luzon generators and 13 Visayas generators while for the January 2020, a total of 6,121 over-riding events were imposed on 29 Luzon generators and 8 Visayas generators.

The MSC noted that the imposition of over-riding events decreased by 5.7% in February due to the decline in the conduct of testing and commissioning from 5,633 incidents in January to 5,094 in the February billing month.

For the period 26 November to 25 December 2019, a total of 7,163 over-riding events were imposed on 30 Luzon generators and 13 Visayas generators. This is 9.5% higher from the 6,543 over-riding events imposed during the November 2019 billing month. This increase was mainly due to the increase in the number of non-security limit event imposed by the System Operator (SO) for: 1) testing and commissioning from previous month's 6,059 to current month's 6,672 and 2) generating unit limitation from 77 to 104.

For the November 2019 billing month, a total of 6,543 over-riding events were imposed on 21 Luzon generators and 10 Visayas generators. This is 9.3% higher than the over-riding events during the previous billing month due to the increase in the number of non-security limit events imposed by the System Operator for testing and commissioning and commercial and regulatory requirements.

For October 2019, a total of 5,268 over-riding events were imposed on 29 Luzon generators and 10 Visayas generators. The MSC noted that bulk of these over-riding events or about 5,932 were all categorized under non-security limit. Similarly, majority or 5,617 trading events were due to the conduct of testing and commissioning (T&C) procedures involving 18 power plants.

Likewise, for the billing period 26 August to 25 September 2019, a total of 5,268 over-riding events were imposed on 29 Luzon generators and 10 Visayas generators. This is lower by 23.8% from the 6,841 over-riding events imposed in the previous month, due to the decrease in the non-security limit events imposed by the NGCP-System Operator (SO).

- Deliberation on the Prolonged Testing and Commissioning (T&C) of Generator-TPs in the WESM

The MSC continued with its deliberation on the prolonged T&C of plants beyond the maximum two (2)-month period allowed under the ERC Resolution No. 16, Series of 2014<sup>4</sup>. The MSC reviewed the list of plants that were observed by the MAG to be operating on prolonged T&C. In particular, there were four (4) biomass plants, two (2) coal plants, one (1) hydro plant and seven (7) solar plants that were on T&C.

As directed by the MSC, instead of sending the MSC letter of inquiry on these plants, the MAG drafted a letter updating the IEMOP of the status of plants on prolonged T&C, and reminding the IEMOP of the provision under the *Suspension and Deregistration* in the WESM Registration Manual, to impose to TPs which failed to comply with the WESM registration requirements. Said letter was sent to the IEMOP for appropriate action.

The MSC was updated of the IEMOP's response to the MSC letter dated 01 April 2020, formalizing the procedural gaps and suggested ways forward relative to prolonged testing

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<sup>4</sup> Resolution No. 16, Series of 2014 entitled 2014 Revised Rules for the Issuance of Certificates of Compliance for Generation Companies, Qualified End-Users and Entities with Self-Generation Facilities.

and commissioning (T&C). In response to said letter, and in view of the recent direction of the PEM Board on the matter, IEMOP informed the MSC that it shall proceed with the issuance of suspension notices to trading participants that are no longer eligible to become WESM members due to non-compliance with a membership criteria or requirements under the WESM Registration Manual.

d. Continued Deliberation on the WESM Industry Code of Ethics (WICOE)

The MSC continued with its discussion on the draft WICOE. During their March Regular Meeting, the MSC reviewed various penalty provisions incorporated in the Code of Ethics of other electricity markets.

Further, the MSC reviewed, and thereafter approved the draft WICOE for submission to the PEM Board. The draft WICOE incorporated the proposed penalty clause, as well as the comments submitted by stakeholders and market participants, that were duly-considered by the MSC.

e. Request for Study from the Technical Committee

The MSC agreed to request a Study from the Technical Committee (TC) on the appropriateness of the 1.2 price trigger factor (PTF) in the application of the Price Substitution Methodology (PSM).

The above request arose following the MSC's earlier assessment on the high market prices in November 2019 at PhP40,293/MWh, PhP36,539/MWh and PhP37,707/MWh, respectively. The MSC observed that for the three (3) subject intervals, PSM was not applied even if the resulting value of the PTF is greater than 1.2. This is because there was no network congestion in the system for all the 3 intervals. Considering this observation, the MSC agreed to request from the TC a review of the appropriateness of the current PTF. The Study Request was received by the TC for consideration.

During its 16 April 2020 Meeting, the MSC discussed this request. Having considered the imminent launch of the New Market Management System (NMMS) to replace the current MMS, the MSC agreed to request the TC to focus its review on the proposal submitted by the PEMC to the ERC in 2018 on the Price Determination Methodology (PDM), which includes the proposed methodology in setting the threshold for PSM application for the enhanced WESM Design.

f. Competitiveness Study on Reserves

The MSC continued its discussion regarding the Study on the Competitiveness of the Reserve Market, as presented by the MAG. The Study aims to: a) to assess the results of the central scheduling of reserves under the current market design; and (b) to assess the competitiveness of the reserve market.

The MSC then agreed to consider the following in its review and finalization of the Study: review of the best practices in other jurisdictions, as well as coordination with the Technical Working Group (TWG) on Ancillary Services, or the Technical Committee (TC) on the simulation being done on the co-optimization of energy and reserves.

g. Rules Change Committee (RCC) request for MSC Recommendation regarding the Compliance and Penalty Provisions on the Proposed Amendments to the Registration Manual

The MSC deliberated upon the enforcement and penalty implications of the rules change proposal on the Registration Manual, as presented by the Enforcement and Compliance Office (ECO). The MSC discussed: (a) the obligations of Trading Participants, Market Operator and

System Operator under the IEMOP-proposed WESM Registration Phases, and (b) the corresponding penalty implications. The MSC then agreed that these be presented for the consideration of the RCC.

h. 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 the Nomination of Loading Level and Projected Output (NOM) for the billing month of December 2019 were deliberated upon by the MSC during its March Regular Meeting. The said compliances were contained in the Compliance Monitoring and Assessment Report (CMAR) prepared by the Enforcement and Compliance Office (ECO) for the MSC.

Following the MSC's deliberation on the CMAR, the MSC approved the issuance of eight (8) requests for investigations (RFI) covering the billing month of January 2020 and nine (9) requests for December 2019 for possible non-compliance with the RTD schedule, and the MOR.

Also, during the report period, the MSC approved the issuance of twenty seven (27) requests for investigations (RFI) for possible non-compliance with the RTD schedule, the MOR and the NOM for the billing months of September to November 2019.

Likewise, on November 2019, the MSC and the ECO discussed the historical review of all non-compliance cases, including the inventory of completed and ongoing investigations. The practices that were observed/applied by the MSC in its review of ECO investigation reports in recent years were also discussed and deliberated upon.

Also in November 2019, the MSC had a meeting with the representatives of Sunwest Water and Electric Co., Inc. (SUWECO), wherein the latter presented to the MSC non-compliance case under investigation for the period May and June 2019. SUWECO staff presented their reasons and justifications, and discussed the mitigating measures being undertaken by the company to address the issue.

i. Review of ECO Investigation Reports

During the report period, the MSC discussed the ECO Investigation Reports which were consolidated into twenty-four (24) reports involving 24 generator-TPs. The MSC reviewed the same with respect to: (a) the ECO's compliance with the procedures set forth in the Market Surveillance Committee Enforcement Manual (MSCEM) for the conduct of investigation, and (b) the validity and completeness of the data and documents upon which factual findings are based, pursuant to Section 10.7 of the MSCEM Manual.

After its deliberation on the matter, the MSC then agreed to submit the result of the MSC's review and recommendation on the ECO IRs, for the PEM Board's approval.

j. Review of ECO Recommendation on Motions for Recommendations

The MSC deliberated upon the ECO recommendation on the remaining Motion for Reconsideration for the 2014 non-compliance cases. The MSC agreed to submit its review on the MR to the PEM Board for consideration.

k. Proposed Framework on Anti-Competitive Behavior (ACB) and Proposed Terms of Reference (TOR) on the Engagement of a Third-Party Advisor on ACB.

The MSC continued with its deliberation on the proposed framework on Anti-Competitive Behavior (ACB). The framework will form part of the basis for the engagement of a third-party

international advisor on the development of monitoring indices for the monitoring of ACB in the WESM.

Upon due deliberation, the MSC approved the proposed framework, subject to some revisions in its wording. The MSC then reviewed the revised Terms of Reference (TOR) on the Engagement of a Third-Party Advisor on ACB, and thereafter approved the same, as presented.

- I. Deliberation on the Rules Change Proposal on the WESM Manual on Registration, Suspension, and De-Registration Criteria and Procedures for General Enhancements to the Application Process of New WESM Members

The MSC reviewed the rules change proposal submitted by IEMOP on the WESM Registration Manual.

Some of the highlights of the MSC deliberation were as follows: (a) the MSC disagreed with the IEMOP's proposed Backfeed Registration, having considered that there is no need for plants under construction to withdraw energy directly from the grid. The MSC opined that plants under construction should connect with the host DU instead, and (b) the MSC suggested for purposes of WESM registration, testing and commissioning to be defined and limited only to tests related to connection/synchronization to the grid.

- m. Review of the Proposed Criteria on Compliance Rating

The MSC discussed the ECO-proposed Guidelines for the Conferment of WESM Compliance Awards/Criteria, and noted the completion of the consultation conducted by ECO with stakeholders and trading participants with respect to the proposal.

Upon due deliberation, the MSC approved the ECO-proposed Compliance Rating for Generators, subject to the ECO's submission to the MSC of a simulation of the results, to verify the profile of those with the highest compliance ratings.

- n. Review of the MI Event on 24 October 2019 from 0400H to 0500H

The MSC deliberated upon and thereafter approved the draft MSC Review Report on the Market Operator (MO)-initiated Market Intervention (MI) Event covering 24 October 2019 from 0400H to 0500H.

The MSC Review Report contains the MSC's conclusions and recommendations relative to the subject MI event. The MSC noted that the MI event was due to the system stoppage of the Market Management System (MMS), and instructed that IEMOP should review its existing contract with the service provider to assure that predictive, preventive and corrective measures are in-place.

Thereafter, the MAG re-submitted a revised draft Review Report on the said MI, as declared by the IEMOP for the Luzon and Visayas regions due to the stoppage of MMS. After due deliberation, the MSC approved the revised MSC Review Report on the MO-Initiated MI Events on 24 October 2019, and directed MAG to endorse the Market Intervention incidents attributed to issues with the current MMS, to the PEM Audit Committee (PAC).

- o. Compliance Monitoring during the Covid-19 Public Health Emergency

During the MSC Special Meeting held on 22 April 2020, the MSC reviewed the DOE Memorandum dated 23 March 2020 on the subject WESM Operations under the State of Public Health Emergency, enjoining the MSC and the ECO to closely monitor the compliance



of Trading Participants. The MSC deliberated upon the impact of Covid-19 to the WESM, and to the compliance monitoring process.

Upon due deliberation, the MSC agreed to direct MAG and ECO, in coordination with the IEMOP and the National Grid Corporation of the Philippines (NGCP), to study the prolonged and substantial reduction in power demand in the market during the COVID-19 Public Health Crisis. The MSC further directed the ECO to consider, on a case-to-case basis, reasons that may be cited by a Trading Participant for non-compliance that are primarily attributable to the effects of the COVID-19 Public Health Crisis, provided, that such reasons have adversely affected the plant operations of such Trading Participant, and provided further, that compliance monitoring and evaluation shall still be undertaken by ECO in accordance with existing guidelines and procedures as set forth under the WESM Rules.

p. Review of Ongoing Policy Developments

On December 2019, the MSC was apprised of the DOE's call for comments regarding the draft Department Circular (DC), Providing Guidelines on the Planned Outage Schedules of Power Plants and Transmission Facilities, and GOMP Publication.

The MSC agreed to revisit its January 2017 letter to the DOE, outlining its recommendations on outages, and to submit this to PEMC, for consolidation with PEMC's comment on the draft DOE Circular.

In addition, on November 2019, the MSC discussed the following policy developments as presented by MAG: (1) ERC Resolution No. 07 Series of 2019 entitled "A Resolution Adopting Amendments to the Rules for the Distribution of Net Settlement Surplus", (2) ongoing ERC review processes on the following: (a) Amendments to the Pre-emptive Mitigating Measure in the WESM (Secondary Price Cap); (b) Revised Rules for the Issuance of COCs for Generation Companies and Entities with Self-Generation Facilities including Distributed Energy Resources (DERs), and (3) DOE's ongoing policy review on testing and commissioning.

The MSC agreed to submit its comments for consolidation with the PEMC comments, on the DOE's ongoing policy review on testing and commissioning.

q. Recommendations on MMS Failure

The MSC further discussed the draft position paper containing the recommendations on the issue re: failure of the Market Management System (MMS). Upon due deliberation, the MSC approved the subject draft position paper and presentation material, subject to revisions and further inputs from the MSC.

The MSC further agreed to submit this to the April PEM Board Meeting, for consideration and approval.

2. Technical Committee (TC)

During the covered period, the TC accomplished the following:

a. Study on Embedded Generation for Mindanao

In April 2020, the TC prepared the draft Market Operator (MO)- System Operator (SO)- Distribution Utilities (DU)- Embedded Generation's (EG) Coordination Protocol outline based on the inputs received from the MO-SO-DU-EG Coordination Protocol survey. The TC will finalize the protocol within 2nd Quarter of 2020.

In January 2020, the TC completed the proposed concept diagram for the interface between and among the MO, SO and the DU in light of EG's participation in the WESM. In particular, the identification of responsibilities among the MO, SO and the DU hosting the EGs was initiated based on implementations in other jurisdictions. The TC transmitted the concept diagram to concerned stakeholders to solicit inputs and suggestions.

Early on, the TC had a discussion with the ERC which was held on 13 November 2019 at the PEMC Board Room to clarify concerns as regards to asset reclassification based on ERC Resolution No. 23 Series of 2016. Based on the results of the meeting, the TC concluded that the ERC Resolution No. 23 Series of 2016 sufficiently covers all types of connections which includes embedded generation.

b. DOE Study Request on the Reclassification of Impounding Hydroelectric Power Plant

On 02 April 2020, the TC submitted to the DOE its report on the request to study the feasibility of allowing impounding hydroelectric power plants (HEPP), specifically those with contracts to provide peaking requirements, to register as non-scheduled generating units in the WESM. The TC recommended the retention of the classification of impounding HEPPs as scheduled generating plants emphasizing the following conclusions:

- 1) The impounding HEPPs registered in the market do not qualify as non-scheduled generating unit pursuant to the definitions provided in the Philippine Grid Code (PGC) and WESM Rules based on the plant's capacity;
- 2) Allowing impounding HEPPs, which were identified as pivotal suppliers, to submit projected output instead of generation offers may compromise supply security, since they will no longer be required to comply with the must-offer rule; and
- 3) The dispatch of impounding HEPPs during peak or off-peak hours, even those with contracts to provide peaking requirements, would depend on their bidding behavior.

c. RCC Call for Comments to Various Proposed Amendments

During the report period, the TC submitted to the RCC its comments to the following proposed amendments:

- 1) Guidelines Governing the Constitution of the PEM Board Committees, Issue 3.0 to Harmonize with DOE Circulars on WESM Governance;
- 2) WESM Rules and WESM Manual for the Implementation of ERC Resolution No. 07 Series of 2019 entitled A Resolution Adopting Amendments to the Rules for the Distribution of NSS;
- 3) WESM Manual on Load Forecasting Methodology for the Inclusion of the Procedures for Preparation and Updating of Nodal Load Distribution Factors; and
- 4) WESM Manual on Metering Standards and Procedure Issue 11.0 and 12.0.

d. Study on the Integration of Variable Renewable Energy (VRE) Resources and other Technologies into the WESM

As part of the TC study on the integration of VRE resources into the WESM, the TC discussed with San Miguel Corporation Global Power (SMCGP), on 11 December 2019, the opportunities and challenges regarding the utilization of Battery Energy Storage System (BESS) in the market.

Based on the discussion, SMCGP raised the following concerns on the integration of ESS with VREs in the market:

- Adjustment on the control systems should be done by the System Operator to accommodate the fast response of energy storage; and
- The Market Management System (MMS) should be able to accommodate the fast and slow response of the battery especially on the secondary reserve.

e. Recommendations on the Real-Time Dispatch Schedule Compliance Issue of TPC Sangi

As requested by the PEMC Enforcement and Compliance Office (ECO), the TC held a discussion with ECO and Toledo Power Corporation (TPC) to provide comments and recommendations as regards to the constraints that affect TPC Sangi's compliance with the market's real-time dispatch (RTD) schedules.

Based on the discussion, the TC submitted its comments and recommendations to the ECO highlighting that the frequent RTD non-compliance of TPC Sangi would have been prevented had the plant initiated the correction of its Technical Pmin on time. Also, part of their letter to the ECO are the following additional recommendations to address its concerns:

- Proceed with the disaggregation of the TPC1 units and undergo capability testing, including the test for Pmin and Pmax, to be witnessed by NGCP; and
- Submit to the ERC the Capability Test Report under oath to provide a strong justification for the changes in its COC.

### 3. Rules Change Committee (RCC)

During the covered period, the RCC completed its review and deliberation on the following proposals:

	Proposal	Description
1	Amendment to the WESM Manual on Metering Standards and Procedures to Harmonize with the Site Specific Loss Adjustment (SSLA) Procedure of Wholesale Metering Services Providers (MSP)	The proposal aims to harmonize the procedure for the calculation of the SSLA with the procedure of the Wholesale Metering Services Provider (WMSP), the National Grid Corporation of the Philippines (NGCP), in its determination of point-to-point losses in cases when the revenue meter of a grid customer is not located at its connection point.
2	Amendment to the WESM Rules and WESM Manual on Information Disclosure and Confidentiality Issue 5.0 Regarding Exceptions for the Confidentiality Undertakings for Oversight Bodies	The DOE and ERC proposed to be exempted from executing a non-disclosure agreement with the Market Operator in receiving confidential market data. This is to facilitate a more efficient provision of market data to these two oversight bodies.
3	Amendment to WESM Rules and new WESM Manual on WESM Compliance Officers' (WCO) Accreditation	The WCO Accreditation Program aims to provide competency standards for all WCOs and to ensure that the WCOs are well-informed of all market rule developments and obligations. The program's procedures and mechanisms are provided under the new WCO Accreditation Manual.
4	Amendments to the WESM Dispatch Protocol Manual (version for enhanced market design) to Enhance	Aims to improve the accounting of energy produced due to must-run unit dispatch instruction and the processing of discrepancy report

	Proposal	Description
	Procedures in Must-Run Unit Accounting	
5	Amendments to the WESM Manual on Metering Standards and Procedures (versions for the current and enhanced market design)	Aims to align with the procedures and standards under the 2016 PGC, issuances from the DOE and ERC and other international and national standards

The above proposals were submitted to the PEM Board for its approval.

The RCC also approved amendments to the RCC Internal Rules and the submission to PEM Board of the 2020 RCC Work Plan.

Further, the RCC completed its deliberation on its Proposed Amendments to the WESM Rules and Procedures for Changes to the WESM and Retail Rules and Market Manuals, Issue 3, and approved its publication for comments. The proposal intends to enhance the rules change process and incorporate policies under the DOE Circulars issued on WESM governance.

Also, the RCC welcomed three (3) new members from the Generation and Distribution sectors, namely:

1. Mark D. Habana – Generation (Vivant Corporation);
2. Carlito C. Claudio – Generation (Millennium Energy, Inc./ Panasia Energy, Inc.); and
3. Nelson M. dela Cruz – Distribution (Nueva Ecija II Electric Cooperative, Inc. – Area.

The RCC is composed of four (4) independent members and representatives from the following sectors: four (4) from the Generation Sector; three (4) from the Distribution Sector, one (1) from the Supply Sector, one (1) from the Transmission Sector/System Operator, and one (1) from the Market Operator. The RCC is chaired by Independent Member, Atty. Maila Lourdes de Castro.

#### 4. Dispute Resolution Administrator (DRA)

In accordance with its Work Plan for 2020, the DRA has started collating and updating training materials on the WESM Dispute Resolution Framework for inclusion in the PEMC Training Program and Plan. To further implement its awareness campaign for the WESM Dispute Resolution Process among Market Participants, the DRA had also updated its FAQs on WESM Dispute Management Framework which will be published in the new PEMC website and also coordinated with PI Arb for alternative methods to showcase the processes of WESM Arbitration. Coordination with various entities have also been made to consider the possibility of featuring WESM Arbitration in upcoming 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/Arbitrators. As an ongoing activity, the DRA has corresponded with experts and possible speakers in 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. Capability in conducting the seminars and trainings through live streaming or other format digital or otherwise was likewise studied. On the administrative side, the DRA has improved its records management by updating its templates, boiler plates, pro-forma template, forms, etc. with serial numbers. Finally, as an ongoing activity, the DRA has worked on its proposed further amendments to the WESM Dispute Resolution Manual regarding Dispute Resolution for the Retail Market, among others.

In addition, during the covered period, the DRA completed its discussion on the following matters:

- List and schedule of 2020 Emergency Arbitrators for 2020, based on the WESM Accredited Mediators and Arbitrators; and
- Renewable Energy Market (REM) Dispute Resolution Market Manual, recommended to be commented on by the Philippine Institute of Arbitrators.

#### 5. PEM Audit Committee (PAC)

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

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

During the covered period, the PAC oversaw the activities relating to the Market Readiness Assessment 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.

Based on the discussion and updates during its meeting on 28 April 2020, the PEMC President, as the MRSC chairperson, reported during the PEM Board meeting on 29 April 2020 that the Go-live date for the commercial operations of the enhanced WESM design will be further delayed, due to limitations caused by the Enhanced Community Quarantine affecting some of the critical targets and schedules in relation to the launch of enhanced WESM design. Likewise, the PEM Board was informed that the MRSC will decide on the new Go-live date in its May 2020 meeting and will provide recommendations to the PEM Board thereafter.

In compliance with the directive of the DOE in its letter dated 26 March 2020, PEMC will likewise send an update/report to DOE providing further details on the status of Go-live conditions including the deferral of the Go-live date.

- b. Audit of the New Market Management System (NMMS) and Central Registration and Settlement System (CRSS)

PAC has also continued its supervision on the NMMS and CRSS certification audit and the re-assessment of the load forecasts (WAP and DAP) for Luzon and Visayas being performed by Intelligent Energy Systems (IES).

For the Market Systems enhancements, the IES submitted five (5) out of six (6) reports and software certificates, the status of which are shown below:

- Report 2: CRSS Modules and Enhancements – approved by PAC on 17 January 2020;
- Report 3: Audit of Interim Metering Macro Tools and the Net Settlement Surplus Tool – approved by PAC on 17 January 2020;

- Report 4: Audit of Separate Settlements for Mindanao and Settlement Statements – final report and software certificate for PAC approval;
- Report 5: Trading Operations and Central Management System (TOCMS)– draft report and software certificate for PAC approval; and
- Report 6: Change Management – approved by PAC on 16 April 2020.

On the other hand, audit is still ongoing for the NMMS enhancements and fixes. This will cover the last remaining Report 1: Audit of NMMS Enhancements and Fixes.

- c. Re-assessment of Luzon and Visayas Load forecasts (WAP and DAP) and Assessment of Mindanao Load Forecasts (WAP, DAP, HAP, and RTD)

The PAC also continued to supervise the additional testing required by the ERC to re-assess the WAP and DAP forecast for Luzon and Visayas and WAP, DAP, HAP and RTD for Mindanao.

The PAC approved the report for the re-assessment of the Luzon and Visayas load forecasts on 04 March 2020. Said report was submitted to the ERC as part of the documents required in its Order dated 10 March 2020. On the other hand, the assessment for Mindanao load forecast is still ongoing.

- d. Engagement of a Third Party Auditor for the joint conduct of the 7th Market Operations Audit and 4th Review of Metering Installations and Arrangements

Sections 3.1 and 11.2.2 of the PEM Audit Manual states that the PAC has to conduct audit through the appointment of an auditor, and to coordinate and supervise effective and independent audits of the operation of the spot market and of the Market Operator. PAC is likewise mandated to review the security arrangements and requirements of metering installations, in order to reinforce Trading Participants' confidence in the transparency and adequacy of the operation of the WESM. On November 2019, the PAC has secured the PEM Board's approval of the following:

- Proposed Joint Conduct of the 7th Market Operations Audit and 4th Review of Metering Installations and Arrangements;
- Terms of Reference;
- Engagement of a Third Party Auditor through a Competitive Selection Process; and
- Creation of Technical Working Group.

For the Joint Conduct of the 7th Market Operations Audit and 4th Review of Metering Installations and Arrangements, the following activities have been completed:

*Table 21. Activities for the Selection of the Third Party Auditor*

Activity	Date of Conduct
Issuance of Notice of Award	27 March 2020
Board Approval of the negotiated contract amount	25 Mar 2020
Negotiation with the Highest Rated Responsive Bidder	20 and 24 Mar 2020
Communication with the Bidders on the Result of the Bidding Process	02 March 2020
Presentation to PEM Board on the Result of Bidding Process	26 February 2020
Post-Qualification	19 February 2020
PAC approval of Technical and Financial Evaluation Result	14 February 2020
Opening of Second Bid Envelope (Financial Proposal)	13 February 2020
PAC approval of Technical Evaluation Result	12 February 2020
Evaluation of Technical Proposal	10-12 February 2020

Activity	Date of Conduct
Opening of First Bid Envelope (Technical Proposal)	07 February 2020
Receipt of Proposals	06 February 2020
Pre-Bid Conference/ Technical Conference	20 January 2020
Issuance of the Request for Proposal to Shortlisted Eligible Bidders	07 January 2020
Finalization of Request for Proposal document	16 December 2019
Shortlisting of Eligible Bidders	06 December 2019
Receipt of Expression of Interest (EOI)	28 November 2019
Publication of Request for Expression of Interest (REOI)	08 November 2019

Source: PEMC

In April 2020, the Audit Services Contract for the Joint Conduct of the 7th Market Operations Audit and 4th Review of Metering Installations and Arrangements has been finalized considering the changes discussed and agreed upon during the negotiation meetings and from succeeding clarifications. Consequently, the same was executed by both parties in separate counterparts. With this, RSM Australia Pty Ltd with support from TechSafe Australia, Market Reform, and Reyes Tacandong & Co. are set to proceed with the inception activities upon issuance of Notice to Proceed.

e. MO Performance Monitoring based on DOE-approved MOPS

The PAC presented during the PEM Board meeting on 26 February 2020 the results of the monitoring and assessment of the MO performance for the period 26 September to 25 December 2019 (4Q 2019).

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

The PAC was also tasked to review the Market Operator Performance Standards (MOPS) for the Enhanced WESM Operations. During its meeting on January 2020, the PAC discussed and finalized the proposed new set of Market Operator (MO) performance measures. The proposed MO performance measures were endorsed to IEMOP on 10 February 2020. Then, the PAC presented the same to IEMOP to discuss and solicit their comments during the PAC regular meeting on 23 March 2020.

## C. Market Development Updates

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

In line with the DOE's regular monitoring of the preparation for WESM Mindanao commercial operations, the 21st WESM Mindanao Readiness Assessment Meeting (WMRA) was held last 18 March 2020 in Davao City. The conduct of WMRA meetings aims to evaluate readiness of market participants for WESM Mindanao based on updates presented by various energy agencies tasked to undertake preparatory activities.

Likewise, the Parallel Operations Program continued on the month of March 2020. However, it should be noted that activities were observed to have slowed down due to the impact of the ECQ imposed brought about by the COVID-19 pandemic.

All Mindanao Stakeholders, particularly PEMC, IEMOP (as Market Operator), NGCP (as System Operator and Metering Service Provider), Generation Companies, Private Distribution Utilities, Electric Cooperatives, and Directly Connected Customers are still being assessed for their readiness to implement the WESM in Mindanao.

Based on the report from the market operator, as of 25 March 2020, 83 out of the expected 88 participants (94.3%) have participated in registering for WESM Mindanao. Furthermore, the following table shows the breakdown of the WESM registration status in Mindanao.

*Table 22. WESM Registration Status in Mindanao, April 2020*

Membership Type	Expected	No application submitted	On-going registration	Registered	% Completion of Facility Requirements
Grid Connected Generator	15		2	13	94%
Embedded Generator	28		26	2	58%
Electric Cooperative	28	1	27		89%
Private Distribution Utility	4		4		100%
Directly Connected Customer	13	4	8	1	45%
<b>Total Participants</b>	<b>88</b>	<b>5</b>	<b>67</b>	<b>16</b>	

Source: PEMC

- The thirteen (13) grid-connected Generators registered as WESM Members are:
  - a. Power Sector Assets and Liabilities Management (PSALM) Corporation;
  - b. GN Power Kauswagan;
  - c. Therma South, Inc. (TSI);
  - d. Alterpower Digos Solar, Inc. (APDIGOS);
  - e. Hedcor Tudaya, Inc. (HTI2);
  - f. Hedcor Bukidnon, Inc. (HEDBUK);
  - g. EEI Power Corporation (EEIPC);
  - h. Asian Greenenergy Corp. (AGECO);
  - i. Lamsan Power Corporation (LAMSAN);
  - j. Therma Marine, Inc (TMI);
  - k. San Miguel Consolidated Power Corporation (SMCPC);
  - l. Western Mindanao Power Corporation (WMPC); and
  - m. Mapalad Power Corporation (MPC).
  
- EUROHYDRO and Astronergy Development Gensan Inc. are the two (2) embedded generators now registered in the WESM.
  
- There are four (4) companies that were able to submit their complete requirements. However, there are still corrections necessary for them to be fully registered as WESM Members. These participants are namely:
  - a. FDC Misamis Power Corporation;
  - b. Nickel Asia Corporation Surigao (NACSUR);
  - c. Peak Power Energy Inc. (PPEI); and
  - d. SIBULAN.
  
- There are five (5) participants that should register (mandatory) in the WESM but have yet to file their applications. These participants are:
  - a. PNOG Exploration Corporation;
  - b. BUSCO Sugar Milling Company;
  - c. MENZI Agricultural Corporation;
  - d. Mindanao State University; and
  - e. Lanao del Sur Electric Cooperative, Inc.



For the facility registration, IEMOP has now evaluated a total of 165 facilities that need to be registered in the WESM. The details of these facilities' registration status are as follows.

*Table 23. Facility Registration Status, April 2020*

Status	Grid-Connected Generators	Embedded Generators	Customers
No Submission of Facility Requirements	-	-	8
Submitted Partial Requirements	13	26	5
Approved TP but with Partial Requirements	9	-	44
Submitted Complete Requirements for Final Assessment	6	5	31
Submitted Complete Requirements & Approved	8	4	28
<b>Total Expected Facilities</b>	<b>45</b>	<b>32</b>	<b>88</b>

*Source: PEMC*

With regard to the approval of the Price Determination Methodology (PDM) for the enhanced WESM design, the last evidentiary hearing was conducted by the ERC on 04-05 December 2019, which focused on the discussion of the audit results of the remaining components of the New Market Management System (NMMS), specifically the Compliance Monitoring and Load Forecasting. The next evidentiary hearing is yet to be scheduled by the ERC.

#### Enhanced WESM Design Operation (EWDO)

On 11 December 2019, PEMC sent a letter to the DOE stating the reasons for sliding the implementation of EWDO in Luzon and Visayas from 26 January 2020 to 26 June 2020. The said postponement were due to the manifestation of the following unresolved issues: a) audit of NMMS enhancements/fixes, and Central Registration and Settlement System (CRSS) modules/enhancements; b) National Grid Corporation of the Philippines – System Operator (NGCP-SO) security assessment; c) approval of the Price Determination Methodology (PDM) by the Energy Regulatory Commission (ERC); and d) approval of proposed amendments to Market Rules and Manuals by the DOE.

The DOE called for the 1<sup>st</sup> Enhanced WESM Design Readiness Assessment Meeting for Luzon and Visayas on 05 March 2020 attended by the representatives from PEMC and IEMOP. The following matters were discussed/agreed during the said meeting:

- On the additional requirements requested by ERC for Luzon and Visayas, the results are all ready for submission to ERC on 09 March 2020. However, the results for Mindanao are still being processed;
- IEMOP filings of necessary pleadings are targeted by the end of March 2020;
- Some Market Manuals still require revision and approval by the RCC and DOE and targeted to be completed on April 2020; and
- The DOE also noted that the ERC requested supplemental audits of the DAP and Week-Ahead Projection (WAP) for Luzon and Visayas (26 Oct 2019– 25 Jan 2020).

## D. Retail Competition and Open Access (RCOA)

The implementation of Enhanced Community Quarantine (ECQ) in the Philippines, commencing on March 17, 2020 until April 12, 2020 but was extended to April 30, 2020 affected the performance of the retail market. As of April 2020, the total RCOA prospective participants has been static as there was no insignificant increase recorded during the ECQ period. The total Contestable Customer (CCs) comprised 93% of the total RCOA Participants while the number of Suppliers made up 3% of the total. Within the observed period, total number of prospective CCs remain the same while one (1) Supplier registered.

Actual participation in the RCOA as reflected in the list of registered participants from the Central Registration Body (CRB), increased by 1% from 1,532 registered participants in pre-ECQ as compared to 1,543 during-ECQ. As of April 2020, the total registered participants are composed of 92% Contestable Customers, 3% Suppliers, 2% SOLR and about 3% RMSP.

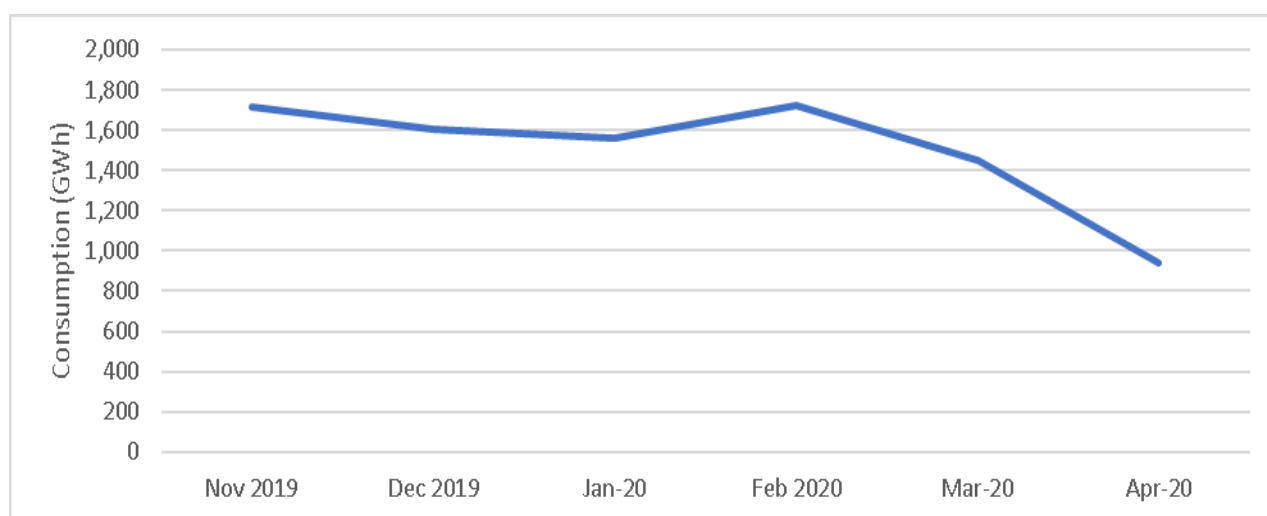
Table 24. Summary of RCOA Registration

Membership Category		Prospective				Registered			
		Nov 2019	Feb 2020	Apr 2020	Feb 2020 vs. April 2020	Nov 2019	Feb 2020	Apr 2020	Feb 2020 vs. April 2020
Contestable Customers	D ≥ 1MW	1,400	1,435	1,434	0%	1,076	1,088	1,087	0%
	750kW ≥ D > 1MW	605	618	619	0%	321	321	330	3%
	Total	2,005	2,053	2,053	0%	1,397	1,409	1,450	1%
Suppliers	RES	32	35	37	6%	31	32	33	3%
	LRES	25	25	25	0%	14	14	14	0%
	Total	57	60	62	3%	44	46	47	2%
SOLR		47	47	47	0%	25	25	25	0%
RMSP		52	52	54	4%	52	52	54	4%
Grand Total		2,114	2,212	2,216	0%	1,518	1,532	1,543	1%

Source: ERC, PEMC

There was a huge a decrease in the CC's energy consumption from November 2019 to January 2020. Then, a sudden increase was recorded for the month of February. Decreased in energy consumption has been observed in Contestable customers during the implementation of ECQ in the middle of March and month of April 2020, as shown in the figure below; given the situation that some, if not most, commercial, and industrial establishments (except for those delivering essential services) were ordered to temporarily close during the implementation of ECQ.

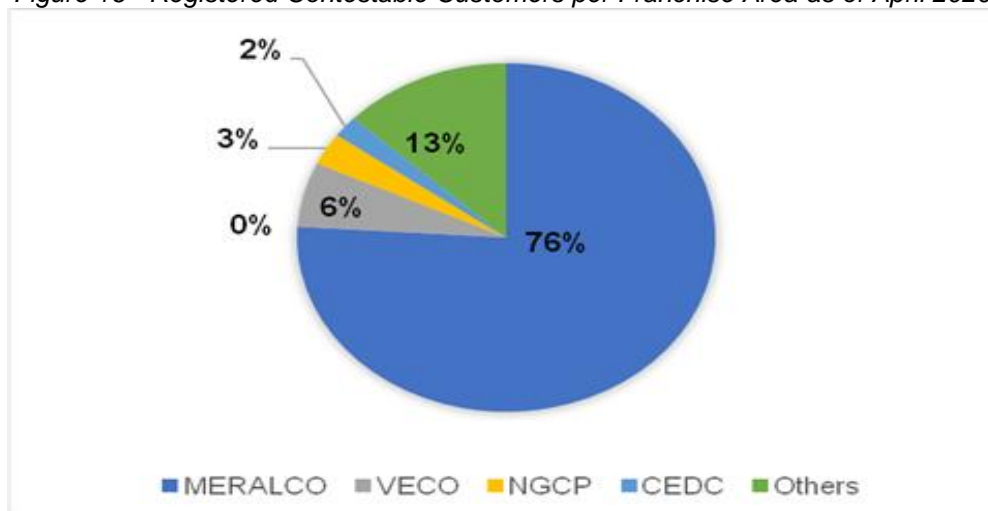
Figure 15 – Total Energy Consumption of Contestable customers from January to April 2020



Source: PEMC

Figure below illustrates that, 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 3% from the Directly Connected Contestable Customers (DCCC). The Clark Electric Distribution Corporation (CEDC) has 2% as well, and the remaining 13% were distributed among the 46 other franchises.

Figure 16 - Registered Contestable Customers per Franchise Area as of April 2020



Source: PEMC

Of the 45 registered Suppliers, 32 are currently transacting with CCs, which include the four biggest group of companies affiliated with more than one RES or Local RES. This accounts to 71% of the total registered suppliers.

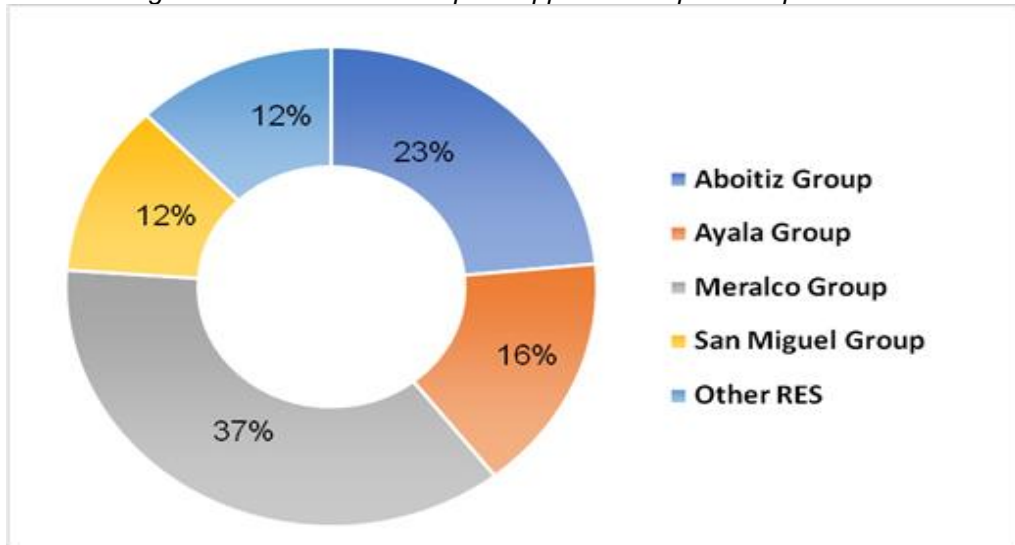
Table 25. List of Suppliers with Contestable Customers

Supplier Group	Number of CCs
<b>Aboitiz Group</b>	
Aboitiz Energy Solutions, Inc.	203
AdventEnergy, Inc.	61
SN Aboitiz Power – RES Inc.	32
San Fernando Light & Power	1
PRISM Energy, Inc.	41
Mazzaraty Energy Corporation	2
Visayas Electric Co.	-
<b>Ayala Group</b>	
Econzone Power Management, Inc.	40
DirectPower Management, Inc.	46
AC Energy, Inc.	98
AC Energy Phils., Corp. (formerly Phinma)	47
<b>San Miguel Group</b>	
San Miguel Electric Corp.	77
SMC Consolidated Power Corp.	85
Masinloc Power Partners Co., Ltd.	1
<b>MERALCO Group</b>	
Manila Electric Co. (MPower)	468
Vantage Energy Solution and Management, Inc.	51
Clark Electric Distribution Corporation	11
MeridianX Inc.	1
<b>Others</b>	
First Gen Energy Solutions	7
Global Energy Supply Corp.	20
GNPower Ltd. Co.	4
TEAM (Phils.) Energy Corp.	19
Manta Energy, Inc.	2
KEPCO SPC Power Corporation	5
Premier Energy Resource Corp.	12
FDC Retail Electricity Sales Corporation	17
Kratos RES Inc.	28
Bac-Man Geothermal, Inc.	45

Citicores Energy Solutions	6
Corenergy, Inc.	2
Anda Power Corporation	4
SEM-Calaca RES Corporation	6
Batangas II Electric Cooperative, Inc. – Local RES	1

MERALCO group has the most number of CCs with 37% of the total share as of April 2020. Consolidated number of CCs for the Aboitiz group ranked second with 23% and followed by the Ayala Group with 16%. San Miguel Group garnered 12% as well as the remaining 12% were accounted to other suppliers.

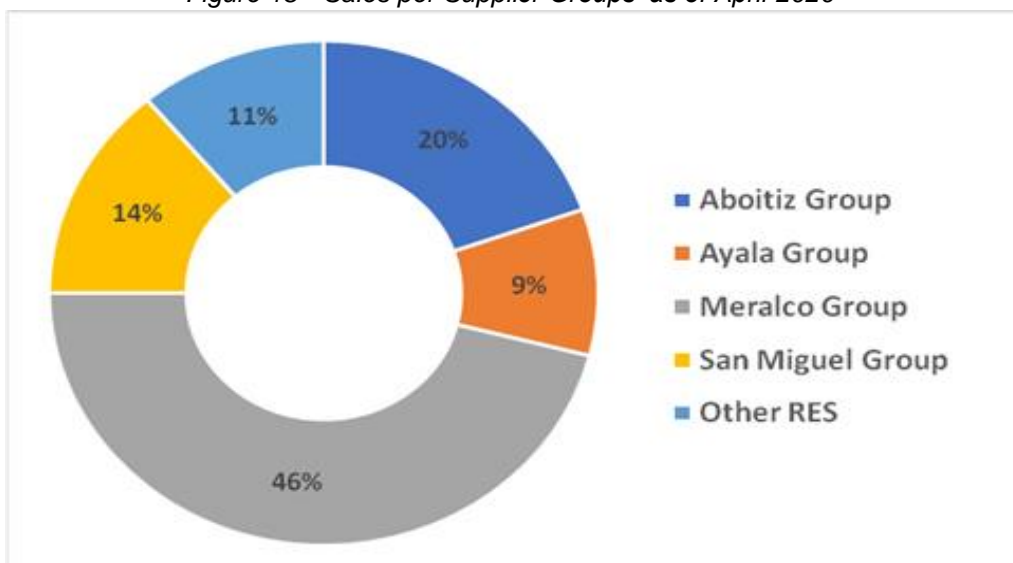
Figure 17 - Number of CCs per Suppliers Group as of April 2020



Source: ERC, PEMC

Similarly, MERALCO group has the largest share of energy sales with 46% as of April 2020. Aboitiz and San Miguel group has 20% and 14% energy shares, respectively. Ayala group has 9% of the total energy sales from CCs while the other supplier combined for the remaining 11%.

Figure 18 - Sales per Supplier Groups' as of April 2020



Source: PEMC

The average metered quantity from November 2019 to April 2020 is 1,486 GWh. The average monthly metered quantities during the ECQ period was recorded at 1,176 GWh of which 94.18% of contracted energy was accounted through Bilateral Contracts and 5.82% was transacted through the spot market.

There were 97 CCs switching from November 2019 to April 2020. Among these, 89 out of 97 CCs (92%) can be found in Luzon. The highest number of customers switching were recorded in the month of March 2020. Interestingly, there were six (6) instances of customer switching during the ECQ period in April 2020.

Following the promulgation of Department Circular No. DC2019-07-0011 entitled “*Amending Various Issuances on the implementation of RCOA*”, which provides for the voluntary registration of the CCs in the WESM as Trading Participants and designating the IMO as the Central Registration Body, the DOE reviewed the proposed amendments to the Retail Rules and Manuals for the switching process. The proposal was delivered thru the WESM – Rules Change Committee and submitted by the PEM Board to the DOE. It aimed to implement the Department Circulars DC2017-12-0013 and DC2019-07-0011 by reducing barriers to entry of CCs and shortening the period of switching process to ensure the entry of CCs to the Retail Competition and facilitate the transistion of retail market on the ultimate goal of lowering the threshold down to the household level.

## 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:

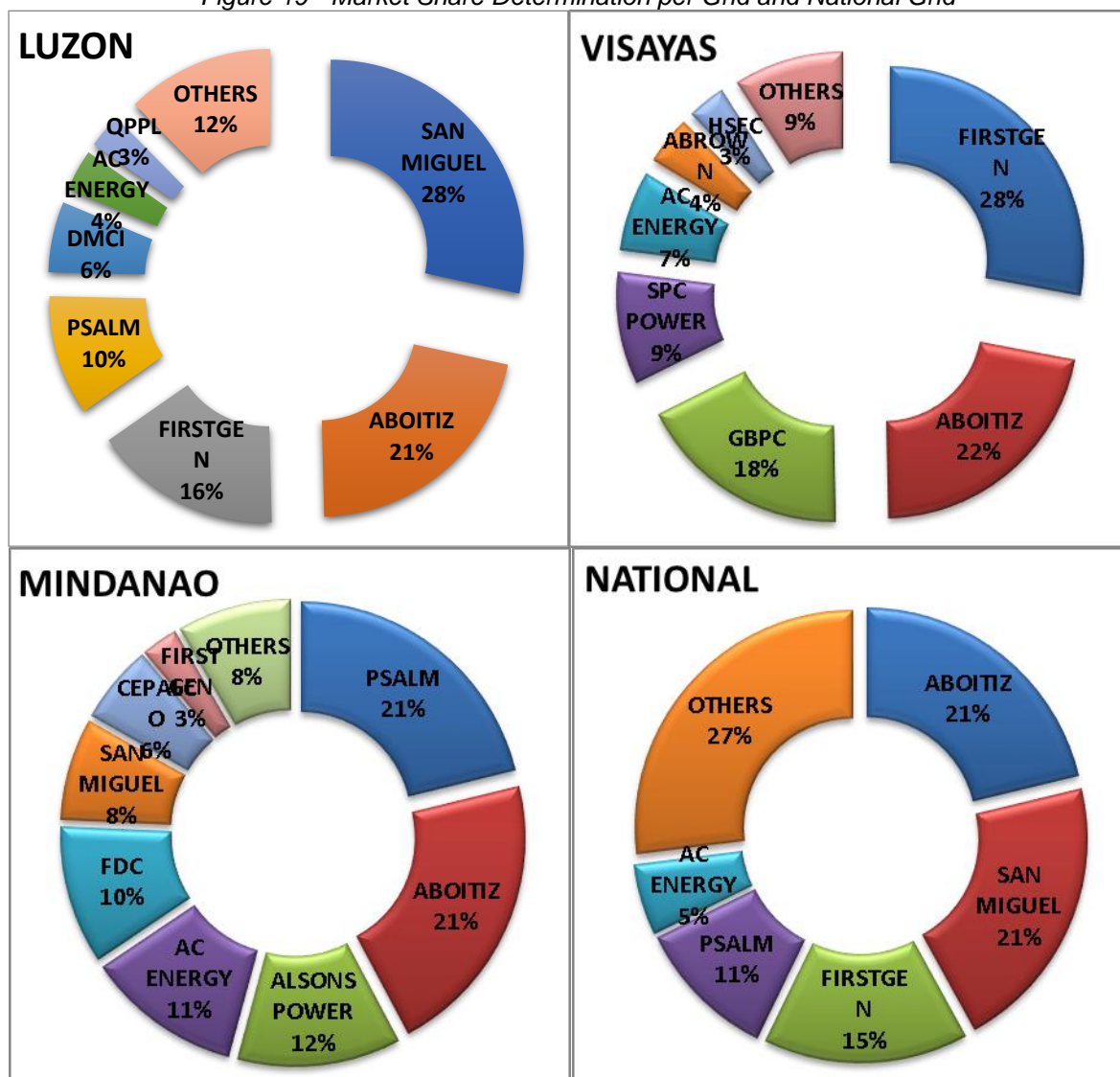
Table 26. Market Share Determination per Grid and National Grid

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 19 - Market Share Determination per Grid and National Grid



Source: ERC Resolution No. 02, Series of 2020

In Luzon, the San Miguel Power Corporation with 4,556.0 MW total installed generating capacity is on the 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. Other generation company that on the top of the list is the FirstGen 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<sup>5</sup> 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 considered to be 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.

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 27. HHI Computation Luzon

<b>Luzon</b>				
<b>Ranking</b>	<b>Market Players</b>	<b>Installed Generating Capacity</b>	<b>Market Share</b>	<b>% Share (squared)</b>
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
				<b>1786</b>

Source: ERC Resolution No. 02, Series of 2020

Table 28. HHI Computation Visayas

<b>Visayas HHI</b>				
<b>Ranking</b>	<b>Market Players</b>	<b>Installed Generating Capacity</b>	<b>Market Share</b>	<b>% Share (squared)</b>
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
				<b>1828</b>

Source: ERC Resolution No. 02, Series of 2020

<sup>5</sup> <https://www.investopedia.com/terms/h/hhi.asp>

Table 29. HHI Computation Mindanao

<b>Mindanao HHI</b>				
<b>Ranking</b>	<b>Market Players</b>	<b>Installed Generating Capacity</b>	<b>Market Share</b>	<b>% Share (squared)</b>
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		<b>1420</b>

Source: ERC Resolution No. 02, Series of 2020

Table 30. HHI Computation National

<b>National</b>				
<b>Ranking</b>	<b>Market Players</b>	<b>Installed Generating Capacity</b>	<b>Market Share</b>	<b>% Share (squared)</b>
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
				<b>1982</b>

Source: ERC Resolution No. 02, Series of 2020



## VI. POWER SUPPLY SECURITY AND RELIABILITY

### A. Peak Demand

The country's total peak demand<sup>6</sup> in 2019 was recorded at 15,581 MW, which is 799 MW or 5.4% higher than the 14,782 MW in 2018. As recorded by the System Operator, the Luzon grid contributed 11,344 MW or 72.8% of the total demand while Visayas and Mindanao contributed a share of 14.3% (2,224 MW) and 12.9% (2,013 MW), respectively. With reference to year 2018, the peak demand of Luzon increased by 468 MW or 4.3% while Visayas and Mindanao grew by 8.3% and 8.6%, respectively.

### B. Electricity Sales And Consumption

Table 31. 2019 and 2018 Comparative Electricity Sales and Consumption of Distribution Utilities, Philippines (in GWh)

Sales by Sector	2019		2018		Difference	
	GWh	% Share	GWh	% Share	GWh	% Growth
Residential	30,552	34.23%	28,261	33.66%	2,291	8.11%
Commercial	25,476	28.55%	24,016	28.61%	1,460	6.08%
Industrial	24,433	27.38%	23,369	27.84%	1,063	4.55%
Others	2,054	2.30%	1,876	2.23%	178	9.49%
<b>Total Sales</b>	<b>82,514</b>	<b>92.46%</b>	<b>77,522</b>	<b>92.34%</b>	<b>4,992</b>	<b>6.44%</b>
Own-Use	129	0.14%	118	0.14%	11	9.08%
System Loss	6,598	7.39%	6,313	7.52%	285	4.52%
<b>Total Consumption</b>	<b>89,242</b>	<b>100%</b>	<b>83,953</b>	<b>100%</b>	<b>5,288</b>	<b>6.30%</b>

Source: DOE

In 2019, the total electricity sales and consumption in the country increased by 6.3% from 99,765 GWh in 2018 to 106,041 GWh in 2019. Out of the total sales, 59,301 GWh or 55.9% was contributed by PIOUs, while 23,213 GWh or 21.9% was from the ECs' contributions. Non-utilities and Other Services, which refer to the energy delivered to other generators were 4,036 GWh (3.8%) and 568 GWh (0.5%), respectively. Total sales accounted to 87,118 GWh, corresponding to 82.2% share to total consumption increased by 5.4% from 82,617 GWh in 2018.

Out of all the sectors, the Industrial sector took a rapid downswing in its sales from 7.9% in 2018 down to only 2.2% in 2019. The decline can be attributed to the slowdown in the manufacturing sector including the slowing down in investment growth due to reduction in public spending and weaker global economy. Likewise, the decline can be due to the reduction in public construction at the start of 2019 as a result of the delayed approval of the Administration's 2019 budget and the 45-day public works ban due to the 2019 National and Local Elections on 13 May 2019.

On the other hand, the growth rate of the Residential and Commercial sectors remained persistent as the consumption increased by 8.1% and 6.1%, respectively, against the previous year's growth rate of 5.5% for both sectors due to warmer temperature during the summer months and election-related activities.

"Others", referring to public buildings, streetlights, irrigation, agriculture, and "others not elsewhere classified", continued to post a modest growth rate of 5.2% from 2,753 GWh in 2018 to 2,897 GWh in 2019.

<sup>6</sup> Total non-coincidental peak demand of Luzon, Visayas and Mindanao grids.

While, this year, “Losses” from the generator, transmission, and distribution accounted for 9,994 GWh, the largest growth by sector with a 988 GWh or 11% increase from 2018. The utilities’ own-use for office and station use of the power plants, also grew significantly by 9.7% or 8,929 GWh from a previous diminution of 2.1% between 2018 and 2017 due to the testing and commissioning of various power plants in the country with total capacities of 2,002 MW (Luzon -1,035 MW, Visayas – 371 MW and Mindanao – 596 MW).

### C. Supply

Table 32. 2019 Total Installed and Dependable Capacity per Technology, Philippines (in MW)

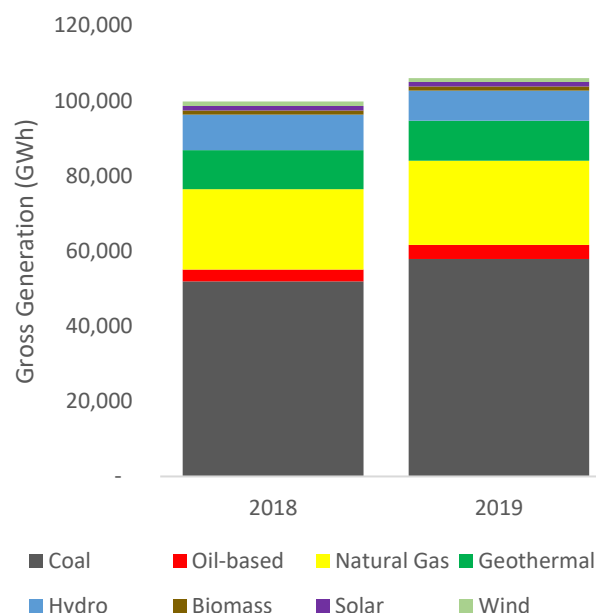
Fuel Type	Installed		Dependable	
	2018	2019	2018	2019
<b>Coal</b>	<b>8,844</b>	<b>10,417</b>	<b>8,368</b>	<b>9,743</b>
<b>Oil Based</b>	<b>4,292</b>	<b>4,262</b>	<b>2,995</b>	<b>3,015</b>
<b>Natural Gas</b>	<b>3,453</b>	<b>3,453</b>	<b>3,286</b>	<b>3,286</b>
<b>Renewable Energy</b>	<b>7,227</b>	<b>7,399</b>	<b>6,592</b>	<b>6,691</b>
<i>Geothermal</i>	<i>1,944</i>	<i>1,928</i>	<i>1,770</i>	<i>1,792</i>
<i>Hydro</i>	<i>3,701</i>	<i>3,760</i>	<i>3,473</i>	<i>3,508</i>
<i>Biomass</i>	<i>258</i>	<i>363</i>	<i>182</i>	<i>227</i>
<i>Solar</i>	<i>896</i>	<i>921</i>	<i>740</i>	<i>737</i>
<i>Wind</i>	<i>427</i>	<i>427</i>	<i>427</i>	<i>427</i>
<b>TOTAL</b>	<b>23,815</b>	<b>25,531</b>	<b>21,241</b>	<b>22,736</b>

Source: DOE

The total power supply, in terms of installed capacity, grew by 7.2% from 23,815 MW in 2018 to 25,531 MW in 2019. A total of 1,697 MW new capacities were added to the country’s supply in 2019 which include coal-fired (1559 MW), oil-based (6 MW), hydropower (31 MW), biomass (52 MW), and solar (25 MW) power plants. In terms of share by grid, Luzon contributed additional capacity of 700 MW or 41.8% of the newly installed capacities while Visayas added 371 MW or 22.2% and Mindanao with 602 MW or 36.0%.

### D. Generation

The 2019 gross generation of the country increased to 106,041 GWh registering a growth of 6.3% from the previous year. Luzon grid, being the economic center of the country, contributed the majority of generation at 71.8%. While Visayas and Mindanao grids recorded 15.1% and 13.0% share, respectively. Coal continuously dominated the power generation mix for 2019 by increasing its share from 52.1% in 2018 to 54.6%. The further increase in coal generation was attributed to the entry of new coal-fired power plants across the country. Natural gas contributed 21.1% while oil-based plants registered the least contribution in the power mix at 3.5%. With the domination of fossil fuels in the mix, renewable energy technologies decreased its total generation share to 20.8%. Additional reasons for the decrease of RE generation can be attributed to the low number of newly operational RE power projects, transmission line congestions, dispatch issues in some regions and the limited penetration of variable RE to the mix.



## E. Power Projects

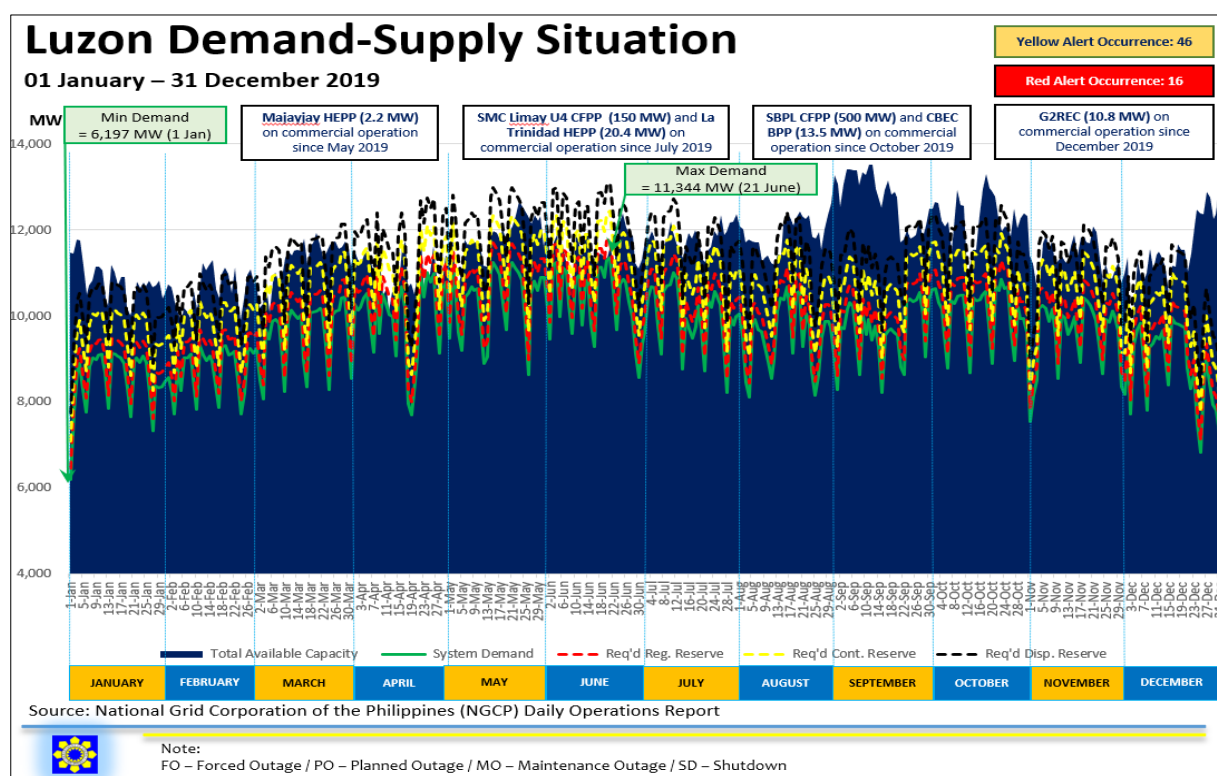
Capacities from committed power projects reached 5,767 MW by the end of 2019. About 71.5% of these capacities are from coal-fired power projects that will provide baseload capacity in the system in the coming years.

The indicative power projects capacity amounted to 42,815 MW by the end of 2019. Coal-fired power projects contributed 24.4%, while 50.1% is expected to come from renewable energy technologies.

Table 33. Committed and Indicative Capacities, Philippines, as of 31 December 2019 (in MW)

Fuel Type	Committed			Indicative		
	No. of Proponents	Capacity (MW)	% Share	No. of Proponents	Capacity (MW)	% Share
<b>Coal</b>	<b>7</b>	<b>4,126.0</b>	<b>71.5</b>	<b>13</b>	<b>10,463.0</b>	<b>24.4</b>
<b>Oil-Based</b>	<b>3</b>	<b>414.6</b>	<b>7.2</b>	<b>9</b>	<b>2,146.3</b>	<b>5.0</b>
<b>Natural Gas</b>	<b>1</b>	<b>650.0</b>	<b>11.3</b>	<b>9</b>	<b>8,758.0</b>	<b>20.5</b>
<b>Renewable Energy (RE)</b>	<b>20</b>	<b>576.7</b>	<b>10.0</b>	<b>178</b>	<b>21,447.2</b>	<b>50.1</b>
<i>Geothermal</i>	1	50.0	0.9	5	496.0	1.2
<i>Hydro</i>	2	23.1	0.4	68	4,816.6	11.2
<i>Biomass</i>	14	263.6	4.6	20	280.4	0.7
<i>Solar</i>	3	240.0	4.2	67	12,097.8	28.3
<i>Wind</i>	0	-	-	18	3,756.4	8.8
<b>TOTAL</b>	<b>31</b>	<b>5,767.3</b>	<b>100.0</b>	<b>209</b>	<b>42,814.5</b>	<b>100.0</b>
<b>BESS</b>	<b>1</b>	<b>49</b>		<b>15</b>	<b>1,863.5</b>	

Source: DOE

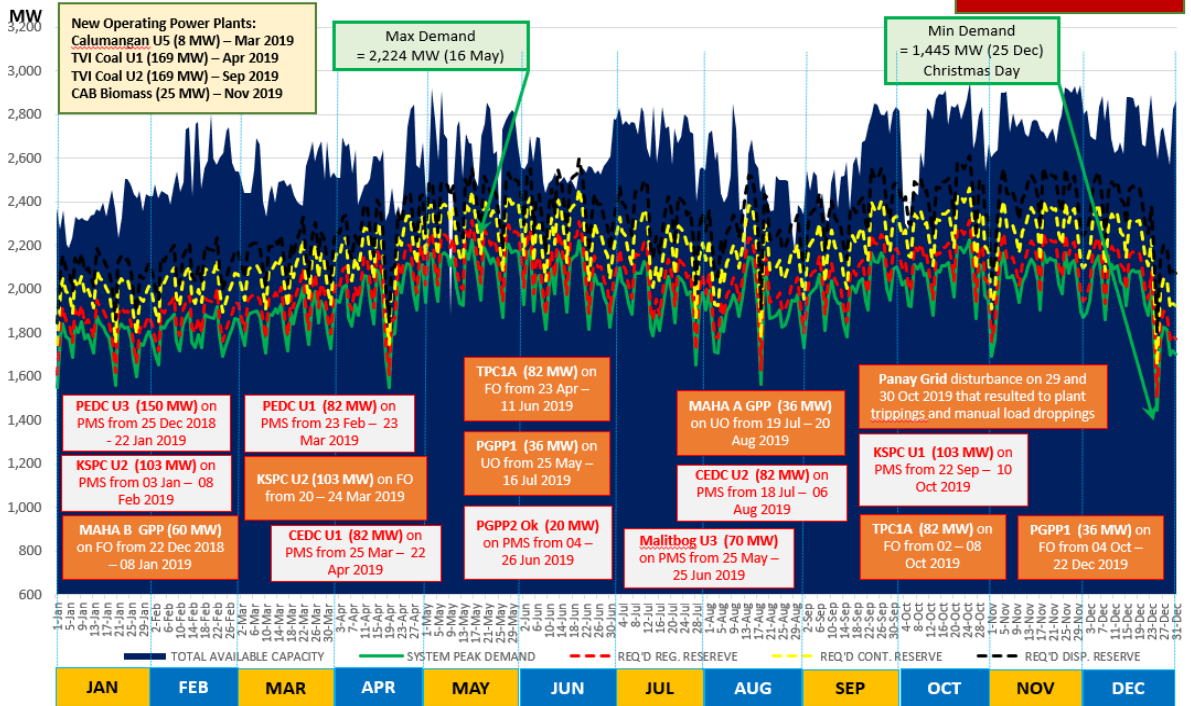


# Visayas Demand-Supply Situation

01 January – 31 December 2019

Yellow Alert Occurrences: 186

Red Alert Occurrences: 10



Source: National Grid Corporation of the Philippines (NGCP) Daily Operations Reports and Significant Incident Reports



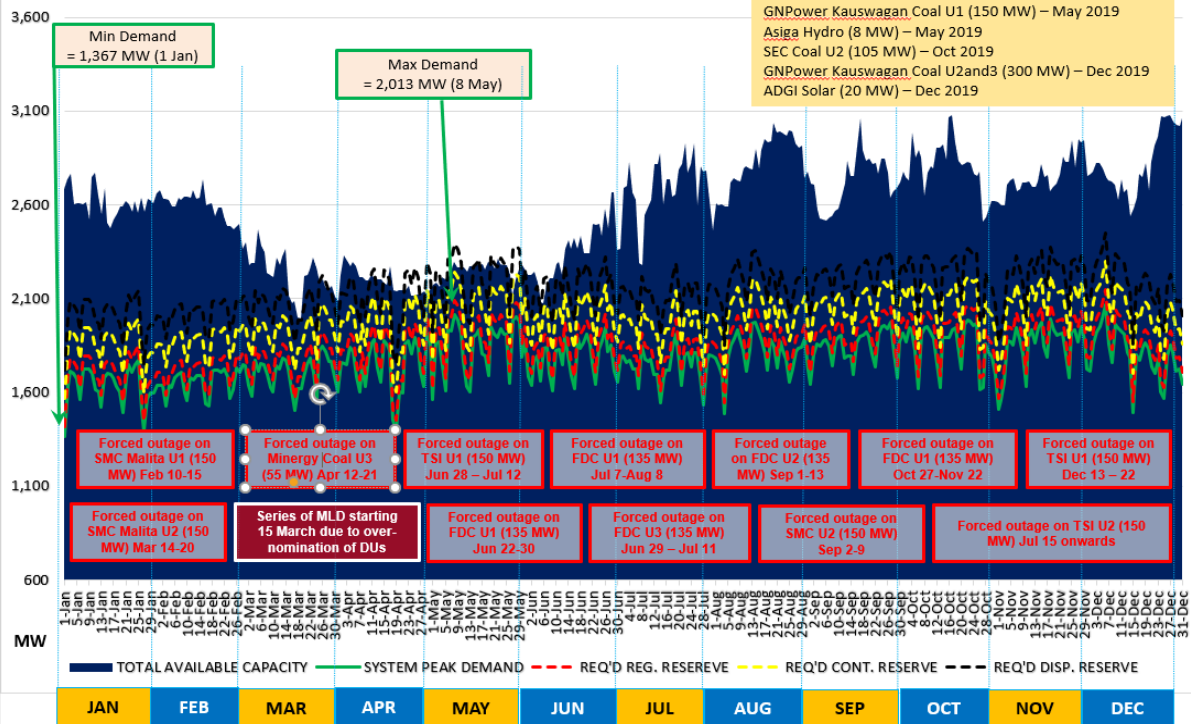
Department of Energy  
Empowering the Filipinos

Note:  
FO – Forced Outage / UO – Unplanned Outage / PMS – Planned Maintenance Shutdown

# Mindanao Demand-Supply Situation

01 January – 31 December 2019

**Newly Operating Power Plants:**  
 GNPower Kauswagan Coal U1 (150 MW) – May 2019  
 Asiga Hydro (8 MW) – May 2019  
 SEC Coal U2 (105 MW) – Oct 2019  
 GNPower Kauswagan Coal U2 and 3 (300 MW) – Dec 2019  
 ADGI Solar (20 MW) – Dec 2019



Source: National Grid Corporation of the Philippines (NGCP) Daily Operations Report



Department of Energy  
Empowering the Filipinos

Note:  
FO – Forced Outage / PMS – Planned Maintenance Shutdown

## F. Status of Government Generating Assets

### Agus VI HEPP (Units 1 & 2) Uprating Project

Among the outstanding deliverables of the Joint Venture (JV) of Guangxi Hydroelectric Construction Bureau and ITP Construction Incorporated is the installation of Annunciator Alarm Panel, the commissioning of which was completed on 10 October 2019, and copy of the Operation & Maintenance Manuals for the said equipment was submitted to PSALM. In November 2019, the JV likewise submitted to PSALM the Computer Control & Supervision System Diagram, Operation and Maintenance Manual of the Annunciator Alarm Panel, and Factory inspection and test report.

The project was awarded to the JV in December 2013 with target completion by August 2016.

The turn-over of the Agus VI Units 1 and 2 to NPC was undertaken on 14 February 2020.

## G. Status of Transmission Projects

### COMPLETED PROJECTS

For the period November 2019 to January 2020, following are the Transmission Projects completed:

#### 1. LUZON GRID COMPLETED TRANSMISSION PROJECTS

No projects completed for the period of November 2019 to January 2020.

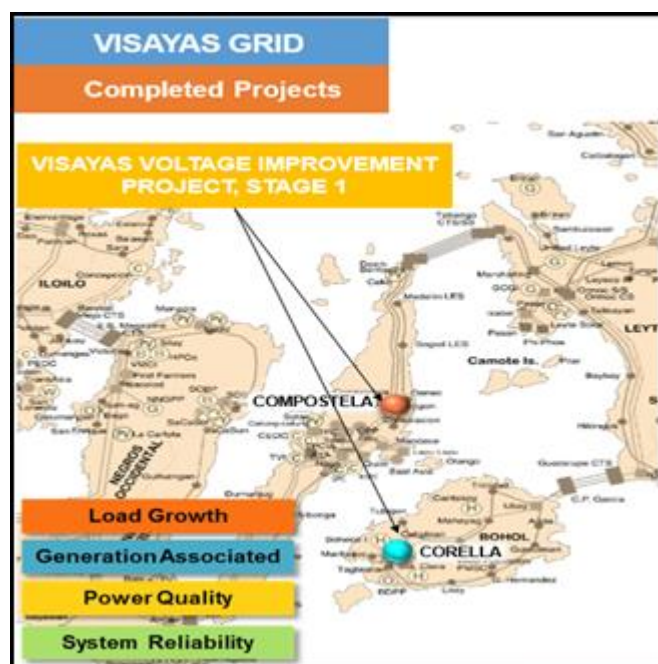
#### 2. VISAYAS GRID COMPLETED TRANSMISSION PROJECTS

### Power Quality

- VISAYAS IMPROVEMENT PROJECT, STAGE 1

Various areas in Samar and Leyte are experiencing low voltage occurrences due to long 69 kV transmission lines. Likewise, areas in Cebu and Bohol are also experiencing low voltage occurrences due to high concentration of load. These low voltages may result in power curtailment.

To address the low voltage problems in these areas, capacitor banks are proposed to be strategically installed at identified substations and load-ends.



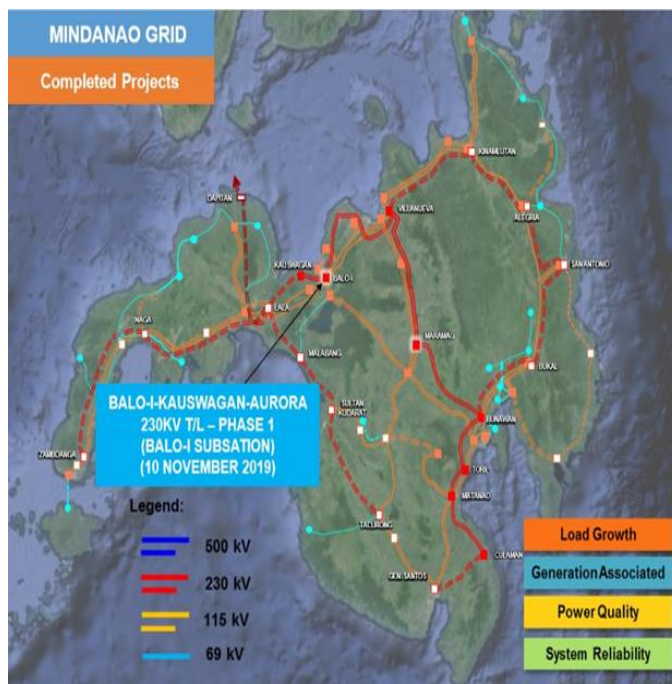
VISAYAS VOLTAGE IMPROVEMENT PROJECT - STAGE 1		
Substation		Date of Completion
Compostela Substation	Capacitor Bank 1	08 November 2019
	Capacitor Bank 2	09 November 2019
Corella Substation	Capacitor Bank 1	18 November 2019
	Capacitor Banks 2 &3	19 November 2019

### 3. MINDANAO GRID COMPLETED TRANSMISSION PROJECTS

#### Generation Entry

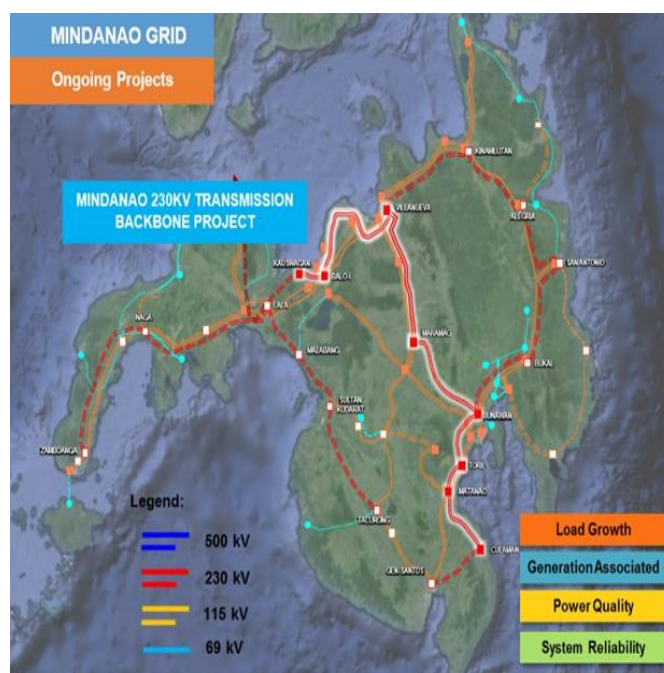
- BALO-I-KAUSWAGAN-AURORA 230KV TRANSMISSION LINE PROJECT – PHASE 1**

The existing transmission facility is insufficient to cater the entry of GNPowr Kauswagan Ltd. Co.'s 600 MW coal power plant. Development of the transmission network is needed in the area to accommodate the new power plant and effectively distribute the generated power. The project extends the 230 kV backbone to North Western Mindanao Area which will provide power transmission reliability in Zamboanga Peninsula. The construction of the new Kauswagan Substation and expansion of the Balo-i 230 kV Substation will be linked by 12.1 kilometers, 230 kV, double circuit line using 2-410 mm<sup>2</sup> TACSR conductors. The Balo-I Substation was completed on 10 November 2019.



- MINDANAO 230KV TRANSMISSION BACKBONE PROJECT**

This project mainly concentrates on strengthening the existing transmission backbone in Mindanao. As a major transmission highway that delivers both renewable and conventional energies to load centers, it ensures the stability, reliability, and efficiency of power supply in the island. While the existing 138 kV transmission backbone is already inadequate to accommodate the increasing capacity from the new power plants, the energization of the project to 230 kV level increases the thermal capacity of the existing line allowing the



transfer of huge power capacity coming from north or south of the island. The Mindanao Grid's Main Backbone has been energized at a 230kV level on 2019.

System Reliability

- MINDANAO SUBSTATION UPGRADING PROJECT (MSUP)

The existing transformer capacities in various substations in Mindanao will be insufficient to accommodate the projected load growth while some substations do not comply yet with the single-outage (N-1) contingency requirements of the Philippine Grid Code. Additionally, voltage violation and breaker failures frequently occur in some areas in the Mindanao Grid. Mindanao Substation Upgrading Project (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. MSUP 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 in this project is the replacement of eleven (11)-138 kV and twenty-seven (27)-69 kV PCBs in various substations in the grid.

Mindanao Substation Upgrading Project (MSUP)		
Substation		Completion Date
Tacurong Substation	Capacitor Bank 4	01 November 2019
Pitogo Substation	Capacitor Bank 4	30 November 2019
	Capacitor Bank 5	14 December 2019

## ONGOING PROJECTS

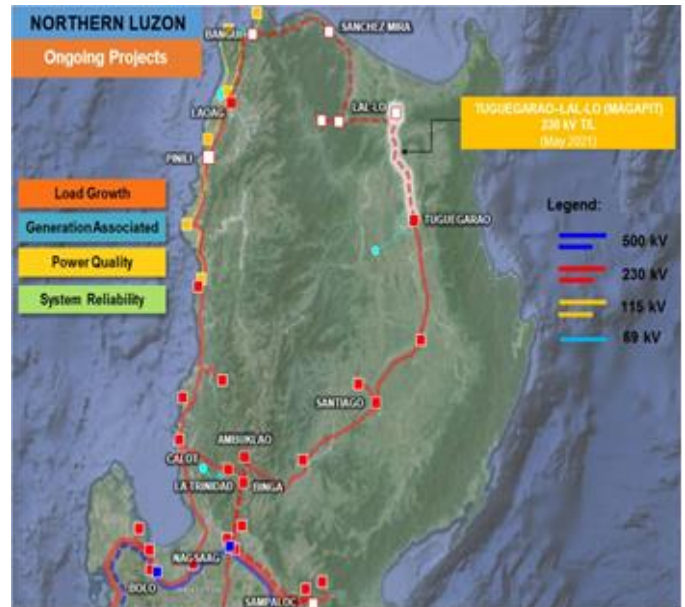
For the period report period, following are the ongoing Transmission Projects:

### 1. LUZON

#### Power Quality

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

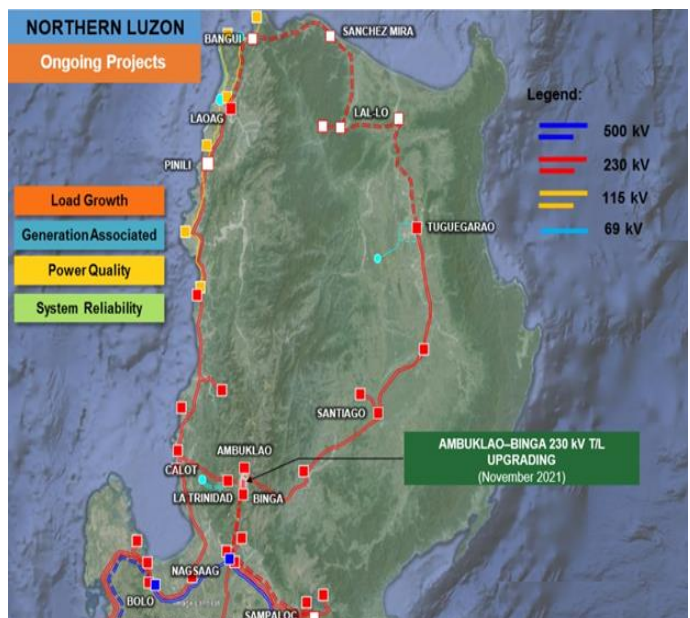
The Tuguegarao–Lal-lo (Magapit) 230 kV Transmission Line project aims to address the imminent overloading of the Tuguegarao–Magapit 69 kV Line due to the forecasted load growth in the northern part of Cagayan Province and also aims to improve the power quality and reliability of supply in the area which is presently being served by a very long 69 kV line.. As of 31 January 2020, the Transmission Line portion is 47.62% complete and the Substation Portion is 81.30% complete which is expected to be completed on May 2021.



#### System Reliability

- AMBUKLAO–BINGA 230 kV T/L UPGRADING

The Ambuklao–Binga 230 kV Transmission Line Upgrading project aims to upgrade the existing line in order 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 January 2020, the Substation Portion is 94.35% complete which is expected to be completed on November 2021.





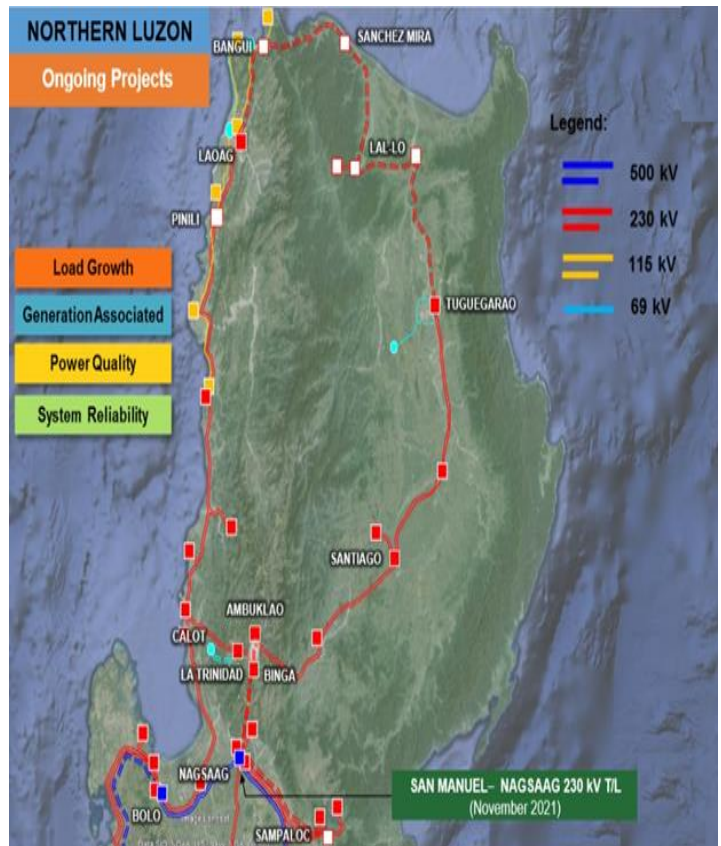
- BINGA–SAN MANUEL 230 kV T/L

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 January 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 on 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 January 2020, the project has not yet been approved by ERC. However, NGCP already issued Notice-to-Proceed to the project on 13 January 2020.

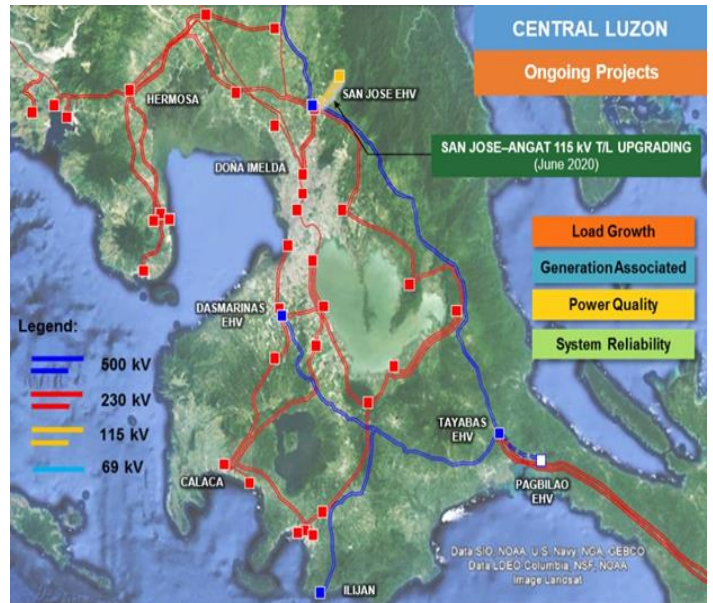


- SAN JOSE–QUEZON 230 kV LINE 3

The San Jose–Quezon 230 kV Line 3 project aims 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. As of 31 January 2020, the Transmission Line Portion is 89.96% complete which is expected to be completed on June 2020.

- 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 January 2020, the Transmission Line Portion is 84.27% complete which is expected to be completed on June 2020.



Load Growth

- CLARK-MABIGA 69 KV TRANSMISSION LINE PROJECT

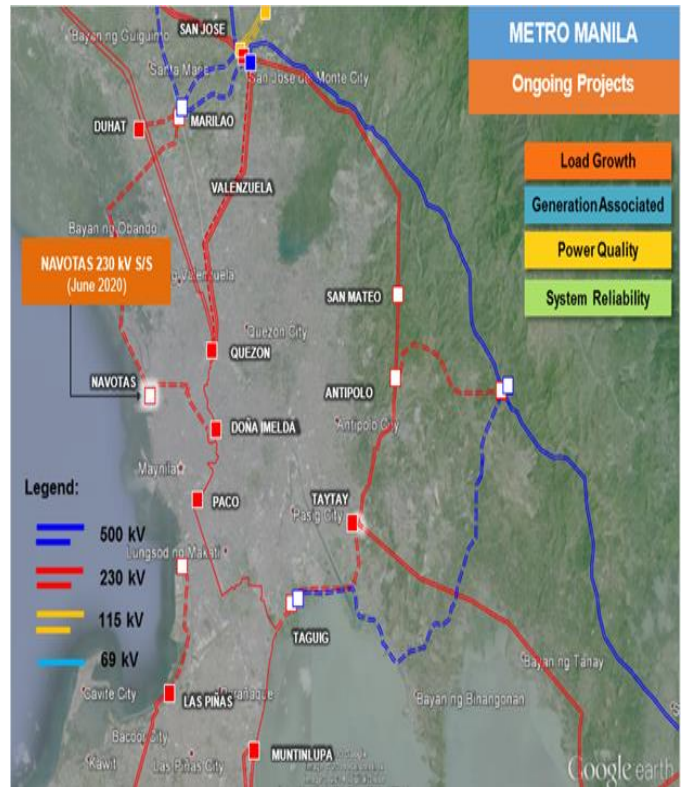
The Clark–Mabiga 69 kV Line Project aims to provide transmission capacity reinforcement to the Mexico–Clark 69 kV Line which is serving PRESCO, PELCO I, PELCO II, Angeles Electric Corporation (AEC), Quanta Paper Corporation and Clark Electric Development Corporation (CEDC). This will address the load growth in the area of Angeles and Mabalacat together with the new industries in Clark Freeport Zone and improve the power quality of supply in the area. As of 31 January 2020, the Substation Portion is 93.76% complete and its Transmission



Line Portion is for re-routing due to original route is affected by the Malolos-Clark Railway Project. The project is expected to be completed on December 2020.

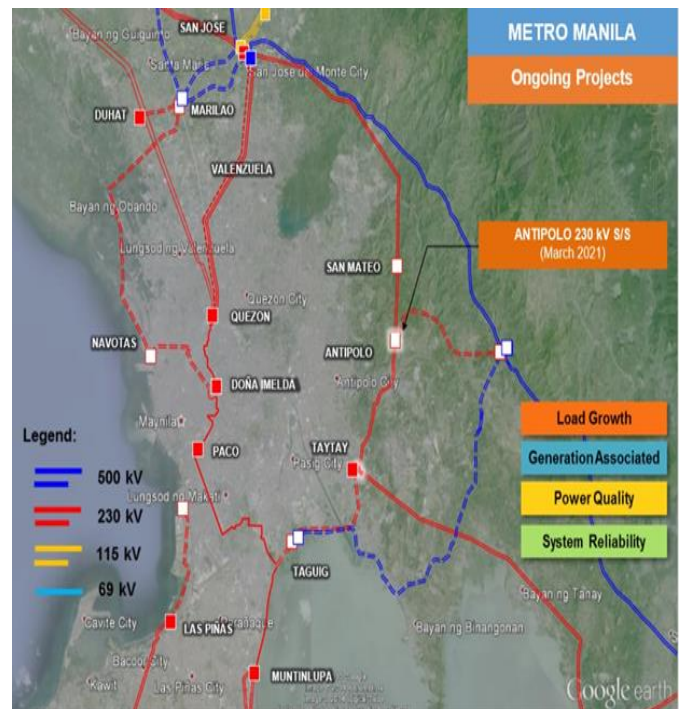
- NAVOTAS 230KV SUBSTATION PROJECT

The Navotas 230 kV Substation aims to cater the load growth in the Sector 1 of MERALCO and 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 January 2020, the project is 83.65% complete which is expected to be completed on June 2020.



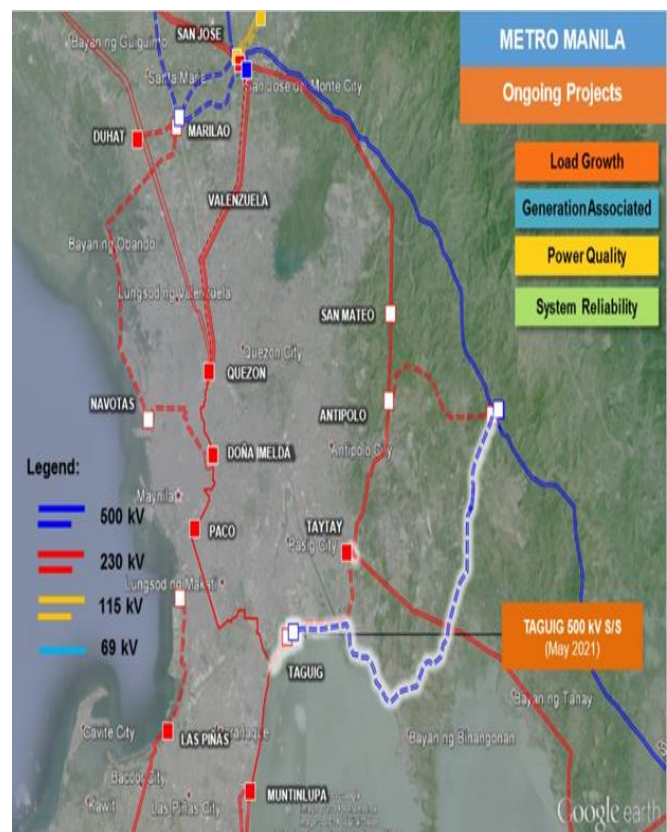
- ANTIPOLO 230 KV SUBSTATION PROJECT

The Antipolo 230 kV Substation aims to cater the load growth in the Sector 2 of MERALCO. The project involves the 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 January 2020, the Site Development Portion is 8.96% complete. The erection of its Primary Equipment still has on-going process of securing LGU permits and the Secondary Equipment is 56.56% complete which is expected to be completed on March 2021.



- **TAGUIG 500 KV SUBSTATION PROJECT**

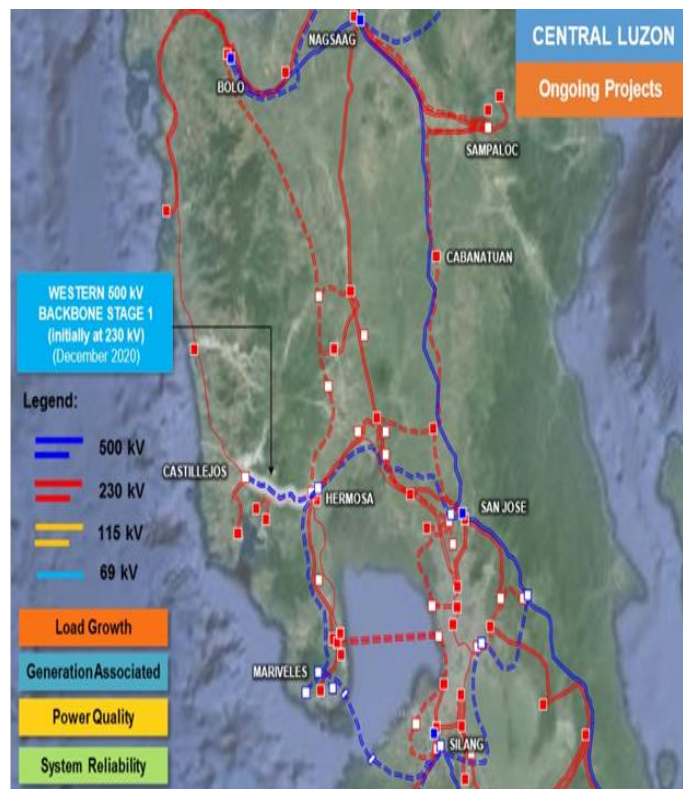
The Taguig 500 kV Substation aims to provide another 500/230 kV drawdown substation to decongest San Jose EHV Substation and provide higher level of reliability to the 500 kV system of the Luzon Grid. The Project will also address the criticality of the existing 230 kV single-circuit line from Quezon to Muntinlupa during N-1 contingency and 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 January 2020, the Transmission Line Portion is 12.46% complete, the Substation Portion is 26.17% complete having its Site Development at 95.88% complete. The project is expected to be completed on May 2021.



Generation Entry

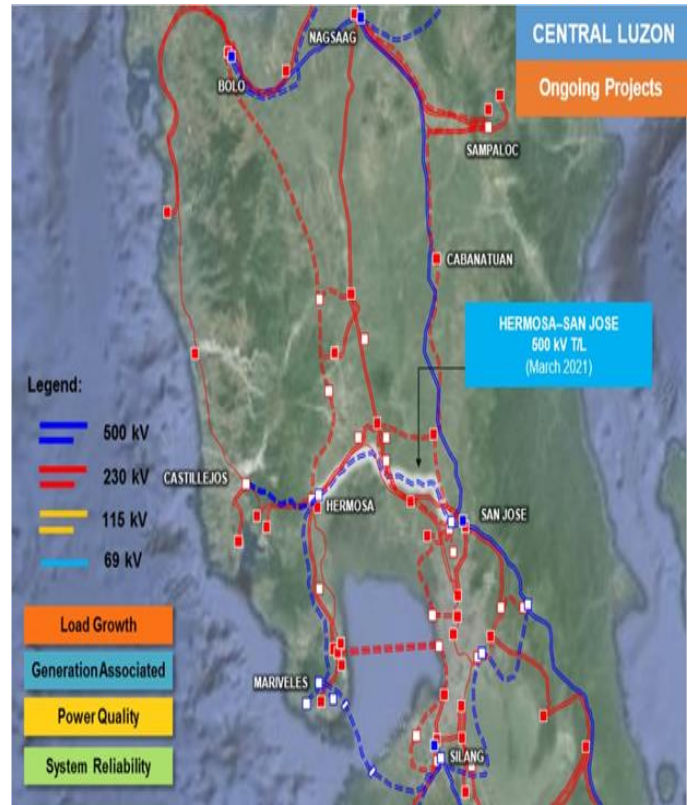
- **WESTERN LUZON BACKBONE STAGE 1 (Castillejos–Hermosa 500kV T/L Project)**

The Western Luzon Backbone (Stage 1: Castillejos–Hermosa 500 kV Transmission Line Project) aims to provide a transmission facility to connect the 2x300 MW RP Energy CFPP to the Luzon Grid through Hermosa Substation. This Castillejos–Hermosa 500 kV Line segment is part of the proposed long-term plan for 500 kV backbone loop development from Bolo (Kadampat) down to Hermosa Substation. As of 31 January 2020, the Transmission Line Portion is 59.51% complete and the Substation Portion is 1.82% complete which is expected to be completed on December 2020.



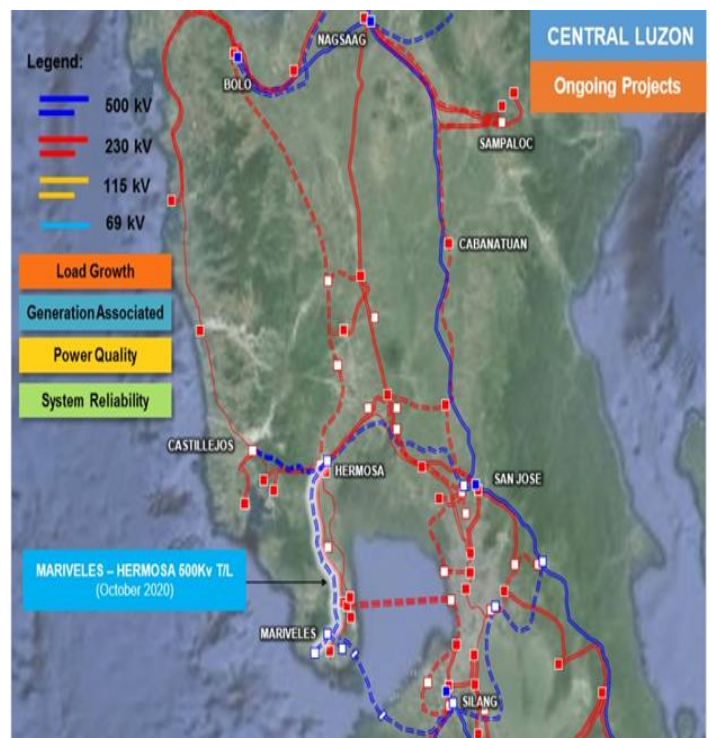
- HERMOSA–SAN JOSE 500 KV TRANSMISSION LINE PROJECT

The Hermosa–San Jose 500 kV Transmission Line Project aims to accommodate the generation capacity additions in Bataan and Zambales area. The 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 January 2020, the Transmission Line portion is 13.68% complete and the Site Development of its Substation Portion is 64.39% complete which is expected to be completed on March 2021.



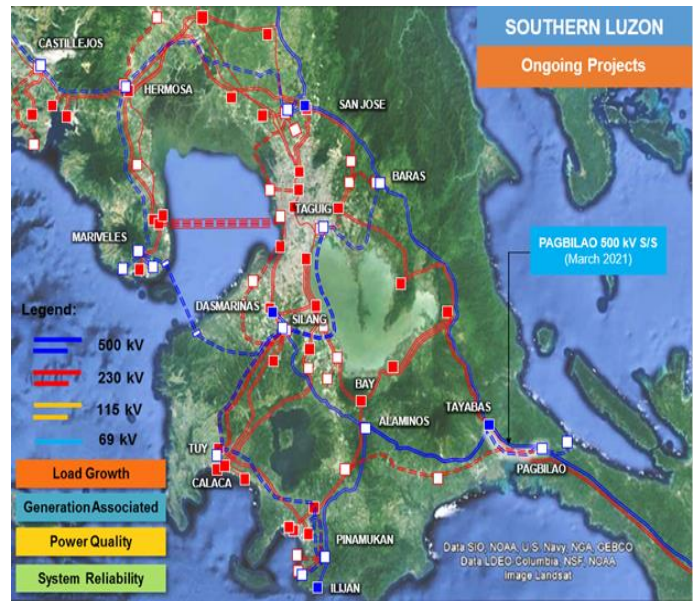
- MARIVELES-HERMOSA 500 KV TRANSMISSION LINE PROJECT

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. The Project involves the development of new Mariveles 500 kV Substation and construction of 500 kV transmission line backbone from new Mariveles 500 kV Substation to Hermosa 500 kV Substation. 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 January 2020, the Transmission Line Portion is 34.53% complete and the Substation Portion is 2.91% complete which is expected to be completed on October 2020.



- **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 January 2020, the Transmission Line Portion is 59.00% complete and the Substation Portion is 3.00% complete which is expected to be completed on March 2021.



- **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 additions in Batangas. The generation capacity additions will turn Calaca Substation into a merging point of more than 2,000 MW of power generation. As of 21 January 2020, the Transmission Line Portion is for issuance of



Notice-to-Proceed by the NGCP and the Substation Portion is 14.97% complete. The Project is expected to be completed on December 2021.

## System Reliability

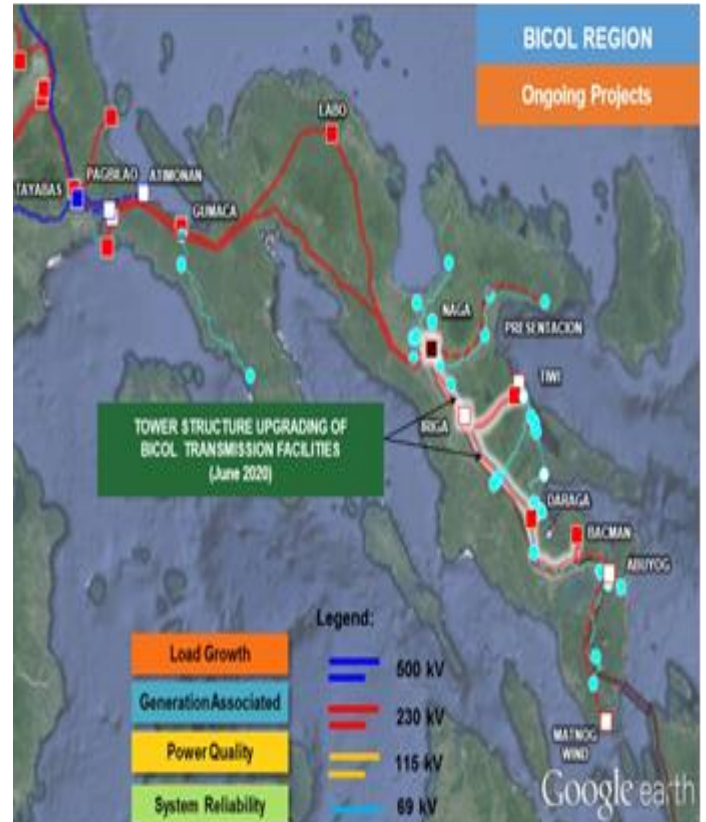
- **TIWI 230 KV SUBSTATION PROJECT**

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 will also 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 January 2020, the Primary Equipment is 85.10% complete and the Secondary Equipment is 24.66% complete. The project is expected to be completed on December 2020.



- **TOWER STRUCTURE UPGRADING OF BICOL TRANSMISSION FACILITIES**

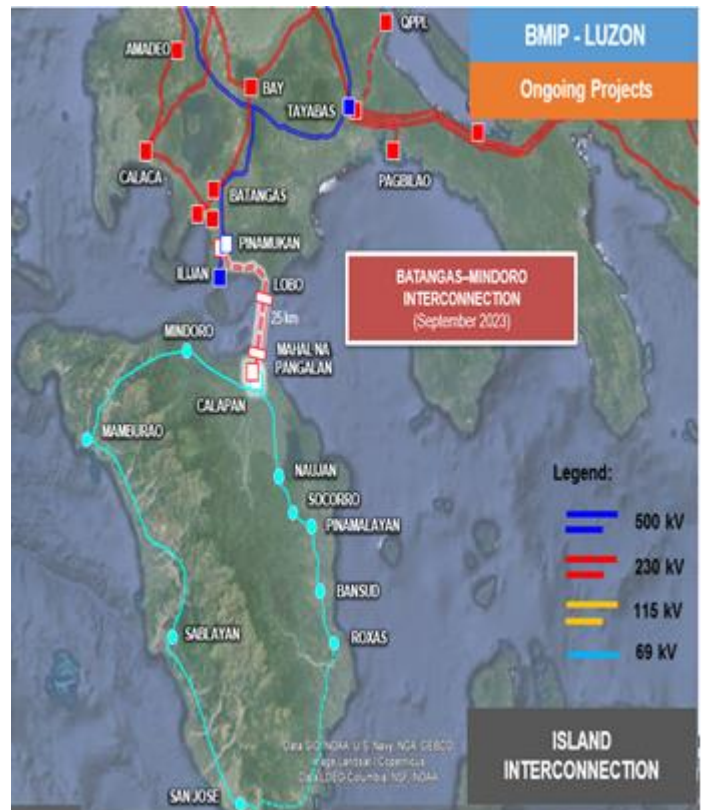
The restoration project of Bicol transmission facilities offers the reconstruction of the affected transmission lines marred by Typhoon Nina, namely the Naga–Daraga–Tiwi A and Naga–Tiwi C 230 kV Transmission Lines. The project provides permanent solution to address the limitations of the emergency restoration 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 31 January 2020, the Bored Pile Foundation is 53.51% complete and the Erection of its Transmission Line is for issuance of Notice-to-Proceed by NGCP.



## 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 January 2020, the NGCP is awaiting the approval of the ERC to commence implementation.

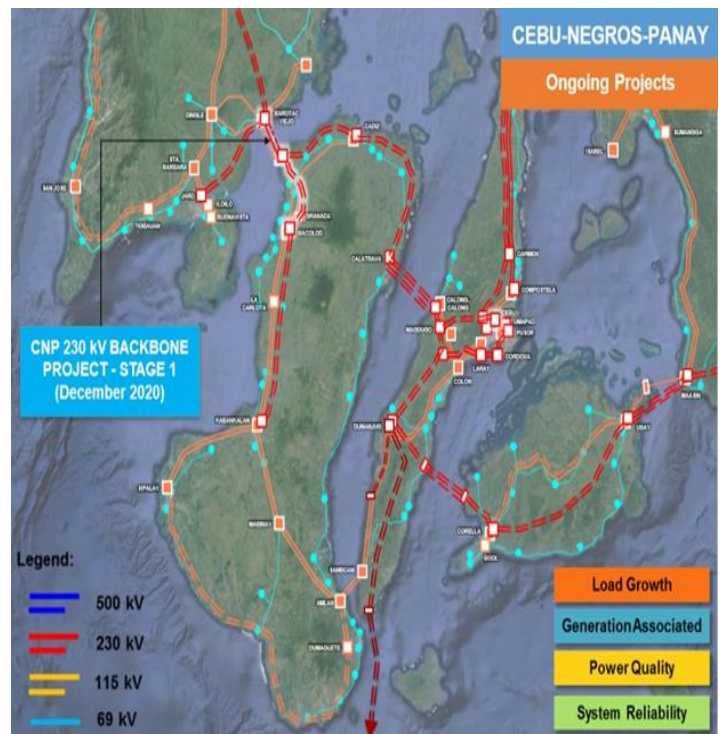


## 2. VISAYAS

### Generation Entry

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

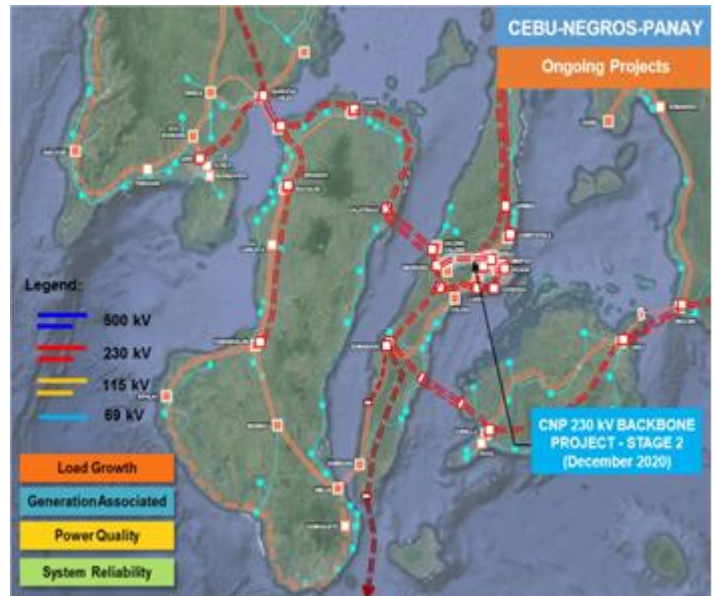
To ensure the effective transmission of excess power generation from Panay towards Negros, a high capacity transmission corridor is being proposed. Strategically, the project will be designed consistent with the long-term transmission master plan of having a 230 kV transmission backbone in the Visayas by establishing a 230 kV interconnection from Panay to Cebu. The Transmission Line portion is 79.89% complete and the Substation portion is 100% complete which is expected to be completed on July 2020.





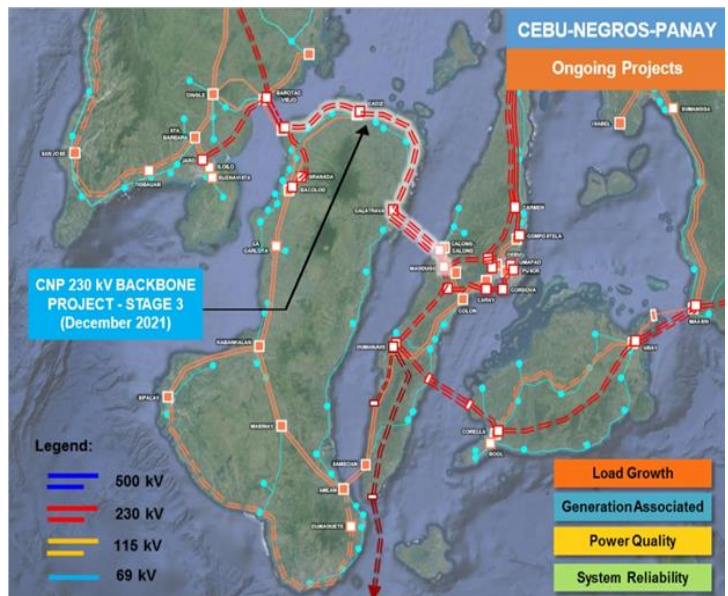
- CEBU-NEGROS-PANAY 230KV BACKBONE PROJECT – STAGE 2, GE & SR

In order 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. The Transmission Line portion is 93.78% complete and still waiting for approval of the ERC.



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

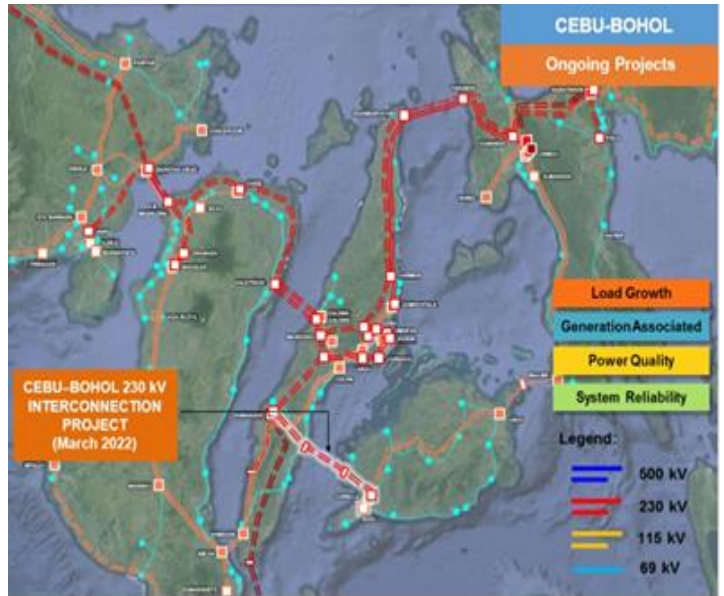
The development of new power plants, including baseload and renewable, in Panay and Negros Islands will result in the increase in power exchange between the islands of Panay, Negros and Cebu. To ensure the effective transmission of excess power generation from Panay and Negros towards Cebu, a high capacity 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 January 2020, the Submarine Cable portion is 94.96% complete, the Reconductoring/Bundling of 138kV Transmission Line is 93.78% complete, the E.B. Magalona–Cadiz–Calatrava 230kV Transmission Line is currently checking survey and stacking of Monument, the Magdugo–Cebu 230kV Transmission Line is 38.83% complete, the Barotac Viejo Substation is 57.60% complete and the Bacolod Substation is 2.71% complete, all of which forms part of the project’s Phase 1. Phase 2 of the project which includes Cadiz Substation, Calatrava Substation, E.B. Magalona Substation and Magdugo Substation have been issued with Notice-to-Proceed. The Project is expected to be completed on December 2021.



Load Growth

- CEBU-BOHOL 230KV INTERCONNECTION PROJECT

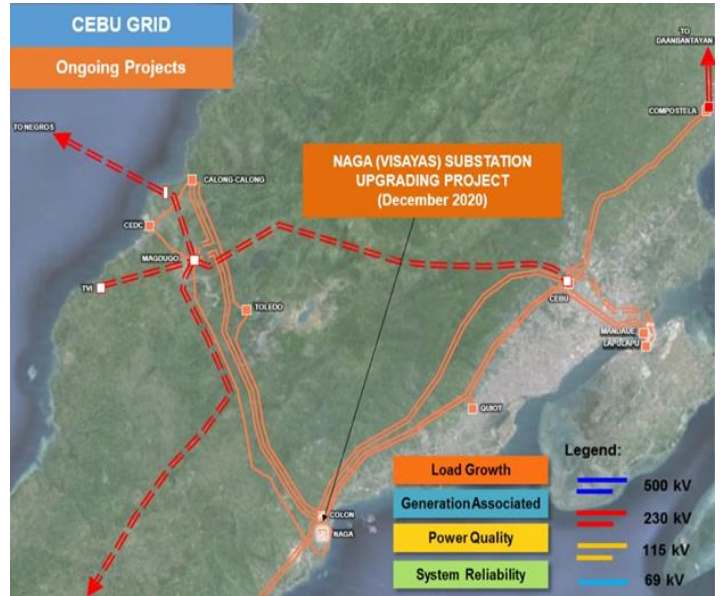
Currently, Cebu, Leyte and Bohol are connected radially and an outage of the Leyte–Bohol 138 kV Interconnection, power delivery towards the entire Bohol Island will be interrupted. Since the existing power plants in Bohol do not have sufficient generation capacity to cater the power demand in the island during N-1 contingency condition, there is a need to provide additional transmission backbone towards Bohol. As of 31 January 2020, the Corella Substation portion is for issuance of Notice-to-Proceed and is currently waiting for the approval of the ERC. The



project is expected to be completed on 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 January 2020, its Primary and Secondary equipment is 75.17% complete which is expected to be completed on December 2020.



As of 31 January 2020, its Primary and Secondary equipment is 75.17% complete which is expected to be completed on December 2020.

- 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. As of 31 January 2020, the project is 75.17% complete which is expected to be completed on December 2020.



- SAN CARLOS – GUIHULNGAN 69 KV TRANSMISSION LINE PROJECT

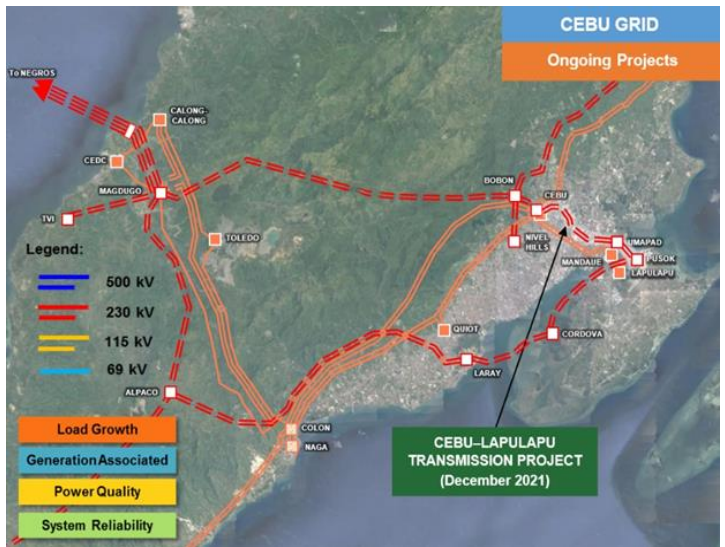
The San Carlos-Guihulngan 69kV Transmission Line project is intended to accommodate power demand in the northeastern part of Negros island by building a 69 kV transmission loop from Cadiz to Amlan. As of 31 January 2020, the project is 97.54% complete which is expected to be completed on June 2020.



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.

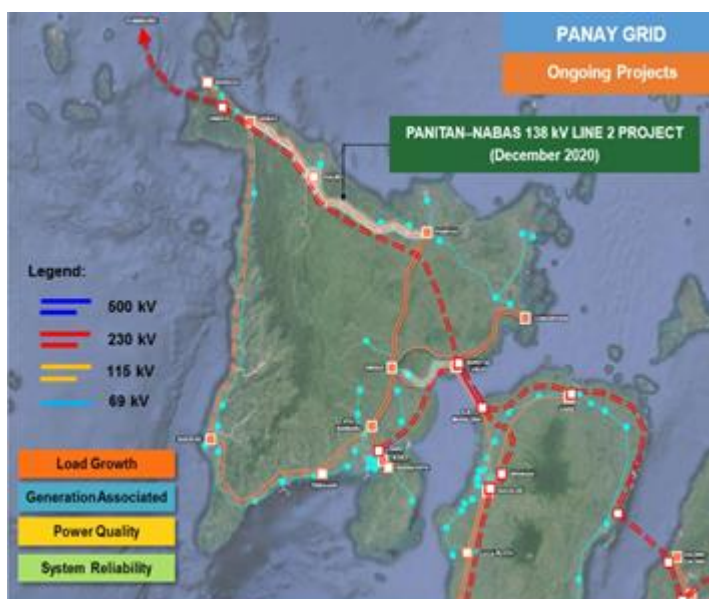


Substation. As of 31 January 2020, the Substation portion is 97.40% complete. The Submarine Cable portion and Overhead Transmission Line Portion is at Tendering stage. The project is expected to be completed on December 2021.

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

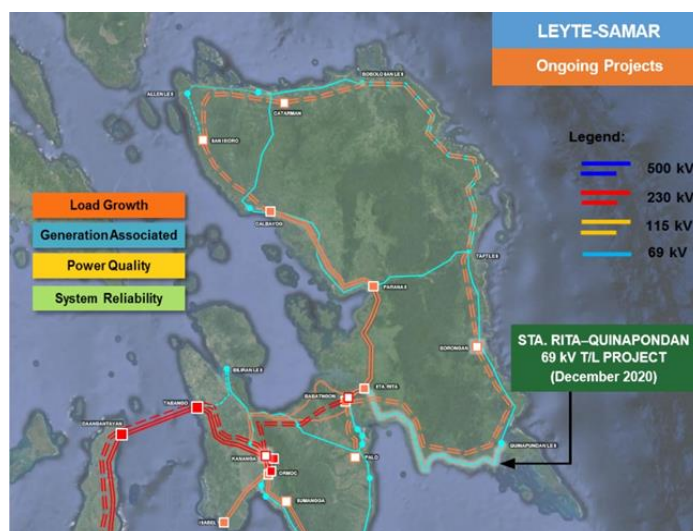
The northwestern part of Panay, which includes the Boracay Island, is served by Nabas Substation which normally draws power from the grid through the existing Panitan–Nabas 138 kV Transmission Line. The Nabas Substation is also linked to San Jose Substation by 69 kV transmission line. However, during 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 January 2020, the Transmission Line Portion ready for Energization and the Substation Portion is 39.76% complete which is expected to be completed on December 2020.



- 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 quality of Eastern Samar Area. As of 31 January 2020, the Transmission Line project is 99.67% complete which is expected to be completed on December 2020.

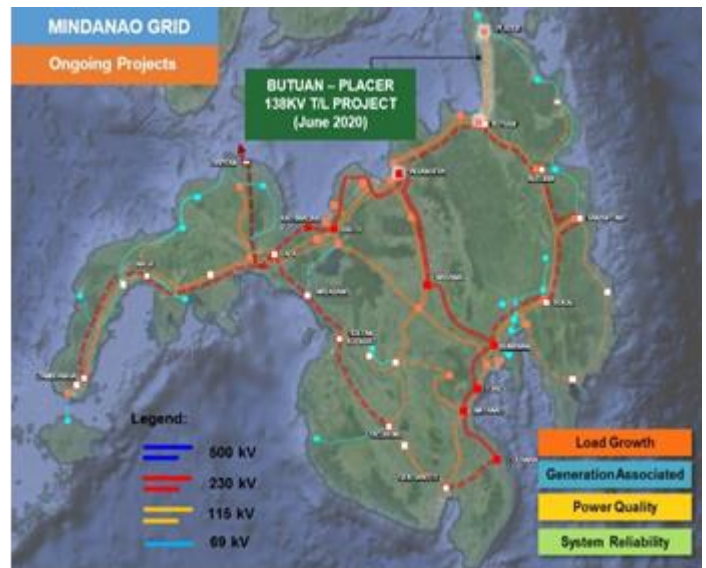


### 3. MINDANAO

#### System Reliability

- 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 satisfies the compliance of the transmission line facility to the single-outage contingency criterion of the PGC and improves the voltage level in the served area. As of 31 January 2020, the Substation Portion is 100% complete and the Transmission Line Portion is 89.23% complete which is expected to be completed on June 2020.



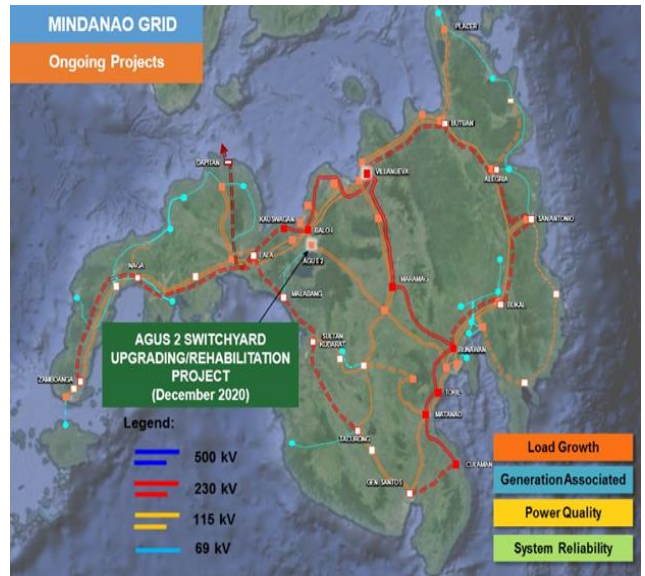
- TACURONG – KALAMANSIG 69KV TRANSMISSION LINE PROJECT

This project allows the towns of Lebak, Kalamansig, Bagumbayan and Senator Ninoy Aquino to enjoy cheaper electricity from the grid. The required facilities for the project is the 69 kV single-circuit steel tower, expansion of the Tacurong Substation and the construction of the switching station in Kalamansig. The completion of the project ends the dependency of the customers from the SPUG and starts enjoying the reliable and cheaper power supply from the grid. As of 31 January 2020, the project is for issuance of Notice-to-Proceed.



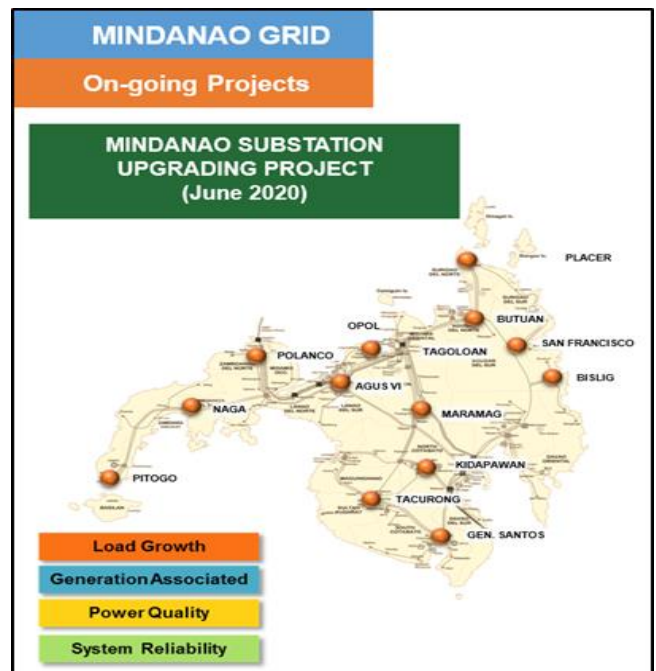
- **AGUS 2 SWITCHYARD UPGRADING/REHABILITATION PROJECT**

The project enhances the operational stability of the grid that ensures the continuity of service of the power plant's transmission corridor. The project implementation involves the replacement of obsolete power circuit breakers, capacitive potential transformers, telecom equipment and other secondary devices. As of 31 January 2020, the transmission project is 94.78% complete which is expected to be completed on December 2020.



- **MINDANAO SUBSTATION UPGRADING PROJECT (MSUP)**

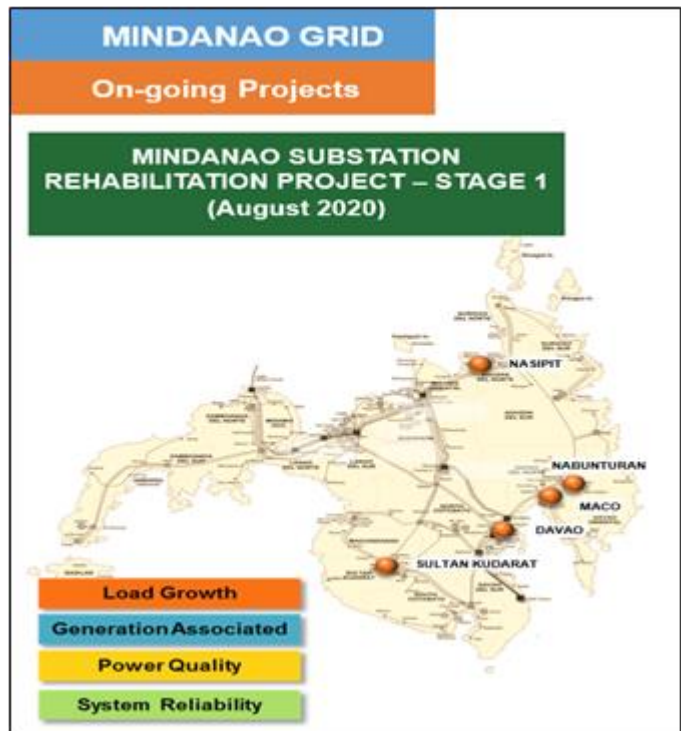
This project will provide additional transformers, install capacitor banks, and replace defective, old, obsolete and underrated power circuit breakers (PCBs) to ensure adequate, reliable, and high-quality power transmission system in Mindanao. MSUP involves the installation of a total of 875 MVA power transformers, 52.5 MVAR capacitor banks, nineteen (19)-138 kV PCBs and twenty-one (21)-69 kV PCBs. Also included in this project 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 has already been completed and energized in 2019 except for Bislig Substation and General Santos Substation which are, as of 31 January 43.21% and 25.24% complete, while Stage 2 of the MSUP is 25.24% complete. The MSUP is expected to be completed on June 2020.

- MINDANAO SUBSTATION REHABILITATION PROJECT (MSRP) – STAGE 1

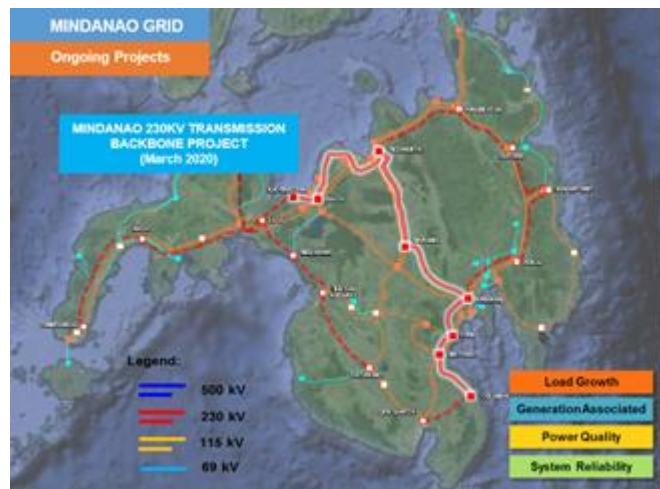
Mindanao Substation Rehabilitation Project (MSRP) will replace power circuit breakers (PCBs) in various substations in Mindanao due to defectiveness, old age, obsolescence and low fault level capacity. Implementation of the project will increase the reliability of the network, reduce/prevent unserved energy, avoid costly maintenance expenses, improve personnel safety and decrease incidents of breaker failures. As of 31 January 2020, Stage 1 of the project is 35.89% complete which is expected to be completed on August 2020.



Generation Entry

- MINDANAO 230KV TRANSMISSION BACKBONE PROJECT

The project upgrades the thermal capacity of the existing transmission backbone. The project entails two major activities: One is the construction of the Matanao-Toril-Bunawan 230 kV Line; Second is the energization of the existing Balo-i-Villanueva-Maramag-Bunawan Line to 230 kV voltage level.



Island Interconnection

- MINDANAO-VISAYAS INTERCONNECTION PROJECT

The implementation of the MVIP will also allow export of power to the other major grids. From a technical standpoint, MVIP will provide benefit to the system in terms of added supply security, improved system reliability and improvement in the quality of power supply. The MVIP through an interconnected power network shall optimize utilization of indigenous energy sources, such as natural gas in Luzon, geothermal in the Visayas and hydro in Mindanao, thus, reducing the overall generation of pollution as well as the dependency on the importation of



Mindanao-Visayas Interconnection Project		
Section	Status (As of 31 January 2020)	
Submarine Cable	Slender CTS-Dapitan CTS HVDC	30.79% Complete
Substation	Dumanjug Converter Station & S/S	47.94% Complete
	Lala Converter Station & S/S	
	Aurora S/S	
	Magdugo S/S	
Transmission Line	Dumanjug-Magdugo HVAC T/L	48.81% Complete
	Kauswagan-Lala HVAC T/L	68.77% Complete
	Aurora-Lala HVAC T/L	
	Dumanjug-Santander HVDC OHTL	43.47% Complete
	Lala-Dapitan HVDC OHTL	
	Alegria-Dumanjug Electrode Line	6.76% Complete
	Kolambagan-Lala Electrode Line	

fossils fuel, where its availability and price are sensitive to the price in the world market.

**H. 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 granted approval to the CAPEX Projects applications filed by eight (8) Distribution Utilities namely: Angeles Electric Corporation (AEC), Isabela I Electric Cooperative, Inc. (ISELCO I), Batangas I Electric Cooperative, Inc. (BATELEC I), Cebu II Electric Cooperative, Inc. (CEBECO II), Bantayan Island Electric Cooperative, Inc. (BANELCO), Oriental Mindoro Electric Cooperative, Inc. (ORMECO), Bukidnon Second Electric Cooperative, Inc. (BUSECO), and Leyte III Electric Cooperative, Inc. (LEYECO III). Details of the project is shown in Annex 3.

## 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 to almost 100% barangay electrification, with only six (6) barangays out of the total of 41,974 potential barangays remaining as unenergized due to geographical and security reasons. The current program of the Government aims to attain 90% household electrification by 2017.

### 1. Status of Household Electrification

For the report period, the household electrification level of the country is estimated at 91.25% based on the latest status of energization provided by the NEA, LGUOUS and PIOUs as of June 2019. Said level corresponds to 22.56 million energized HHs out of 22.98 million identified and targeted HH population based from the 2015 Census of the Philippine Statistics Authority (PSA).

*Table 35. Household Electrification Level*

Distribution Utility	Total Household Population (2015 Census)	Served HHs	Unserved HHs, actual per DU per Province <sup>[a]</sup>	%HH Level <sup>[b]</sup>
Electric Cooperatives	14,373,161	13,191,446	1,870,969	86.94%
MERALCO	6,476,870	7,280,733	-	100.00%
Other PIOUs/LGU Owned Utilities	2,171,316	2,087,865	139,986	95.93%
<b>Total</b>	<b>22,984,971</b>	<b>22,560,044</b>	<b>2,010,955</b>	<b>91.25%</b>

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 to higher 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. With 1,259 unenergized sitios targeted for CY2019, NEA have completed to energized 469 sitios as of 30 June 2019 with corresponding project cost amounting to PhP703,500,000.00.

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

This aims to rehabilitate those barangays previously energized by 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. NEA shall assist in recovering the existing off-grid electrification facilities still owned by the Government for reconfiguration and transfer to other far-flung areas that can be best served by off-grid solutions.

For the report period, no budget is allocated on BLEP Projects for CY2018-2019 hence, NEA has no targets for CY2019. However, as of 31 December 2019, there are 72 barangays nationwide that needs for enhancement. NEA managed to complete 3 BLEP projects as of 30 June 2019 amounting to PhP4,279,137.84.

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

Under this concept, 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 conducted Information, Education and Communication (IEC) Campaigns in Cagayan de Oro City and Davao City on 15 August 2019 and 11-12 September 2019, respectively. The discussion on the said IEC mainly focused 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 2019 to April 2020, three (3) DLF projects were inspected amounting to PhP1.9 Million, four (4) RWMHEEF projects were inspected amounting to PhP11.1 Million.

Fund Type	No. of Projects	Total Approved Project Cost
Development and Livelihood Fund	3	1.9 M
Reforestation, Watershed Management, Health and/or Environment Enhancement Fund	4	11.1 M

d. Nationwide Intensification of Household Electrification (NIHE) Program

Approved in 2014, the NIHE project is 3-year program that aims to implement measures and grant assistance to intensify household electrification. Under NIHE, DUs are encouraged to adopt more pro-active 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, 25,508 household are reported energized out of 30,512 approved and allocated with house-wiring and KWH meter subsidy as of 15 March 2020.

For the 2016 NIHE Program, 74,710 household are reported energized out of 116,592 approved and allocated with house-wiring and KWH meter subsidy as of 15 March 2020.

For 2017 NIHE Program, 35,358 household are reported energized out of 115,216 approved and allocated with house-wiring and KWH meter subsidy as of 15 March 2020.

For 2018 NIHE Program, 19,959 households are reported energized out of 81,770 approved and allocated with house-wiring and KWH meter subsidy as of 15 March 2020.

Also, the DOE have conducted technical inspection of completed NIHE Projects.

*Table 36. Table of Inspection of Completed NIHE Projects*

Funding Year	Distribution Utility	No. of HHs	Date Completed	Date Inspected
2015	MORESCO I	1,000	15 Sept 2019	11-15 Nov 2019
2015	BOHECO II	2,000	03 Dec 2019	04-12 Feb 2020
2017	CEBECO III	1,382	14 Feb 2019	18-22 Nov 2019
2017	PROSIELCO	497	16 Dec 2019	10-14 Feb 2020
2017	PANELCO III*	5,856	29 Nov 2019	09-14 Mar 2020

*Note: \*Partially inspected. Inspection was suspended due to Covid-19 outbreak.*

- Off-Grid Electrification

1. DOE Locally Funded Project

Funding under this Project was distributed to six (6) Electric Cooperatives (6) Provinces to provide electricity services through 50 Wp solar home systems to highly remote and unviable areas in the six (6) Provinces in the country. Breakdown of this Project and status to date are presented below.

Funding Year	Province	Distribution Utility	No. of HHs	Status
2017	Quezon	QUEZELCO II	1,333	Completed
	Palawan	BISELCO	3,711	Completed
	Bohol	BOHECO II	530	Completed
2018	Sulu	SULECO	2,575	On-going
	Iloilo	ILECO II	706	For final technical inspection & financial audit
	Zamboanga del Sur	ZAMSURECO I	1,129	On-going
2019	Palawan	BISELCO	1,129	Procurement concluded; installations to commence 2Q 2020
<b>Total</b>			<b>11,113</b>	

3. European Union –Philippines’ Access to Sustainable Energy Program (EU-PHIL ASEP)

The EU-PHIL ASEP grant proceeds provide investment support to 40,500 households in the inland and mountainous remote areas in Mindanao who cannot be connected to the main distribution lines of the Electric Cooperatives (ECs). A total of 10,000 households were already experiencing the benefits of solar PV electrification since 2019.

For the report period, preparatory activities were undertaken to proceed with the procurement of the remaining 30,500 solar home systems. The participating ECs have also started the ground works such as identification and enlistment of household beneficiaries, social marketing of the Project through barangay assemblies, among others. It is expected that Project implementation will commence immediately after this global crisis on COVID-19 is over.

Below is the list of the provinces benefitting from this EU-PHIL ASEP: PVM subcomponent.

Province	Electric Cooperative	No. of Households
Davao del Sur	DASURECO	10,000
South Cotabato	SOCOTECO II	10,000
Sultan Kudarat	SUKELCO	8,400
North Cotabato	COTELCO	7,500
Bukidnon	BUSECO	2,500
	FIBECO	2,100
Total		40,500

#### 4. Qualified Third Party (QTP) Approach

On 22 November 2019, the DOE issued the Department Circular DC2019-11-0015 entitled “Prescribing Revised Guidelines of Qualified Third Party” and took effect on 07 January 2020. The Revised Guidelines streamlined and simplified the QTP process by recognizing the greater roles of the Distribution Utilities in the selection of QTPs in their areas proposed for private sector investment.

Likewise, the Revised Circular was harmonized with the Renewable Energy Law in particular, the Renewable Energy Portfolio Standards (RPS) for Offgrid Areas issued in August 2018 under the DOE Department Circular DC2018-08-0024. Under this RPS Offgrid Circular, the QTPs which are one of the mandated participants, are required to generate, supply and maintain a minimum percentage of renewable energy (RE) share in the energy mix to meet the minimum RE requirement in their missionary area.

Crucial also under this Revised Circular is the setting timelines for each task/activity for the government instrumentalities (i.e., DOE, National Electrification Administration, and National Power Corporation) and private sector to comply with in order to conclude the engagement of QTPs in an efficient and timely manner.

The salient feature of this Revised Circular is the conduct of competitive bidding for QTPs by the Distribution Utilities. In the event however, that the DU fails to conduct the competitive bidding for the remote and unviable areas declared by the DOE, the NPC shall conduct the competitive bidding.

Following this issuance of the Revised Guidelines, the DOE also prepared the template QTP Service Contract which is an agreement between the DU/NPC and the QTP that will define the roles and responsibilities of the DOE, NEA, NPC, ERC and QTP in the implementation of QTP Project, the terms and conditions including the performance standards and service standards in performing missionary electrification in the QTP Service Area.

The DOE has also conducted an Information, Education and Communication (IEC) campaign with potential QTP participants last 06 March 2020 in Quezon City.



Subsequent to the DOE's issuance of the Revised QTP Guidelines, the Energy Regulatory Commission (ERC) shall amend its ERC Rule 22 on the regulatory procedures for QTPs performing missionary electrification. DOE-ERC held a dialogue last 30 January 2020 to discuss the necessary provisions in the ERC Rules 22 that need to be amended and additional provisions that may be considered in drafting the new Rules.

Meanwhile, from the Total Electrification Master Plans submitted by the Electric Cooperatives (ECs) last November 2019, the DOE consolidated and processed the areas proposed by the ECs for alternative service providers. Mapping of these areas to determine possible clustering into market packages was undertaken. It is expected that with these market packages, there is high possibility of attracting more private sector investment in remote and unviable areas.

As mandated under the Revised QTP Circular, the DOE shall declare and make public the list of remote and unviable areas for potential QTPs to bid upon.

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

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

To date, PowerSource Philippines, Inc. (PSPI) is providing round the clock electricity to 1,990 households for a subsidized rate of 8.50 pesos per kilowatt-hour. Rio Tuba has a recorded peak and off-peak load of 830 kW and 463 kW, respectively, and an average load of 647 kW. For the reporting period, PSPI has recorded 13 new connections and an average fuel cost of 42.25 pesos per liter.

PSPI is targeting to complete in 2020, the distribution lines extension to the unenergized sitios to comply with the administration's target of 100% total household electrification.

Currently, PSPI already secured its Solar Energy Service Contract in December 2019 relative to its request on the change of technology from biomass to solar energy with battery system to be hybridized with its existing diesel mini-grid system in the Riotuba. Extension of its QTP Service and Subsidy Contract with the NPC is on still ongoing that will allow PSPI to continue its operation as QTP. This is in compliance with QTPs mandate to maintain a minimum RE share in their energy portfolio as per DOE Circular No. DC2018-08-0024 "RPS Off-grid Rules".

b. Malapascua Island in the Municipality of Daanbantayan, Cebu

PSPI continues to operate its existing diesel gensets with total capacity of 1.54 MW in the Island charging PHP12.00/kWh for consumers with monthly consumption of 40kWh or less and PHP15.00/kWh for monthly consumption greater than 40kWh.

For the reporting period, total households connection is 1,168, achieving 87% electrification level. Malapascua has a recorded peak and off-load of 594 kW and 80 kW, respectively, and an average load of 372 kW.

c. Barangay Liminangcong in the Municipality of Taytay, Palawan

Residents of Brgy. Liminangcong were among the first beneficiaries of the QTP Program enjoying 24/7 access to electricity for only PHP8.50/kWh. To date, PSPI is serving 951 households with a recorded peak and off-peak demand of 240 kW and 127 kW, respectively.

The benefits of the electricity service will soon be extended to the adjacent island of Brgy. Tumbod. The Energy Regulatory Commission (ERC) is still to approve and issue the Authority to Operate to provide electricity service to additional 942 households in the said barangay.

d. Barangays Candawaga and Culasian in the Municipality of Rizal, Palawan

In Candawaga-Culasian grid, PSPI will upgrade and extend its existing distribution line to unreached areas in Rizal within the year to accommodate the still large number of unconnected households in the area.

The system has an installed capacity of 460 kW with a recorded peak and off-peak demand of 119 kW and 48 kW, respectively. PSPI is authorized by the ERC through interim relief issued on April 2018 to collect Subsidized Approved Retail Rate (SARR) of 9.9082 pesos per kilowatt-hour to its existing 946 household consumers.

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

Sabang Renewable Energy Corporation (SREC) inaugurated its Hybrid Minigrid System in Sabang on 06 November 2019. The ERC authorized SREC to collect PhP12/kWh and PhP15/kWh for the residential and public buildings, and commercial establishments, respectively.

SREC is providing 24/7 electricity services to 535 consumers consisting of both commercial and residential customers. It recorded a peak load of about 150 kW and an off-peak load of almost 80 kW with 18 unscheduled power outages due adverse weather conditions.

To date, SREC has yet to secure the following permits (1) DAR Certificate for non-conversion of SREC land; (2) Water Permit from NWRB; (3) Permit to Operate from DENR; and (4) Certificate of Compliance from the ERC.

f. 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) on 18 June 2019. It likewise, authorized FPIEC to collect PhP12.00/kWh and PhP15.00/kWh for the residential/public buildings and commercial consumers, respectively for all the areas.

FPIEC is on target to start preliminary works on the Islands by mid-March 2020. This is in preparation for the delivery of equipment and major components to the Islands by May 2020 to take advantage of the summer season while seas are calm. Barring delays from the effects of Covid-19 on supply chains, FPIEC hopes to commission the Project by October 2020.

Below is the summary status of the QTP projects as of December 2019:

PROJECT LOCATION	TECHNOLOGY	TARGET HHs	Served HHs	Electrification Level %	PROPONENT	STATUS
Rio Tuba, Bataraza, Palawan	1.05 MW Diesel - Biomass	5,103	1,990	39%	PSPI	Operational, Authority to Operate (ATO) issued by ERC , 2010
Malapascua, Daan-Bantayan, Cebu	750 kW Diesel	1,342	1,168	87%	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	Authority to Operate (ATO) issued by ERC 05 October 2016
Candawaga & Culasian, Rizal, Palawan	268 kW Diesel	2,151	946	44%	PSPI	Interim Relief , April 2018
Balut Island, Sarangani, Davao Occidental	690 kW Diesel	4,003			PSPI	Interim Relief , April 2018



PROJECT LOCATION	TECHNOLOGY	TARGET HHS	Served HHS	Electrification Level %	PROPONENT	STATUS
Liminangcong, Taytay, Palawan	108 kW Diesel	1,199	951	79.3%	PSPI	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 Quinalasag 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	Endorsed to ERC (23 Jan 2018)
Bgy. Poblacion, Dumarán, 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 PhP60.82 Million loans to six (6) ECs with the following break down:

Particulars		No.	Electric Cooperatives	Amount (In PhP Million)
Capital Projects		1	Lubang Electric Cooperative, Inc.	1.46
		2	Capiz Electric Cooperative	10.0
		3	Boheco 1 Electric Cooperative, Inc.	8.90
		4	Sorsogon I Electric Cooperative, Inc.	14.51
		5	Surigao del Sur I Electric Cooperative, Inc.	20.95
			<b>Subtotal</b>	<b>55.82</b>
Stand-by Facility	Credit	6	Camarines Sur 1 Electric Cooperative Inc.	5.0
			<b>TOTAL</b>	<b>60.82</b>

### 2. Competency Seminars and Training Programs for EC Personnel

In increasing the learning curve of NEA and ECs through competency programs for EC personnel, NEA conducted the following activities accordingly:

Date	Title of Training/Seminar	No. of Participants
Nov. 11 – 15, 2019	Power Distribution System Enhancement Program (Lineworker Skills Upgrading) - INEC	100
Nov. 11 – 15, 2019	Trainers Methodology Level 1 - Part 2 Course for the Electric Power Distribution (EPD) Line Construction NC II, EPD Operation & Maintenance NC III, and NC IV Trainers/Assessors	31
Nov. 11 - Dec. 10 2019	Electric Power Distribution Line Construction NC II - ANECO	46
Nov. 12 – 14, 2019	Seminar-Workshop on Meter Reading, Billing, Collection and Disconnection Enhancement (MRBCD) - ISELCO II	53
Nov. 12 – 15, 2019	Seminar-Workshop on Performance Assessment & Technical Audit - Region 10	16
Nov. 20 – 21, 2019	Seminar-Workshop on Work Attitude and Values Enhancement at Workplace - QUEZELCO I	145
Nov. 27 – 28, 2019	Seminar-Workshop on Revised Procurement Guidelines and Simplified Bidding Procedures for Electric Cooperatives IRR - RA 10531 ZAMCELCO	30

Date	Title of Training/Seminar	No. of Participants
Nov. 27 – 29, 2019	Cooperative Management Course I and III	67
December 2 – 4, 2019	Trainers Methodology Level 1 - Part 3 Course for the Electric Power Distribution (EPD) Line Construction NC II, EPD Operation & Maintenance NC III, and NC IV Trainers/Assessors	31
December 3 – 5, 2019	Seminar-Workshop on Meter Reading, Billing, Collection and Disconnection Enhancement (MRBCD) - LASURECO	90

### 3. Renewable Energy Development

NEA conducted a series of Information Education and Communication (IEC) campaign for the 1st quarter of 2019 to capacitate the ECs and enable them to adhere to the policy, implementing rules, and guidelines on renewable energy programs.

Seminar-workshop on Net-Metering Program was conducted to help ECs gain understanding on solar rooftop installations, and other RE technologies under the net-metering scheme and its implications to ECs on both technical and administrative processes. Through this seminar-workshop, ECs will be able to implement their own net-metering implementation plans.

Simplified Planning Tool Workshop	Date	No. of Participants
Region VIII	September 2 – 6, 2019	35
Region VI	November 11 – 13, 2019	37

### 4. Expanded House Hold Electrification Program (Expanded HHEP)

NEA has allotted PhP153 million for the Expanded HHEP. Through the Solar PV Mainstreaming Program (PVM), the Agency is planning to electrify at least 5000 households using 50 Wp Solar Home System (SHS) units.

The PVM program is an off-grid electrification scheme that aims to bring electricity to the most dispersed and isolated households that are deemed unviable for grid connection in the next five years.

The EC beneficiaries namely BISELCO (1,200 HH), COTELCO (1,063 HH), CASURECO IV (878 HH) and ZANECO (967 HH) conducted the bidding for the supply, delivery and installation of the SHS units. The results of the biddings are then forwarded to the NEA for the releasing of subsidy. The delivery and installation is expected to start on the first quarter of the year 2020.

### 5. Approved Policies/Guidelines

During the report period, in accordance with its expanded powers, functions and privileges under Section 5 of Republic Act 10531 and Section 5 of the IRR, the NEA has formulated a policy entitled “Modifications to the Proposed Code of Governance for Electric Cooperatives” in aid to provide assistance and guidance to the ECs in the performance of their franchise obligations as distribution utilities.

## IX. POLICY ISSUANCES

### 1. Department Circulars

- a. Department Circular No.DC2019-12-0018, "Adopting a General Framework Governing the Provision and Utilization of Ancillary Services in the Grid".

On 04 December 2019, the DOE issued the Department Circular, in cognizance of the need to harmonize ancillary service-related issuances and address various issues, to provide a general framework governing the provision and utilization of Ancillary Service in the grid.

- b. Promulgation of Department Circular No. DC2020-04-0008, "Rationalizing the Utilization of ER 1-94 Funds by Host Local Government Units in Response to COVID-19 Public Health Emergency."

Under the Circular, all available and unremitted ER 1-94 Funds with the Department and concerned power generation companies (GenCos) as of 31 December 2019 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.

From the promulgation until end of April 2020, the DOE received a total of 111 Letter of Intents from the Host LGUs and the DOE has continuously acknowledged and endorsed the same to the concerned Generation Companies for them to immediately facilitate the remittance of the available ER 1-94 Funds to said Host LGUs.

Further, the Department's attached agencies will make advance dividends and unutilized funds in the amount of PhP12.34 billion.

### 2. Legislative Measures

- a. Enactment of Republic Act No. 11371 otherwise known as the "Murang Kuryente Act (MKA)"

To address the remaining stranded contract costs and stranded debts, the DOE in collaboration with the PSALM, lobbied in the Senate and in the House of Representatives for the passage of Republic Act No. 11371 or the Murang Kuryente Act (MKA), which was eventually signed into law by President Rodrigo R. Duterte on 08 August 2019. This law mandated the allocation of PhP208 billion from the Malampaya Fund to cover shortfalls of PSALM and effectively pay for the stranded contract costs and stranded debts of the NPC. This law saved the electricity consumers from additional UC-EC and SCC imposition of about PhP0.86 per kWh.

As provided under Section 7 of the Act, the DOE and the Department of Finance (DOF), in consultation with the Department of Budget and Management (DBM), the Bureau of the Treasury (BTr) and the PSALM, prepared the draft Implementing Rules and Regulations (IRR) for the proper disposition of the funds and the effective implementation of the Act. After thorough deliberation and discussions, the IRR was signed and published on 20 April 2020.

In accordance with the law, a portion of the national government's share of the proceeds from the Malampaya Natural Gas Project will be used to pay the Universal Charge-Stranded Contract Cost (SCC) and Stranded Debts (SD) of the National Power Corporation (NPC). SCC refer to the excess of the contracted cost of electricity under eligible independent power producer contracts over the actual selling price of the

contracted energy output, while SD refer to any unpaid financial obligations of the National Power Corporation which have not been liquidated by the proceeds from the sales and privatization of NPC assets.

As provided in the law, PhP208 billion of proceeds from the net national government share from the Malampaya fund will be used to pay the said UCs instead of passing it off to the consumers. For a simple simulation, a family that consumes per month can expect a reduction of P172 in their electricity bill every month.

b. Enactment of Republic Act No. 11361, Otherwise Known as the “Anti-Obstruction of Power Lines Act”

In its effort to ensure uninterrupted supply of electricity, the DOE supported the enactment of a law which will protect the transmission and distribution systems from various elements by keeping the land beneath, and spaces surrounding the transmission and distribution lines free of obstructions. On 08 August 2019, the President signed into law Republic Act No. 11361 entitled, “An Act Ensuring the Continuous and Uninterrupted Transmission and Distribution of Electricity and the Protection of the Integrity and Reliability of Power Lines, and Providing Penalties for Violations Thereof”, otherwise known as "Anti-Obstruction of Power Lines Act".

The DOE, in consultation with the appropriate government agencies such as the NEA, the NPC, Board of Electrical Engineering (BEE), TRANSCO, the Department of Public Works and Highways (DPWH), the National Housing Authority (NHA), the Department of Human Settlements and Urban Development (DHSUD), the Department of Environment and Natural Resources (DENR), the Philippine Coconut Authority (PCA), the National Commission on the Indigenous Peoples (NCIP), the Philippine National Police (PNP), the Armed Forces of the Philippines (AFP), concerned electric power industry stakeholders, and private stakeholders, and the Joint Congressional Energy Commission (JCEC), promulgated the IRR of the Act and was published on 20 March 2020.

The law laid down the prohibitions the like planting of tall-growing plants, the construction of hazardous improvements, and the conduct of any hazardous activities within the power line corridor. It also outlines the duties and responsibilities of power line owners and operators in the prevention and removal of disturbances or obstructions to the power lines, whether located on public or private property. The law likewise authorizes power line owners and operators to seek the assistance of local government officials, Philippine National Police, and Armed Forces of the Philippines in the discharge of their duties.

# ANNEXES

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Annex 1. TransCo Inspection Report Based on Concession Agreement (November 2019 to March 2020)

No.	Inspection Report No.	Location	Name of Project/ Transmission Facilities	Inspection Date
<b>LUZON</b>				
1	SLR-D1-19-66	District 1 South Luzon	Dasmariñas, Biñan, Muntinlupa, Las Piñas, Batangas, Salong, Ternate, Calaca & Rosario S/S, Bolbok and Taal Load End Substation	November 4-8, 2019
2	SLR-AC-19-70	South Luzon	Southern Tagalog ACC, Haligue Silangan & Tamayo Repeater Station	November 18-22, 2019
3	NLR-D3-20-04	District 3 North Luzon	San Manuel, Nagsaag, Labrador, Bolo, & Balingueo Substations	January 6-10, 2020
4	NLR-D7-20-05	District 7 North Luzon	San Jose, Malaya, Quezon, Doña Imelda, Taytay Substations, Angat & San Mateo Repeater Stations, and Angat Power House	January 20-24, 2020
5	NLR-MB-20-10	North Luzon	North Luzon MTD-B (Mexico, Pampanga)	February 3-7, 2020
6	SLR-MB-20-11	South Luzon	South Luzon MTD-B	February 17-21, 2020
7	NLR-D4-20-13	District 2	Santiago, Tugegarao, Gamu & Bayombong Substations and Iligan & Lagawe Load End Substations	February 17-21, 2020
8	NLR-PR-20-03	North Luzon	Bauang S/S (North Luzon S/S Upgrading Project Stage 1)	February 26-28, 2020
9	NLR-MA-20-17	North Luzon	North Luzon MTD-A Office in San Fernando City, La Union	March 2-6, 2020
10	NLR-D2-20-18	District 2	La Trinidad, Ambuklao, Binga HEP, and Itogon Substation	March 2-6, 2020
<b>VISAYAS</b>				
1	VIS-D1-19-65	District 1 Visayas	Ormoc, Maasin, Tabango, Babatngon, Calbayog, Paranas (Wright) & Sta. Rita (Bagolibas) S/S, Guadalupe CTS, Hilongos PCB Station, Albura Electrode Station, Tolosa Capacitor Bank Station and Ormoc HVDC Station	November 4-8, 2019
2	VIS-AC-19-69	Visayas	Negros ACC & Murcia Repeater Station	November 18-22, 2019
3	VIS-AC-20-01	Visayas	Leyte ACC, Matag-ob (Palompon) & Isabel Repeater Stations	January 6-10, 2020
4	VIS-AC-20-02	Visayas	Bohol ACC, Loon & Jagna Repeater Stations	January 6-10, 2020
5	VIS-PR-20-01	Visayas	New Naga (Colon) Substation Project -PUC	January 14-17, 2020
6	VIS-D4-20-06	District 4 Visayas	Sta. Barbara, Barotac Viejo, Dingle, Panit-an, Nabas, Concepcion & San Jose Substations, San Juan Cable Terminal Station and Boracay Load-End Station	January 20-24, 2020
7	VIS-RS-20-07	Visayas	Siquijor Repeater Station	February 3-7, 2020
8	VIS-D2-20-09	District 2 Visayas	Viasayas O&M (Bohol Area)	February 3-7, 2020
9	VIS-D2-20-16	District 2 Visayas	Cebu, Naga, Colon, Quiot, Toledo, Calong-Calong, Compostela & Daanbantayan SS, Mandaua & Lapu-Lapu GIS, Pajo, Medellin, Lugo, Danao & Sibonga LES, and Daanbantayan & Samboan CTS	March 2-6, 2020
10	VIS-D4-20-19	District 4 Visayas	Panitan -Nabas 138 kV T/L	March 9-13, 2020
<b>MINDANAO</b>				
1	MIN-AC-19-67	Mindanao	Davao ACC, Mintal and Matina Repeater Station	November 18-22, 2019
2	MIN-D5-19-68	District 5 Mindanao	Davao - Bunawan 138kV Transmission Line	November 18-22, 2019
3	MIN-D2-20-03	District 2 Mindanao	Iligan, Balo-i, Agus 6/7 & Lugait Substations and Agus 5 HEP & Switchyard	January 6-10, 2020
4	MIN-AC-20-08	Mindanao	Iligan Area Control Center, Manticao & Talacogon Repeater Stations	February 3-7, 2020
5	MIN-PR-20-02	Mindanao	Sultan Kudarat Capacitor Project	February 4-7, 2020
6	MIN-AC-20-12	Mindanao	Butuan Area Control Center & Carmen Repeater Station	February 17-21, 2020
7	MIN-D1-20-14	District 1	Pitogo, Zamboanga, Naga & Aurora Substations and Tumaga (Lunzuran) Capacitor Bank Station	February 17-21, 2020
8	MIN-D6-20-15	District 6 Mindanao	General Santos, Tacurong, Kidapwan & Sultan Kudarat Substations	February 17-21, 2020

Source: Transco

*Annex 2. NGCP Related Petitions to ERC as of April 2020*

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUND FOR FILING	STATUS
ERC Case No. 2019-086RC/October 29, 2019	Interim Maximum Annual Revenue for CY 2020 with Prayer for the Urgent Issuance of Provisional Authority	<ul style="list-style-type: none"> <li>Immediately ISSUE an Order provisionally approving the collection of the iMAR2020 in the amount of PhP58,846Mn effective January 2020 billing month (December 26, 2019 to January 25, 2020); and</li> <li>APPROVE, after notice and hearing, the authority to collect the iMAR2020 in the amount of PhP58,846Mn.</li> </ul>	<p>As per ERC Order dated 11 November 2019, the ERC set the the following schedules:</p> <ul style="list-style-type: none"> <li>February 12, 2020 - Jurisdictional and Expository at ERC Pasig City;</li> <li>February 20, 2020 – Expository presentation at ERC Cebu City;</li> <li>February 27, 2020 – Expository presentation at ERC Davao City;</li> <li>March 4, 2020 – Pre-Trial Conference and Evidentiary hearing at ERC Pasig City ; and</li> <li>March 11, 2020– continuation of Evidentiary hearing at ERC Pasig City.</li> </ul>
ERC Case No. 2019-101RC/ December 27, 2019	Application for Approval of the Ancillary Services Procurement Agreement between the National Grid Corporation of the Philippines and AP Renewables Inc. For Makban B.	<ul style="list-style-type: none"> <li>Immediately ISSUE a provisional authority to implement the subject ASPA executed on 18 November 2019; and</li> <li>APPROVE, after notice and hearing, the subject ASPA.</li> </ul>	As per ERC Order dated 21 January 2020, the ERC set the hearing for jurisdictional requirements, expository presentation, pre-trial and evidentiary hearing on 12 March 2020 (Thu) at 2:00 PM at the 15 <sup>th</sup> floor, ERC Pasig City.
ERC Case No. 2019-100RC/ December 27, 2019	Application for Approval of the Ancillary Services Procurement Agreement between the National Grid Corporation of the Philippines and AP Renewables Inc. For Makban A	<ul style="list-style-type: none"> <li>Immediately ISSUE a provisional authority to implement the subject ASPA executed on 18 November 2019; and</li> <li>APPROVE, after notice and hearing, the subject ASPA.</li> </ul>	As per ERC Order dated 21 January 2020, the ERC set the hearing for jurisdictional requirements, expository presentation, pre-trial and evidentiary hearing on 12 March 2020 (Thu) at 10:00 AM at the 15th floor, ERC Pasig City.
ERC Case No. 2019-093RC/ December 17, 2019	Application for the Approval of the Implementation of the Lapulapu 230 KV Substation Project.	<ul style="list-style-type: none"> <li>Immediately ISSUE an Order provisionally authorizing the implementation of the Lapu-lapu 230 KV Substation Project; and</li> <li>After notice and hearing, APPROVE the Application for the implementation of the Lapu-lapu 230 KV Substation Project.</li> </ul>	<p>As per ERC Order dated 14 January 2020, the ERC conducted Jurisdictional and Expository presentation on 26 February 2020.</p> <p>The ERC resolved to cancel all the out-of town hearings for February and March 2020 due to COVID-19 outbreak and said that it will issue an Order informing the new hearing schedule.</p>
ERC Case No. 2019-092RC/ December 17, 2019	Application for the Approval of the Implementation of the Cebu - Bohol 230 kV Interconnection Project.	<ul style="list-style-type: none"> <li>Immediately ISSUE an Order provisionally authorizing the implementation of the Cebu – Bohol 230 kV Interconnection Project; and</li> <li>After notice and hearing, APPROVE the Application for the implementationof the Cebu – Bohol 230 kV Interconnection Project.</li> </ul>	<p>As per ERC Order dated 14 January 2020, the ERC conducted Jurisdictional and Expository presentation on 26 February 2020.</p> <p>The ERC resolved to cancel all the out-of town hearings for February and March 2020 due to COVID-19 outbreak and said that it will issue an Order informing the new hearing schedule.</p>



DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUND FOR FILING	STATUS
ERC Case No. 2019-086RC/ October 29, 2019	Interim Maximum Annual Revenue for CY 2020 with Prayer for the Urgent Issuance of Provisional Authority	<ul style="list-style-type: none"> <li>Immediately Issue an Order provisionally approving the collection of the IMAR2020 in the amount of PhP58,846 Million effective January 2020 billing month (December 26, 2019 to January 25, 2020)</li> <li>Approve, after notice and hearing the authority to collect the IMAR 2020 in the amount of PhP58,846 Million.</li> </ul>	<p>Pursuant to ERC Order dated 11 November 2019, the ERC conducted Jurisdictional and Expository presentation on 12 February 2020.</p> <p>The ERC resolved to cancel all the out-of town hearings for February and March 2020 due to COVID-19 outbreak and said that it will issue an Order informing the new hearing schedule.</p> <p>Granted Interim Relief as per ERC Order dated February 13, 2020 (docketed April 2, 2020). ERC allowed NGCP to implement an Interim MAR for CY 2020 in the amount of PhP47,051.64 million.</p>
ERC Case No. 2019-085RC/ October 29, 2019	Application for the Approval of the Force Majeure Event Regulated FM Passthrough for Typhoon "Rosita" in Luzon In Accordance With The Rules For Setting Transmission Wheeling Rates	<ul style="list-style-type: none"> <li>Declare the occurrence of Typhoon "Rosita" in Luzon 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 North Luzon Operations and Maintenance District 4, as a Force Majeure Event (FME).</li> <li>Immediately grant Provisional Authority to implement and bill the following FM Pass-Through Amounts to Luzon customers starting the billing month of January 2020 to December 2020, or until such time that the amounts incurred are fully recovered.</li> <li>Approve the FME CAPEX and OPEX amounting to One Million Nine Hundred One Thousand Seven Hundred Eleven Pesos (PhP1,901,711.33) incurred NGCP for the repair, restoration, and rehabilitation of the damaged transmission assets and facilities due to FME Typhoon "Rosita".</li> <li>Approve and allow the partial recovery of the Net Fixed Asset Value (NFAV) of the transmission assets and facilities damaged by the FME Typhoon "Rosita" amounting to Seven Hundred Fifty Thousand Four Hundred Five Pesos and Eighty Five Centavos (PhP750,405.85) 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 FME; and the NFAV of other assets and facilities affected by the same typhoon which are yet to be retired, be considered during the updating of the costs</li> </ul>	<p>Pursuant to ERC Order dated 11 November 2019, the ERC conducted Jurisdictional and Expository presentation on 12 February 2020.</p> <p>The ERC set the continuance of hearing tentatively on 15 April 2020.</p>

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUND FOR FILING	STATUS
		<p>prior to the evaluation/approval of the case or during the next Reset Process.</p> <ul style="list-style-type: none"> <li>• Approve, after due notice and hearing the proposed FM Pass-Through Amounts to be collected from the Luzon customers starting January 2020 billing month to December 2020, or until such time that the amounts incurred are fully recovered.</li> <li>• Exclude the proposed Pass-Through Amounts from the side constraint calculation.</li> </ul>	
ERC Case No. 2019-077RC/ October 15, 2019	Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines and King Energy Generation, Inc. (Misamis Occidental Power Plant 2 – Panaon).	<ul style="list-style-type: none"> <li>• Immediately ISSUE a provisional authority to implement the subject ASPA executed on 3 July 2019; and</li> <li>• APPROVE, after notice and hearing, the subject ASPA.</li> </ul>	<p>Pursuant to ERC Order dated 21 October 2019, the ERC conducted hearing on January 9, 2020 (Thursday) at La Elena pension house, Brgy. Butuay, Poblacion Jimenes, Misamis Occidental.</p> <p>Provisionally Approved per ERC Order dated December 17, 2019 (docketed April 17, 2020)</p>
ERC Case No. 2019-076RC/ October 15, 2019	Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines and King Energy Generation, Inc. (Misamis Occidental Power Plant 3 - Jimenez).	<ul style="list-style-type: none"> <li>• Immediately ISSUE a provisional authority to implement the subject ASPA executed on 3 July 2019; and</li> <li>• APPROVE, after notice and hearing, the subject ASPA.</li> </ul>	<p>Pursuant to ERC Order dated 21 October 2019, the ERC conducted hearing on January 9, 2020 (Thursday) at La Elena pension house, Brgy. Butuay, Poblacion Jimenes, Misamis Occidental.</p> <p>Provisionally Approved per ERC Order dated December 17, 2019 (docketed April 17, 2020)</p>
ERC Case No. 2019-055RC/ July 19, 2019	Application for the Approval of Force Majeure Event Regulated FM Pass - Through for Flood Due to Enhanced Southwest Monsoon Rain Caused by Tropical Depression "Josie" in Luzon, in Accordance with the Rules for Setting Transmission Wheeling Rates, with Prayer for Provisional Authority	<ul style="list-style-type: none"> <li>• DECLARE the flood due to enhanced southwest monsoon rain caused by tropical depression "Josie" in Luzon as Force Majeure Events (FME);</li> <li>• Immediately GRANT Provisional Authority to implement and bill the following FM Pass-Through Amounts to Luzon customers starting the billing month of October 2019 to December 2020, or until such time that the amount incurred is fully recovered;</li> <li>• APPROVE the FME CAPEX/OPEX amounting to Ten Million Six Hundred Twenty-Six Thousand Eighty-Five Pesos and Seventy-One Centavos (Php10,626,085.71) incurred by NGCP for the repair, restoration, and rehabilitation of the damage transmission assets and facilities due FME flood due to enhanced southwest monsoon rain caused by tropical depression "Josie";</li> </ul>	<p>On November 4, 2019 the Evidentiary Hearing was continued and concluded.</p> <p>On November 25, 2019 TransCo received a copy of NGCP's Formal Offer of Evidence (FOE).</p> <p>On December 5 and 10, 2019 TransCo Submitted its comments on NGCP's FOE. After all the submission of comments from concern parties, it will be submitted for the final resolution of the Commission.</p>

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
		<ul style="list-style-type: none"> <li>• APPROVE and ALLOW the recovery of the Net Fixed Asset Value of the transmission assets and facilities damaged by the FME southwest monsoon rains and tropical depression "Josie" amounting to Twenty Thousand Pesos (Php20,000.00), given that it would have been fully recovered by NGCP if these transmission assets and other related facilities have not been damaged or destroyed by the said FME;</li> <li>• APPROVE, after due notice and hearing, the proposed FM Pass Through Amount to be collected from the Luzon customers starting October 2019 billing month to December 2020 or until such time that the amount incurred is fully recovered; and</li> <li>• EXCLUDE the proposed Pass-Through Amounts from the side constraint calculation.</li> </ul>	
ERC Case No. 2016-179RC/ October 10, 2016	Application of the National Grid Corporation of the Philippines for the Approval of Force Majeure Event Regulated FM _Pass-Through for Typhoon Lando in Luzon and Sabotage Incidents in Mindanao, In Accordance With the Rules for Setting Transmission Wheeling Rates.	<ul style="list-style-type: none"> <li>• Declare Typhoon Lando in Luzon and Sabotage Incidents in Mindanao as Force Majeure Events (FMEs).</li> <li>• Immediately grant Provisional Authority to implement and bill the FM Pass-Through Amounts to Luzon and Mindanao customers starting November 2016 billing month to December 2020 billing month or until such time that the amount incurred is fully recovered.</li> <li>• Approve the CAPEX and OPEX amounting to PhP13,448,010.87 incurred by NGCP for the repair, restoration and rehabilitation of the damaged transmission assets and other facilities due to FMEs Typhoon Lando and sabotage incidents in Mindanao.</li> <li>• Approve, after due notice and hearing, the proposed FM Pass-Through Amount to be collected from the Luzon and Mindanao customers starting November 2016 billing month or until such time that the amount incurred is fully recovered.</li> <li>• Approve and allow the recovery of the NFAV of the transmission assets and other related facilities damaged by the FMEs Typhoon Lando in Luzon amounting to PhP2,184,071.30 given that it would have been fully recovered by NGCP if these transmission assets and</li> </ul>	Continuation of Evidentiary hearings were conducted on 25 November 2019, 22 January 2020, and 10 February 2020, respectively.

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
		<p>other related facilities have not been damaged or destroyed by said FME.</p> <ul style="list-style-type: none"> <li>Exclude the proposed Pass-Through amount from the side constraint calculation.</li> </ul>	
ERC Case No. 2016-163RC/ August 22, 2016	Application of the National Grid Corporation of the Philippines for the Approval of Force Majeure Event Regulated FM Pass Through for Typhoon Ineng in Luzon, in Accordance with the Rules for Setting Transmission Wheeling Rates	<p style="text-align: center; font-size: 2em; opacity: 0.5;">DRAFT</p> <ul style="list-style-type: none"> <li>DECLARE Typhoon Ineng as Force Majeure Events (FME);</li> <li>Immediately GRANT Provisional Approval to implement and bill the FM Pass-Through Amount to Luzon customers starting September 2016 billing month to December 2020 billing month or until such time that the amount incurred is fully recovered;</li> <li>APPROVE the Capital Expenditure (CAPEX) amounting to Php1,561,298.74 incurred by NGCP for the repair, restoration and rehabilitation of the damaged transmission assets and other related facilities due to Typhoon Ineng as FME;</li> <li>APPROVE after due notice and hearing, the proposed FM Pass-Through Amount to be collected from the Luzon customers starting September 2016 billing month to December 2020 billing month or until such time that the amount incurred is fully recovered;</li> <li>APPROVE and ALLOW the recovery of the Net Fixed Asset Value of the transmission assets and other related facilities damaged by the FME Typhoon Ineng amounting to Php1,578,209.42 given that it would have been fully recovered by NGCP if these transmission assets and other related facilities have not been damaged or destroyed by FME Typhoon Ineng; and EXCLUDE the proposed Pass-Through Amount from the side constraint calculation.</li> </ul>	Pursuant to ERC Order dated October 30, 2019 the Commission conducted initial hearing on December 2, 2019, but due to NGCP's non-compliance on the publication requirements the hearing was cancelled.

Source: Transco

Annex 3. ERC Approved Capital Expenditure Projects

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (Php)	DATE FILED/APPROVED OR PROMULGATED
<b>Angeles Electric Corporation (AEC)</b> ERC Case No. 2015-180 RC	Replacement of Damaged On-Load Tap Changer Installed at the 40 MVA Power Transformer of the Calibu Substation	<ul style="list-style-type: none"> <li>To provide the continuous and reliable supply of electricity; and</li> <li>To improve AEC's service to its member-consumers</li> </ul>	9,796,160.72	22 October 2015/ 25 November 2019
	Relocation of Poles & Lines Due to Ongoing DPWH Road-Widening Projects		7,855,659.00	
	Procurement of 2-Way Radio Communication Equipment to Comply with NTC Memoranda to Shift to a New radio Frequency		3,365,079.00	
<b>Isabela I Electric Cooperative, Inc.</b> (ISELCO I) ERC Case No. 2014-170 RC	Replacement of rotten pole/cross arm	To maintain a safe and reliable distribution network.	29,015,205.00	13 November 2014/ 27 November 2019
	Replacement of defective recloser	To maintain a safe and reliable distribution network.	5,287,664.40	
	Upgrading of overextended service drop wire into primary and secondary lines	To maintain a safe and reliable distribution network.	19,872,565.45	
	Upgrading of 10 MVA Alicia Substation into 20 MVA Substation	To address the capacity problem of ISELCO I's Alicia Substation.	6,247,423.18	
	Installation of new 20 MVA Batal Substation	To address the increasing demand of Santiago City by relieving the loading capacity of ISECO I's 10/12.5 MVA Cordon Substation.	12,369,460.54	
	Construction of 6.8 km Alicia Feeder 4	To address the increasing demand of ISELCO I otherwise shall result in failure to accommodate new customers of ISELCO I.	3,849,803.60	
	Line conversion from V-phase to 3-phase from Alicacao to Villa Luna of Cauayan Feeder 2	To accommodate the incoming 3-phase customers within the distribution feeder of Cauayan Feeder 2 by converting its existing V-phase lateral lines to a 3-phase configuration system.	620,599.28	
	Line conversion of 2.98 km 1-phase to 3-phase at Viga, Angadanan of Feeder 3 of Alicia Substation	To accommodate incoming 3-phase customers within the distribution feeder of Alicia Substation's Feeder 3 by converting its existing 1-phase lateral lines at Viga, Angadanan to a 3-phase configuration system.	545,230.02	
	Reconductoring of 4.4 km 3-phase line of Feeder 3 Cordon Substation	To accommodate the increasing number of consumers of ISELCO I.	1,212,684.14	
	New member consumer's kWhr meters and connection accessories	To accommodate new customers	348,956.71	
	Additional distribution transformers	To address the increasing demand of ISELCO I	25, 143,072.55	
	Primary line expansion	To accommodate new customers of ISECO I	-	
Additional secondary lines	To accommodate new customers	-		

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (Php)	DATE FILED/APPROVED OR PROMULGATED
	Additional service drop wires	To address the increasing demand of ISELCO I	3,017,631.49	
	Construction of 0.8 km 3-phase diversion line at Victory Norte, Santiago City	To address the capacity problem of Feeder 3 of Cordon Substation.	368,888.53	
	Conversion of V-phase to 3-phase from Angadanan to San Guillermo	To address the power quality problem of Feeder 2 of Alicia Substation.	601,579.42	
	Acquisition of Santiago-Cauayan 69 kV sub-transmission line and Cauayan Substation	To improve and maintain the power reliability at its optimum level	23,834,187.36	
	Replacement of defective kWh meters	To provide accurate measurement of energy consumed by each member-consumer.	18,622,115.50	
	Improvement of communication system and communication technology	To improve service efficiency	3,290,542.00	
	Purchase of tools and instruments	To improve service efficiency	3,676,152.00	
	Infrastructure development	To improve service efficiency	35,853,478.24	
	Purchase of service and maintenance vehicle	To improve service efficiency	259,133,358.35	
<b>Batangas I Electric Cooperative, Inc. (BATELEC I)</b> ERC Case No. 2011-059 RC	<b>Network CAPEX Projects</b>			
	Installation of 10 MVA Natipuan substation and Construction of 69 kV Line	To address problems on the capacity of Naugbu 10 MVA Substation and power quality of Tali Feeder.	73,997,810.24	28 February 2011/ 09 December 2019
	Meter Clustering (3,000 and 7,500 consumer meter)	To cluster the kWh meters installed in the highly urbanized and pilferage-prone parts of the franchise area to reduce system loss.	25,075,029.65	
	Replacement of Stopped kWh Meters	To avoid non-technical losses which BATELEC I may suffer if not replaced immediately and may be passed on to the consumers within the limits prescribed by the ERC.	6,715,500.00	
	Acquisition of Distribution Transformers	To address the overloading of BATELEC I's secondary distribution system.	40,485,305.00	
	Installation of Secondary Distribution Lines	The distribution network ends in the secondary lines where most of the end-users of electricity are connected. Considering the increase in the number of consumers is not confined in any given area, the secondary line materials has to be available wherever there are developments and where people build their homes	20,632,802.28	
	Purchase of Electronic kWh Meters and Service Drops Wires	To provide services and connections to its system to end-users within its franchise area consistent with the Philippine Distribution Code.	45,215,907.18	
<b>Non-Network CAPEX Projects</b>				

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (Php)	DATE FILED/APPROVED OR PROMULGATED
	Engineering Services Division Expansion and Construction of Corplan Department Office	To address problems on the cramped and cluttered Engineering Service Division office, inadequate comfort rooms, and adequate office to establish Corplan Department to carry out its operation.	1,161,559.01	
	Engineering Building Expansion/Renovation/Meter laboratory	To place the meter laboratory in the Engineering Service Division and aims to renovate its design to a more suitable and regulatory complaint meter laboratory.	723,969.533	
	Construction of Linemen's Quarter/Shift Maintenance Supervisor Office (2018)	Accordingly, the existing linemen's quarter is no longer suitable for accommodating their personnel and the need to relocate to the TSD Building.	530,450.00	
	Construction/Renovation of Headquarter (Main Office Building)	A service efficiency project which involves the construction of a two-storey building for the General Manager, Board of Directors, Institutional Services Department and Financial Services Department.	28,981,852.00	
	Acquisition of Engineering Software	To aid in the collection, organization, and analysis of the necessary data essential for decision making.	416,250.00	
	Acquisition of Special Equipment			
	a. Acquisition of Fault Indicators (2016)	To aid in the efficient and reliable operation of distribution system	782,946.42	
	b. Acquisition of Transformer Test Equipment Set-TTR, Winding Resistance Tester (2017)		607,923.21	
c. Acquisition of Fault Indicators (2016)	178,392.86			
<b>Cebu II Electric Cooperative, Inc. (CEBECO II)</b> ERC Case No. 2017-087 RC	Replacement and installation of 69/13.2 kV, 20 MVA power transformer and protection enhancement uprating project	To continuously provide electricity to the affected areas.	27,492,861.78	28 September 2017/ 14 January 2020
<b>Bantayan Island Electric Cooperative, Inc. (BANELCO)</b> ERC Case No. 2016-012 RC	Replacement of Deteriorated Conductors of Feeder 2 and Feeder 3 backbone Lines	To address safety concerns relative with the deteriorated conductors of BANELCO's Feeder 2 and Feeder 3	7,19,007.03	17 February 2016/ 11 February 2020
	Correction of All Temporary Guys and Anchors	To address the safety concerns concerning temporary guys and anchors	918,461.24	
	Procurement of Current Limiter Fuse	To provide coordinated protection to prevent breakdown of distribution transformers from lightning-caused surges	1,730,232.14	

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (Php)	DATE FILED/APPROVED OR PROMULGATED
	Add-ons (Service Drop Wires and Metering)	To address the increasing demand of BANELCO	13,789,640.00	
	Distribution Transformer Requirement	To address the increasing demand of BANELCO	8,616,568.48	
	Renewal Projects	To replace existing kWh meters found to be defective	6,343,800.00	
	Early Implementation Projects (Yolanda Restoration and Rehabilitation Project)	To fully restore power and to be able to charge from the Reinvestment Fund the remaining payables of BANELCO to its material suppliers for Yolanda Restoration and Rehabilitation Project	8,103,226.05	
	Linemen Tools and Instruments	To improve service efficiency	3,157,955.72	
	Vehicles	To improve service efficiency	3,776,590.50	
	Coop Vehicle Parking Shed	To improve service efficiency	1,013,178.20	
	Consumer's Comfort Rooms	To improve service efficiency	233,837.65	
	Power Quality Analyzer	To improve service efficiency	574,585.00	
	Geographical Information System Software	To improve service efficiency	900,000.00	
Repair of Warehouse, Motor pool and Engineering Bldg.	To improve service efficiency	1,500,000.00		
Consumers and Employees Multi-Purpose Covered Court	To improve service efficiency	5,054,697.50		
<b>Oriental Mindoro Electric Cooperative, Inc. (ORMECO)</b> ERC Case No. 2016-195 RC	Installation of a new 5 MVA Substation at Brgy. Papandayan, Pinamalayan, Oriental Mindoro	To address the capacity issue and frequent power interruptions in the Municipalities of Pinamalayan and Gloria, both in the Province of Oriental Mindoro.	10,180,770,000.00	09 December 2016/ 17 February 2020
<b>Bukidnon Second Electric Cooperative Inc. (BUSECO)</b> ERC Case No. 2018-028 RC	Northern Mindanao Wellness and Reintegration Center  - Construction of 2.93 km 13.8 kV 3 Phase line from Sumpong, Malabalay City to Northern Mindanao Wellness and Reintegration Center, Purok 17, Brgy. Casisang, Malaybalay City	Pursuant to Section 23 of the EPIRA, to provide the necessary connection facility (electrical connection) for the Northern Mindanao Wellness and Reintegration Center, a newly constructed drug rehabilitation facility under the Department of Health at Brgy. Casisang, Malaybalay City, Bukidnon, which is the franchise area of BUSECO.	2,635,057.00	23 April 2018/ 26 February 2020



APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (Php)	DATE FILED/APPROVED OR PROMULGATED
Leyte III Electric Cooperative, Inc. (LEYECO III) ERC Case No. 2018-112 RC	10 MVA Power Transformer and protection Packages	To accommodate the capacity requirement needed for the spot load in Alangalang Substation	35,888,164.00	28 November 2018/ 29 April 2020
	5 MVA Substation at Capoocan, Leyte	To resolve power quality issues, and to relieve the capacity congestion of Tunga Substation	32,284,200.00	

Source: ERC

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