32nd Electric Power Industry Reform Act (EPIRA) Implementation Status Report

(For the Report Period April 2018)

Prepared by the
Department of Energy

With Contributions from

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

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I. EXECUTIVE SUMMARY

The Department of Energy (DOE) continues to supervise the implementation of the Republic Act No. 9136 or the Electric Power Industry Reform Act of 2001 (EPIRA). Overseeing the power reform activities, the DOE submits the 32nd Status Report on EPIRA implementation as of April 2018 which includes accomplishments and various challenges that were pursued by the DOE in collaboration with the Energy Regulatory Commission (ERC) and the DOE's Attached Agencies, namely, the National Electrification Administration (NEA), Power Sector Assets and Liabilities Management Corporation (PSALM), National Transmission Corporation (TransCo) and National Power Corporation (NPC), as well as other key private sector entities, among others, the National Grid Corporation of the Philippines (NGCP) and the Philippine Electricity Market Corporation. Correspondingly, the submission of this report to the Joint Congress Power Commission (JCPC) shall serve as concrete basis of the JCPC to formulate legislative recommendations to ensure that EPIRA objectives are being met.

On the privatization of the power sector assets of the government, PSALM continues to undertake activities for the eventual sale of all remaining assets thru the guidance of the PSALM Board and the DOE as to matters that may affect supply and demand for better services to electricity consumers. Relative thereto, PSALM issued a revised timeline for the completion by 2022 of the sale of its remaining assets. The bulk of the assets are targeted to be sold by 2019 which include the Malaya Thermal Power Plant, Casecnan and Kalayaan Hydro Power Plants, among others. Meanwhile, out of the proceeds from privatization, PSALM was able to reduce the country's power sector foreign debts from the beginning balance in 2000 of PhP830.7 billion to PhP466.2 billion (or USD9.3 billion) as of 4th quarter of 2017 or a decrease of PhP774.5 billion.

For the Wholesale Electricity Spot Market (WESM) implementation, major highlights include the establishment of the Independent Market Operator wherein the DOE promulgated the Department Circular No. 2018-01-0002 entitled "Adopting Policies for the Effective and Efficient Transition to the Independent Market Operator (IMO) for the WESM". Likewise, the DOE, in coordination with the Energy Regulatory Commission, the Market Operator, System Operator and other key stakeholders, remain steadfast in pursuing the implementation of the new WESM design and the WESM Mindanao.

Initiatives to ensure consumer protection were likewise spearheaded by the DOE, among others, the promulgation of Department Circular No. DC2018-02-0003 entitled "Adopting and Prescribing the Policy for the Competitive Selection Process (CSP) in the Procurement by the Distribuition Utilities of Power Supply Agreement for the Captive Market", on 01 February 2018. The said policy is to ensure compliance to Section 23 of the EPIRA, of all distribution utilities as they are mandated to supply the captive customers in the least cost manner. the DOE issued The said policy will be applicable for both on-grid and off-grid DUs and is envisioned to provide mechanism for fair and transparent procuirement process that will promote competition and greater private sector participation to attain adequate capacity to meet the demand in the captive market. Likewise, the DOE started consultation process for the policy on uniform billing and review of the implementing rules and regulation of the EPIRA.

With regard to the implementation of the retail competition and open access (RCOA), the Supreme Court is still to decide on the cases filed by various groups in relation to the policies promulgated by the DOE and the corresponding rules and regulations issued by the ERC. To provide relief, DOE promulgated two (2) separate policies as action in response to the Supreme Court Order thru Department Circular No 2017-12-0013 entitled, "Providing Policies on the Implementation of Retail Competition and Open Access (RCOA) for Contestable Customers in the Philippine Electric Power Industry" and Department Circular No. 2017-12-0013 entitled, "Providing Policies On The Implementation Of Retail Competition And Open

Access (RCOA) For Retail Electricity Suppliers (RES) In The Philippine Electric Power Industry".

In terms of the electricity pricing as of March 2018 compared to the December 2017 rates, there is a significant increase in country's average electricity rates, electric cooperatives' average systems rate, and national average systems rates of private distribution utilities average systems by PhP1.25 centavos/kWh, PhP0.98 centavos/kWh, and PhP1.25 centavos/kWh, respectively. While for Meralco, an increase in its average electricity rates is in the amount of PhP1.07 centavos/kWh.

Meanwhile, the power supply-demand situation/outlook include reports on the significant incidents in the power system, outages, and various initiatives of the DOE being undertaken in compliance with Section 71 of the EPIRA. Total dependable capacity for the national grid was at 20,515 MW while maximum available capacity was recorded at 16,228 MW. Coal power plants continue to provide the bulk of power generation at 50% followed by natural gas at 22%. The country's peak demand for this period recorded at 13,789 in 2017 compared at 13,272 MW in 2016.

The household electrification level of the country is estimated at 90.7%. In terms of the government's continuing effort to intensify rural electrification, the current implementation of the Nationwide Intensification of Household Electrification (NIHE) Program with the renewed targets for household electrification is currently in process to meet the target for the year 2017.

The DOE, as administrator of fund derived from the implementation of Energy Regulations No. 1-94, as amended has already established a total of 1,021 Trust Accounts for Electrification Fund (EF) Development and Livelihood Fund (DLF), Reforestation, Watershed Management, Health and/or Environment Enhancement Fund (RWMHEEF). The financial benefit from inception (Year 1995) to April 2018 has accrued to PhP11.3 Billion from which PhP7 Billion was obligated for the implementation of projects. This leaves an available fund at around PhP4.3 Billion available for beneficiaries.

II. PRIVATIZATION

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

During the report period, the DOE has directed PSALM to explore the option of privatization of the Malaya Thermal Power Plant (MTPP) on an as-is-where-is basis to include the requirement that the Successor Generating Company (SGC) shall operate MTPP for three (3) years from sale. Further, the PSALM Board has duly approved to engage a third (3rd) party advisor to conduct all privatization transactions for the assessment of best option, Terms of Reference (TOR) and valuation relative to the privatization of MTPP.

While MTPP is not yet privatized, PSALM engaged the services of STX Marine Service Co., Ltd. as the current operator of the MTPP through a public bidding for a one (1) year Operation and Maintenance Service Contract (OMSC) for MTPP effective on 25 August 2017 and will end its contract on 24 August 2018. The procurement activity for the 2018-2019 OMSC has commenced in view of the contract expiration of the current operator on 24 August 2018.

Meanwhile, PSALM conducted review of the privatization of ULGPP Bulk Strips while its capacity is being considered for possible contracting with bilateral customers in Visayas.

For the remaining generating assets and IPP contracts, the latest privatization targets are indicated in Table 1 and Table 2.

Table 1. Schedule of Privatization for Generating Assets as of 31 March 2018

Asset Type/ Plant Name	Rated Capacity (MW)	Bid Date	Turnover Date
Owned Generating Plants			
Malaya Thermal	650.00	2018	
Agus 1 & 2 Hydro	260.00	For Rehabiltiation Privatization is subject to consultation with Congress and PSALM Board's policy direction	
Agus 4 & 5 Hydro	213.10		
Agus 6 & 7 Hydro	254.00		
Pulangui Hydro	255.00		
Decommissioned Plants			
Bataan Thermal	175.00	Sale/disposal is subject to resolution of court cases involving the asset	
Bataan Gas Turbines	120.00		

Source: PSALM

Table 2. Indicative Privatization Schedule for the Appointment of IPPAs as of 31 March 2018

Grid	Plant Name	Contracted Capacity (MW)	Bid Date	Turnover Date
Luzon Grid	Casecnan Multi-Purpose Hydro	140.00	2019	
	Benguet Mini Hydro [1/]	30.75	IPP contract expired on 30 January 2018	
	Caliraya-Botocan-Kalayaan Hydro	728.00	2019	
	Sub-total Luzon	**898.75**		
Visayas Grid	Unified Leyte - Bulk Energy	160.00*	Will operate until contract expiration in 2022	
	- Security Strip	40.00		
	Sub-total Visayas	**200.00**		
	Mindanao Coal-Fired	200.00	2018	
	Sub-total Mindanao	**250.00**		
	GRAND TOTAL	**1,298.75**		

[1/] IPP contract not subject to privatization/asset sale

** Based on the average daily declared capability by the Energy Development Corporation (EDC) of about 400 MW less the 200 MW sum of Strips of Energy and 40 MW security capacity of PSALM.*

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. On 17 November 2017, PSALM issued Option Existence Notice (OEN) for a lot covering an area of 2,511 sq. meter located in Pantabangan HEPP to FirstGen Hydro Power Corporation (FGHPC). Consequently, on 14 December 2017, FGHPC notified PSALM of its intention to exercise its Option. Of the same date, PBAC conducted the verification/post-qualification of the winning bidder for the procurement of services of third party real estate appraiser for Cebu DPP Land and Aplaya DPP Land. On 23 January 2018, payment instruction/notice was sent to FGHPC relative to its acceptance for one (1) lot covering an area of 2,511 sq. m. On 14 February 2018, PSALM received from FGHPC the net payment for (1) lot with an area of 2,511 square meters amounting USD5,682.87. The review and finalization of Deed of Absolute Sale (DOAS) is on going;

2. On 31 January 2018, another OEN for the Makban Geothermal Power Plant was issued to Aboitiz Power Renewables, Inc. (APRI) for fifteen (15) lots covering an area of 24,200 sq. meter;

3. On 14 February 2018, for Limay Combined Cycle, PSALM received the amount of USD1,343,577.14 as net payment for four (4) lots with an area of 65,626 sq. meter. The review and finalization of Deed of Absolute Sale (DOAS) is ongoing; and

4. On 5 to 7 December 2017, PSALM published the Invitation to Bid for Manila TPP Land and Bauang DPP Land, respectively. The following interested bidders purchased the bidding documents:

Manila Thermal Power Plant	Bauang Diesel Power Plant
1. Philman Corporate Distribution Corporation	1. Gigawatt Power Inc.
2. G.T.K. Trading	2. Provincial Government of La Union
3. MEMA Holdings, Inc.	3. MEMA Holdings, Inc.
4. Millenium Energy, Inc.	4. Millenium Energy, Inc.
	5. Garealty, Inc.
	6. Sea Oil Philippines, Inc.

C. Privatization Proceeds

As of 1st Quarter 2018, PSALM, through the privatization of generation assets, the transmission business, and the IPP contracted capacities, has generated a total of US$20 billion. Also, the actual collection amounted to US$11.89 billion.

Table 3. Privatization Proceeds as of 1st Quarter 2018, (in US$ Billion)

Privatization Assets	Generated	Collected	Balance
Generating Assets	3.61	3.61	0.00
Decommissioned Plants	0.01	0.01	0.00
Transmission Asset (TransCo)	6.10	4.09	2.01
Appointment of IPPAs	10.25	4.18	6.07
TOTAL	**19. 97**	**11.89**	**8.08**

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.

Out of the US$10.5 billion privatization proceeds utilized, US$10.9 billion or 99.10% was used for the liquidation of financial obligations. The difference between the total amount collected and total utilization in the amount of US$0.64 billion is placed in temporary investments while awaiting utilization.

Table 4. Privatization Proceeds Utilization as of 1st Quarter 2018

Particulars	In US$ Billion
Debt Prepayment	1.30
Regular Debt Service	6.68
Lease Obligations	2.90
Others	0.10
TRANSCO Opex	0.00
TOTAL	**10.98**

USD:PhP = 52.207 (BSP Guiding Rate dated 31 March 2018)
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 No. 9511 or the Franchise Law and the Construction Management Agreement (CMA), 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) held its 1st Meeting for CY 2018 for the final review of the Assessment Report on NGCP's compliance with the provisions of the CA for CY 2016. The TRFLAT that for those items/ provisions where compliance/ non-compliance cannot be determined, NGCP shall be required to provide a declaration/ statement confirming its compliance on the CA provision. The Assessment Report is for finalization.

Transco continues to conduct inspection of the assets condition and Project Under Construction (PUC) accomplishments consistent with the inspection protocol established with the concessionaire. Observation Reports were forwarded to the Concessionaire for their corrective actions. Annex 1 shows the summary report on inspections conducted by TRFLAT.

With regard to NGCP's compliance to CMA, TransCo's inspections report of PUC and new projects' are attached as Annex 2.

E. Sale of Sub-Transmission Assets (STAs)

The sale of TransCo's STAs involves 123[1] sale contracts and 107 interested distribution utilities (DUs), most of which are electric cooperatives (ECs). The STAs include some 5,900 ckt-km of mostly 69 kV transmission lines and 1,600 MVA of substation capacity.

As of 30 April 2018, TransCo has signed 113 sale contracts with 92 DUs/ECs/consortia amounting to PhP6 billion. These sales cover an aggregate length of 3,804 ckt-kms of sub-transmission lines and 34,048 sub-transmission structures and 830 MVA of substation capacity. Of the 113 sale contracts, 71 contracts with total sale price of PhP4.3[2] billion

[1] *Corrected number of sale contracts*
[2] *The total ERC approved amount of PhP2.938 billion is lower compared to the total contract amount of PhP4.24 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

have been approved, approved with modification, and disapproved. Included in the said 71 contracts are eight (8) contracts amounting to PhP261.5 million disapproved as of April 30, 2018 posted at the ERC website. The rest of the sale contracts are for filing with the ERC for evaluation and approval.

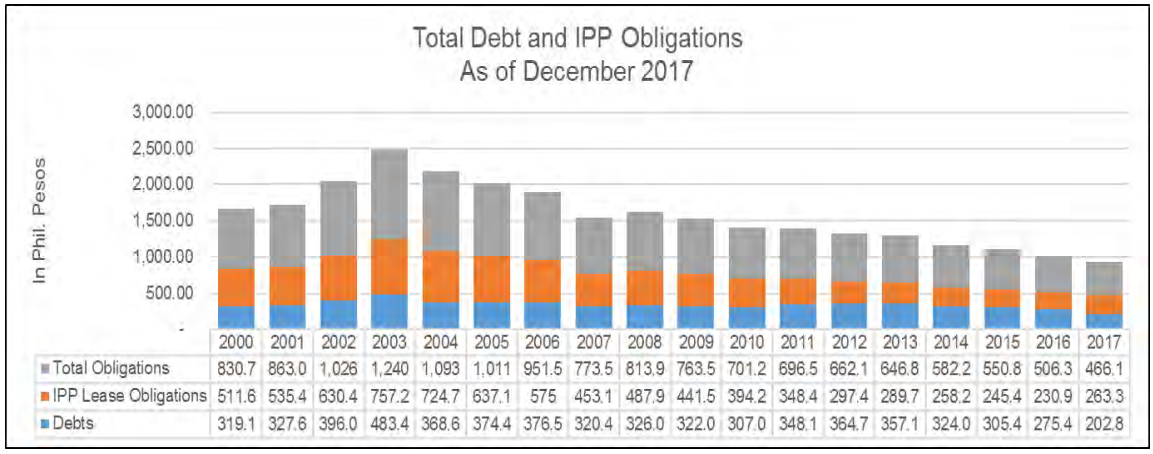
d) Exclusion of some assets from the ERC approval due to decommissioning
e) DU withdrawal from the ERC Joint Application of the sale contract
f) The STA in the sale contract should be sold to a consortium instead of a single DU because the STA is in a super loop configuration.

III. PSALM LIABILITY MANAGEMENT

From the beginning balance in 2000 of PhP830.7 billion, PSALM's financial obligations went down to PhP 466.1 billion as of end-December 2017. Of this amount, 57% comprise IPP lease obligations while 43 percent corresponds to PSALM debts with various financing institutions.

Figure below shows the movement of the financial obligations of PSALM from 2000 to 4th Quarter 2017.

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



Source: PSALM

Table 5. Financial Obligations as of 4th Quarter 2017

	PhP Equivalent (In Billions)	USD Equivalent (In Billions)
Debts	263.31	5.27
IPP Lease Obligations	202.93	4.06
Total	**466.24**	**9.33**

** Figures based on 4th Quarter 2017 Statement of Financial Position.*

In terms of currency, more than half (50.52%) of PSALM's debt is denominated in dollars, amounting to PhP133.03 billion. Peso-denominated debt accounts for 39.12%, equivalent to PhP102.96 billion. The remaining debt is in Japanese Yen (10.36%), amounting to PhP27.28 billion.

Table 6. Financial Obligations by Currency as of 4th Quarter 2017

Currency	Debt	IPP Lease	Debt	IPP Lease	Debt	IPP Lease
	Amount in PhP Equivalent (In Millions)		Amount in USD Equivalent (In Millions)		Percent to Total	
USD	133, 028.8	202, 417.5	2,664.7	4, 054.6	50.52%	99.75%
PHP	102,955.8	512.7	2,063.1	10.3	39.12%	0.25%
JPY	27,280.9	-	546.4	-	10.36%	-
	263,305.5	202, 930.2	5,274.2	4,064.9	100.00%	100.00%

Exchange Rates Used: BSP Guiding Rate dated 31 December 2017
USD : PhP 1.00 = 49.9230 KRW : PhP 1.00 = 0.0467 EUR : PhP 1.00 = 59.6131 JPY : PhP 1.00 = 0.4423
Source: PSALM

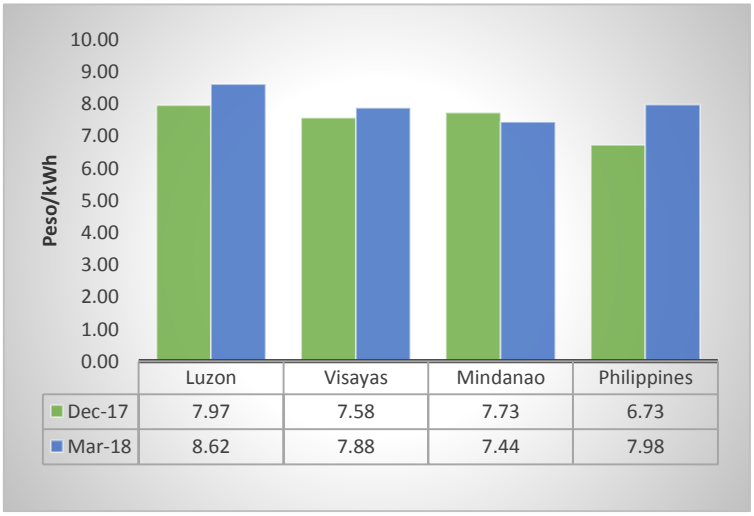
IV. ELECTRICITY RATES

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

A. Average Electricity Rates

The country's average electricity rates as of March 2018 is around PhP7.98/kWh, PhP1.25 centavos higher compared with the December 2017 national average systems rate. Only the Mindanao grid posted a rate reduction from PhP7.73/kWh in December 2017 to PhP7.44/kWh in March 2018 or a decrease of 29 centavos/kWh. Luzon and Visayas grid increased by 65 centavos/kWh and 30 centavos/kWh, respectively.

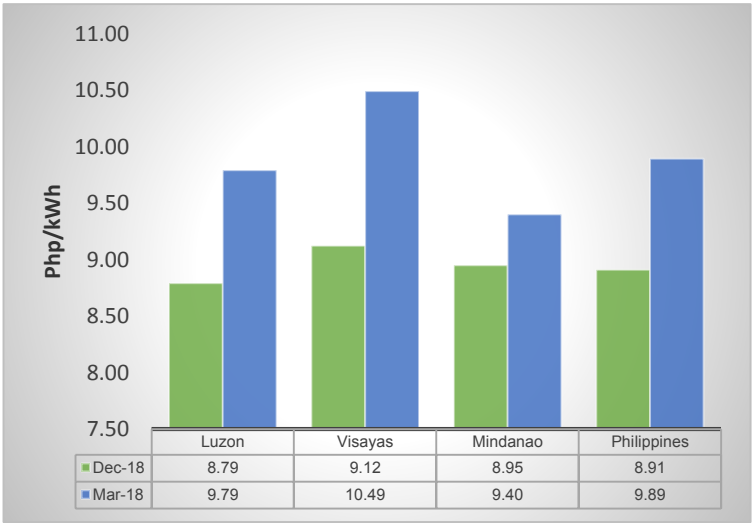
Figure 2 - National Average Systems Rate



	Luzon	Visayas	Mindanao	Philippines
Dec-17	7.97	7.58	7.73	6.73
Mar-18	8.62	7.88	7.44	7.98

Meanwhile, the ECs' average systems rate for March 2018 is at PhP9.89/kWh, 0.98 centavos higher compared to December 2017 rate. Among the three grids, Visayas grid experienced highest increase in rate of 1.37 centavos from Php 9.12/kWh in December 2017 to Php 10.49/kWh in March 2018. Also, Luzon and Mindanao grids posted a increase in rate in the amount of 1 and 45 centavos/kWh respectively.

Figure 3 - Electric Cooperatives' Average Systems Rate



	Luzon	Visayas	Mindanao	Philippines
Dec-18	8.79	9.12	8.95	8.91
Mar-18	9.79	10.49	9.40	9.89

As can be glanced from Table 8, the ECs' national average unbundled residential electricity rate for March 2018 was PhP 9.93/kWh. On the average, generation costs comprise the bulk of ECs residential rates at around 54% followed by distribution, supply and metering charges (DSM) at 17% and transmission costs at around 10%.

Visayas grid still has the highest average effective residential electricity rates at around PhP10.55/kWh of which generation costs comprise 57%. Notably, Visayas residential rates has the lowest transmission costs as compared to Luzon and Mindanao.

Among the three (3) grids, Mindanao EC residential customers paid the lowest generation costs at PhP 5.05/kWh. Likewise, its average DSM cost is the lowest among the grid at around PhP1.69/kWh.

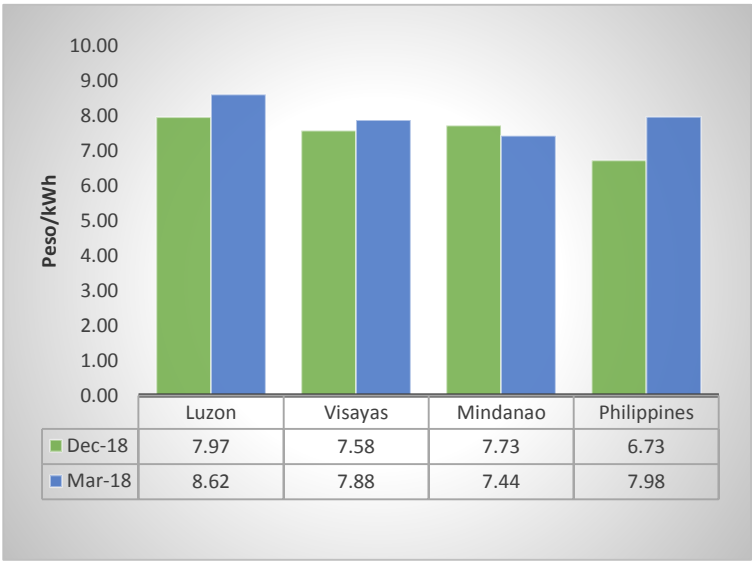
Table 7. Summary of ECs Residential Unbundled Power Rates, April 2018 (PhP/kWh)

Bill Subgroup	LUZON		VISAYAS		MINDANAO		NATIONAL	
	PhP/kWh	% share	PhP/kWh	% share	PhP/kWh	% share	PhP/kWh	% share
Generation	5.24	53.54	6.04	57.25	5.05	52.97	5.41	54.48
Transmission	1.08	11.07	0.84	7.96	0.97	10.15	0.98	9.89
System Loss	0.82	8.40	0.83	7.87	0.80	8.43	0.82	8.25
DSM[1]	1.71	17.46	1.82	17.24	1.69	17.75	1.73	17.47
RFSC[2]	0.36	3.73	0.36	3.39	0.50	5.24	0.40	4.01
Other Charges[3]	(0.05)	(0.52)	-0.03	(0.31)	-0.11	(1.17)	-0.06	(0.63)
Subsidy Charges[4]	0.01	0.11	0.07	0.63	0.05	0.48	0.04	0.36
Universal Charges[5]	0.59	6.04	0.57	5.43	0.55	5.81	0.58	5.79
Other Taxes[6]	0.02	0.17	0.06	0.53	0.03	0.36	0.04	0.38
Total	**9.78**	100	10.55	100	9.53	100	9.93	100

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

The national average systems rates of PIOUs posted an overall increase of PhP1.25 centavos/kWh from PhP6.73 per kWh in December 2017 to PhP7.98/kWh in March 2018. Only the Mindanao grid posted a decrease of PhP0.29 centavos per kWh while Luzon and Visayas increased by PhP0.65/kWh and PhP 0.30/kWh, respectively.

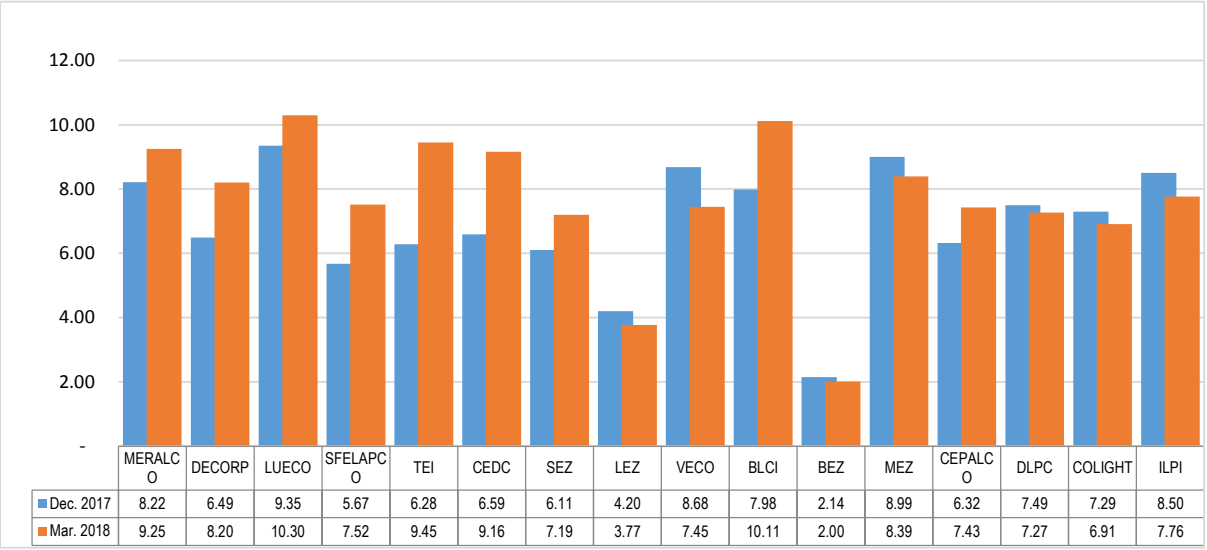
Figure 4 - Private Distribution Utilities' Average Systems Rate



Among the Luzon PIOUs, La Union Electric Company (LUECO) posted the highest rate for the month of March 2018 at PhP 10.30/kWh. On the other hand, the lowest average rate was noted for the Subic Enerzone (SEZ) at PhP 7.19/kWh. The low rates can be attributed to the customer profile of SEZ which is around 82% industrial, 14% commercial and 4% residential, on the basis of megawatthour sales.

In the Visayas grid, the Visayan Electric Company (VECO), average electricity rates for March 2018 was lower by PhP1.23/kWh compared to the December 2017 level of PhP8.68/kWh. Bohol Light Power and Company posted a significant increase of PhP2.34/kWh while Balamban and Mactan Enerzone posted a decrease of PhP 0.14/kWh and PhP 0.61/kWh. For the Mindanao grid, except for Cagayan Electric Power and Light Company (CEPALCO) which had a PhP1.10/kWh increase in average electricity rates, all the PIOUs showed a significant reduction as follows: Davao Light and Power Company (DLPC) at 23 centavos/kWh, Cotabato Light and Power Company (CLPC) at 39 centavos/kWh and Iligan Light and Power Company (ILPI) at 74 centavos/kwh.

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



	MERALCO	DECORP	LUECO	SFELAPCO	TEI	CEDC	SEZ	LEZ	VECO	BLCI	BEZ	MEZ	CEPALCO	DLPC	COLIGHT	ILPI
Dec. 2017	8.22	6.49	9.35	5.67	6.28	6.59	6.11	4.20	8.68	7.98	2.14	8.99	6.32	7.49	7.29	8.50
Mar. 2018	9.25	8.20	10.30	7.52	9.45	9.16	7.19	3.77	7.45	10.11	2.00	8.39	7.43	7.27	6.91	7.76

MERALCO, the largest distribution utility in the country, posted an increase in its average electricity rates in the amount of PhP1.07 centavos per kWh from PhP 9.25/kWh in December 2017 to PhP10.32 in March 2018. For MERALCO's various customer classes in the March 2018 billing period, industrial customers have the lowest rate at PhP7.94/kWh, followed by commercial customers and residential customers at PhP9.24/kWh and Php10.53/kWh respectively.

Table 8. MERALCO Electricity Charges for March 2018

Charges	Residential (PhP/kWh)	Commercial (PhP/kWh)	Industrial (PhP/kWh)
Generation	5.2929	5.2815	5.2374
Transmission	0.8674	0.9688	0.7689
System Loss	0.5116	0.3913	0.2734
DSM	2.4846	1.1897	0.6221
Cross Subsidies	-0.2619	0.0997	0.0999
Universal Charges	0.3796	0.379	0.3786
Gov't Taxes	1.0723	0.7488	0.3745
Fit-All Charge	0.1832	0.183	0.183
TOTAL	**10.5297**	**9.2418**	**7.9378**

Source: Meralco website

For the same period, MERALCO's effective residential rates for the different residential customer classes ranged from PhP10.32/kWh to PhP11.53/kWh of which the highest component was generation costs at PhP5.30/kWh. MERALCO distribution charges for its different residential customer classes comprised 19-26% 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 51-centavos/kWh.

Table 9. Summary of MERALCO Residential Unbundled Power Rates, March 2018 (PhP/kWh)

BILL SUBGROUP	0 to 200 kWh	% Share	201 to 300 kWh	% Share	301 to 400 kWh	% Share	Over 400 kWh	% Share
Generation	5.30	51%	5.30	50%	5.30	48%	5.30	46%
Transmission	0.87	8%	0.87	8%	0.87	8%	0.87	8%
System Loss	0.51	5%	0.51	5%	0.51	5%	0.51	4%
Distribution	1.96	19%	2.24	21%	2.52	23%	3.03	26%
Subsidies*	0.10	1%	0.10	1%	0.10	1%	0.10	1%

Universal Charge	0.38	4%	0.38	4%	0.38	3%	0.38	3%
Fit-All Renewable	0.18	2%	0.18	2%	0.18	2%	0.18	2%
Government Taxes	1.03	10%	1.06	10%	1.10	10%	1.16	10%
TOTAL	10.32	100%	10.64	100%	10.96	100%	11.53	100%

Source: MERALCO

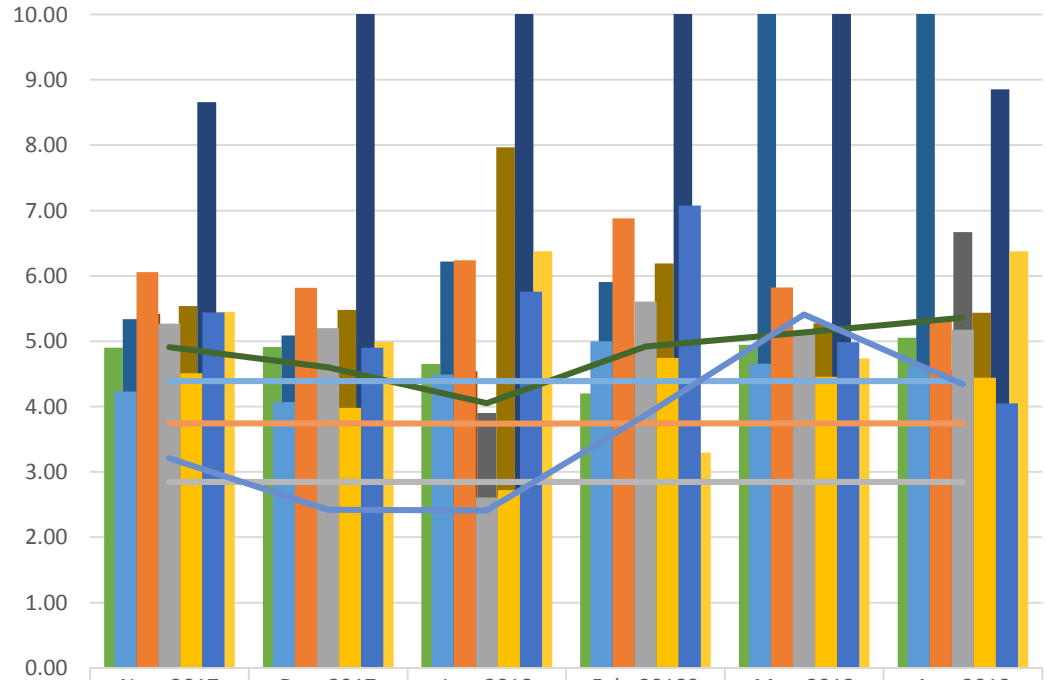
For the report period, MERALCO's blended generation charges ranged from a low of PhP4.08/kWh to a high of PhP5.47/kWh. MERALCO's low generation costs during the period of December 2017 to January 2018 was attributed to the lower Power Supply Agreement (PSA) and WESM charges. Charges from PSAs registered a decrease of PhP0.9810 per kWh brought about by a reduction in capacity fees as a result of the annual reconciliation of outage allowances done at the end of each year under the PSAs approved by the ERC. The reduction of capacity fees from PSAs provided 40 percent of MERALCO's total energy requirement. Meanwhile, charges from the WESM also decreased by PhP1.69 per kWh due to lower spot prices resulting from a reduction in power demand in Luzon grid. The share of WESM purchases to MERALCO's total requirement is 19 percent for this period.

Compared to the NPC regulated rates for Luzon, MERALCO's generation charges were higher for the six-month period of November 2017 to April 2018 except for the month of January 2018 as explained on the paragraph above.

WESM prices were also lower during the period January 2018 and February 2018 due to the lower spot prices resulting from a reduction in power demand in Luzon grid.

Quezon Power Phils. Ltd. Co. (QPPL) prices increased predominantly during period January 2018 and February 2018 due to the company's maintenance outage which led to low dispatch and higher rates.

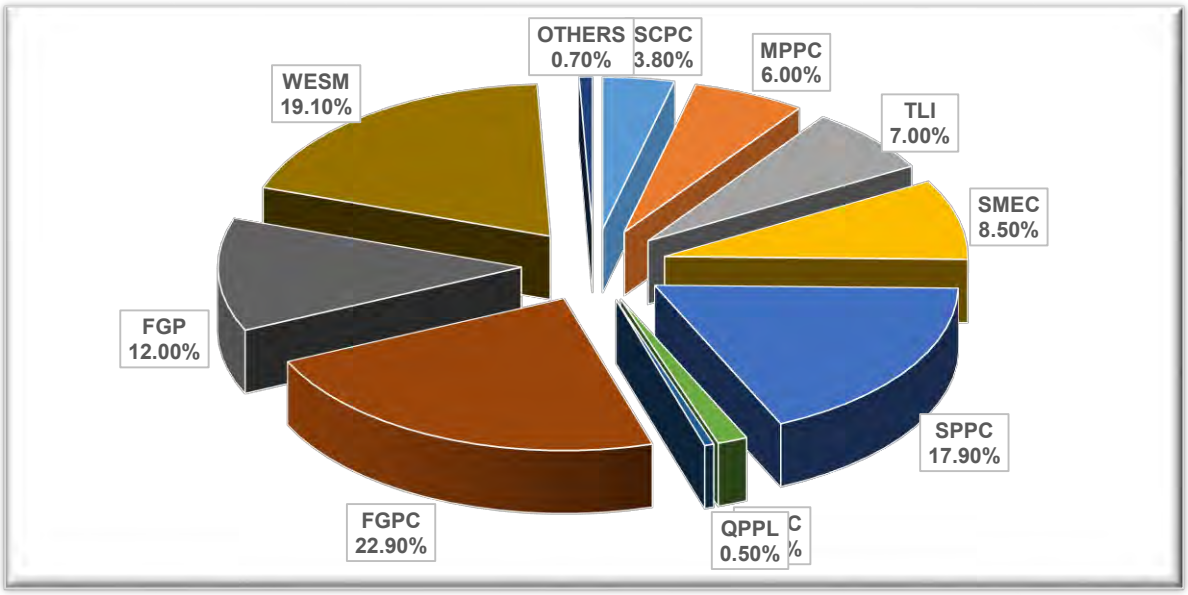
Figure 6 – MERALCO Detailed Generation Charge



	Nov. 2017	Dec. 2017	Jan. 2018	Feb. 20182	Mar. 2018	Apr. 2018
Renewable Energy	4.90	4.91	4.65	4.20	4.95	5.05
QPPL	5.34	5.09	6.22	5.91	59.72	20.22
FGPC-San Lorenzo	5.42	5.03	4.54	4.88	4.70	4.55
SCPC	3.77	3.85	3.90	4.26	4.46	6.67
SMEC	5.54	5.48	7.97	6.19	5.27	5.44
TMO/Toledo/Panay	8.66	11.10	19.86	23.41	12.41	8.85
WESM MERALCO	5.45	4.99	6.38	3.29	4.73	6.38
FGPC-Sta. Rita	4.23	4.07	4.49	5.00	4.66	4.61
MPPCL	6.06	5.82	6.24	6.88	5.82	5.34
TLI	5.27	5.20	2.61	5.61	5.12	5.17
SPPC	4.51	3.98	2.72	4.74	4.46	4.44
PEDC	5.44	4.90	5.76	7.08	4.99	4.05
MERALCO Blended Cost	4.91	4.60	4.05	4.92	5.13	5.36
NPC - Luzon	4.39	4.39	4.39	4.39	4.39	4.39
NPC - Visayas	3.74	3.74	3.74	3.74	3.74	3.74
NPC -Mindanao	2.85	2.85	2.85	2.85	2.85	2.85
WESM ESSP	3.21	2.42	2.41	3.87	5.41	4.34

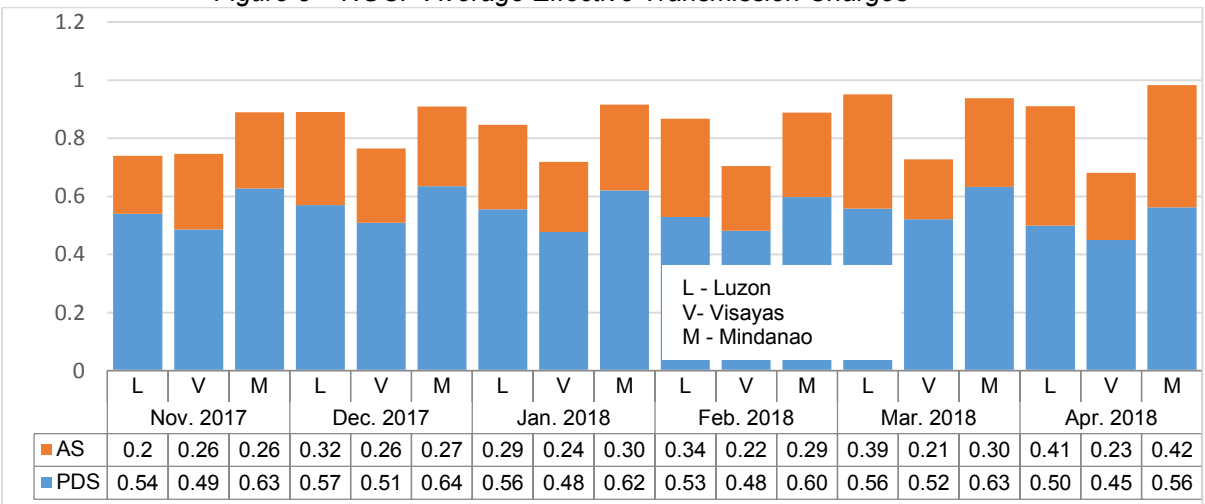
Figure 7 provides MERALCO's average bulk power purchase for the month of March 2018 which came from First Gas Power Corp. (FGPC) - Sta. Rita at 22.90%, South Premier Power Corporation (SPPC) at 17.90%, and First Gas Power Corp. (FGP) – San Lorenzo at 12.00% which are all natural gas powered plants. About 19.10 percent of MERALCO's power supply requirement is bought from the WESM.

Figure 7 - Sources of MERALCO Power Supply Requirement



Source: MERALCO

Figure 8 – NGCP Average Effective Transmission Charges



	L	V	M	L	V	M	L	V	M	L	V	M	L	V	M	L	V	M
	Nov. 2017			Dec. 2017			Jan. 2018			Feb. 2018			Mar. 2018			Apr. 2018		
AS	0.2	0.26	0.26	0.32	0.26	0.27	0.29	0.24	0.30	0.34	0.22	0.29	0.39	0.21	0.30	0.41	0.23	0.42
PDS	0.54	0.49	0.63	0.57	0.51	0.64	0.56	0.48	0.62	0.53	0.48	0.60	0.56	0.52	0.63	0.50	0.45	0.56

Source: NGCP

Transmission charges, on the average, comprise around 8% to 10% of a DU's average electricity rates. For the period November 2017 to April 2018, Mindanao Grid recorded the highest transmission charges at 91 centavos/kWh of which 64 centavos was paid for the power delivery service while 27 centavos/kWh went to ancillary services. The Visayas grid has the lowest average transmission cost at 72 centavos of which power delivery service was around 48 centavos/kWh while ancillary services cost 24 centavos/kWh. The highest transmission cost for the report period was noted in Mindanao Grid at about 92 centavos/kWh in January 2018.

On the Feed-in-Tariff Allowance (FIT-All), the FIT-All rate remained at PhP0.1830/kWh pursuant to the ERC Decision ERC Case No. 2015-216 RC entitled, "In the Matter of the Application for the Approval of the Feed-in-Tariff Allowance for the Calendar Year 2016 Pursuant to the Guidelines for Collection of the Feed-in-Tariff Allowance and the Disbursement of the Feed-in-Tariff Allowance Fund, with Prayer for Provisional Authority". In

the aforesaid Decision, the ERC authorized the TransCo to collect an additional FIT-All of the PhP0.0590/kWh from the PhP0.1240/kWh current level, thereby bringing the FIT-All to PhP0.1830/kWh.

B. 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 2018, the total collections of Universal Charge amounted to PhP144.8 billion with interest earnings from deposits and placements of UC funds amounted to PhP0.15 Billion. On the other hand, UC fund disbursement amounted to PhP144 Billion. Accounting for the inflows and outflows of the UC fund leaves it with a balance of about PhP0.97 billion.

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

Table 10. UC Collections as of 31 March 2018 (in Billion PHP)

Particulars	Remittances	Interests	Disbursements	Balance
Special Trust Fund – Missionary Electrification (ME) NPC-SPUG	76.79	0.04	76.81	0.02
Special Trust Fund – ME Renewable Energy Developer Cash Incentive (REDCI)	0.48	0.00	0.25	0.24
Special Trust Fund – Environmental Charge (EC)	2.07	0.10	1.49	0.68
Special Trust Fund – Stranded Contract Cost (SCC)	64.47	0.01	64.44	0.03
Stranded Debts	1.03	0.00	1.02	0.00
TOTAL	**144.84**	**0.15**	**144.01**	**0.97**

Source: PSALM

2. UC Remittances

For the period November 2017 to March 2018, PSALM received PhP11.2 Billion in UC remittances broken down with details reflected in Table 11.

Table 11. UC Remittances to PSALM for the period November 2017-March 2018 (In Billion PhP)

Month	UC-ME (NPC-SPUG)	UC-ME (REDCI)	EC	SCC	SD	Total/Month
November 2017	1.04	0.01	0.02	1.30	0.17	2.54
December 2017	0.98	0.01	0.02	1.24	0.17	2.42
January 2018	1.05	0.01	0.02	1.31	0.18	2.57
February 2018	0.10	0.01	0.02	1.25	0.17	1.41
March 2018	0.91	0.01	0.02	1.13	0.15	2.22
Total	**5.11**	**0.05**	**0.09**	**6.40**	**0.69**	**11.16**

Source: PSALM

3. UC Disbursements

For the November 2017 to March 2018, PSALM disbursed PhP11.4 billion to NPC-SPUG to fund the missionary electrification functions, chargeable against the UC-ME fund.

Table 12. UC Disbursements of PSALM for the Period November 2017 to March 2018 (in PhP Billion)

Month	ME (NPC-SPUG)	ME (REDCI)	SCC	SD	Total/Month
November 2017	1.04	0.00	1.30		2.34
December 2017	0.96	0.01	1.22		2.19
January 2018	1.04	0.01	1.30		2.35
February 2018	1.02	0.00	1.27		2.29
March 2018	0.10	0.01	1.12	1.02	2.25
Total	**4.06**	**0.02**	**5.09**	**1.02**	**11.42**

Source: PSALM

4. ERC-Approved UC Rates

Total UC being charged to customers per kilowatt hour amounts to PhP0.3524 as approved by the ERC.

Type of UC	PhP/kWh
UC-ME • UC-ME Subsidy • Cash Incentive for RE Developers • True-up Adjustment (2011) • True-up Adjustment (2010)	0.1561
UC-EC	0.0025
UC-SCC	0.1938
Total	**0.3524**

C. Lifeline Rate Subsidy Program

Based on the available data for this report period, the DOE conducted analysis on MERALCO's implementation of lifeline program in its franchise area. Figures gathered were based on its submission of Uniform Reportorial Requirements as of June 2018 and was summarized on a semi-annual period.

Table 13. Total Amount of Discount per Lifeline Level

Lifeline Levels	Discount Level	Units	Total Amount	Percentage Share
0-20 kWh	100%	PhP	(193,450,683.85)	10.27%
21-50 kWh	50%	PhP	(519,663,842.39)	27.59%
51-70 kWh	35%	PhP	(530,853,192.30)	28.18%
71- 100 kWh	20%	PhP	(639,753,512.05)	33.96%
Total Discount		PhP	(1,883,721,230.59)	100.00%
Average Amount of Discount Provided to Lifeline Customers (In PhP/kWh)				2.67
Average Amount of Lifeline Subsidy Provided by Non-Lifeline Customers (In PhP/kWh)				0.0939

Source: MERALCO URR, June 2018

Total discount extended to residential customers consuming 71-100 kWh per month accounted for 33.96 percent of the total lifeline discount. Further, 28.18 percent of the total discount is extended to residential customers consuming 51-70 kWh per month and 27.59 percent is being enjoyed by lifeline customers with 21-50 kWh consumption. Moreover, 10.27 percent of the total discount went to customers consuming 20kWh and below as they have the 100 percent lifeline discount. The average lifeline discount provided to non-lifeliners is 2.67 PhP/kWh while the average lifeline subsidy which benefits marginalized/low income customer's amounted to 0.0939 PhP/kWh.

D. 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. After privatization of most of NPC generating assets in Luzon and the Visayas, only consumers in Mindnanao and the off-grid areas served by the NPC-SPUG are enjoying the benefits of such discount.

For the Period November 2017 to March 2018, NPC incurred a total of PhP16 million for the reduction of rates of residential consumers whose franchised distribution utilities' are still supplied by NPC. Of the amount, only 32% or PhP6.4 million was granted to Luzon customers while the rest was granted to the residential customers in Mindanao.

Since the MRR was granted in 2001, NPC has incurred a total of PhP31.32 billion of which 47% was availed by Luzon residential customers while 21% and 32% went to Visayas and Mindanao, respectively. Data for MRR is summarized below.

Table 14: NPC-incurred Amount on Grant of Mandatory Rate Reduction

Billing Month	Luzon	Mindanao	Total
Nov-17	1,039,944.60	2,203,660.64	3,243,605.24
Dec-17	1,149,459.29	2,165,669.28	3,315,128.57
Jan-18	1,044,971.73	2,191,799.46	3,236,771.19
Feb-18	954,060.94	2,151,312.36	3,105,373.30
Mar-18	1,030,989.71	2,193,716.00	3,224,705.71
TOTAL	**5,219,426.27**	**10,906,157.74**	**16,125,584.01**

Source: NPC

V. COMPETITION

This section provides an update on key areas of competition to include 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 26 April 2018, the integrated WESM (Luzon and Visayas) in terms of the number of participants, remained the same compared to the previous billing month. It has a total of two hundred sixty-five (265) registered participants comprising of one hundred fourteen (114) generating companies and one hundred fifty-one (151) customers, breakdown into sixteen (16) Private Distribution Utilities, seventy-one (71) ECs, fifty-nine (59) Bulk users, and five (5) Wholesale Aggregators.

Table 15. Registration Update as of 25 April 2018 (Luzon and Visayas)

CATEGORY	REGISTERED						
	TOTAL	DIRECT			INDIRECT		
		LUZ	VIS	LUZ/VIS	LUZ	VIS	LUZ/VIS
Generation Companies	**114**	75	35	3	1	0	0
Customers							
□ Private distribution utilities & Local government utilities	**16**	8	3	0	5	0	0
□ Electric cooperatives	**71**	29	28	0	14	0	0
□ Directly Connected Customers	**59**	9	6	1	33	8	2
□ Wholesale aggregators	**5**	0	0	5	0	0	0
Total Customer Trading Participants	**151**	**46**	**37**	**6**	**52**	**8**	**2**
TOTAL PARTICIPANTS	**265**	**121**	**72**	**9**	**53**	**8**	**2**

Source: PEMC

For the billing period of November 2017 to April 2018, the average system-wide demand for the months of November 2017, December 2017 and January 2018 had a decreasing trend from 9,066 MW to 8,802 MW and 8,473 MW, respectively. However, it increased to 8,925 MW to 9,430 MW and 9,506 MW in February, March and April 2018, respectively.

On the other hand, the effective supply in November, December and January recorded a decrease from 11,743 MW to 12,299 MW and 12,164 MW, repectively. The February billing month also posted a slight decrease in the effective supply at 11,587 MW but became higher in March and April at 11,819 MW and 12,087 MW, correspondingly.

The monthly reserve schedule from November 2017 to April 2018 were also noted respectively at 926 MW, 938 MW, 897 MW, 943 MW, 958 MW and 903 MW.

In terms of the WESM registered capacity, the November to January billing months recorded an increase from 18,377 MW to 18,764 MW and 18,793 MW, respectively. The rise of WESM registered capacity in November was on account of the 09 November registration of the 150-MW coal facility of SMC Consolidated Power Corporation. For December, it was attributable to the registration of the 12-MW geothermal facility of Maibarara Geothermal Incorporated on 8 December in Luzon and 2x 176.2-MW coal-fired facility of Therma Visayas Incorporated on 23 December. In addition, Subic Solar increased its maximum capacity from 7.1 MW to 29.3 MW.

Subsequently for the month of January, the increase were due to the registration of the 25-MW biomass plant of Central Azucarera Don Pedro, Inc. on 30 December in Luzon and the higher registered capacity of Casa Biomass (from 4 MW to 8 MW).

Monthly available capacities in WESM were noted to decline to 18,754 MW and 18,746 MW in February and March 2018, respectively. In February, the decline was caused by the lowering of registered capacity of Anda CFTPP from 82 MW to 72 MW and of Navotas DPP from 242.2 MW to 213 MW. In March, it was attributable to the change in the registered capacities of Pagbilao CFTPP unit 3 from 436 MW to 420 MW, of PB 101 from 20 MW to 24 MW and of PB 102 from 20 MW to 24 MW. However, it stood at 18,746 MW in April, considering that there are no new registered plants in the WESM.

For the total WESM registered capacity traded in WESM, the offered capacities are as follows: 64% in November at 11,694 MW, 65% in December at 11,987 MW, 64% in January at 11,970, 59% in February at 11,054 MW, 61% in March at 11,383 MW and 63% in April at 11,866 MW.

Table below summarizes the capacities unavailable to the market.

Table 16. Summary of the capacities unavailable to the market

Month	Outage Capacity	Capacity Not Offered
November 2017	2,587	1,997
% of total Registered Capacity	14%	11%
December 2017	1,987	2,457
% of total Registered Capacity	11%	13%
January 2018	2,025	2,782
% of total Registered Capacity	11%	15%
February 2018	2,811	2,799
% of total Registered Capacity	15%	15%
March 2018	2,667 MW	2,557 MW
% of total Registered Capacity	14%	14%
April 2018	2,608 MW	2,313 MW
% of total Registered Capacity	14%	12%

Power plant trading in WESM experience spate of outages for varied reasons. The outage capacities for the month of November and December averaged at 2,587 MW and 1,983 MW which decreased by 9.6% and 23.4%, respectively. In November, coal plants contributed the biggest portion and geothermal plants also recorded an increase in outage capacity. In December, the drop was mainly brought about by lower level of capacity on outage involving coal plants. Natural gas and hydro plants also contributed to the decrease. On the other hand, oil-based and geothermal plant outages have increased.

However, the outage capacity in January 2017 and February 2017 increased by 1.4% and 38.8% at 2,025 MW and 2,811 MW, respectively. In January, it was driven by the higher level of outage capacity involving geothermal, natural gas and coal plants. In February it was mainly caused by the higher level of outage involving coal plants. Similarly, natural gas and hydro plants also recorded an increase.

Slightly lower level of outage capacity at 5.1% was observed in March 2017 at an average of 2,667 MW. The decrease was related to the lower outage capacities involving natural gas plants which averaged at 26 MW this month from 435 MW in the previous month and oil-based plants which averaged at 44 MW this month from 124 MW in the previous month. Similarly, it continued to decrease at 2,608 MW in April driven by the lower outage capacity involving coal plants which averaged at 1,165 MW from 2,000 MW in March 2017.

The table below shows the plant outages that contributed to the unavailable capacities in Luzon and Visayas during the said period.

Table 17. Major Plant Outages in Luzon and Visayas

Month	Luzon		Visayas
November 2017	Tiwi 1 & 3 Makban 3,4,5,6,8 & 9 SLPGC 1 &4 Sual 1 & 2 San Lorenzo 1 & 2 Caliraya 1 Angat M 3 Pagbilao 1, 2 &3 Limay 3,6,7 & 8 Masinloc 1 & 2 AVION 1 & 2 TMO Unit 3 GN Power 1 & 2 Kalayaan 1,2 & 4 Bacman 1 & 2 San Gabriel	SMC 2 BPPC 1,2 & 3 Calaca 1 & 2 QPPL Malaya 1 SLTEC 2 Botocan 2 Ilijan B1, B2 & B3 Botocan 1	PGPP2 Unit 4 Mahanagdong A2 Leyte 3 PALM 1 Upper Mahiao 1, 3 & 4 PGPP1 Unit 3 Malitbog 1 & 3 TPC Sangi 2 Leyte 2 CEDC 2 Nasulo
December 2017	Tiwi 1 & 3 Makban 1,5,6 & 8 SLPGC 1,2 & 4 San Lorenzo 1 & 2 Limay 5 & 8 BT 2020 Sual 1 & 2 AVION 1 & 2 Kalayaan 4 Ilijan A1 SMC 1	TMO Unit 1,2,3 & 4 Sta. Rita 1,2 & 3 Pagbilao 1 & 3 GN Power 1 & 2 Calaca 2 Malaya 1	PGPP2 Unit 3, 4 Mahanagdong A2 CENPRI 1,2,3, & 4 Leyte 1,2,3 CEDC 2 PALM 1 TPC Sangi 2 Upper Mahiao 1,2,3 PGPP1 Unit 2 Bohol 2,3,4 PEDC 3
January 2018	Tiwi 1 & 3 Makban 5,6 & 8 SLPGC 1 & 4 SMC 1 & 2 Calaca 2 Malaya 1 ANDA 1 Pagbilao 3 Sta. Rita 1,2,3 & 4 San Gabriel Ilijan B1, B2 & B3 San Lorenzo 1 & 2 Kalayaan 3 & 4 SLTEC 1	Limay 1, 3 & 5 Masinloc 2 AVION 1 & 2 Sual 2	PGPP2 Unit 4 Mahanagdong A1, A2 CENPRI 1,2,3, & 4 Upper Mahiao 1,2 ,3 & 4 Leyte 1,2,3 Bohol 1, 2,3 PEDC 3 FFHC HPCO VMC URC1 TPC Sangi 2 PDPP3 E
February 2018	Tiwi 1, 3 Makban 5,6,8 SLPGC 1,2, 4 Calaca 2 ANDA 1 SLTEC 1,2 Masinloc 2 Avion 1,2 Sual 2 Ilijan B1, B2 & B3 QPPL San Lorenzo 1 & 2 Angat M 3 Sta. Rita 1, 2 San Gabriel	Ambuklao Pagbilao 1,2,3 Caliraya 1,2 GN Power Botocan Malaya 1	PGPP2 Unit 4 Mahanagdong A2 CENPRI 2 Upper Mahiao 1,4 Leyte 1,3 PEDC 1,3 Bohol 3 Kepco Salcon 1 PB102 Unit 2, Unit 3 Cebu Diesel 3,6 PALM 1 PGPP1 Unit 1 VMC FFHC HPCO

Month	Luzon		Visayas
March 2018	Tiwi 1,3 Makban 5,6,8 SLPGC 1,2,4 Calaca 1,2 Masinloc 1,2 QPPL Angat M 3 SLTEC 2 GN Power 1,2 Malaya 1 Sta. Rita 2,3 Pagbilao 2,3	San Lorenzo 1 Ambuklao 3 Sual 2 Bakun 1,2 Bacman 2, 3 Limay 1, 3,5,6, 7 San Gabriel Avion 1,2 SMC 3 San Roque 3 Kalayaan 1	PGPP2 Unit 4 Upper Mahiao 1,4 Leyte 1,2,3 Cebu Diesel 6 Kepco Salcon 1 PGPP1 Unit 1 PB102 Unit 2 Mahanagdong A1, B1 PEDC 1,2,3 TPC Sangi 1,2 CEDC 1 Malitbog 2
April 2018	Tiwi 1, 3 Makban 2, 5, 6, 8 SLPGC 1, 2, 3, 4 Calaca 2 Angat M 3 GN Power 1,2 San Roque 3 Masinloc 1,2 Kalayaan 1 Limay 3 Sual 2 TMO Unit 2 & 3 Pagbilao 1 Ilijan A1, A2, A3, B1 Magat 1,2,3,4	Avion 1, 2 QPPL San Gabriel SLTEC 1 Binga 3, 4 Sta. Rita 4 Casecnan 2 Pantabangan 2 Malaya 2	PGPP2 Unit 4 CENPRI 2 Upper Mahiao 1,2,3,4 CEDC 1 PEDC 1 Leyte 1, 2, 3 PGPP1 Unit 2, 3 PALM 1 Malitbog 2,3 Mahanagdong A1, B1 Kepco Salcon 2 Bohol 4 PB102 Unit 1 TPC Sangi 2 Cebu Diesel 5

The supply margin for the billing months of November, December and January widened by 2.4%, 46.2% and 9.2% at 1750 MW, 2,559 MW, and 2,794 MW, respectively. Nevertheless, in February and March, it tightened by 38.5% and 16.6% at 1,718 MW and 1,431 MW, correspondingly. However, in the April billing month, the supply margin widened again by 17.2% at 1,677 MW.

The market prices in November averaged at PhP3,298/MWh, showing a decline of 16.7% compared to the last billing month. The maximum price peaked at PhP12,490/MWh on 03 November at 1800H. In December, it averaged at PhP2,424/MWh which dropped by 26.5%. The maximum price was PhP6,824/MWh recorded on 10 December.

For the month of January, it averaged at PhP2,387/MWh, indicating a decline of 1.5%. For the same month, maximum price was recorded at PhP6,668/MWh. Moreover, prices above PhP5,000/MWh level were only observed beginning 22 January. For the succeeding month, the average for February was at PhP3,740/MWh which was higher by 56.7%. The maximum price reached as high as PhP14,197/MWh on 19 February at 1900H. Likewise, it increased to 36.2% in March at PhP5,095/MWh and showed a maximum price of PhP31,709/MWh. Lastly, prices averaged at PhP4,196/MWh in April and posted a 17.6% decrease compared to the previous billing month. During the month, maximum price was noted at PhP19,286/MWh on 20 April at 1400H.

B. Updates on WESM Governance Activities

The DOE provides oversight in the governance of the WESM through the different committees which undertake 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 report period, following are highlights of the activities of the various WESM governance committees:

1. Market Surveillance Committee (MSC)

- Submission of Market Reports to the PEM Board

  a. Reviewed and deliberated the Market Assessment Report for September 2017 to February 2018; and
  b. Reviewed and deliberated the Retail Market Assessment Report covering the period 26 September to 25 December 2017 (4th Quarter) and the Annual Retail Market Assessment Report covering the period 26 December 2016 to 25 December 2017.

- Review of the Compliance Monitoring Reports

  a. Reviewed the activities of the Generator-Trading Participants (TP) with scheduled generating units and priority dispatch generating units in terms of their compliance with the Real Time Dispatch (RTD) schedule, as follows:

Table 18. Real Time Dispatch (CMR-RTD)

Billing Month	Luzon			Visayas		
	No. of Generating Plants	No. of Trading Participants	No. of Trading Intervals	No. of Generating Plants	No. of Trading Participants	No. of Trading Intervals
September 2017	41	35	1,726	19	15	1,012
October2017	38	32	1,679	16	13	755
November 2017	37	31	1,517	14	12	905
December 2017	36	32	1,569	14	12	1,191
January 2018	36	30	1,981	13	10	1,378
February 2018	31	27	1,356	15	12	1,625

  b. Continued to review the activities of the generator-TPs with scheduled generating units in terms of their compliance with the Must Offer Rule (MOR) as shown below:

Table 19. Must Offer Rule (CMR-MOR)

Billing Month	Luzon			Visayas		
	No. of Generating Plants	No. of Trading Participants	No. of Trading Intervals	No. of Generating Plants	No. of Trading Participants	No. of Trading Intervals
April 2017	22	16	17,615	20	15	12,689
May 2017	11	6	7,086	13	7	7,396
June 2017	23	18	13,666	13	7	8,249
July 2017	19	14	11,678	12	6	2,663
August 2017	21	17	11,895	14	8	5,450
September 2017	18	14	10,468	14	9	7,189
October 2017	20	16	10,519	13	8	6,276
November 2017	18	14	10,468	14	9	7,189
December 2017	18	14	10,468	14	9	7,189
January 2018	17	13	10,386	13	6	6,354
February 2018	18	12	14,652	16	10	7,126

- Submission of Request for Investigation (RFI) for Possible Non-Compliances of Generator Trading Participants on Real Time Dispatch (RTD) and Must Offer Rule (MOR) breaches as presented in Tables 20 and 21:

Table 20. September 2017 to February 2018 (RFI-RTD)

Month	RTD (Total No of Generator – TP)
September 2017	60
October 2017	54
November 2017	51
December 2017	50
January 2018	49
February 2018	43

Table 21. April to February 2018 (RFI-MOR)

Month	MOR (Total No of Generator – TP)
April, May and June 2017	102
July, August, September, October, November and December 2017	98
January and February 2018	64

- Reviewed the Monthly Monitoring Report on the Submission of Projected Output and Nomination of Loading Levels for September to January 2018.

Table 22. MMR on Submission of Projected Output and Nomination of Loading Levels

No. of non-scheduled, must-dispatch and priority dispatch generating units	Sept. 2017	Oct. 2017	Nov. 2017	Dec. 2017	Jan. 2018	Feb. 2018
Registered	72	74	75	75	76	77
Registered units that started WESM Participation	54	54	54	54	54	54
a. **Submitted nomination of loading levels and projected output in all trading intervals**	18	16	16	17	12	13
b. **Did not submit their nomination of loading level and projected output in some or all of the covered trading intervals**	36	38	38	37	42	41

- Reviewed the Over-riding Constraints for September 2017 to January 2018

Table 23. Over-riding Constraints

	September 2017	October 2017	November 2017	December 2017	January 2018	February 2018
Total Number of over-riding events	10,018	8,868	10,030	10,484	10,317	10,624
Involved Luzon generating plants	49	43	43	49	57	44
Involved Visayas generating plants	13	9	15	8	11	12

	September 2017	October 2017	November 2017	December 2017	January 2018	February 2018
Event Category	Security Limit Events (1.2%) Non-Security Limit Events (98.8%)	Security Limit Events (1%) Non-Security Limit Events (99%)	Security Limit Events (2%) Non-Security Limit Events (98%)	Security Limit Events (.2%) Non-Security Limit Events (99.8%)	Security Limit Events (.1%) Non-Security Limit Events (99.9%)	Security Limit Events (.6%) Non-Security Limit Events (99.4%)

- Reviewed the Hydro-based Plants Offer Pattern covering the period 26 December 2013 to 25 August 2017.

- Reviewed the Proposed Amendments to the WESM Rules and Market Surveillance, Compliance and Enforcement Manual Market Manuals Proposed Amendments to WESM Rules and Market Surveillance, Compliance and Enforcement Manual.

  Proposed WESM Penalty Manual

  - Reviewed to include an Automatic Penalty Scheme (APS); and
  - Finalized its revisions and also agreed to revise the provisions in the proposed Market Surveillance Manual and the WESM Rules affected by the changes.

  Proposed WESM WESM Rules and Manuals

  - Proposed Amendments for Pre-Integration Provisions for Mindanao; and
  - Proposed Amendments on Registration, Suspension and De-Registration Criteria and Procedures for an additional Trading Participant category: Wholesale Electricity Market Trader.

- Reviewed the Interesting Pricing Events Report for Q2, Q3 and Q4 2017
- Reviewed the MSC 2017 Annual Report and MSC 2018 Work Plan
- Discussed with PEMC Transition Committee on the Amnesty Program for Non-Compliances; finalized comments and positions on the proposed Amnesty Program and passed a resolution
- Reviewed the ECO Investigation Reports

2. Technical Committee (TC)

The TC continued conduct of review and provided recommendations on the following:

- Proposed Amendments to the WESM Rules and relevant Manuals on the participation of Non-Generator Resources (BESS – Battery Energy Storage System) and Pumped-Storage Units;
- Study on the Operation of the Reserve Market and Integration of Variable Renewable Energy Sources; and
- 3rd Metering Arrangement Review Audit Report.

3. Rules Change Committee (RCC)

The RCC completed the review and as warranted, submitted proposed amendments to the WESM Rules and Market Manuals as follows:

- Dispute Resolution regarding Mediation and Arbitration Procedures;
- Procedures for Changes to the WESM Rules Issue 2.0;
- WESM Mindanao Pre-Integration;
- Proposed Amendments to the WESM Manual on Dispute Resolution regarding Mediation and Arbitration Procedures (RCC Resolution No. 2017-12);
- Proposed Amendments to the WESM Rules and WESM Manual of Procedures for Changes to the WESM Rules Issue 2.0 (RCC Resolution No. 2017-13);
- Proposed Amendments to the WESM Rules and Various WESM Manuals regarding Metering Standards and Procedures and Metering Point Location; and
- Proposed Amendments to the WESM Rules, Retail Rules and Retail Manual on Metering Standards and Procedures for Clarifications on Retail Market Integration.

4. Dispute Resolution Administration (DRA)

- The DRA provided the following guidelines as regards filing of future disputes with the transition of PEMC to a purely governing body:

  - The pre-transition WESM Rules and dispute resolution framework would apply to disputes filed during or even post-transition if the event or occasion that gave rise to the dispute or claim occurred and was completed pre-transition;
  - The post-transition WESM Rules and dispute resolution framework would apply if the event or occasions that gave rise to the dispute or claim occurred post-transition; and
  - The Claimant needs to qualify which between PEMC and IMO is involved in its dispute if the subject event or occasion commenced pre-transition but continued until during the transition or even post-transition, or if the subject event or occasion occurred during the transition.

- Continued consulting with the PEMC-Enforcement and Compliance Office as regards certain provisions in the draft Enforcement and Compliance Manual related to claims for compensation of aggrieved Market Participants arising from breach of other participants.

5. PEM Audit Committee (PAC)

- 2016 Market Audit Status

  - The PAC and Audit-TWG approved the acceptance of the final reports for the joint 6th MO Audit and 3rd Review of Metering Installation and Arrangement. The same were submitted to the PEM Board and respective PEMC departments. In view of the audit findings and recommendations identified in the reports, the Committee requested for PEMC's action plan, with corresponding timelines, to address the said audit findings and recommendations.

- Independent Software Audit of the New Market Management Systems (NMMS) and the Central Registration and Settlement Systems (CRSS)

    - Reviewed and approved the revised timeline for the Independent Software Audit of the new MMS submitted by the External Auditor on 12 January 2018; and
    - The PAC, together with the External Auditor, presented to the Transition Committee the final reports for the Independent Software Audit of the CRSS on 29 January 2018 and also presented to the PEM Board the final reports on 28 February 2018.

- Software Certification Audit of the Accounts Management System (AMS)

    - Reviewed and approved the TOR for AMS Software Certification Audit which the AMS Project Team submitted on 20 November 2017.

- Reviewed the 2017 Annual Market Operator Performance Standards (MOPS) and discussed the updates on the Development of the Enhanced System for the Automation of MOPS Reporting

    - Reviewed the timeline of activities and possible shortlist of bidders for the Accounts Management System (AMS) Audit Certification on 22 January 2018. It also adjusted the timeline accordingly and relayed to the PEM Board and the Transition Committee the changes in the AMS Audit Certification timeline of activities;
    - Presented to the PEM Board for their approval during the Proposed Software Certification Audit of AMS on 28 February 2018; and
    - Following the approval of the PEM Board on the Terms of Reference (TOR) and the engagement of external auditor, the PEM Audit Committee (PAC) proceeded with the next activities and steps for the conduct of the Account Management System (AMS) Software Certification Audit.

C. WESM Mindanao Update

As part of the preparations for the integration of Mindanao in the WESM, PEMC conducted the Market Network Model (MNM) Consultation Meeting on 06 September 2017 in Cagayan de Oro City. The preliminary model that would be used for scheduling and pricing in the Mindanao grid was presented during the meeting for comments among the participants. Updates on the implementation of WESM and the trial operations program were also provided.

The Department of Energy (DOE) held a public consultation on the draft Department Circular on the establishment of the Mindanao WESM Transition Committee on December 4, 2017 in Davao City.

In preparation for the commercial operations, PEMC continues to accept and evaluate registration requirements from WESM Mindanao participants. As of 25 April 2018, fifty (50) participants, equivalent to 58% of the expected total, have started their registration for WESM Mindanao.

With regard to PEMC's application for the approval of the price determination methodology (PDM) for the enhanced WESM design, the ERC held the 3rd evidentiary hearing on 22 March 2018 in Davao City. No additional hearings have been scheduled as of the end of this reporting period.

D. Establishment of Independent Market Operator (IMO)

Pursuant to Section 30 of the EPIRA, the DOE is mandated to establish the WESM which shall be initially implemented by a market operator (MO) constituted by the DOE with equitable representation from electric power industry participants, called as the *Autonomous Group Market Operator (AGMO),* under the administrative supervision of the TransCo. Thereafter, "not later than one (1) year after the implementation of the WESM, an independent entity shall be formed and the functions, assets and liabilities of the market operator shall be transferred to such entity with the joint endorsement of the DOE and the electric power industry participants".

On 17 January 2018, the DOE promulgated Department Circular No. DC2018-002 entitled "Adopting Policies for the Effective and Efficient Transition to the IMO for the WESM" which was signed by Secretary Alfonso G. Cusi. In the issuance of the said pilocy, the IMO assumes all functions of the Market Operator as provided in the WESM Rules while the necessary personnel with experience in market operations will transferred to the IMO. The PEMC and IMO shall executre an operating agreements for the use of the Maarket Management System and other related infrastructure that support the opeartions of the WESM. The budget for the operations of the IMO shall be applied for the approval of the ERC and is expected to have minimal impact to the consumers.

Following are the salient features of the Policies for the Transition from AGMO to the IMO:

	AGMO	IMO
Governing Body	**PEM Board**	**PEMC**
Board Composition	DOE, Independent Members, Industry Participants	Independent Chair and members, industry participants
Responsibilities	WESM Governance, enforcement and compliance, Rules Change approval and endorsement to DOE, protect public interest	WESM Governance, enforcement and compliance, rules change approval and endorsement to **DOE**, comply with WESM Rules and protect public interest
Market Operations	**PEMC**	**IMO Company**
Corporate Nature	non-stock, not for profit	non-stock, not for profit
Board Composition	DOE, Independent Members, Industry Participants	At least 5 independent members
Responsibilities	Perform functions as Market Operator; file recovery of market fees for ERC approval	Perform functions as Market Operator; upon approval by the PEM Board, file recovery of market fees for ERC approval

E. Retail Competition and Open Access (RCOA)

The Government, despite the challenges restraining the full implementation of RCOA, continuously exerts its effort in strenghtening competition in the retail market and empower the contestable customers.

1. RCOA Registration

Based on ERC's figure, as of April 2018, there are a total of 1,896 prospective participants in the RCOA which comprises of 1,779 Contestable Customers (CCs), 55 Suppliers, 44 Suppliers of Last Resort (SOLR), and 45 Retail Metering Service Providers (RMSPs). Of the 1,779 CCs, 1,222 have demand of 1MW and above, 470 have demand of 750 kW to 1MW, while 87 are Government Entities. Of the 55 Suppliers, 30 are Retail Electricity Suppliers (RES) and 25 are authorized Local Retail Electricity Suppliers (LRES).

Meanwhile, as of April 2018, the Central Registration Body (CRB) recorded a total of 1,155 registered RCOA participants. This comprises of 1,043 CCs, 29 RES, 13 LRES, 24 SOLR, and 46 RMSPs.

Table 24. Summary of RCOA Registration as of April 2018

Membership Category		Expected*			Registered**		
		Jun 2013	April 2018	Increase	Jun 2013	April 2018	Increase
Contestable Customers	D>1MW	892	1,222	37%	239	910	281%
	750kW≤D<1MW	0	470	-	0	133	-
	Govnt Entity	-	87	-	-	-	-
	Total	*892*	*1,779*	*99%*	*239*	*1043*	*336%*
Suppliers	RES	19	30	58%	15	29	93%
	LRES	13	25	92%	3	13	333%
	Total	*32*	*55*	*72%*	*18*	*42*	*133%*
SOLR		9	44	389%	0	24	-
RMSP		28	45	61%	18	46	156%
Grand Total		**961**	**1,896**	**100%**	**275**	**1,155**	**320%**

Source: ERC, PEMC

The total number of expected participants grew by 100% since RCOA was initially implemented. Likewise, the total number of registered participants grew by 320%. The growth was influenced mainly by the increase of number of CCs.

Participation of CCs has grown to as high as 336% compared to that of initial registration. Thus, as many as 59% (1,043 out of 1,779 of end-users issued with certificate of contestability) are registered in the retail market.

2. Regulatory Issuance

On 26 March 2018, the ERC promulgated Resolution No. 9, Series of 2018 entitled "Resolution Adopting the ERC Rules Supplementing the Switching and Billing Process and Adopting a Disconnection Policy for Contestable Customers".

The Rules, among others, provides each of the following:

- Supplementary procedures on the customer switching method;
- To ensure the efficient and timely exchange of information between and among competitive retail market participants; and
- Applicable billing procedures and disconnection process for contestable customers.

Prior to the issuance of the said Rules, the CCs are being billed by the Supplier thru a Single Billing Policy. Such scheme enables the RES to undertake contracting for

Distribution Wheeling Agreement and collection thereof on the CC's behalf, while, collection of payment for the distribution wheeling charges is being undertaken by the RES on DU's behalf.

The new Rules provides that the Customer may choose payment option on either Single or Multiple Billing scheme. As such, the CC may opt to contract on its own directly to the RES and/or WESM for its supply, and to Network Service Provider for the metering services. For this set up, the Customer will be billed and will pay for the services separately. In any case, the Customers will be provided with more transparency as it detailed minimum charges that has to be reflected on the bill given by the RES for the Supplier's Charges and the Distribution Wheeling Charges.

Moreover, the Rules provides for Switching process that protects the CCs, RES, the Distribution Utility and the Network Service Provider on the applicable payment/refund of Bill deposits and interest. It also provides guidelines on the disconnection and reconnection process and specifies other prohibited acts, such as the prohibition of take or pay provision on contracts.

F. Market Share Monitoring

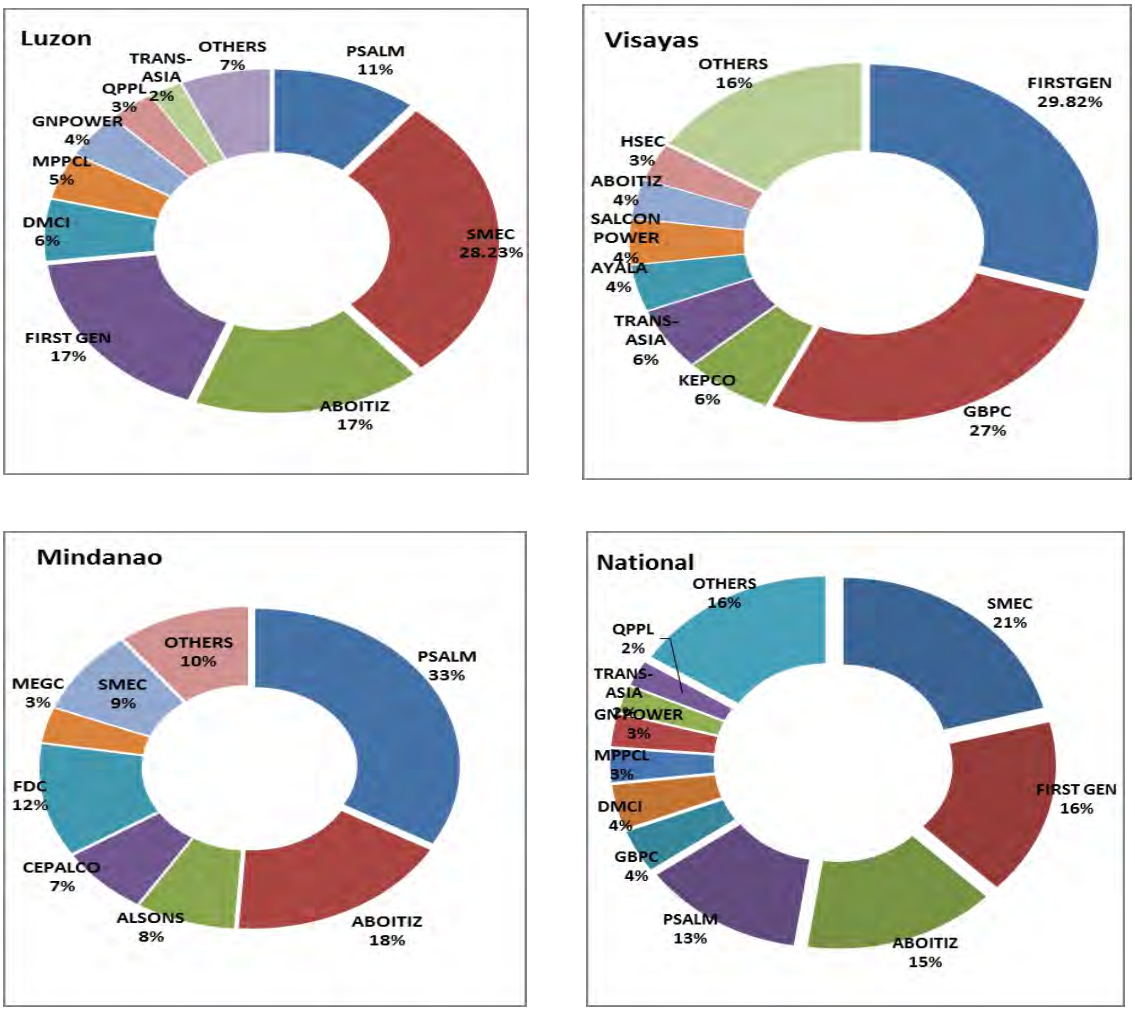
As provided in the EPIRA, limitations shall be 30% of the total installed capacity per Grid and 25% for the National Grid. Pursuant to Resolution No. 04, Series of 2018, entitled "A Resolution Setting the Installed Generating Capacity and Market Share Limitation per Grid and National Grid for 2018", the ERC set the 2018 installed generating capacity per Grid and the National Grid, as follows:

Table 25. Market Share Determination per Grid and National Grid

Grid	Installed Generating Capacity (kW)	% Market Share Limitation as per R.A. 9136	Installed Generating Capacity Limit (kW)
Luzon	15,175,967.44	30%	4,552,790.23
Visayas	3,194,888.00	30%	958,466.40
Mindanao	3,496,261.91	30%	1,048,878.57
National	21,867,117.35	25%	5,466,779.34

From the list of existing power plants for 2018, the DOE verified the registered installed generating capacity of each generating plants and calculated for its total market share per Grid and the National Grid. Below is the graphical presentation of the dominant power market players with their respective percentage market share as reflected in Figure No. 9

Figure 9 - Generation Companies Market Share Based on Installed Capacity



Source: ERC Resolution No. 4, Series of 2018

In Luzon, San Miguel Corporation with 4,285 MW total installed generating capacity dominates the generation business which reaches 28.235% of the total installed capacity in Luzon Grid. Other generation companies that on the top of the list are First Gen of the Lopez Group with a total installed generating capacity of 2,628 MW which is equivalent to 17.32% market share. This is followed by the Aboitiz Group having an installed generating capacity of 2,558 MW or 16.85% of the market share. Other major groups in the generating sector are DMCI, MPPCL, GN POWER, QPPL and TRANS-ASIA with market share of 5.93%, 4.41%, 4.29%, 3.37% and 2.38% respectively. PSALM still holds 10.65% of the market while 6.56% is composed of other generation companies.

In Visayas, First Gen with 953 MW covers the 29.82 % of the total installed generating capacity of the Visayas Grid. The value almost reaches the market share limit of 30%. GBPC seconds on the list with 27.01% or 863 MW installed generating capacity which is followed by KEPCO, TRANS-ASIA, AYALA, ABOITIZ and HSEC with market share of 6.26%, 5.68%, 4.23%, 4.14%, 3.56% and 3.38% respectively.

In Mindanao, the Government continues to dominate the generation business in the grid through the IPP contracts of the PSALM and the NPC having 33.30% share in the total installed generating capacity. In the private sector, the Aboitiz group holds the largest part of the installed generation capacity of 622 MW which equivalent to 21% followed by FDC with11.58%, SMEC with 8.58%, and Alsons with 7.80%.

For the report period, the DOE finds that the installed generating capacity of SMEC in the Luzon Grid and the FirstGEn in the Visayas Grid are almost in the limit of market share limitation for 2018.

For the National Grid, SMEC still has the largest market share, holding 21% of the 21,867 MW National installed capacity, followed by FirstGen with 16% and Aboitiz Group with 16% while the Government thru PSALM and NPC still has 13% share remaining.

G. Market Concentration

To measure the current Philippine power market concentration, the DOE uses the Herfindahl-Hirschman index (HHI) computation. HHI is the most common measure used to assess concentration from shares of industry participants. In the US, the following thresholds are used as guidelines:

- 0-1000 unconcentrated
- 1000 – 1800 moderately concentrated
- Above 1800 highly concentrated.

Table 26. Herfindahl-Hirschman Index (HHI) Computation

Ranking	Market Players	Installed Generating Capacity (MW)	Percent Share (National Installed Generating Capacity)	% Share (squared)
1	SMEC	4,585	21%	439.62
2	FIRST GEN	3,581	16%	268.14
3	ABOITIZ	3,294	15%	226.87
4	PSALM	2,779	13%	161.59
5	GBPC	863	4%	15.57
6	DMCI	900	4%	16.94
7	MPPCL	670	3%	9.39
8	GN POWER	652	3%	8.88
9	TRANS-ASIA	543	2%	6.16
10	QPPL	511	2%	5.46
11	OTHERS	3,490	16%	254.70
	TOTAL	***21,867***	100%	***HHI = 1413.32***

Based on the above computation, the HHI as of February 2018 is 1413.32 which indicates a moderately concentrated power market or a market with a substantial level of competition.

VI. POWER SUPPLY SECURITY AND RELIABILITY

A. Generation Mix

The year 2017 is characterized by a significant increase in power generation to 94,370,340MWh attributed to increase in economic growth and entry of new power generating plants.

Majority of the total Gross Power Generation from Luzon, Visayas and Mindanao were contributed by coal-fired power plants at 49.64%. Natural gas power plants accounted for the next highest capacity at 21.77% followed by the renewable plants at 24.57% which comprised of geothermal, hydro, solar, wind, and biofuel power plants. Oil-based power plants attributed the least by 4.01%.

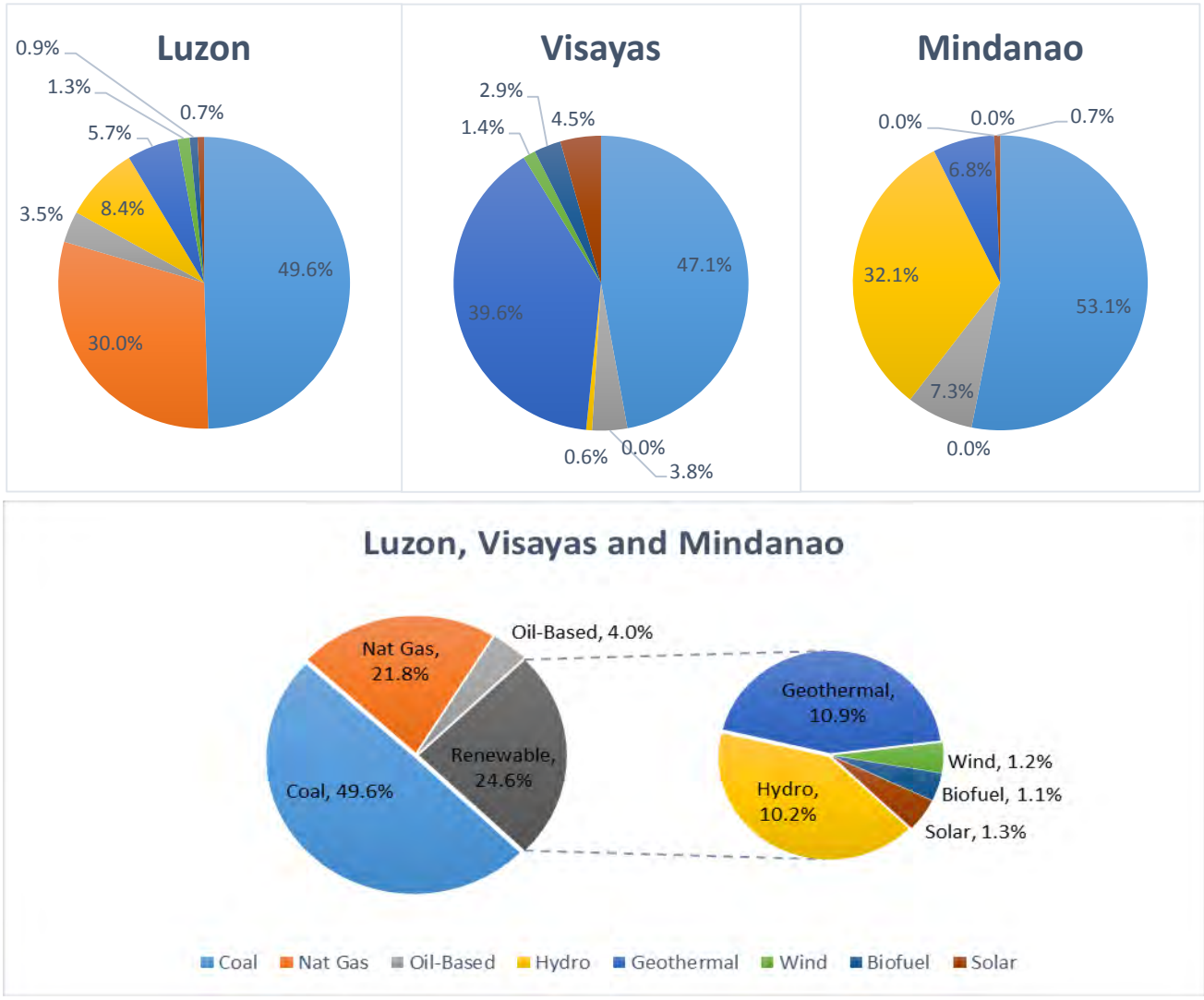


Figure 10. Gross Power Generation as of 2017: Luzon, Visayas and Mindanao[3]

Notably, the growth of the country's supply base supplemented the increase in demand with the growth of installed capacity at 6.1% from 21,425MWh in 2016 to 22,728MWh in 2017 majority coming from coal-fired power plants. Among all technologies, solar power plant has the highest recorded growth in terms of installed capacity at 16% followed by oil-based power plants at 15% from 2016 to 2017.

[3] *Generation data includes grid connected, embedded and off-grid generator.*

While there were increase of 7.4% in dependable capacity, the supply was deeply affected by the natural and man-made disasters that hit some parts of the country, coupled with the continued concerns on forced outages of large power generation plants, as well as the transmission and distribution system. Notably, the supply was highly affected due to an earthquake on 08 April resulting to major outage of natural gas and coal plants in Batangas. Further, the months from August to October posted a tighter supply margin as an intensity scale 5 earthquake hit Jaro, Leyte on 06 July 2017, damaging geothermal power generation, transmission and distribution facilities, and resulted to the total loss of power in the provinces of Samar, Leyte, and Bohol. In Mindanao, the Marawi Siege led to the multiple partial blackout in the franchise area of the Lanao Del Sur Electric Cooperative (LASURECO) and total blackout in Marawi City. Still, resiliency in the Philippine power system continued to exhibit with stakeholders' unified actions in the onslaught of challenges as the DOE consistently improve energy security and reliability by integrating its plans, policies, and programs.

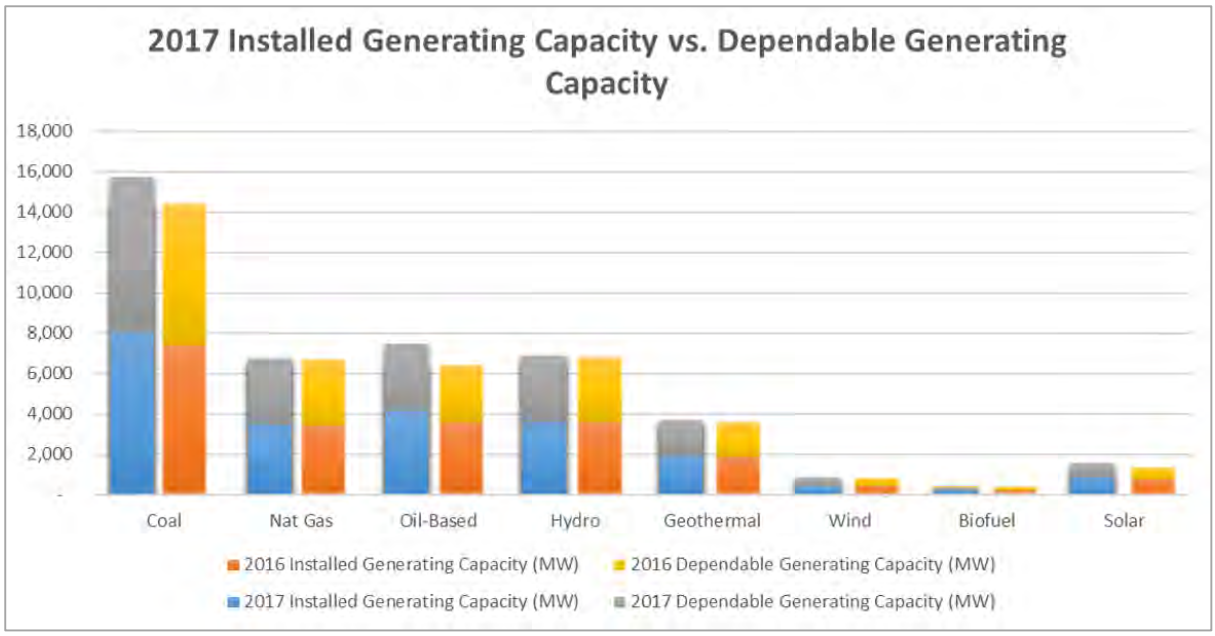


Figure 11. 2017 Installed Generating Capacity vs. Dependable Generating Capacity

B. Significant Grid Incidents

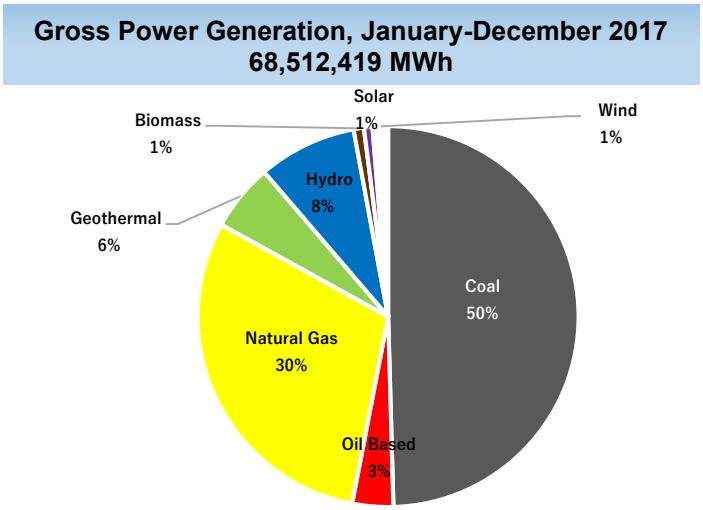
LUZON POWER SITUATION

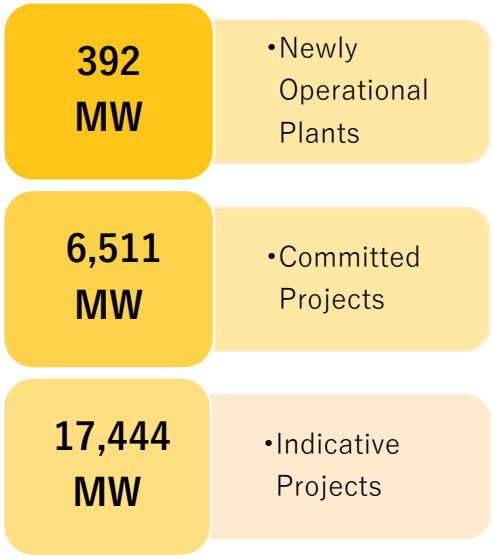
Table 28. Luzon Installed, Dependable and Available Capacity from January-December 2017 (in MW)

Fuel Type	Installed		Dependable		Available*	
	MW	Percent Share (%)	MW	Percent Share (%)	MW	Percent Share (%)
Coal	**5,625**	**35.73**	**5,404**	**37.45**	**4,775**	**41.72**
Oil Based	**2,518**	**15.99**	**1,977**	**13.70**	**1,415**	**12.36**
Natural Gas	**3,446**	**21.89**	**3,291**	**22.81**	**2,859**	**24.98**
Renewable Energy	**4,156**	**26.40**	**3,757**	**26.05**	**2,395**	**20.93**
Geothermal	*843*	*5.35*	*782*	*5.42*	*558*	*4.88*
Hydro	*2,527*	*16.05*	*2,351*	*16.29*	*1,585*	*13.85*
Biomass	*87*	*0.55*	*66*	*0.46*	*49*	*0.43*
Solar	*362*	*2.30*	*265*	*1.84*	*161*	*1.41*

Fuel Type	Installed		Dependable		Available*	
	MW	Percent Share (%)	MW	Percent Share (%)	MW	Percent Share (%)
Wind	*337*	*2.14*	*293*	*2.03*	*42*	*0.37*
2017 TOTAL	**15,743**	**100.00**	**14,429**	**100.00**	**11,444**	**100.00**
2016 TOTAL**	**14,977**		**13,600**		**10,508**	

**Coincidental to the Peak Demand, grid only*
***Grid only*





Significant Incidents:

- Shell Philippines Exploration B.V. (SPEX) conducted the Malampaya Gas Facility Scheduled Maintenance Shutdown (SMS) on 28 January to 16 February 2017 which was safely completed ahead of the planned schedule. Despite this SMS and the occurrence of forced outages of some major power plants, Luzon grid remained stable due to the low demand during the period. During the SMS, Santa Rita, San Lorenzo and Avion Natural Gas-Fired Power Plants run on liquid fuel while Ilijan Natural Gas-Fired Power Plant run on bio diesel.

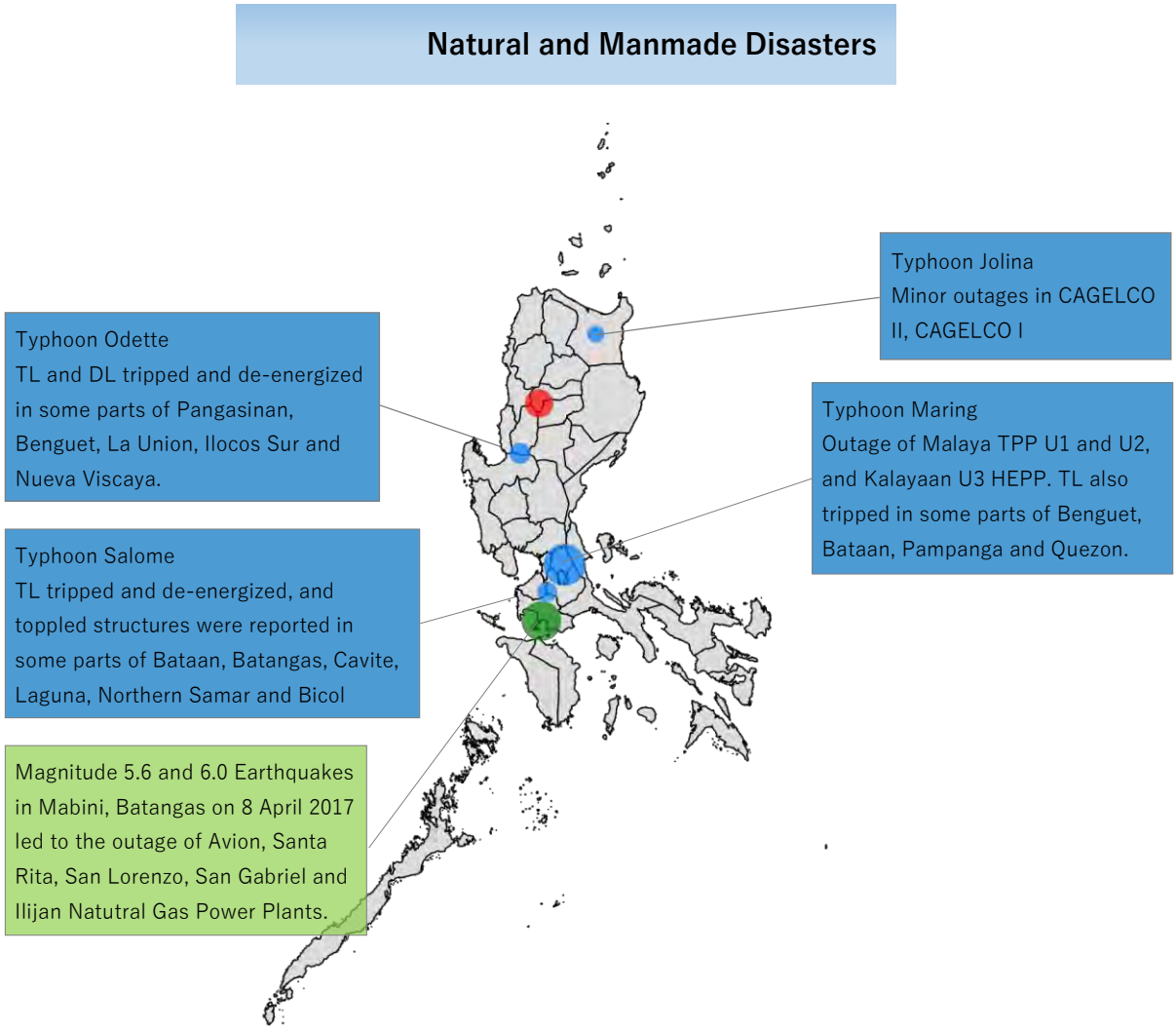
- The 647 MW Sual Coal-Fired Power Plant (CFPP) Unit 2 went on forced outage on 14 June 2017 triggering an Automatic Load Dropping (ALD) incident with recorded system frequency drop at 58.908 Hz. It was reported that the primary cause of transformer failure was internal flash over on the high voltage (HV) winding which resulted to the explosion of HV bushing. On-site repair was not recommended due to carbon deposits contamination all over the internals. Sual CFPP Unit 2 went online on 10 November 2017.

- Luzon grid experienced 11 yellow alerts and 2 red alerts brought about by forced outages of power plants, natural disasters, and natural gas fuel restriction.

- Luzon grid experienced 24 ALD for 2017. Most of ALDs occurred in the month of June with seven (6) ALDs due to the tripping of power plants with large capacities. On the average,

most of the outages caused by the load dropping were not sustained for more than 17 minutes.

- Luzon grid experienced 7 major transmission system interruptions for 2017 brought about by system fault, disasters, and line tripping. Some of the transmission system interruptions caused isolation and tripping of power plants.



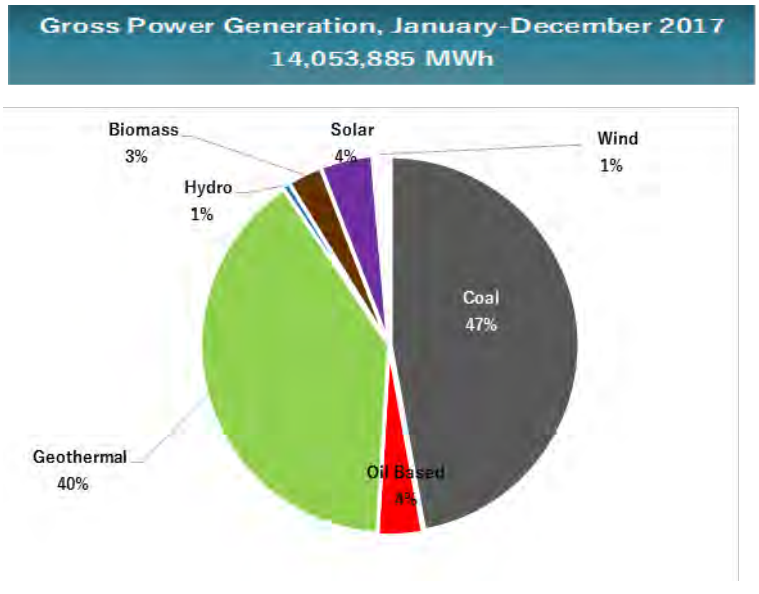
VISAYAS POWER SITUATION

Table 29. Visayas Installed, Dependable and Available Capacity from January-December 2017 (in MW)

Fuel Type	Installed		Dependable		Available*	
	MW	Percent Share (%)	MW	Percent Share (%)	MW	Percent Share (%)
Coal	**1,054**	**30.78**	**1,050**	**34.98**	**910**	**37.74**
Oil Based	**730**	**21.30**	**499**	**16.60**	**373**	**15.47**
Natural Gas	**1**	**0.03**	**0**	**0.00**	**0**	**0.00**
Renewable Energy	**1,641**	**47.88**	**1,454**	**48.42**	**1,128**	**46.79**
Geothermal	*965*	*28.16*	*870*	*28.96*	*682*	**28.29**
Hydro	*20*	*0.57*	*18*	*0.61*	*10*	**0.41**
Biomass	*101*	*2.96*	*84*	*2.78*	*52*	**2.16**

Fuel Type	Installed		Dependable		Available*	
	MW	Percent Share (%)	MW	Percent Share (%)	MW	Percent Share (%)
Solar	*465*	*13.57*	*392*	*13.07*	*352*	**14.60**
Wind	*90*	*2.63*	*90*	*3.00*	*32*	**1.33**
2017 TOTAL	**3,426**	**100.00**	**3,002**	**100.00**	**2,411**	**100**
2016 TOTAL**	**3,284**		**2,813**		**2,288**	

**Coincidental to the Peak Demand, grid only*
*** Grid Only*



Significant Incidents:

- For the first half of 2017, the power situation in the Visayas has been generally stable due to the additional capacities that went on commercial operation. There are some instances where the Visayas grid experienced tight supply conditions especially during the occurrence of simultaneous outages of large coal-fired and geothermal power plants.

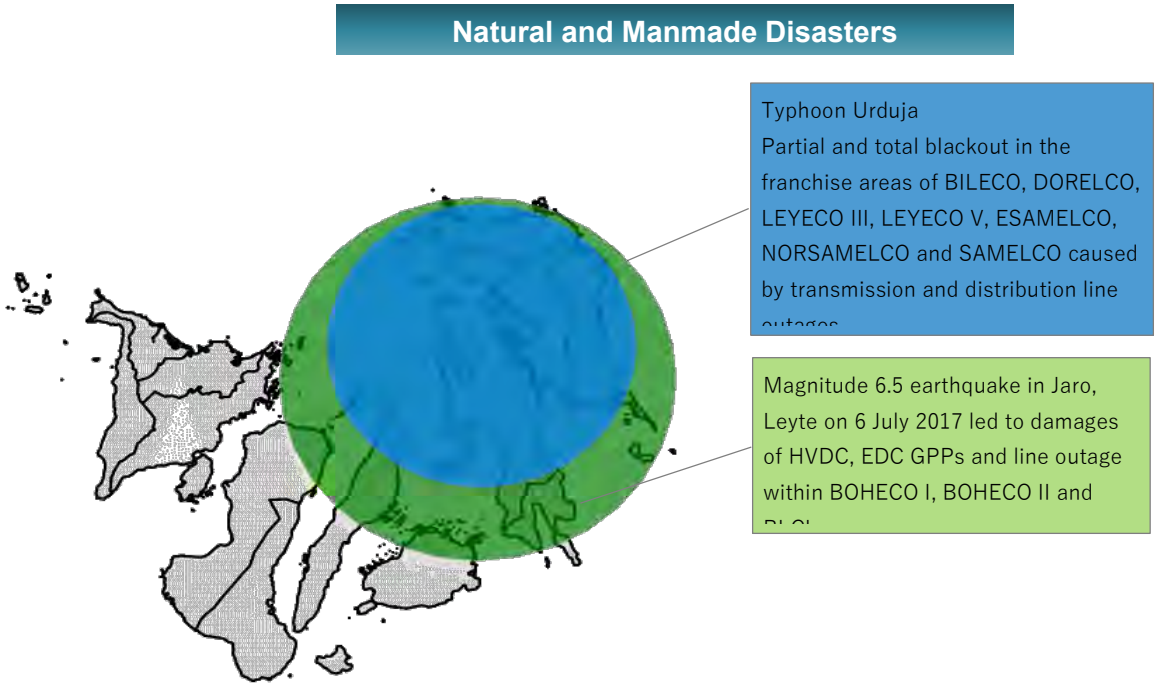
- However, during the second half of the year, natural disasters struck the Visayas region that damaged cricitical power generation facilities, power lines and equipment especially in the areas of Samar-Leyte, Bohol, and Cebu.

    - The occurrence of the 6.5 magnitude earthquake in Jaro, Leyte affected and damaged geothermal power generation and transmission (HVDC, substations, towers, power lines) facilities that resulted to the total loss of power in the Provinces of Samar, Leyte, and Bohol.

    - Power was restored within the month of July in the affected areas but the various restoration activities of the damaged facilities were carried out for the remainder of the year.

    - Within the month of December, Typhoon Urduja heavily affected the Provinces of Samar and Leyte that caused damages to power lines and steam lines of geothermal power plants.

    - Restoration activities were carried out after the typhoon in order to repair the damages and restore the output of the geothermal power plants.

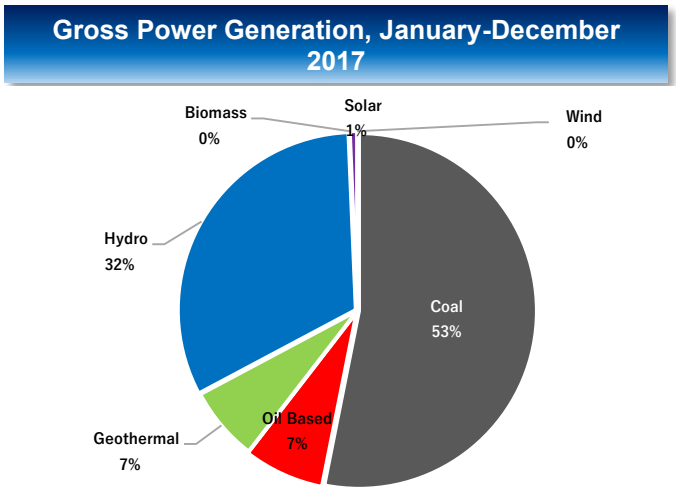


MINDANAO POWER SITUATION

Table 30. Mindanao Installed, Dependable and Available Capacity from January-December 2017 (in MW)

Fuel Type	Installed		Dependable		Available*	
	MW	Percent Share (%)	MW	Percent Share (%)	MW	Percent Share (%)
Coal	**1,370**	**38.49**	**1,220**	**39.58**	**1,088**	**45.84**
Oil Based	**906**	**25.45**	**811**	**26.30**	**494**	**20.82**
Natural Gas	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**
Renewable Energy	**1,283**	**36.06**	**1,052**	**34.12**	**791**	**33.34**
Geothermal	*108*	*3.05*	*100*	*3.24*	*99*	*4.17*
Hydro	*1,080*	*30.35*	*899*	*29.17*	*692*	*29.15*
Biomass	*36*	*1.01*	*10*	*0.32*	*0*	*0.00*
Solar	*59*	*1.65*	*43*	*1.38*	*0*	*0.01*
Wind	*0*	*0.00*	*0*	*0.00*	*0*	*0.00*
2017 TOTAL	**3,559**	**100.00**	**3,083**	**100.00**	**2,373**	**100.00**
2016 TOTAL**	**3,162**		**2,684**		**1,642**	

**Coincidental to the Peak Demand, grid only*
***Grid onl*



337 MW	•Newly Operational Plants
1,332 MW	•Committed Projects
1,981 MW	•Indicative Projects

Significant Incidents:

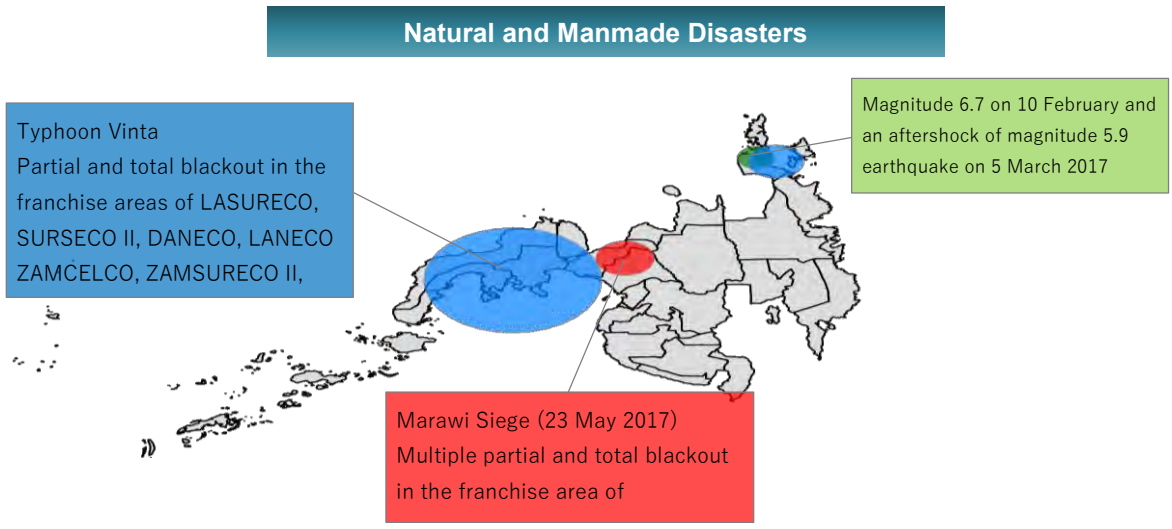
- On 04 May 2017 (1250H), Zamboanga Peninsula was on total blackout due to the tripping of the Baloi-Aurora 138 kV Line. Agus 5 – Aurora 138 kV line which also serves the Zamboanga Peninsula was also on outage due to a line to line fault. System was restored on the same day at 1700H.

- On 14 May 2017 (2122H), Zamboanga Peninsula was on partial blackout due to the tripping of Agus 5 – Aurora 138 kV Line and Baloi – Aurora 138 kV Line.

- On 25 May 2017 (1750H), Agus 2 – Agus 1 138 kV Tie Line tripped which resulted to the isolation of both Agus 1 HEP and Agus 1 Substation rendering Marawi City without power.

- On 1 October 2017, South Eastern Mindanao Area (SEMA) was on partial system blackout due to the tripping of Davao – Toril 138 kV Lines 1 and 2 and Kibawe – Tacurong line at 2204H. At 2230H, Red Alert Status was declared for the Mindanao Grid.

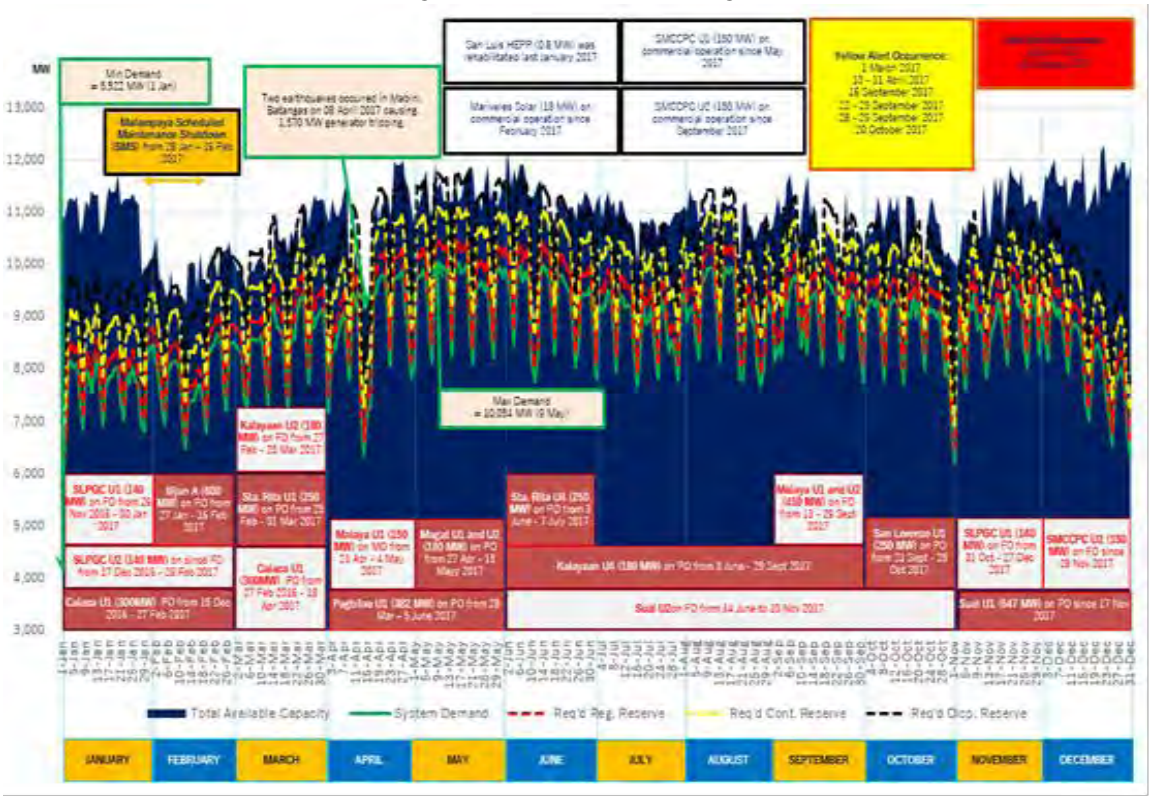
- On 23 May 2017, the Marawi Seige started which resulted to the multiple and partial blackout of the franchise area of LASURECO.



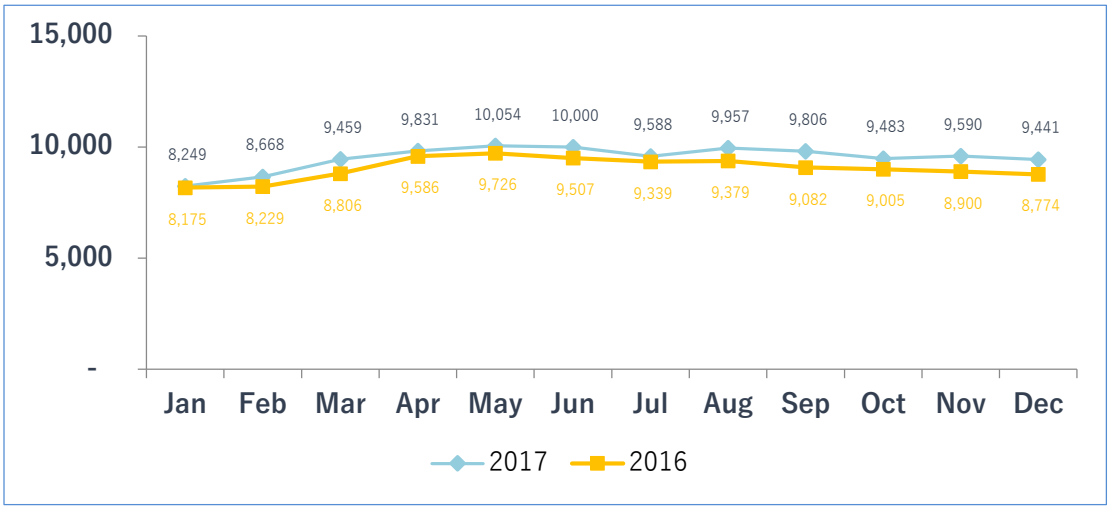
C. System Peak Demand

1. LUZON

Luzon Demand-Supply Situation (01 January 2017 – 31 December 2017)

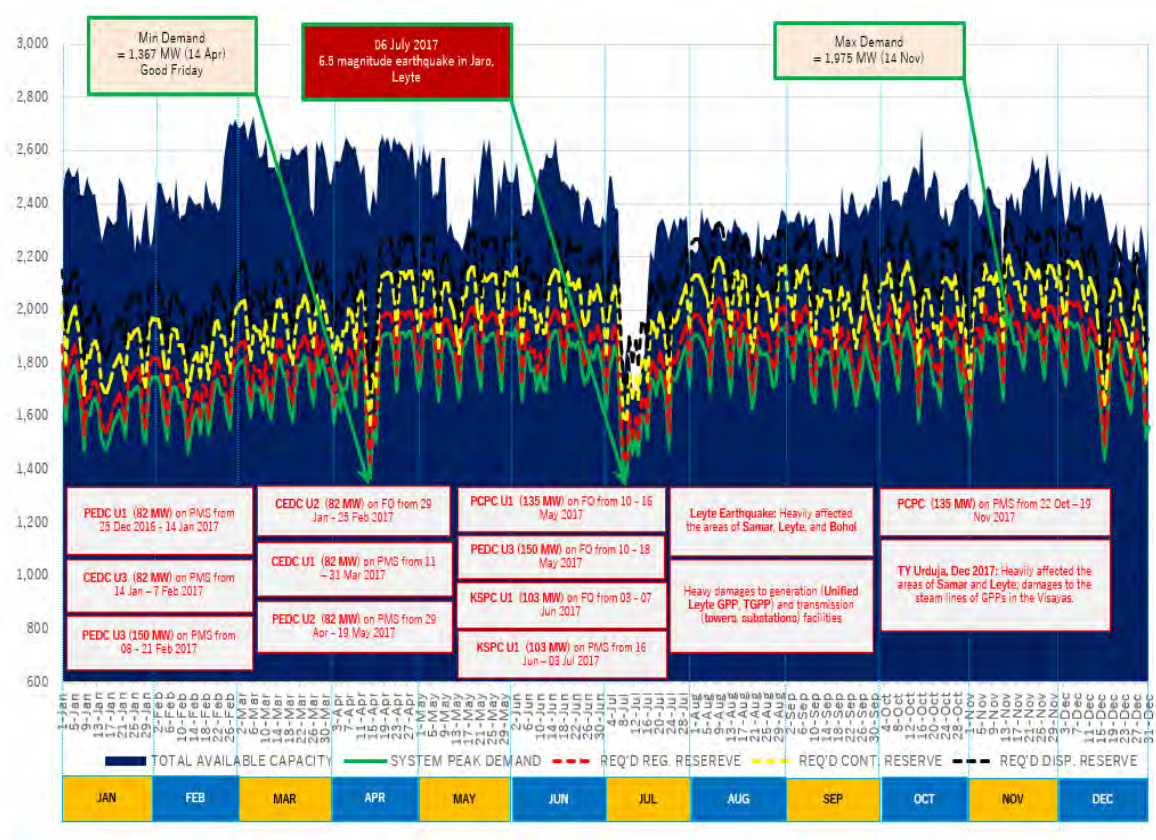


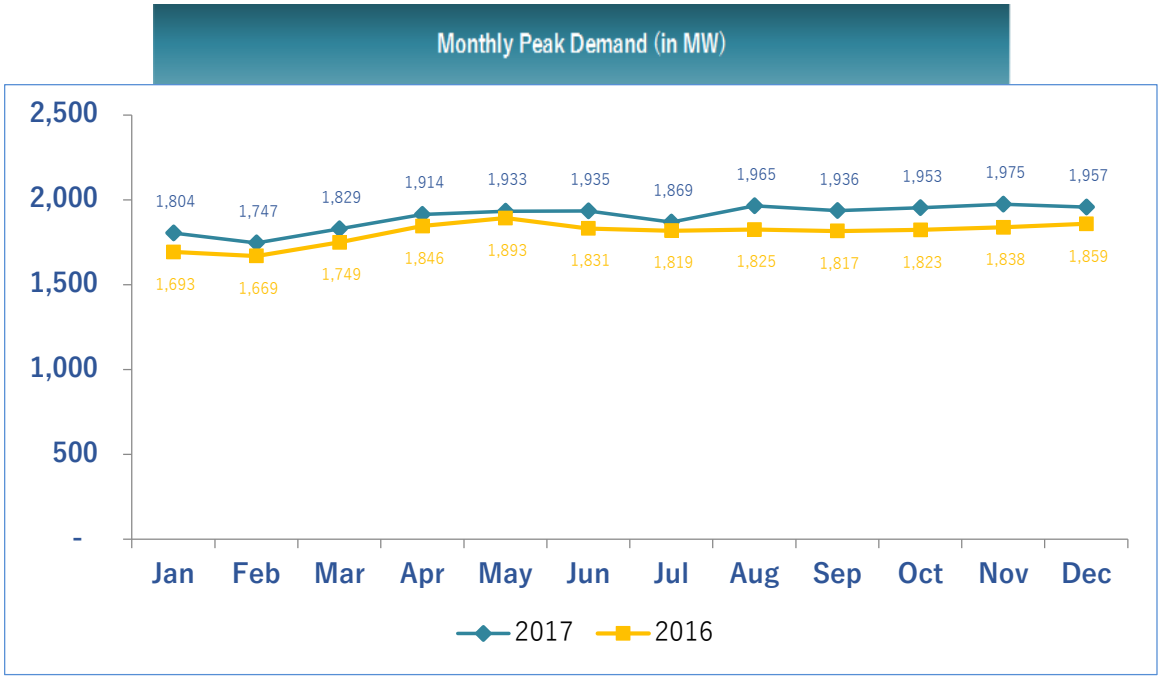
Monthly Peak Demand (in MW)



2. VISAYAS

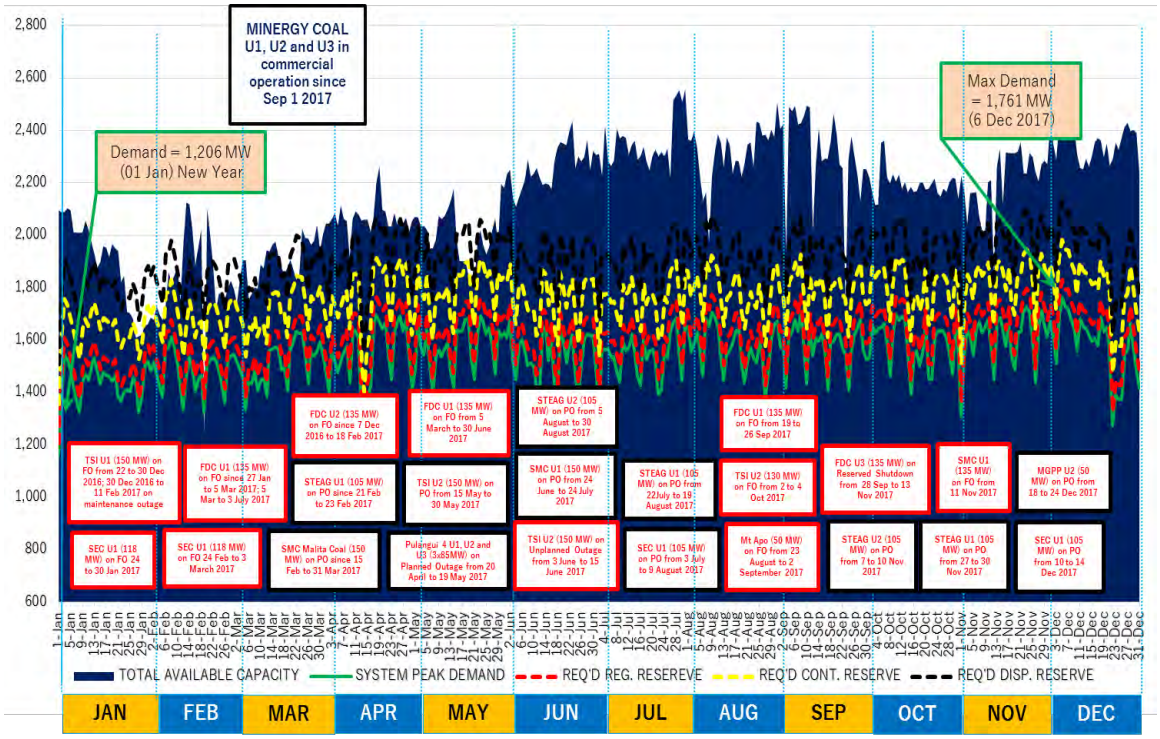
Visayas Demand-Supply Situation (01 January 2017 – 31 December 2017)

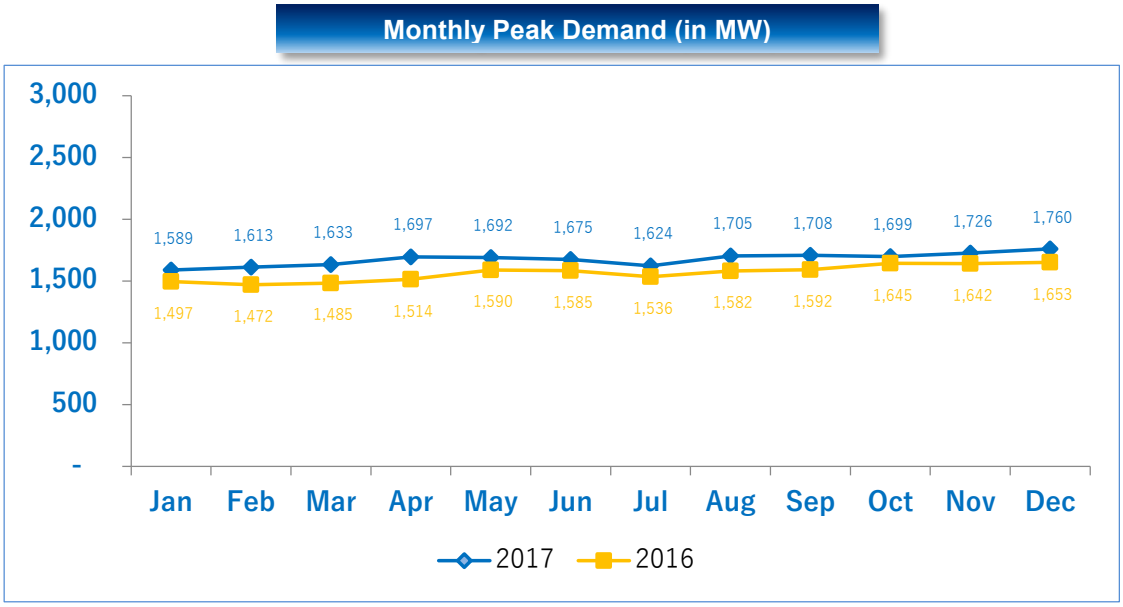




3. Mindanao

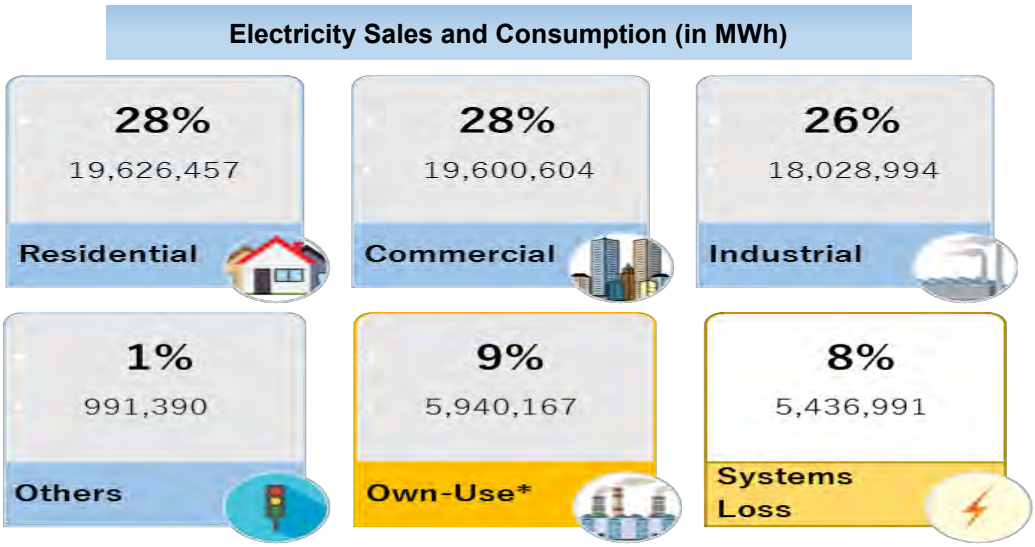
Mindanao Demand-Supply Situation (01 January 2017 – 31 December 2017)





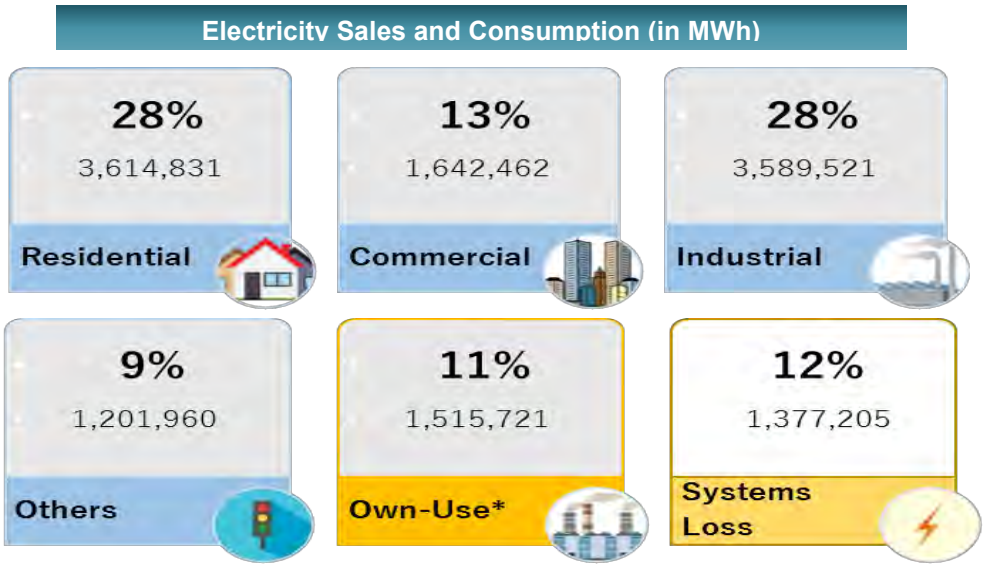
D. Electricity Sales and Consumption

1. LUZON



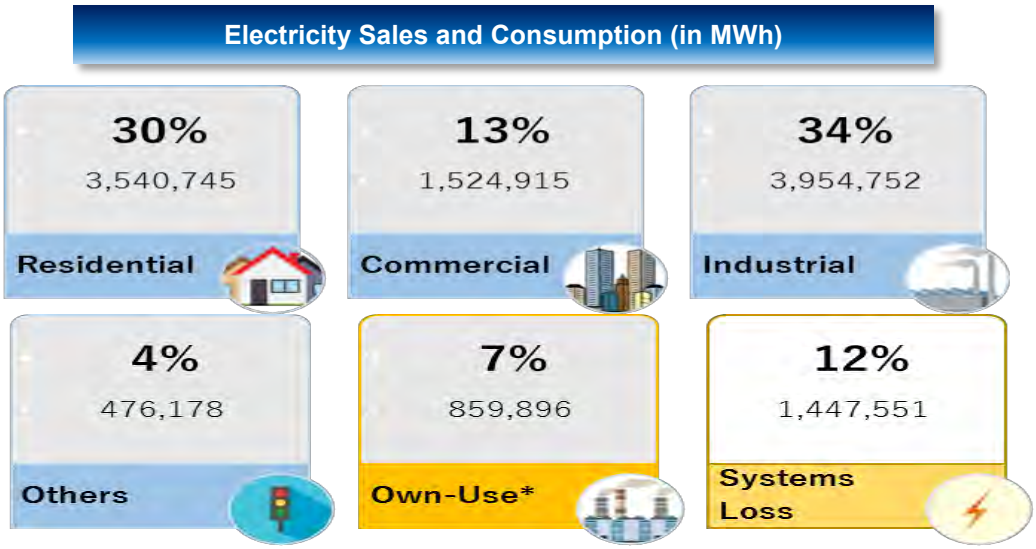
- Electricity sales and consumption in Luzon for 2017 reached a total of 69,624,603 MWh. This is 4% higher than in 2016 at 67,220,596 MWh.
- It is driven by the consumption of both the residential and commercial sectors with at par shares at 28%.
- Luzon's share to the country's total electricity sales and consumption remained the largest at 74%.

2. VISAYAS



- Electricity sales and consumption in Visayas for 2017 reached a total of 12,941,701 MWh. This is 6% higher than in 2016 at 12,231,839 MWh. It is also the highest growth rate observed in 2017 among the three grids.
- It is driven by the consumption of both the residential and industrial sectors with at par shares at 28%.

3. MINDANAO



- Electricity sales and consumption in Mindanao for 2017 reached a total of 11,804,037 MWh. This is 4% higher than in 2016 at 11,345,457 MWh.

- This is driven by the consumption of the industrial sector at 34% which is equivalent to 3,954,752 MWh.

E. Status of Government Generating Assets

1. Agus VI HEPP Uprating Project

The Project consists of engineering investigation, design, manufacturing and installation of new hydropower turbines and blades for the uprating of Units 1 and 2 from 25 MW to 34.5 MW per unit.

The Project was awarded to the joint venture of Guangxi Hydroelectric Construction Bureau and ITP Construction Inc. in December 2013 and is targeted for completion by September 2017. However, said target completion date was moved to October 2017 due to the delayed completion of installlation units 1 and 2, variation orders and testing and commissioning.

Below shows the Project's Milestone Schedule:

Activities	Timeline
a. Detailed Engineering	January 2014 to July 2014
b. Manufacturing	April 2014 to March 2015
c. Start of construction	January 2015
d. Target Completion Date	April 2016

However, the target completion date was moved to March 2018 due to the delayed completion of units 1 and 2 installation, variation orders, testing and commissioning. The activities were not met as scheduled due to the following:

a. Working space constraints;
b. Delayed in delivery and completion of punch list items (e.g. spare parts, special tools and As-built drawings/O&M manuals);
c. Repair of water intrusion in the mechanical room;
d. Unavailability of equipment, unfavorable weather conditions and on-going construction of retaining wall in the Agus VI substation; and
e. NGCP's non-issuance of Authority to Connect for the testing.

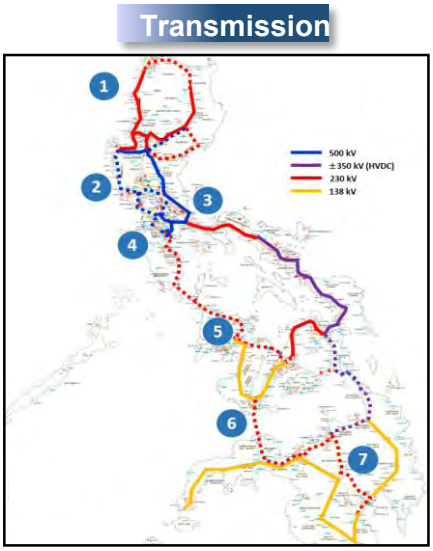
As of 31 March 2018, the Project's overall accomplishment is 99.96%. Table below shows the detailed activities which were already taken.

Table 31. Project Over-All Accomplishments as of 31 March 2018

Item	Activity	% Weight	% Accomplishment as 30 April 2015	% of Cumulative Weight
1.0	Mobilization	4.74	100%	4.74
2.0	Engineering Design	14.21	100%	14.21
3.0	Turbine Model and Manufacture of Equipment	36.0	100%	36.00
4.0	Equipment Delivery			
	Unit 2	6.63	100%	6.63
	Unit 1	6.63	100%	6.63
	Common Plant Equipment	7.58	100%	7.58
5.0	Purchase of Major Equipment Components and Materials for Fabrication and Construction	5.21	100%	5.21
6.0	Construction of Temporary Facilities	4.27	100%	4.27
7.0	Installation			
	Unit 2*	2.84	99%	2.84
	Unit 1	2.84	99%	2.84
	Civil and Architectural Construction	3.79	99%	3.75
8.0	Variation works			
	Tailrace Weir	1.5	100%	1.5
	Surge Tank	3.76	100%	3.76
	Total	**100.0**		**99.96**

Source: PSALM

F. Status of Transmission Projects



The Transmission Master Plan (TMP) has been formulated with vital considerations to ensure that the country has a transmission network that can support growth and competitive electricity prices. The TMP was done through a program that will significantly upgrade and expand the transmission backbone in order to meet the forecast demand, support the entry of new generating facilities and allow market competition.

As shown in the diagram above, the creation of an interconnected Philippine Grid will also be among the considerations. The Luzon and the Visayas grids are already interconnected while the interconnection of the Visayas and the Mindanao grids, which includes provision for expansion of up to 900 MW capacity[4] , has set to be accomplished by 2020.

1. **Northern Luzon 230 kV Backbone (2024)**
   - To provide additional transmission line capacity, accommodate generation additions, and provide redundancy.

2. **Western Luzon 500 kV Backbone (2024)**

   - Stage 1 (Castillejos-Hermosa T/L)
     - ERC-approved
     - To accommodate generation entry

   - Stage 2 (Castillejos-Bolo T/L)
     - To provide additional transmission line capacity and increase system reliability through N-2 contingency for the 500 kV backbone in Luzon.

3. **Metro Manila 500 kV Backbone Loop**

   - To provide additional transmission line capacity and accommodate demand growth in the load center of Luzon.

[4] *Converter stations are initially designed with 450MW capacity but the submarine cables are designed with 900 MW capacity (bipolar) to accommodate future expansions.*

4. **Batangas-Mindoro Interconnection (2021)**

   - To improve the overall reliability in the Island of Mindoro and strengthen the transmission backbone.

5. **Cebu-Negros-Panay 230 kV Backbone (2020)**

   - Stage 1 (Negros-Panay Interconnection)
     - ERC-approved
     - To accommodate generation entry

   - Stage 2 (Cebu Substation)
     - To accommodate generation entry

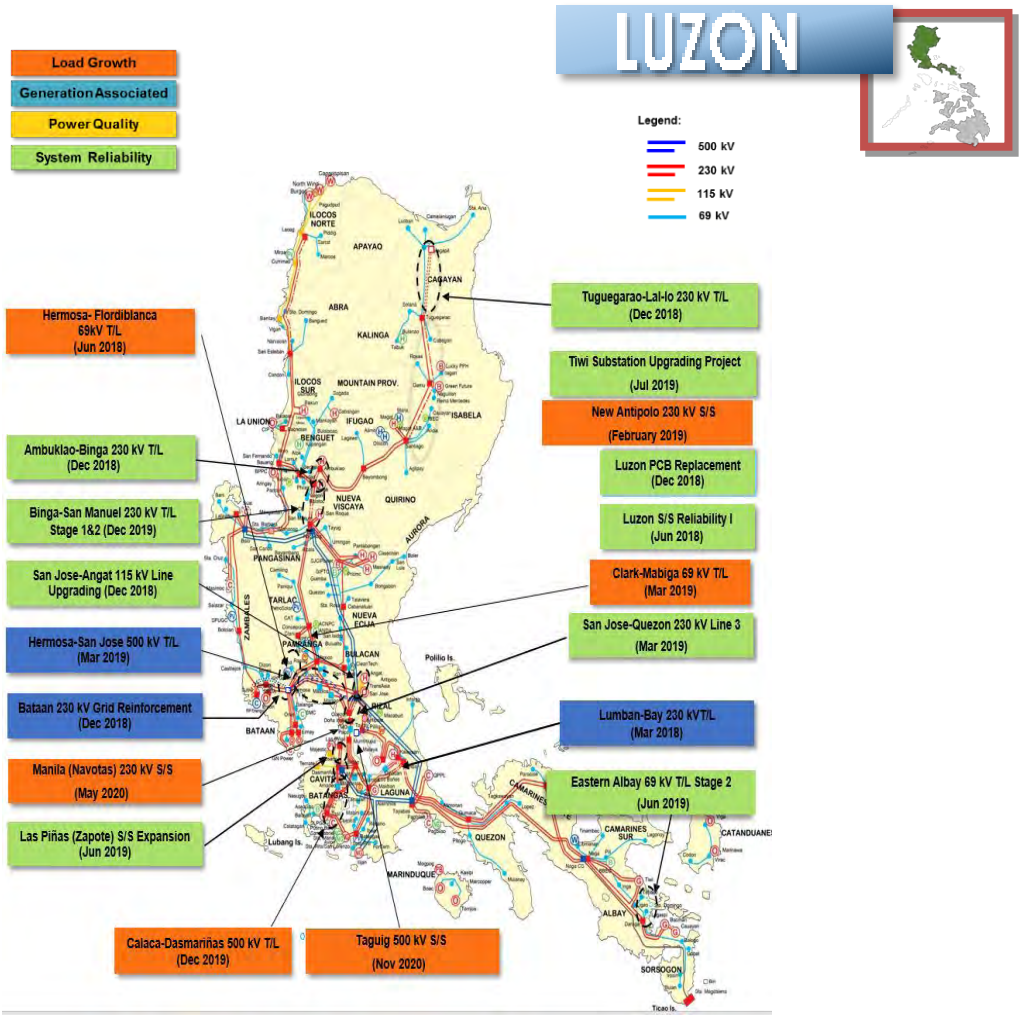
   - Stage 3 (Negros-Cebu Interconnection)
     - ERC-approved
     - To accommodate excess generation

6. **Visayas-Mindanao Interconnection (2020)**

   - ERC-approved
   - To enable sharing of available capacity with the major grids
   - To increase system reliability
   - To encourage investments
   - To optimize the utilization of indigenous resources

7. **Mindanao 230 kV Backbone (2018)**

   - ERC-approved
   - To provide additional high voltage corridor
   - To accommodate generation entry



LOAD GROWTH

- **Manila (Navotas) 230 kV Substation Project**
  - ETC: May 2020
  - Status: 0.83 % complete
  - To add substation capacity to accommodate load growth.

- **Taguig 500 kV Substation**
  - ETC: November 2020
  - Status: 36.39 % complete (site development)
  - To decongest existing substation and ensure that the power requirements of the country's load center will be served with adequacy and reliability.

- **New Antipolo 230 kV Substation Project**
  - ETC: February 2019
  - Status: Site clearing activities in progress
  - To accommodate the demand increase in Metro Manila and maintain the N-1 contingency provision for Taytay Substation.

- **Clark-Mabiga 69 kV Transmission Line Project**
  - ETC: March 2019

- Transmission line component: For re-bidding
- Substation component: 62.12 % complete (turn-key)
- To accommodate the load growth in the area of Angeles and Mabalacat and provide an alternate source of power.

- **Hermosa-Floridablanca 69 kV T/L Project**
  - ETC: June 2018 (Supply)
  - Status: Manufacturing in progress for supply
  - To relieve the overloading of the existing Hermosa-Guagua line and address the low voltage issues in the area.

GENERATION ASSOCIATED

- **Lumban (Kalayaan)-Bay (Makban) 230 kV Transmission Line Project**
  - ETC: March 2018
  - Transmission line component: 100 % complete
  - Substation component: 98.49 % complete
  - To increase the capacity of this corridor in order to accommodate any generation dispatch scenarios.

- **Bataan 230 kV Grid Reinforcement Project**
  - To optimize the existing transmission lines by increasing the capacity without acquiring new right-of-way in order to accommodate new generation capacity addition.

  Reconductoring of Mexico-Hermosa T/L
  - ETC: June 2018
  - Status: 66.57% complete

  Reconductoring of Hermosa-Limay T/L
  - ETC: December 2018
  - Status: 57.26% complete

  Substation Component (Limay, BCCPP Switchyard, Lamao Switchyard, San Rafael S/S)
  - ETC: February 2018
  - Status: 100% complete (Supply of high Voltage Equipment)

- **Balsik (Hermosa)-San Jose 500 kV Transmission Line Project**
  - ETC: March 2019
  - Transmission line component: 1.55 % complete (Erection)
  - Substation component: Checking of manufacturer's drawings.
  - To accommodate generation capacity additions in Bataan and Zambales area

- **Western 500 kV Backbone, Stage 1 (Castillejos-Hermosa T/L)**
  - ETC: June 2019
  - Status: Check survey in progress (Erection)
  - To improve the system security and reliability in accommodating bulk generation capacity additions.

- **Tuy (Calaca)-Dasmariñas 500 kV T/L Project**
  - ETC: December 2019

- Status: Manufacturing in progress for both transmission and substation component
- To reinforce the outgoing 230 kV line from Calaca Substation and accommodate the full dispatch of the incoming power plants in Batangas area.

- **Mariveles-Balsik (Hermosa) 500 kV T/L Project**
  - ETC: November 2019
  - Status: Manufacturing in progress
  - To support the entry of large capacity plants in the area.

- **Pagbilao 500 kV Substation Project**
  - ETC: May 2019
  - Status: Manufacturing in progress
  - To accommodate the generation capacity additions for the Luzon Grid which will be located in Quezon Province.

POWER QUALITY

- **Luzon Voltage Improvement Project 3 (Laoag Substation)**
  - Status: Completed and energized on 22 September 2017
  - To maintain the system voltages within the PGC-prescribed limits both during normal and N-1 contingency conditions, installation of capacitor banks and shunt reactors will be required.

SYSTEM RELIABILITY

- **Luzon Power Circuit Breaker (PCB) replacement**
  - ETC: December 2018
  - Status: 72.63 % complete
  - To replace old PCBs to improve substation reliability at San Jose, Labo, Malaya and Gumaca.

- **San Jose-Quezon (Balintawak) 230 kV Line 3 Project**
  - ETC: March 2019
  - Status: 89.96 % complete
  - To increase transfer capacity of the existing corridor and maintain the N-1 contingency provision.
- **Ambuklao-Binga 230 kV Transmission Line Project (Substation Component)**
  - ETC: December 2018
  - Status: 92.09 % complete
  - To address the old age condition of the line and accommodate the generation capacity addition in Cagayan Valley area.

- **Luzon Substation Reliability Project 1**
  - ETC: June 2018 (Labo S/S)
  - Status: 98.63 % complete, Botolan and San Esteban S/S were energized on 21 October 2016 and 23 April 2016, respectively.
  - To add substation capacity to provide N-1 contingency.

- **Binga-San Manuel 230 kV Transmission Line Project**
  - To address the old age condition of the line and provide N-1 contingency during maximum dispatch of the generating power plants in North Luzon.

  Stage 1 (Binga S/S)
  - ETC: Dec 2019 (revamping)
  - Status: 98.4 % complete, Energized on 21 December 2015

  Stage 2 (San Manuel S/S)
  - ETC: Dec 2018
  - Status: 93.28 % complete

- **Santiago-Tuguegarao 230 kV Transmission Line Project**
  - Status: Completed and energized on September 2017
  - To provide N-1 contingency for the existing transmission corridor serving Isabela and Cagayan

- **Dasmariñas EHV Substation Expansion Project**
  - ETC: January 2018
  - Status: 99.92 % complete, T08 and T09 were energized on 27 October 2014 and 26 November 2013, respectively.
  - To maintain the provision for N-1 contingency for the transformers at Dasmariñas drawdown substation.

- **Las Piñas (Zapote) Substation Expansion Project**
  - ETC: June 2019
  - Status: 99.55 % complete, Energized on 6 June 2017
  - Installation of the 4th transformer unit for N-1 contingency for the 230/115 kV transformers. This will address the ex-ante pricing errors in the WESM Market Operation brought about by the contingency constraint violations in Las Piñas Substation.

- **Eastern Albay 69 kV Transmission Line Project, Stage 1**
  - Erection: Completed and energized on 20 December 2017
  - To provide reliable power service delivery in eastern Albay by developing new 69 kV supply line and a new 69 kV substation in Sto. Domingo.

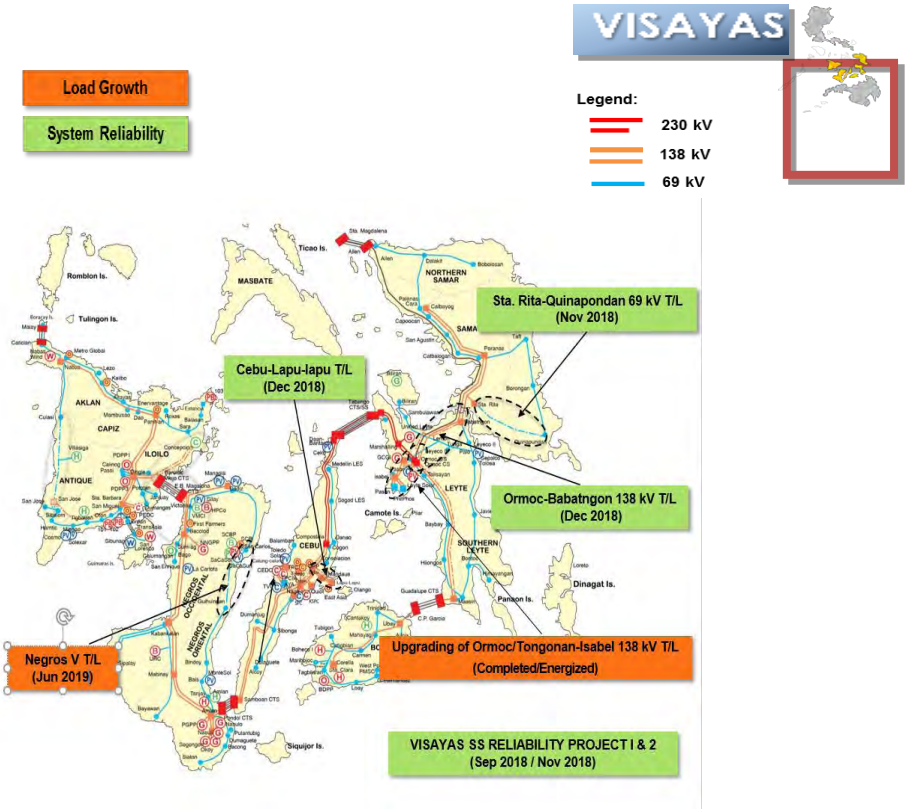
- **Eastern Albay 69 kV Line T/L Project, Stage 2**
  - ETC: June 2019
  - Status: Manufacturing in progress
  - To provide the looping configuration for the 69 kV line in eastern Albay.

- **San Jose-Angat 115 kV Transmission Line Upgrading Project**
  - ETC: December 2018
  - Status: 83.33 % complete
  - To address the old age condition and reliability issues in the existing line serving the Angat Hydroelectric Power Plant.

- **Tuguegarao-Lal-lo (Magapit) 230 kV Transmission Line Project**
  - ETC: December 2018
  - Transmission line component: 21.62 % complete (Erection)
  - Substation component: 46.45 % complete

- To improve the power quality and reliability of supply in the province of Cagayan and this will form part of the development of the Northern Luzon 230 kV Loop that will cater the wind power generation potential in the region.

- **Tiwi Substation Upgrading Project**
  - ETC: July 2019
  - Status: 15.0 % complete (supply of high voltage equipment)
  - To upgrade the old and deteriorated substation equipment and improve the reliability of the system.



LOAD GROWTH

- **Negros V Transmission Project**
  - ETC: June 2019
  - Status: 90.10 % complete
  - To accommodate load growth in Northeastern Negros and to provide operational flexibility.

- **Upgrading of Ormoc/Tongonan-Isabel 138 kV Transmission Line (Typhoon Yolanda)**
  - Status: Completed and energized on 26 March 2017
  - To address the system limitation and restore the reliability of the Ormoc/Tongonan-Isabel 138 kV Transmission Line.

SYSTEM RELIABILITY

- **Ormoc-Babatngon 138 kV Transmission Line Project**
  - ETC: December 2018
  - Transmission line component: 99.58 %
  - Substation component: 99.29 %
  - To provide N-1 contingency for the existing corridor by installing the second circuit.

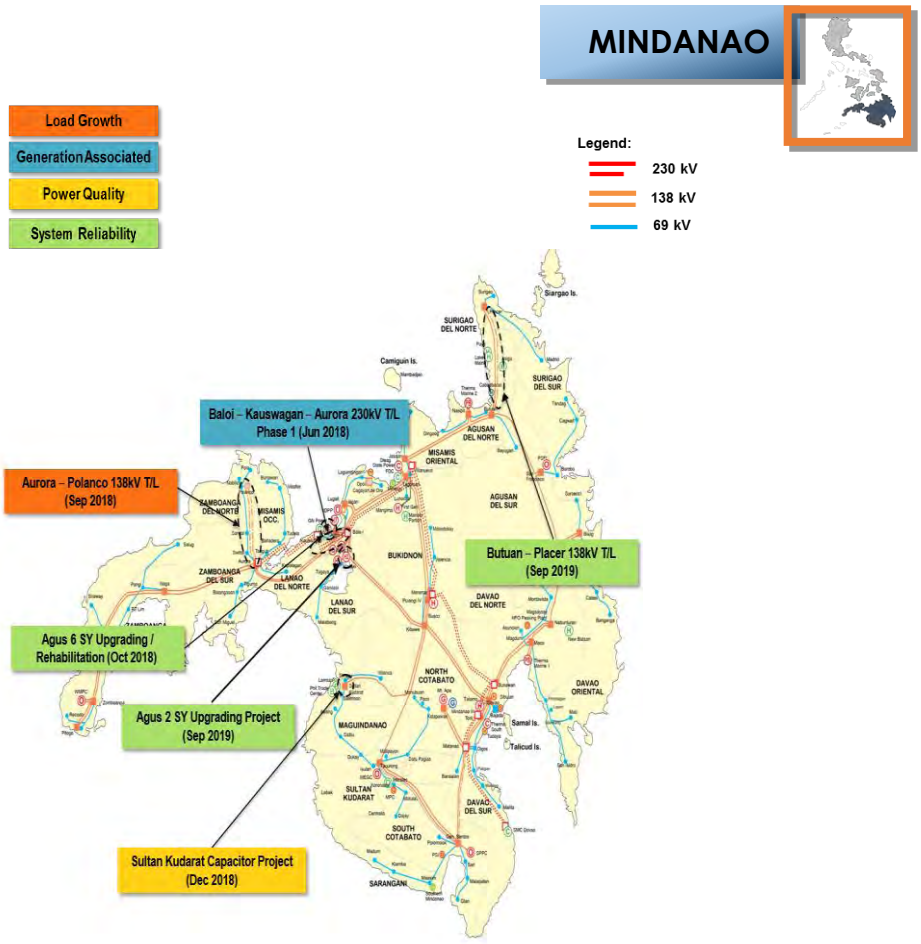
- **Visayas Substation Reliability Project 1**
  - To add substation capacity to provide N-1 contingency.

  Amlan
  - ETC: September 2018
  - Status: 94.36 % complete (remaining works), energized on 13 December 2017

- **Visayas Substation Reliability Project 2**
  - ETC: November 2018
  - Status: 97.40 % complete
  - To add substation capacity to provide N-1 contingency.

- **Sta. Rita-Quinapondan 69 kV Transmission Line Project**
  - ETC: November 2018
  - Status: 99.67 % complete
  - To make Quinapundan Substation closer to its power source and thus, provide a more reliable power delivery system.

- **Cebu-Lapu Lapu 138 kV Transmission Project**
  - ETC: December 2018
  - Transmission line component: Contract suspended due to non-issuance of endorsement/approval by the LGU of Mandaue City.
  - Substation component: 97.40 % complete
  - To increase transfer capacity of the existing corridor and maintain the N-1 contingency provision.



LOAD GROWTH

- **Aurora-Polanco 138 kV Transmission Line Project**
  - ETC: September 2018 (Substation)
  - Transmission line component: Completed (Ready for energization)
  - Substation component: 96.97 %
  - To serve the growing power demand in Zamboanga del Norte area.

GENERATION ASSOCIATED

- **Baloi-Kauswagan-Aurora 230 kV Transmission Line Project (Phase 1)**
  - ETC: June 2018
  - Status: 79.21 % complete (Erection)
  - To accommodate the proposed 4x100MW coal-fired power plant of GN Power in Kauswagan.

POWER QUALITY

- **Sultan Kudarat (Nuling) S/S Capacitor Project**
  - ETC: December 2018
  - Status: 20.50 % complete (Civil works)
  - To improve the voltage profile in the area.

- **Butuan-Placer 138 kV Transmission Line Project**
  - ETC: September 2019
  - Transmission line component: 5.05 % complete (Erection)
  - Substation component: 100 % complete
  - To provide N-1 contingency to the existing line.

- **Agus 6 Switchyard Upgrading Rehabilitation Project**
  - ETC: October 2018
  - Status: 91.77 % complete
  - To ensure the operational reliability of the plant's switchyard.

- **Agus 2 Switchyard Upgrading/Rehabilitation Project**
  - ETC: September 2019
  - Status: Demolition of existing foundation (Erection)
  - To address the deteriorating physical and operational condition of the switchyard.

G. Distribution Infrastructure Projects

1. ERC-Approved Capital Expenditure (CAPEX) Projects

For this report period, the ERC granted approval to the Capital Expenditure (CAPEX) Projects applications filed by seven (7) Distribution Utilities namely: Pampanga I Electric Cooperative, Inc. (PELCO I), Don Orestes Romualdez Electric Cooperative, Inc. (DORELCO), Surigao del Sur I Electric Cooperative, Inc. (SURSECO I), Tarlac I Electric Cooperative, Inc. (TARELCO I), Aurora Electric Cooperative, Inc. (AURELCO), Misamis Oriental I Rural Electric Cooperative, Inc. (MORESCO I), and Agusan Del Sur Electric Cooperative, Inc. (ASELCO). Details of these projects are shown in Annex 10.

2. Private Sector Financing of CAPEX Projects on System Loss Reduction

For this report period, a total of 20 ECs availed of the loan guarantee provided under the Electric Cooperative Partial Credit Guarantee (ECPCG) Program, which is being implemented by the Department of Energy. Through this Program, the ECs were able to access about PHP3.092 billion loans from commercial banks at lower interest rates that will be used to finance capital expenditure projects for the ECs distribution system upgrades.

The ECPCG Program is a grant from the Global Environment Facility with the World Bank as the Implementing organization. Both the donor and the concerned government agencies have been doing rounds of discussions on the way forward of the ECPCG Program, including the proposed expansion of the guarantee coverage to renewable energy power generation projects of ECs.

Table 32. ECs Booked in EC-PCG Program

	EC	Loan Amount (PhP Million)	ECPCG Program Guaranteed Amount (PHP Million)	Lender	Signing Date of Loan and Guarantee Agreements
1	Misamis Oriental I Electric Cooperative, Inc. (MORESCO I)	115.00	92.00	Security Bank	July 20, 2010
2	Pangasinan I Electric Cooperative, Inc. (PANELCO I)	113.00	90.40	Bank of Philippine Islands (BPI)	September 15, 2010
3	South Cotabato I Electric Cooperative, Inc. (SOCOTECO I)	102.42	81.94	BPI	October 05, 2010
4	Surigao del Norte Electric Cooperative, Inc. (SURNECO)	85.00	68.00	United Coconut Planters Bank (UCPB)	March 03, 2011
5	First Bukidnon Electric Cooperative,Inc. (FIBECO)	143.00	114.40	PNB*	May 16, 2011
6	Bukidnon II Electric Cooperative, Inc. (BUSECO)	135.90	108.72	BPI	February 11, 2011
7	Bohol I Electric Cooperative, Inc. (BOHECO I)	106.46	85.17	Development Bank of the Philippines (DBP)	June 13, 2011
8	Davao del Norte Electric Cooperative, Inc. (DANECO)	172.37	137.90	UCPB	October 04, 2011
9	Misamis Oriental I Electric Cooperative, Inc. (MORESCO II)	135.49	108.39	BPI	December 16, 2011
10	Camarines Norte Electric Cooperative, Inc. (CANORECO)	133.25	106.60	BPI	July 15, 2011
11	La Union Electric Cooperative, Inc. (LUELCO)	173.12	138.50	PNB*	December 07, 2012
12	Misamis Occidental I Electric Cooperative, Inc. (MOELCI I)	137.25	109.80	UCPB	July 06, 2012
13	Camiguin Island Electric Cooperative, Inc. (CAMELCO)	140.00	112.00	BPI	November 09, 2011
14	Nueva Ecija I Electric Cooperative, Inc. (NEECO I)	94.80	75.84	PNB*	June 06, 2012
15	Benguet Electric Cooperative, Inc. (BENECO)	163.50	130.80	BPI	December 28, 2012
16	BUSECO (2nd loan)	43.49	34.79	PNB	December 13, 2012
17	First Catanduanes Electric Cooperative, Inc. (FICELCO)	106.10	84.88	Security Bank	July 26, 2013
18	Leyte V Electric Cooperative, Inc. (LEYECO V)	185.86	148.69	Security Bank	December 03, 2013
19	Bohol II Electric Cooperative, Inc. (BOHECO II)	184.18	147.34	Security Bank	June 27, 2013
20	BOHECO I (2nd loan)	81.07	64.86	DBP	May 13, 2014
21	BUSECO (3rd loan)	25.88	20.70	Security Bank	May 08, 2015

EC		Loan Amount (PhP Million)	ECPCG Program Guaranteed Amount (PHP Million)	Lender	Signing Date of Loan and Guarantee Agreements
22	Central Negros Electric Cooperative, Inc. (CENECO)	191.68	153.34	Security Bank	March 07, 2016
23	MORESCO II (2nd Loan)	40	32.00	Security Bank	September 6, 2016
24	Cotabato Electric Cooperative (COTELCO)	180.00	144.00	UCPB	March 18, 2014**
Sub-Total		**2,808.82**	**2,247.06**		

** These accounts were originally booked by Allied Bank prior to its merger with PNB.*
*** Amended on 8 December 2017*
Source: DOE, LGUGC

H. Competitive Selection Process

On 1 February 2018, the DOE issued the Department Circular No. DC2018-02-0003 entitled "Adopting And Prescribing The Policy For The Competitive Selection Process in the Procurement by the Distribution Utilities of Power Supply Agreement for the Captive Market", which requires all Power Supply Procurement Agreements (PSAs) to be procured through Competitive Selection Process (CSP).

The said policy requires the distribution utilities to observe the following principles:

a) Transparency through the dissemination of bid opportunities and participation of all generation companies;
b) Equal opportunity to eligible and qualified generation companies;
c) Least cosgt manner to ensure that each DU met the demand of its captive customers;
d) Simple. Streamlined and efficient procurements process in accordance with the DU's DDP; and
e) Accountability to be observed by all parties in the procufement process and implementation of the Power Supply Agreement (PSAs) awarded under the CSP.

Meanwhile, on 21 March 2018, the DOE issued a CSP Advisory providing clarifications to effectively implement the said Circular and prescribing the Power Supply Procurement Plan Template. In the adoption of the CSP policy, the DOE has prescribed the distribution sector guidance to attain a clear, transparent and fair supply procurement process that will promote competition and greater prvate sector participation in the provision of adequate generation cvapacity to meet the demand in the captive market. Further, this also highlights the full accountability of the DUs in the provision of affordable electricity prices for the said consumer sector.

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.

Status of Household Electrification

For the report period, the household electrification level of the country is estimated at 90.7% based on the major updates provided by NEA and the 120 ECs. Said level corresponds to 20.6 million energized HHs out of the estimated total HH population of 22.7 million (see Table 32). This means that the Government already achieved its 90% household electrification target ahead of schedule.

Table 33. Household Electrification Level

Distribution Utility	Household		
	Total Household Population (2015)	Served	%
Electric Cooperatives	13,338,500	11,724,640	87.9%
MERALCO	7,090,398	6,922,828	97.6%
Other PIOUs/LGU Owned Utilities	2,292,532	1,939,885	85.1%
Total	**22,721,430**	**20,360,334**	**90.7%**

Source: DOE

On-going and Planned Programs and Activities

- ***Grid Electrifrication***

1. NEA's Sitio Electrification Program (SEP)

This refers to NEA's program of attaining 100% sitio electrification in the country while providing housewiring and connection assistance to eligible HHs. Based on its 2017 target of 2410 sitios, As of June 30, 2017, NEA had completed a total of 74 Sitios with total project cost of PhP90,621,977.00.

2. 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-gid solutions. As of June 30, 2017, based on its remaining target of 158 areas, NEA had completed a total of 37 BLEP projects with total project cost of Php163,496,829.00.

3. 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.

For 2017, 16 electrification projects were completed and inspected (14 areas were off-grid EF projects, 2 were grid extension projects). As of March 31, 2017, 4 electrification areas within MERALCO franchise area were approved and funded.

4. 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.

For the 2015 NIHE Program, 12,162 household were reported energized out of 30,512 approved and allocated with House-wiring and KWH meter Subsidy.

For the 2016 NIHE Program, 16,214 household were reported energized out of 115,596 approved and allocated with House-wiring and KWH meter Subsidy.

For 2017 NIHE, the total target for this year is to approve and obligate a total of 183,000 households. As of June 30, 2017, the DOE had already approved 12 project proposals with a total of 79,949 household beneficiaries. The DOE is currently processing several project proposals to meet the target for the year 2017.

- ***Off-Grid Electrification***

1. Qualified Third Party (QTP) Approach

Under Sec. 59 of EPIRA, areas deemed unviable and waived by the DUs may be offered to QTPs as part of the missionary electrification program. There is now a growing interest among private sector to enter into QTP operations with the entry of the renewables in off-grid electrification. Said interest is generated by the various incentives offered to private sector among which is the cash generation based incentive per kWh generated, equivalent to 50% of the Universal Charge (UC) in the area where it operates. Hence, the program anticipates the future development of mini-grid and micro-grid electrification projects using solar, biomass, wind and other renewable energy sources by other proponents that may also adopt QTP approach.

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

a. Rio Tuba QTP Project in Bataraza, Palawan

PowerSource Philippines, Inc. (PSPI) continues to operate outstandingly as QTP in Barangay Rio Tuba with a Subsidized Approved Retail Rate of PHP8.50/kWh. For the report period, there are 1,893 households connected in the system. In the case of the remaining unelectrified households which are composed of informal settlers, households within zonal restrictions and new households, PSPI is coordinating with the LGU and DOE for the options on how to provide electricity to these households.

In order to provide efficient and reliable service and serve more customers, PSPI completed the following activities, namely: a) upgrading and extension of the distribution line Sitio Canumay; b) installation of 25kVa transformer in the upgraded line in Sitio Canumay; and c) upgrading of the transformer in Sitio Sto. Nino from 37.5 kVa to 50 kVa.

b. Malapascua QTP Project in Malapascua Island, Logon, DaanBantayan, Cebu

PSPI continues to operate its existing 1.00 MW (2x500 kW gensets) in the Island collecting PHP12.00/kWh for consumers with monthly consumption of 40kWh or less and PHP15.00/kWh for monthly consumption greater than 40kWh. The average system loss is 6.13%.

For the report period, 43 additional households were electrified, a 2.95% increase in the past six (6) months. Based on the barangay records, out of 1,227 households in the island, 1,122 are connected to the mini grid system, achieving 90.55% electrification level. PSPI is looking at connecting the remaining unconnected 116 households in Malapascua.

c. Liminangcong, Taytay, Palawan

Residents of Bgy. Liminangcong is enjoying 24 hours of electricity service provided by PSPI. The installed capacity in the coastal barangay of Liminangcong is 675kW (3x225 kW gensets). PSPI replaced all old and mechanical meters for a more reliable kWh reading. Upgrading and extension of about 2km line of Purok Bancoro was also completed in January 2018. The average system loss is 7.02%. PSPI is charging PHP8.50/kWh to its customers.

d. Brgy. Cabayugan , Puerto Princesa City

Sabang Renewable Energy Corporation (SREC) has now secured over 85% of the customer base in Sabang, from residents to key institutions, who have signed the retail supply agreements since August 2017.

SREC had secured the Certificate of Commerciality from the DOE, and is just awaiting final approval for the financial incentives from BOI as provided for under the Renewable Energy Law and Omnibus Investment Code.

SREC is targeting the formal groundbreaking on the project site within the 2nd quarter of 2018, and is coordinating with stakeholders to ensure compliance with the proper requirements to ensure the full execution of the project.

The Project comprises a 1.404 (Solar PV), 2.363 (battery), and 1.280 (four (4) gensets@320kW diesel) to be installed in year 1 and additional capacities to be installed in succeeding years as the energy demand increases in the area.

e. Other QTP Projects

The ERC still has to issue its approval on the application of PowerSource Philippines, Inc. (PSPI) for the following QTP Projects: (a) Balut Island comprising seven (7) barangays in Sarangani, Davao Occidental; and, (b) Brgys. Candawaga and Culasian, Municipality of Rizal, Palawan.

On the other hand, NPC is still on negotiation for QTP Service and Subsidy Contract for the projects namely: (a) Lahuy and Haponan Island in Caramoan and Quinalasag Island in Garchitorena, Province of Camarines Sur of First Philippines Island Energy Corporation; and (b) Bgys. Poblacion and Manamoc in Municipalities of Dumaran and Cuyo respectively, Province of Palawan of PSPI.

DOE conducted site assessment and validation in areas namely: (a) Bgys. Pobalcion and Manamoc in Municipalities of Dumaran and Cuyo respectively, Province of Palawan; and, (b) Aramaywan and Berong in the Municipality of Quezon; Ransang in the Municipality of Rizal; Bacao in the Municipality of Dumaran; and Sumbiling in the Municipality of Bataraza, all in the Province of Palawan that determines the projected demand, capability and willingness to pay of the residents and technology appropriate for the aforementioned areas.

Following are the proposed Unviable Areas with corresponding Board Resolution subject to NEA verification:

1. Aramaywan and Berong in the Municipality of Quezon; Ransang in the Municipality of Rizal; Bacao in the Municipality of Dumaran; and Sumbiling in the Municipality of Bataraza, all in the Province of Palawan. Under the franchise of Palawan Electric Cooperative (PALECO);
2. Barangays Panobolon and Guiwanon in the Municipality of Nueva Valencia; and Barangay Inampulugan in the Municipality of Sibunag, all in the Province of Guimaras under the franchise of Guimaras Electric Cooperative, Inc. (GUIMELCO);
3. Barangay Panlaitan in the Municipality of Busuanga and Barangay Bulalacao in the Municipality of Coron, all in the Province of Palawan under the franchise of Busuanga Island Electric Cooperative, Inc. (BISELCO); and
4. Barangays Sto. Nino, Palma Gil, and Dagohoy, all in the Municipality of Talaingod, Davao Del Norte under the franchise of Davao Del Norte Electric Cooperative, Inc. (DANECO).

VIII. PROMOTION OF RURAL ELECTRIFICATION

Pursuant to Section 58 of the EPIRA, as additional mandate, 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.

- Preparing the ECs for Operation and Competition

  As of 31 March 2018, NEA released a total of PhP623 Million loans to 26 ECs with the following break down:

Particulars	EC Grantees	Amount (PhP in Million)
Short-term Credit Facility (average)	Quezon I Electric Cooperative, Inc. (QUEZELCO I)	20
	Subtotal	**20**
Stand-by Credit Facility (average)	Zamboanga City Electric Cooperative, Inc. (ZAMCELCO)	145
	Subtotal	**145**
Capital Projects	Ilocos Sur Electric Cooperative, Inc. (ISECO)	37
	Ilocos Norte Electric Cooperative, Inc. (INEC)	42
	Cagayan II Electric Cooperative, Inc. (CAGELCO II)	39
	Batanes Electric Cooperative, Inc. (BATANELCO)	3
	Nueva Ecija II Electric Cooperative, Inc. (NEECO II) (Area 1)	51
	Zambales I Electric Cooperative, Inc. (ZAMECO I)	4
	Tarlac I Electric Cooperative, Inc. (TARELCO I)	6
	First Laguna Electric Cooperative, Inc. (FLECO)	2
	Tablas Island Electric Cooperative, Inc. (TIELCO)	6
	Oriental Mindoro Electric Cooperative, Inc. (ORMECO)	3
	Camarines Sur I Electric Cooperative, Inc. (CASURECO I)	34
	Sorsogon I Electric Cooperative, Inc. (SORECO I)	10
	Guimaras Electric Cooperative, Inc. (GUIMELCO)	50
	Central Negros Electric Cooperative, Inc. (CENECO)	8
	Southern Leyte Electric Cooperative (SOLECO)	12
	Leyte III Electric Cooperative, Inc. (LEYECO III)	6
	Zamboanga del Sur I Electric Cooperative, Inc. (ZAMSURECO I)	18
	Misamis Oriental I Electric Cooperative, Inc. (MORESCO I)	13
	Siasi Electric Cooperative, Inc. (SIASELCO)	8
	Subtotal	**352**
Modular Generator	Sultan Kudarat Electric Cooperative, Inc. (SUKELCO)	33
	Agusan del Norte Electric Cooperative, Inc. (ANECO)	19
	Subtotal	**52**
Working Capital	Abra Electric Cooperative, Inc. (ABRECO)	18
	Sorsogon I Electric Cooperative, Inc. (SORECO I)	29
	Camotes Electric Cooperative, Inc. (CELCO)	7
	Subtotal	**54**
	TOTAL AMOUNT	**623**

Further to this, NEA was able to release PhP42 Million calamity loans to three (3) ECs affected by typhoons.

	ECs	Amount (PhP in Million)
Calamity Loan	Biliran Electric Cooperative, Inc. (BILECO)	12
	Lanao del Norte Electric Cooperative, Inc. (LANECO)	17
	Lanao del Sur Electric Cooperative, Inc. (LASURECO)	12
	TOTAL AMOUNT	**42**

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
November 6-8, 2017	Electric Power Industry Structure Market & Regulation	38
November 14-15, 2017	Seminar-Workshop on Wholesale Electricity Spot Market (WESM 101)	64
December 5-6, 2017	Seminar-Workshop on Wholesale Electricity Spot Market (WESM 101)	53
January 18-19, 2018	Seminar-Workshop on Implementing Net Metering Rules and Interconnection Standards for ECs	23
January 30, 2018 - February 2, 2018	Seminar-Workshop on Meter Reading, Billing, Connection and Disconnection Enhancement	42
February 7-8, 2018	Seminar-Workshop on Wholesale Electricity Spot Market (WESM 101)	46
February 22-23, 2018	Seminar-Workshop on Implementing Net Metering Rules and Interconnection Standards for ECs	38
March 13-15, 2018	Seminar-Workshop on Meter Reading, Billing, Connection and Disconnection Enhancement	58
March 19-23, 2018	Cooperative Management Course I and II	129

Meanwhile, the following are DOE's intervention to ECs in strengthening their technical and financial stability as additional mandate to NEA:

1. Requiring NEA to submit the ECs' Road Maps for the electrification of the underserved areas and the Operation Improvement Program (OIP) to be undertaken by ailing ECs to improve their operations towards a possible turnaround.

2. Supervises and provide assistance/representation to other agencies (Department of National Defense (DND) and Philippine National Police (PNP)) in the creation of the NEA Task Forces, in the exercise of its Step-in Rights to ECs, to manage their operations considering the peace and order situation in areas like Davao Del Norte Electric Cooperative, Inc. (DANECO), Lanao Del Sur Electric Cooperative, Inc. (LASURECO) and Abra Electric Cooperative, Inc. (ABRECO).

3. Representation to Department of Finance and other government financing institutions for the loan availment of ECs to finance their capital expenditures projects for the technical improvement of ECs' facilities.

4. Favorably endorsed to the Department of Budget and Management the request of NEA for the inclusion of the Government of the Philippines (GOP) counterpart on Japan International Cooperation Agency (JICA) donation in NEA's 2018 Cash Operating Budget. The Grant Agreement between JICA and GOP is for the improvement of

equipment for power distribution in Bangsamoro area. Beneficiaries of the said grant are Maguindanao Electric Cooperative, Inc (MAGELCO), Lanao del Sur Electric Cooperative, Inc. (LASURECO), Basilan Electric Cooperative, Inc. (BASELCO), Sulu Electric Cooperative, Inc.(SULECO), Tawi-tawi Electric Cooperative, Inc. (TAWELCO) and Siasi Electric Cooperative, Inc. (SIASELCO). GOP counterpart costs will cover customs duties, internal taxes and other fiscal levies imposed by the country of the recipients.

IX. BENEFITS TO HOST COMMUNITIES

Pursuant to Energy Regulations No.1-94 (ER 1-94), as amended, the Generation Company and/or Energy resource developer shall set aside one centavo per kilowatt-hour (P 0.01/kWh) of the total electricity sales as financial benefit for the host communities. 50% of one centavo per kilowatt-hour (P0.005/kWh) is for electrification projects, 25% (P0.0025/kWh) for development and livelihood projects and the remaining 25% (P0.0025/kWh) for reforestation, watershed management, health and/or environment enhancement projects.

DOE as fund administrator, has already established a total of 1,021 Trust Accounts for Electrification Fund (EF) Development and Livelihood Fund (DLF), Reforestation, Watershed Management, Health and/or Environment Enhancement Fund (RWMHEEF).

The financial benefit from inception *(Year 1995)* to April 2018 has accrued to PhP11.3 Billion from which PhP7 Billion was obligated for the implementation of projects. This leaves an available fund at around PhP4.3 Billion.

Table 34. Summary of Financial Benefits from Inception to April 2018 (In PhP Billion)

Particulars	EF	DLF	RWMHEEF	Total
Accrued Financial Benefit	5.11	2.93	3.23	11.27
Approved	3.45	1.63	1.88	6.96
Available/Collectible Balance	1.66	1.30	1.35	4.31

Source: DOE

1. Project Approval

The initial process in availing a project is the submission of project proposal and other documentary requirements. For electrification program, the concerned Distribution Utility (DU) endorses LGU's project proposal to the DOE. Whereas, non-electrification (DL and RWMHEEF) project proposals are being endorsed by the generation company or the energy resource developer to DOE. The latter evaluates and approves all project proposals and subsequently issues Notice to Proceed and Memorandum of Agreement to the project implementer.

For the report period, there were about PhP17 Million worth of electrification projects approved for beneficiaries located in Zamboanga City.

Over the same period, PhP17.3 Million worth of development and livelihood projects were approved for the host communities located in the Provinces of Benguet, Ifugao, Quezon, Leyte, and Lanao del Sur. Most of these projects pave the way for development of roads, streetlights and school buildings. Meanwhile, PhP49.9 Million was approved for the implementation of reforestation, watershed management, health and/or environment enhancement projects in the Provinces Ifugao, Quezon, Laguna, Zambales, Leyte, Saranggani, and Lanao del Sur.

Table 35. Project Approval (In PhP Million) as of April 2018

Fund Source	No. of Approved Projects	Amount (PhP in Million)
Electrification Fund	1 Line Enhancement	17.08
Development and Livelihood Fund	21	17.34
Reforestation, Watershed Management, Health and/or Environment Enhancement Fund	28	49.87

2. Fund Releases

The preparation and processing of fund release commence upon submission of complete bidding documents by the proponent in accordance to RA 9184 or otherwise known as "The Government Procurement Reform Act". The scheme being applied for fund transfer is through a bank transaction.

For the report period, several releases were executed for the concerned DU's and Host LGU's for the implementation of their respective projects. Of these, a sum of PhP32 Million was disbursed for electrification projects, PhP7.3 Million for development projects and PhP6.4 Million intended for reforestation, health and environment enhancement projects.

Table 36. Fund Release (In PhP Million) as of April 2018

Fund Source	No. of Projects	Amount (PhP in Million)
Electrification Fund	4	31.95
Development and Livelihood Fund	12	7.33
Reforestation, Watershed Management, Health and/or Environment Enhancement Fund	15	6.41

Source: DOE-Treasury

- Financial Audit and Technical Inspection

Consistent with the auditing rules and procedures under ER 1-94 program, the DOE through the Internal Audit Services conducts a post-audit for the liquidation of project funds. During the report period, the Department has audited and validated PhP15.2 Million for electrification projects implemented by Pantabangan Municipal Electric System (PAMES).

Likewise, there were 14 projects amounting to PhP24 Million under DLF and additional 11 projects amounting to PhP17.6 Million under RWMHEEF have been audited and liquidated.

Table 37. Financial Audit (In PhP Million) as of April 2018

Fund Source	No. of Projects	Amount (PhP in Million)
Electrification Fund	1	15.16
Development and Livelihood Fund	14	23.97
Reforestation, Watershed Management, Health and/or Environment Enhancement Fund	11	17.64

Source: DOE-Internal Audit

Upon completion of projects, the DOE together with its partners, the LGU, Generation Company and ECs, conducted a joint technical inspection and evaluation to assess the quality, value and impact of projects to the community. Resulting from the project implementation was the inspection of Electrification projects under the franchise area of PAMES.

Moreover, 25 non-electrification projects were inspected in the Provinces of Quezon, Albay, Cebu, and Lanao del Norte. In the event of unjustified disbursement of funds and non-completion or delay in the implementation of projects, the DOE has to defer the succeeding releases of project funds to the implementer. This is essential to ensure proper and efficient disbursement of funds.

ANNEXES

Annex 1. TransCo Inspection Report Based on Concession Agreement (November 2017 to April 2018)

No.	Inspection Report No.	Location	Name of Project/ Transmission Facilities	Inspection Date
LUZON				
1	NLR-PR-17-17	North Luzon	Santiago-Tuguegarao 230kV T/L (Line 2) Project & Luzon S/S Expansion Project 4	Nov. 6-10, 2017
2	SLR-RS-17-57	South Luzon	Camilig, Bocal-Bocalan and Manito Reapeater Stations	Dec. 4-8, 2017
3	NLR-D3-18-03	District 3	San Manuel, Nagsaag, Bolo, Labrador & Balingueo Substations	Jan. 8-12, 2018
4	NLR-D7-18-06	District 7	San Jose, Quezon, Doña Imelda, Taytay, Malaya SS, Angat, San Mateo Repeater Stations, and Angat Power House	Jan. 22-26, 2018
5	SLR-PR-18-02	South Luzon	Las Piñas Substation Expansion Project	Feb. 1-2, 2018
6	NLR-D4-18-07	District 4 North Luzon	Santiago, Tuguegarao, Gamu & Bayombong Substations and Cauayan, Ilagan & Lagawe LES	Feb. 5-9, 2018
7	NLR-PR-18-03	North Luzon	Binga-San Manuel 230 kV T/L Project	Feb. 6-9, 2018
8	NLR-RS-18-11	North Luzon	North Western Luzon Repeater Stations	Mar. 5-9, 2018
9	SLR-PR-18-05	South Luzon	Gumaca and Labo Substations (Luzon PCB Replacement Project)	Mar. 6-9, 2018
10	NLR-MB-18-13	North Luzon	MTD-B, Mexico, Pampanga	Mar. 19-23, 2018
11	SLR-D2-18-14	District 2 South Luzon	Tayabas S/S, Lumban S/S, San Juan Switchyard, Famy, Pitogo LES, Caliraya LES and Calamba MTD-A	Mar. 19-23, 2018
12	SLR-D1-18-15	District 1 South Luzon	Dasmariñas, Biñan, Muntinlupa, Las Piñas, Batangas, Ternate, Calaca & Rosario Substations, Bolbok and Taal LES	Apr. 16-20, 2018
13	NLR-D6-18-16	District 6 North Luzon	Mexico, Cabanatuan, San Rafael & Concepcion S/S, Pantabangan HEP Switchyard, Pantabangan LES and Fatima Repeater Station	Apr. 16-20, 2018
14	NLR-D1-18-17	District 1 North Luzon	Bauang, Bacnotan, San Esteban, Bantay, Currimao, and Laoag Substations	Apr. 23-27, 2018
15	SLR-RS-18-19	South Luzon	Pinamalayan, Calapan & San Aquilino Repeater Stations	Apr. 23-27, 2018
VISAYAS				
1	VIS-MB-17-55	Visayas	Bacolod MTD-B	Nov. 20-24, 2017
2	VIS-AC-18-01	Visayas	Bohol Area Control Center, Buenavista & Loon Repeater Stations	Jan. 8-12, 2018
3	VIS-AC-18-02	Visayas	Leyte Area Control Center, Matag-ob & Isabel Repeater Stations	Jan. 8-12, 2018
4	VIS-D4-18-05	District 4 Visayas	Sta. Barbara, Barotac Viejo, Dingle, Panit-an, Nabas, Concepcion & San Jose SS, San Juan Cable Terminal Station and Boracay Load End Station	Jan. 22-26, 2018
5	VIS-PR-18-01	Visayas	Ormoc-Babatngon 138 kV Transmission Project	Jan. 23-26, 2018
6	VIS-D3-18-08	District 3 Visayas	Bacolod, Cadiz, Kabankalan, Sipalay, Amlan, Mabinay S/S, Victorias Capacitor Bank Station, E.B. Magalona, Pondol CTS & Negros ACC	Feb. 5-9, 2018
7	VIS-D2-18-09	District 2 Visayas	Cebu, Naga, Colon, Quiot, Toledo, Calongcalong, Ubay, Compostela, Daanbantayan, Corella & Tagbilaran S/S, Mandaue & Mactan GIS, Pajo, Medellin, Garcia Hernandez, Sogod, Danao, Medellin & Sibonga LES, Garcia Hernandez & Trinidad CBS, and Daanbantayan, Samboan & CP Garcia CTS	Feb. 19-23, 2018
8	VIS-PR-18-04	Visayas	Cebu-Lapu-lapu 230 kV Transmission Line Project (CLTLP) and Visayas S/S Reliability Project 2 (VSRP2)	Feb. 21-23, 2018
9	VIS-AC-18-10	Visayas	Panay Area Control Center & Jordan RS	Mar. 5-9, 2018
10	VIS-MA-18-12	Visayas	Equipment Maintenance & Test Records at Visayas MTDA	Mar. 5-9, 2018
11	VIS-PR-18-06	Visayas	San Carlos - Guihulngan 69kV T/L Project	Mar. 21-23, 2018

No.	Inspection Report No.	Location	Name of Project/ Transmission Facilities	Inspection Date
12	VIS-D1-18-18	District 1 Visayas	Ormoc, Maasin, Tabango, Babatngon, Calbayog, Paranas (Wright) & Sta. Rita (Bagolibas) S/S, Guadalupe CTS, Hilongos PCB Station, Albuera Electrode Station, Tolosa Capacitor Bank Station and Ormoc HVDC Station	Apr. 23-27, 2018
MINDANAO				
1	MIN-RS-17-50	Mindanao	Salvacion, Mainit and San Isidro Repeater Stations	Nov. 6-10, 2017
2	MIN-D5-17-51	District 5 Mindanao	Davao, Matanao, Nabunturan, Maco, Bunawan, and Toril Substations	Nov. 6-10, 2017
3	MIN-RS-17-52	Mindanao	Catarman & Gingoog Repeater Stations	Nov. 20-24, 2017
4	MIN-RS-17-53	Mindanao	Ozamiz, Lopez Jaena, and Dinas Repeater Stations	Nov. 20-24, 2017
5	MIN-D6-17-54	District 6 Mindanao	Gen. Santos, Tacurong and Sultan Kudarat S/S	Nov. 20-24, 2017
6	MIN-PR-17-18	Mindanao	Agus 6 Switchyard Upgrading/ Rehabilitation Project	Nov. 22-24, 2017
7	MIN-D1-17-56	District 1 Mindanao	Zamboanga, Pitogo, Nagamin and Aurora S/S and Tumaga CBS	Dec. 4-8, 2017
8	MIN-AC-17-58	Mindanao	Gen. Santos ACC, Calumpang and Tpi Repeater Stations	Dec. 4-8, 2017
9	MIN-PR-17-19	Mindanao	Aurora-Polanco Transmission Line Project	Dec. 12-15, 2017
10	MIN-D2-18-04	District 2 Mindanao	Iligan LES & Lugait SS	Jan. 8-12, 2018

Source: Transco

Annex 2. TransCo Summary of Inspection Report for Projects Under Construction (PUC)

No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
LUZON				
1	(NLR-PR-17-17) OR-P-17-0183	November 6-10, 2017/ Santiago-Tuguegarao 230 kV Line 2	The Spares & Spare Partsfor the Santiago-Tuguegarao T/L Project are not yet completely turned-over to the WMD.	On-going partial turn-over to WMD.
2	OR-P-17-0184	November 6-10, 2017/ Santiago-Tuguegarao 230 kV Line 2	The As-Built Drawings & Structure List Report for the Santiago-Tuguegarao T/L Project are not yet approved.	Submitted for approval concerned NGCP Department Heads.
3	OR-P-17-0185	November 6-10, 2017/ Santiago-Tuguegarao 230 kV Line 2	The Certificate of Completion of Test & Commissioning (CCTC)for the Santiago-Tuguegarao T/L Project was not yet approved.	On-going preparation.
4	OR-P-17-0186	November 6-10, 2017/ Santiago-Tuguegarao 230 kV Line 2	The Santiago-Tuguegarao T/L Project has been energized but not yet turnedover to the NLOM.	Certificate of Project Turn-over is enroute for signature..
5	OR-P-17-0187	November 6-10, 2017/ Santiago-Tuguegarao 230 kV Line 2	The Project Completion Report(PCR) for the Santiago-Tuguegarao T/L Projectwas not yet completed.	On-going preparation.
6	OR-P-17-0188	November 6-10, 2017/ Santiago-Tuguegarao 230 kV Line 2	The Spares & Spare Partsfor the Santiago S/S (STTLP & LSEP4)are not yet completely turned-over to the WMD.	On-going partial turn-over to WMD
7	OR-P-17-0189	November 6-10, 2017/ Santiago-Tuguegarao 230 kV Line 2	The As-built Drawings for the Santiago S/S(STTLP & LSEP4)is not yet approved.	For correction by the contractor.
8	OR-P-17-0190	November 6-10, 2017/ Santiago-Tuguegarao 230 kV Line 2	The Structure List Report for the Santiago S/S(STTLP & LSEP4)is not yet approved.	Enroute for approval of concerned NGCP Department Heads.
9	OR-P-17-0191	November 6-10, 2017/ Santiago-Tuguegarao 230 kV Line 2	Retiring of cables of the decommissioned Protection, Control & Communication Equipment atSantiago &Tuguegarao S/S (STTLP & LSEP4)were not yet completed.	On-going retiring works.
10	OR-P-17-0192	November 6-10, 2017/ Santiago-Tuguegarao 230 kV Line 2	The Spares & Spare Partsfor the Tuguegarao S/S (STTLP & LSEP4)are not yet completely turned-over to the WMD.	On-going partial turn-over to WMD
11	OR-P-17-0193	November 6-10, 2017/ Santiago-Tuguegarao 230 kV Line 2	The As-built Drawings for Tuguegarao S/S (STTLP & LSEP4) is not yet approved.	For correction by the contractor.
12	OR-P-17-0194	November 6-10, 2017/ Santiago-Tuguegarao 230 kV Line 2	The deficiencies under the Joint Final Inspection Report No. IR/QSMD-17-101/JCBV for Santiago, Tuguegarao&Gamu S/S (STTLP & LSEP4)were not yet corrected.	Correction works on-going.
13	OR-P-17-0195	November 6-10, 2017/ Santiago-Tuguegarao 230 kV Line 2	No issued Certificate of Final Completion (CFC) for Contract No. Sp12.STTLP.Lt-0105 (Santiago, Tuguegarao&Gamu S/S under STTLP & LSEP4).	For issuance upon the completion of all works stipulated in the contract.
14	OR-P-17-0196	November 6-10, 2017/ Santiago-Tuguegarao 230 kV Line 2	The Project Completion Report(PCR) for the Santiago &Tuguegarao S/S(STTLP & LSEP4)was not yet completed.	On-going preparation.
15	(SLR-RS-17-57) OR-A-17-3173	South LuzonRS/ December 4-8, 2017	Presence of decommissioned MW radio (Quadralink) facing Bacon Manito, Pasacao & Matnog RS and Multiplexers (MX02CML, MX03CML & MX04CML) at Camalig RS. (Min.)	For pull-out & submission of DR by NTD-LSO.
16	OR-A-17-3174	South LuzonRS/ December 4-8, 2017	Cable entry opening is not properly sealed at Camalig RS. (Min.)	For correction by NTD-LSO.
17	OR-A-17-3175	South LuzonRS/ December 4-8, 2017	Cellguard sensor for cell batteries 11,12, 19 & 20 in 48VDC Battery Bank No. 1 are not functioning at Camalig RS. (Min.)	For correction by NTD-LSO.

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No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
18	OR-A-17-3176	South LuzonRS/ December 4-8, 2017	Cellguard sensor for battery cell no. 1 in 48VDC Battery Bank No. 2 is not functioning at Camalig RS. (Min.)	For correction by NTD-LSO.
19	OR-A-17-3177	South LuzonRS/ December 4-8, 2017	Generator Sets 1 & 3 are defective at Camalig RS. (Min.)	For repair by NTD-LSO.
20	OR-A-17-3178	South LuzonRS/ December 4-8, 2017	Cable entry opening is not properly sealed at Bocalbocalan RS. (Min.)	For correction by NTD-LSO.
21	OR-A-17-3179	South LuzonRS/ December 4-8, 2017	Solar PV components are not operational at Bocalbocalan RS. (Min.)	For correction by NTD-LSO.
22	OR-A-17-3180	South LuzonRS/ December 4-8, 2017	Loop multiplexer equipment has "Sync Alarm" indication at Bocalbocalan RS. (Maj.)	Corrected during inspection by NTD-LSO.
23	OR-A-17-3181	South LuzonRS/ December 4-8, 2017	One (1) ACU in the battery room has no dedicated power outlet at Bocalbocalan RS. (Min.)	For correction by CSFMD.
24	OR-A-17-3182	South LuzonRS/ December 4-8, 2017	Outdoor type generator set is defective at Bocalbocalan RS. (Min.)	For pull-out & submission of DR by NTD-LSO.
25	OR-A-17-3183	South LuzonRS/ December 4-8, 2017	No label for fuel tank at Camalig RS. (Min.)	For labelling by CSFMD.
26	OR-A-17-3184	South LuzonRS/ December 4-8, 2017	No secondary containment for fuel tank at Camalig RS. (Min.)	For provision of secondary containment by CSFMD.
27	OR-A-17-3185	South LuzonRS/ December 4-8, 2017	No facility name for Hazardous Waste Storage at Bocalbocalan RS (Ref: DAO-04-36 "Hazardous Waste and Chemical Management) (Min.)	For provision of facility name by CSFMD.
28	OR-A-17-3186	South LuzonRS/ December 4-8, 2017	No label for fuel tank at Bocalbocalan RS. (Min.)	For labelling by CSFMD.
29	OR-A-17-3187	South LuzonRS/ December 4-8, 2017	No secondary containment for fuel tank at Bocalbocalan RS. (Min.)	For provision of secondary containment by CSFMD.
30	OR-A-17-3188	South LuzonRS/ December 4-8, 2017	Dilapidated generator set building at Camalig RS. (Min.)	For budget inclusion on rehabilitation by NTDLSO.
31	OR-A-17-3189	South LuzonRS/ December 4-8, 2017	Damaged ceiling inside the quarters room of the control building at Camalig RS. (Min.)	For budget inclusion on rehabilitation by NTDLSO.
32	OR-A-17-3190	South LuzonRS/ December 4-8, 2017	Damaged electrical outlets and switches inside the control and generator set building at Camalig RS. (Min.)	For budget inclusion on rehabilitation by NTDLSO.
33	OR-A-17-3191	South LuzonRS/ December 4-8, 2017	Absence of exhaust fan inside the battery room at Camalig RS. (Min.)	For installation by CSFMD.
34	OR-A-17-3192	South LuzonRS/ December 4-8, 2017	Damaged waterproofing in the roof top of the control building at Camalig RS. (Min.)	For budget inclusion on rehabilitation by NTDLSO.
35	OR-A-17-3193	South LuzonRS/ December 4-8, 2017	Absence of "NO SMOKING" and Security signages (e.g. CONTROLLED AREA) on the main gate at Bocalbocalan RS. (Min.)	For provision of signages by Security Department.
36	OR-A-17-3194	South LuzonRS/ December 4-8, 2017	Unmounted fire extinguishers and not updated inspection tags (updated last 2014) inside the control building at Bocalbocalan RS. (Min.)	For correction by CSFMD.
37	OR-A-17-3195	South LuzonRS/ December 4-8, 2017	The eyewash station inside the battery room of the control building has no drain pipe/hose and empty at Bocalbocalan RS. (Min.)	For correction by CSFMD.

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No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
38	(SLR-PR-18-02) OR-P-18-0006	Las Piñas (Zapote) Substation Expansion Project/ February 1-2, 2018	The transfer of protection and control of existing GIS from ground floor to new Relay Room under the Las Piñas S/S Expansion Project (4th Bank) is not yet completed.	On-going transfer of protection and control of existing GIS.
39	OR-P-18-0007	Las Piñas (Zapote) Substation Expansion Project/ February 1-2, 2018	The deficiencies/punchlist listed in the Joint Final Inspection Report No. QMD-17-132 (Las Piñas S/S Expansion Project (4th Bank)) are not yet 100% corrected.	On-going correction works.
40	OR-P-18-0008	Las Piñas (Zapote) Substation Expansion Project/ February 1-2, 2018	No approved As-Built Drawings for the Las Piñas S/S Expansion Project (4th Bank).	On-going preparation.
41	OR-P-18-0009	Las Piñas (Zapote) Substation Expansion Project/ February 1-2, 2018	No approved Structure List Report for the Las Piñas S/S Expansion Project (4th Bank).	On-going preparation.
42	OR-P-18-0010	Las Piñas (Zapote) Substation Expansion Project/ February 1-2, 2018	The spares & spare parts, and excess equipment/materials under the Las Piñas S/S Expansion Project (4th Bank) are not yet turned-over to the WMD.	Turn-over activities will start after the completion of project.
43	OR-P-18-0011	Las Piñas (Zapote) Substation Expansion Project/ February 1-2, 2018	No approved Certificate of Completion of Test and Commissioning (CCTC) for the Las Piñas S/S Expansion Project (4th Bank).	The CCTC is enroute for signing.
44	OR-P-18-0012	Las Piñas (Zapote) Substation Expansion Project/ February 1-2, 2018	No approved Certificate of Energization (COE) for the Las Piñas S/S Expansion Project (4th Bank).	The COE is enroute for signing.
45	OR-P-18-0013	Las Piñas (Zapote) Substation Expansion Project/ February 1-2, 2018	The Certificate of Final Completion (CFC) for the Las Piñas S/S Expansion Project (4th Bank) is not yet issued.	Will be issued upon the completion of all works.
46	OR-P-18-0014	Las Piñas (Zapote) Substation Expansion Project/ February 1-2, 2018	The energized equipment under the Las Piñas S/S Expansion Project (4th Bank) has been operational but not yet turned-over to the SLOM.	The project will be turned-over after the correction of punchlist.
47	OR-P-18-0015	Las Piñas (Zapote) Substation Expansion Project/ February 1-2, 2018	No Project Completion Report (PCR) for the Las Piñas S/S Expansion Project (4th Bank).	Preparation will start after the completion of the project.
48	(NLR-PR-18-03) OR-P-18-0016	Binga & Ambuklao S/S Project/ February 6-9, 2018	No Joint Final Inspection has been conducted for the Binga S/S (Binga-San Manuel 230 kV T/L Project-Stage 2, BSMTP2).	Dependent on the completion of the associated T/L.
49	OR-P-18-0017	Binga & Ambuklao S/S Project/ February 6-9, 2018	No approved Structure List Report for the Binga S/S (BSMTP2).	On-going preparation.
50	OR-P-18-0018	Binga & Ambuklao S/S Project/ February 6-9, 2018	No approved As-built Drawings for the Binga S/S (BSMTP2).	To be prepared after the completion of the project which is dependent on the completion of the associated T/L.
51	OR-P-18-0019	Binga & Ambuklao S/S Project/ February 6-9, 2018	No approved Certificate of Completion of Test & Commissioning (CCTC) for the Binga S/S (BSMTP2).	Dependent on the completion of the associated T/L.
52	OR-P-18-0020	Binga & Ambuklao S/S Project/ February 6-9, 2018	The punchlist listed at the Joint Final Inspection Report No. IR/QSED-18-08/FFF for the San Manuel S/S (BSMTP2) are not yet 100% corrected.	Correction is on-going.
53	OR-P-18-0021	Binga & Ambuklao S/S Project/ February 6-9, 2018	No approved Structure List Report for the San Manuel S/S (BSMTP2).	On-going preparation.
54	OR-P-18-0022	Binga & Ambuklao S/S Project/ February 6-9, 2018	No approved As-built Drawings for the San Manuel S/S (BSMTP2).	To be prepared after the completion of the project which is dependent on the completion of the associated T/L.
55	OR-P-18-0023	Binga & Ambuklao S/S Project/ February 6-9, 2018	No approved Certificate of Completion of Test & Commissioning (CCTC) for the	En-route for signature.

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No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
			San Manuel S/S (BSMTP2) for the energized equipment.	
56	OR-P-18-0024	Binga & Ambuklao S/S Project/ February 6-9, 2018	No approved Certificate of Energization (COE) for the San Manuel S/S (BSMTP2) for the energized equipment.	En-route for signature.
57	OR-P-18-0025	Binga & Ambuklao S/S Project/ February 6-9, 2018	The energized equipment at the San Manuel S/S (BSMTP2) were not yet turn-over to the NLOM.	Certificate of Partial Project Turn-over will be issued after the approval CCTC & COE.
58	(SLR-PR-18-05) OR-P-18-0028	Gumaca Substation/ March 6-9, 2018	The substation equipment at Gumaca S/S (LPCBRP) were already energized, however, the Certificate of Energization (COE) is not yet issued.	For preparation.
59	OR-P-18-0029	Gumaca Substation/ March 6-9, 2018	The Project Completion Report (PCR) for Gumaca S/S (LPCBRP) is not yet available.	To be prepared after the contract termination.
60	OR-P-18-0030	Gumaca Substation/ March 6-9, 2018	The contract has been suspended since June 4, 2012.	Inventory of completed and remaining works is ongoing in preparation for the contract termination.
61	OR-P-18-0031	Labo Substation/ March 6-9, 2018	The Project Completion Report (PCR) for Labo S/S (LPCBRP) is not yet available.	To be prepared after the contract termination.
VISAYAS				
1	(VIS-PR-18-01) OR-P-18-0001	Ormoc- Babatngon 138kV Transmission Project/ January 24-26, 2018	The National Housing Authority (NHA) relocation site located at Brgy. San Isidro, Tacloban City, Leyte affected the stringing of OB-191 to 204 (Ormoc-Babatngon T/L Project).	On-going negotiation between NGCP and NHA.
2	OR-P-18-0002	Ormoc- Babatngon 138kV Transmission Project/ January 24-26, 2018	The cross arms wherein the existing line 1 of the Ormoc-Babatngon T/L Project will be transferred on one side of the double-circuit steel tower no. OB-227 (last structure of OBTL Project) at Babatngon Substation are not yet installed.	To be installed upon the energization of the new line (2nd circuit) and shutdown of Line 1.
3	OR-P-18-0003	Ormoc- Babatngon 138kV Transmission Project/ January 24-26, 2018	Energized all the installed equipment at Ormoc Substation except for the following equipment associated with the OBTL Project: • 3 units - 138 kV VT • 3 units - 138 kV SA	All equipment were energized on 26 April 2017 but had to be de-energized at the discretion of the VOM-D1.
4	OR-P-18-0004	Ormoc- Babatngon 138kV Transmission Project/ January 24-26, 2018	Energized all the installed equipment at Babatngon S/S except for the following equipment associated with the OBTL Project: • 2 sets - 138 kV PCB • 5 sets - 138 kV DS • 12 units - 138 kV CT • 3 units - 138 kV VT • 3 units - 138 kV SA	All equipment were energized on 26 April 2017 but had to be de-energized at the discretion of the VOM-D1.
5	OR-P-18-0005	Ormoc- Babatngon 138kV Transmission Project/ January 24-26, 2018	The contract is already expired for the Babatngon & Ormoc S/S and the remaining activity is the energization of the equipment associated with the OBTL Project which is dependent on completion of the new line. While waiting for the availability of the new line, no Contract Time Suspension (CTS) has been approved.	The recent instruction from PCBMD is to reprocess the earlier submitted Contract Time Suspension No. 1.
6	(VIS-PR-18-04) OR-P-18-0026	Lapu-lapu and Mandaue S/S/ February 21-23, 2018	The noted punchlists in the Preliminary Inspection Report (Project Site Level) in the Report No. CLTP(SS)-2017-01 for the Lapu-lapu and Mandaue S/S are not yet completely corrected.	Correction is on-going.

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7	OR-P-18-0027	Lapu-lapu and Mandaue S/S/ February 21-23, 2018	No significant change in the accomplishment/progress of Lapulapu and Mandaue S/S.	Still waiting for the delivery of the bus tube replacement to start the remaining works.
8	(VIS-PR-18-06) OR-P-18-0032	San Carlos-Guihulngan 69 kV T/L Project/ March 21-23, 2018	The construction of the slope protection works for the San Carlos-Guihulngan T/L Project is not yet started.	On-going validation of identified tower sites that need slope protections by NGCP.
	OR-P-18-0033	San Carlos-Guihulngan 69 kV T/L Project/ March 21-23, 2018	The San Carlos-Guihulngan T/L Project is under suspension since March 01, 2017 and Certificate of Resumption is not yet issued.	Contract Time Resumption will be issued immediately after the remaining ROW problems are resolved.
MINDANAO				
1	(MIN-PR-17-18) OR-P-17-0197	Agus 6 S/Y Upgrading/ Rehabilitation/ November 22-24, 2017	The supply of materials for Agus 6 Project is not yet completely delivered.	For delivery (remaining lightings, water supply & fire protection system).
2	OR-P-17-0198	Agus 6 S/Y Upgrading/ Rehabilitation/ November 22-24, 2017	The deficiencies under the Joint Final Inspection Report No. IR/QSMD-17-115/JLF dated 09-18-2017 are not yet corrected by the contractor.	On-going correction.
3	OR-P-17-0199	Agus 6 S/Y Upgrading/ Rehabilitation/ November 22-24, 2017	The decommissioned 138 & 69 kV substation equipment & protection at Agus 6 S/S have no approved Report of Retirement.	Waiting for the remaining un-decommissioned equipment.
4	OR-P-17-0200	Agus 6 S/Y Upgrading/ Rehabilitation/ November 22-24, 2017	The Spares, Spare Parts and Tools for the Agus 6 Project are not yet turn-over to WMD.	On-going inventory.
5	OR-P-17-0201	Agus 6 S/Y Upgrading/ Rehabilitation/ November 22-24, 2017	The energized 138 & 69 kV substation equipment and protection system for Agus 6 Project have no approved Certificates of Completion of Test & Commissioning (CCTC).	For signature of concerned NGCP Heads.
6	OR-P-17-0202	Agus 6 S/Y Upgrading/ Rehabilitation/ November 22-24, 2017	The energized 138 & 69 kV substation equipment and protection system for Agus 6 Project have no approved Certificates of Energization (COE).	For signature of concerned NGCP Heads.
7	OR-P-17-0203	Agus 6 S/Y Upgrading/ Rehabilitation/ November 22-24, 2017	The energized 138 & 69 kV substation equipment and protection system for Agus 6 Project are not yet turned over to MOM.	For Certificates of Partial Turn-over are for signature of concerned NGCP Heads.
8	(MIN-PR-17-19) OR-P-17-0204	Aurora-Polanco 138kV T/L/ December 12-15, 2017	The As-Built Drawings for the APTLP is not yet presented.	Already approved. For reproduction.
9	OR-P-17-0205	Aurora-Polanco 138kV T/L/ December 12-15, 2017	The Certificate of Project Turn-over for the APTLP is not yet approved.	On-going preparation
10	OR-P-17-0206	Aurora-Polanco S/S/ December 12-15, 2017	The contract for the Aurora-Polanco 138 kV S/S Project (Remaining Works) is already expired and no Contract Time Extension (CTE) has been approved.	CTE is on process.
11	OR-P-17-0207	Aurora-Polanco S/S/ December 12-15, 2017	No Joint Final Inspection Report for the Aurora-Polanco 138 kV S/S Project (Remaining Works).	Continuation of Rectification in Punchlist level 2 for the Electro Mechanical Works at all buildings and switchyard area.
12	OR-P-17-0208	Aurora-Polanco S/S/ December 12-15, 2017	The Spares & Spare Parts for the Aurora & Polanco S/S under Aurora-Polanco 138 kV S/S Project (Remaining Works) is not yet turned-over to the WMD.	On-going inventory

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	OR-P-17-0209	Aurora-Polanco S/S/ December 12-15, 2017	The Project Completion Report (PCR) for the Polanco S/S under Aurora-Polanco 138 kV S/S Project (Remaining Works) is not yet completed.	PCR preparation upon completion of project.
13	OR-P-17-0210	Aurora-Polanco S/S/ December 12-15, 2017	The Certificate of Energization (COE) for the Polanco S/S under Aurora-Polanco 138 kV S/S Project (Remaining Works) is not yet submitted.	On-going testing of 138 kV primary equipment
14	OR-P-17-0211	Aurora-Polanco S/S/ December 12-15, 2017	One (1) set of 138 kV PCB is not yet installed at Bay 74 in Aurora S/S under Aurora-Polanco 138 kV S/S Project (Remaining Works).	For installation upon the issuance of the Shutdown Permit.
15	OR-P-17-0212	Aurora-Polanco S/S/ December 12-15, 2017	Twelve (12) units of 138 kV CT are not yet installed at Bay 72 & 73 in Aurora S/S under Aurora-Polanco 138 kV S/S Project (Remaining Works).	For installation upon the issuance of the Shutdown Permit.
16	OR-P-17-0213	Aurora-Polanco S/S/ December 12-15, 2017	Twelve (12) units of 138 kV VT are not yet installed at Bay 72, 73 & 74 in Aurora S/S under Aurora-Polanco 138 kV S/S Project (Remaining Works).	For installation upon the issuance of the Shutdown Permit.
17	OR-P-17-0214	Aurora-Polanco S/S/ December 12-15, 2017	Twelve (12) units of 138 kV VT are not yet installed at Bay 72, 73 & 74 in Aurora S/S under Aurora-Polanco 138 kV S/S Project (Remaining Works).	For installation upon the issuance of the Shutdown Permit.
18	OR-P-17-0215	Aurora-Polanco S/S/ December 12-15, 2017	138 kV Line Trap (Agus 5, Abaga, Sta. Clara Line 1, Sta. Clara Line 2) including steel support structures are not yet relocated in Aurora S/S under Aurora-Polanco 138 kV S/S Project (Remaining Works).	For installation upon the issuance of the Shutdown Permit.
19	OR-P-17-0216	Aurora-Polanco S/S/ December 12-15, 2017	The following 138 kV equipment are not yet decommissioned in Aurora S/S under Aurora-Polanco 138 kV S/S Project (Remaining Works). a. 150 kVA Station Service Transformer- 1 lot b. 138 kV PCB, live tank- 1 set c. 138 kV CT- 3 units d. 138 kV VT- 14 units e. 138 kV SA – 12 units f. 138 kV BS – 4 units	For installation upon the issuance of the Shutdown Permit.
20	(MIN-D1-17-56) OR-A-17-3104	Mindanao1/ December 4-8, 2017	Deludge fire fighting system of 100MVA TR1 (7ZXF01AUR) has no water supply at Aurora SS. (Maj.)	Included in the Aurora expansion project by P&E.
21	OR-A-17-3105	Mindanao1/ December 4-8, 2017	100MVA TR2 (7Z-XF02AUR) has no fire fighting system at Aurora SS. (Maj.)	Included in the Aurora expansion project by P&E.
22	OR-A-17-3106	Mindanao1/ December 4-8, 2017	Mimic Board has insufficient safety boundary line at NagaMin SS. (Min.)	For correction by District.
23	OR-A-17-3107	Mindanao1/ December 4-8, 2017	Main 1 Protection of Aurora Line 2 has “Communication Fail and Relay Internal Failure” alarms at NagaMin SS. (Maj.)	For correction by MTD-A.
24	OR-A-17-3108	Mindanao1/ December 4-8, 2017	Panel Door of RTU Metering Panel has no grounding at NagaMin SS. (Min.)	For correction by MTD-A.
25	OR-A-17-3109	Mindanao1/ December 4-8, 2017	ZTE MR Panel has no power indication at NagaMin SS. (Min.)	For correction by NTD-MSO.
26	OR-A-17-3110	Mindanao1/ December 4-8, 2017	VHF Radio Tower has corroded tubular support connectors at NagaMin SS. (Min.)	For correction by NTD-MSO.
27	OR-A-17-3111	Mindanao1/ December 4-8, 2017	50 MVA TR1 (7Z-XF01NAA) has no fire fighting system at NagaMin SS. (Maj.)	For budget inclusion in the 4th regulatory period by District.
28	OR-A-17-3112	Mindanao1/ December 4-8, 2017	Sergi Fire Fighting System of 50 MVA TR2 (7ZXF02NAA) is disabled at NagaMin SS. (Maj.)	For correction by District.
29	OR-A-17-3113	Mindanao1/ December 4-8, 2017	Climbing Pedestal of PCB (5Z-CB04(7Z-XF02NAA)) has no grounding at NagaMin SS. (Min.)	For installation of grounding by District.
30	OR-A-17-3114	Mindanao1/ December 4-8, 2017	36MVA TR3 (7Z-XF03NAA) has oil leaks on secondary bushings at NagaMin SS. (Maj.)	For correction by MTD-A.

Annex 2. TransCo Summary of Inspection Report for Projects Under Construction (PUC)

No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
31	OR-A-17-3115	Mindanao1/ December 4-8, 2017	Mimic Board has inappropriate safety boundary line at Zamboanga SS. (Min.)	For correction by District.
32	OR-A-17-3116	Mindanao1/ December 4-8, 2017	TR2 OLTC Monitor on the RTU Panel has no reading at Zamboanga SS. (Min.)	For correction by MTD-A.
33	OR-A-17-3117	Mindanao1/ December 4-8, 2017	RTU Panel (IC02ZAM) has stored excess cables at Zamboanga SS. (Min.)	For correction by MTD-A.
34	OR-A-17-3118	Mindanao1/ December 4-8, 2017	RTU Panel (IC02ZAM) has stored excess cables at Zamboanga SS. (Min.)	For correction by SCADA, MTD-A.
35	OR-A-17-3119	Mindanao1/ December 4-8, 2017	ZTE MX02ZAM Panel has insufficient cover on the top panel at Zamboanga SS. (Min.)	For correction by NTD-MSO.
36	OR-A-17-3120	Mindanao1/ December 4-8, 2017	Ametek Multifunction Recorder (TR-2100) has "Attention and GPS Fault" alarms at Zamboanga SS. (Min.)	For time synchronization in all substations under project of NTD-MSO
37	OR-A-17-3121	Mindanao1/ December 4-8, 2017	Lighting fixtures inside the battery rooms are not an explosion proof type at Zamboanga SS. (Min.)	For correction by CSFMD.
38	OR-A-17-3122	Mindanao1/ December 4-8, 2017	ACU near the Mimic Board is defective at Zamboanga SS. (Min.)	For correction by CSFMD.
39	OR-A-17-3123	Mindanao1/ December 4-8, 2017	50MVA TR1 and TR2 have no fire fighting system at Zamboanga SS. (Maj.)	For budget inclusion in the 4th regulatory period by District.
40	OR-A-17-3124	Mindanao1/ December 4-8, 2017	50MVA TR1 and TR2 has no firewall at Zamboanga SS. (Maj.)	For budget inclusion in the 4th regulatory period by District.
41	OR-A-17-3125	Mindanao1/ December 4-8, 2017	FO Splice Box has no SEIL at Zamboanga SS. (Min.)	For correction by NTD-MSO.
42	OR-A-17-3126	Mindanao1/ December 4-8, 2017	Climbing Pedestal of PCB (7Z-04CB04ZAM) has no grounding at Zamboanga SS. (Min.)	For installation of grounding by District.
43	OR-A-17-3127	Mindanao1/ December 4-8, 2017	Lighting fixture inside the battery room is not an explosion proof type at Tumaga CBS. (Min.)	For correction by CSFMD.
44	OR-A-17-3128	Mindanao1/ December 4-8, 2017	Presence of defective ACU at Tumaga CBS. (Min.)	For correction by CSFMD.
45	OR-A-17-3129	Mindanao1/ December 4-8, 2017	Sergi fire fighting system of 100MVA TR1 (7ZXF01PIT) is disabled at Pitogo SS. (Min.)	For correction by District.
46	OR-A-17-3130	Mindanao1/ December 4-8, 2017	Climbing Pedestal of 100MVA TR1 has no grounding at Pitogo SS. (Min.)	For installation of grounding by District.
47	OR-A-17-3131	Mindanao1/ December 4-8, 2017	Metal plate covers of cable trenches in the switchyard are corroded at Pitogo SS. (Min.)	For correction by District.
48	OR-A-17-3132	Mindanao1/ December 4-8, 2017	Some drums of used oil inside the Haz. Waste Storage Facility have no labels and not stored on racks/pallets at Aurora SS(Ref: DAO-04-36 "Hazardous Waste and Chemical Management"). (Min.)	For correction by WMD in coordination with Safety Officer/PCO.
49	OR-A-17-3133	Mindanao1/ December 4-8, 2017	Some drums of jet fuel inside the basketball court are not stored properly at Aurora SS(Ref: DAO-04-36 "Hazardous Waste and Chemical Management"). (Min.)	For proper storage by District.
50	OR-A-17-3134	Mindanao1/ December 4-8, 2017	The permit-to-operate posted inside the gen-set is faded at Nagamin SS. (Ref: R.A. 8749 "Clean Air Act") (Min.)	For replacement by PCO-District.
51	OR-A-17-3135	Mindanao1/ December 4-8, 2017	A drum of diesel fuel near the the gen-set house has no label and not stored properly at NagaMin SS. (Ref: DAO-04-36 "Hazardous Waste and Chemical Management"). (Min.)	For labelling and proper storage by District.
52	OR-A-17-3136	Mindanao1/ December 4-8, 2017	Some drums of oil inside the Haz. Waste storage facility have faded labels and some drums have no label at	For proper labelling by PCO.

Annex 2. TransCo Summary of Inspection Report for Projects Under Construction (PUC)

No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
			Nagamin SS. (Ref: DAO-04-36 "Hazardous Waste and Chemical Management"). (Min.)	
53	OR-A-17-3137	Mindanao1/ December 4-8, 2017	Some drums of used oil inside the Haz. Waste storage facility have no information at Zamboanga SS. (Ref: DAO-04-36 "Hazardous Waste and Chemical Management"). (Min.)	For proper labelling by PCO.
54	OR-A-17-3138	Mindanao1/ December 4-8, 2017	Some drums inside the new hazardous waste storage facility have no label at Pitogo SS. (Ref: DAO-04-36 "Hazardous Waste and Chemical Management"). (Min.)	Corrected during inspection by District.
55	OR-A-17-3139	Mindanao1/ December 4-8, 2017	Two drums of diesel fuel inside the gen-set house have no label and not stored on racks/pallets at Pitogo SS. (Ref: DAO-04-36 "Hazardous Waste and Chemical Management"). (Min.)	Corrected during inspection by District.
56	OR-A-17-3140	Mindanao1/ December 4-8, 2017	The Emergency Response Team Organizational Chart posted at the bulletin boards of the administration building and control room is not updated at Aurora SS. (Min.)	Updated ERT organizational chart presented by Safety Officer
57	OR-A-17-3141	Mindanao1/ December 4-8, 2017	The District Health, Safety and Environmental Committee Organizational Chart posted at the bulletin boards of District 1-Mindanao facilities is not updated. (Min.)	For submission of updated chart by Safety Officer.
58	OR-A-17-3142	Mindanao1/ December 4-8, 2017	The portable fire extinguisher inside the office of the District Head at Aurora SS is obstructed and not ready for immediate use if necessary. (Min.)	For correction by District.
59	OR-A-17-3143	Mindanao1/ December 4-8, 2017	Uncovered electrical utility boxes at the gates of the substation and warehouse compound at Aurora SS. (Min.)	Corrected during inspection by CSFMD.
60	OR-A-17-3144	Mindanao1/ December 4-8, 2017	Presence of empty portable fire extinguishers inside the gate guardhouse of the warehouse compound at Aurora SS. (Min.)	For proper storage by CSFMD.
61	OR-A-17-3145	Mindanao1/ December 4-8, 2017	The digital clock time of the EST fire alarm control panel at the control building of NagaMin SS is not synchronized with the bioscript station. (Min.)	For correction by CSFMD.
62	OR-A-17-3146	Mindanao1/ December 4-8, 2017	Dilapidated outside ceiling of the linemen's quarters at NagaMin SS. (Min.)	For repair by CSFMD.
63	OR-A-17-3147	Mindanao1/ December 4-8, 2017	Absence of "No Smoking" signs at the gates of NagaMin SS. (Min.)	For correction by CSFMD.
64	OR-A-17-3148	Mindanao1/ December 4-8, 2017	Two (2) portable fire extinguishers at the control building of NagaMin SS are not hanged/mounted. (Min.)	For correction by CSFMD.
65	OR-A-17-3149	Mindanao1/ December 4-8, 2017	A dilapidated bulletin board near the main gate at NagaMin SS is not in use. (Min.)	For dismantling by CSFMD.
66	OR-A-17-3150	Mindanao1/ December 4-8, 2017	The window-type airconditioning units at the control building at NagaMin SS have no drain hose. (Min.)	For correction by CSFMD.
67	OR-A-17-3151	Mindanao1/ December 4-8, 2017	Lacking jalousie blade of the windows at the main gate guardhouse and kitchen at Nagamin SS. (Min.)	For correction by CSFMD.
68	OR-A-17-3152	Mindanao1/ December 4-8, 2017	Absence of light bulb in the receptacles at the generator set room at NagaMin SS. (Min.)	For correction by CSFMD.
69	OR-A-17-3153	Mindanao1/ December 4-8, 2017	The fire extinguisher at the generator set room at NagaMin SS is not regularly inspected. For 2017, it was inspected only in August 2017(Min.)	For correction by CSFMD.
70	OR-A-17-3154	Mindanao1/ December 4-8, 2017	Insufficient protective grill of the exhaust fan inside the battery room of the control building at NagaMin SS. (Min.)	For correction by CSFMD.

Annex 2. TransCo Summary of Inspection Report for Projects Under Construction (PUC)

No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
71	OR-A-17-3155	Mindanao1/ December 4-8, 2017	Absence of fire extinguishers in the designated areas inside and outside the control building at Zamboanga SS. (Min.)	For correction by CSFMD.
72	OR-A-17-3156	Mindanao1/ December 4-8, 2017	The window-type airconditioning units at the control building of Zamboanga SS have no drain hose. (Min.)	For correction by CSFMD.
73	OR-A-17-3157	Mindanao1/ December 4-8, 2017	Dilapidated security/safety signage at the main gate of Zamboanga SS. (Min.)	For correction by CSFMD.
74	OR-A-17-3158	Mindanao1/ December 4-8, 2017	Faded facility name in front of the facility and at the control building at Zamboanga SS. (Min.)	For removal by CSFMD.
75	OR-A-17-3159	Mindanao1/ December 4-8, 2017	Defective airconditioning unit at the main gate guardhouse at Zamboanga SS. (Min.)	For removal by CSFMD.
76	OR-A-17-3160	Mindanao1/ December 4-8, 2017	Absence of light bulb in its receptacle and busted light bulb at the main gate guardhouse of Zamboanga SS. (Min.)	For correction by CSFMD.
77	OR-A-17-3161	Mindanao1/ December 4-8, 2017	Dilapidated fire hose of the mobile firefighting equipment at the motorpool area of Zamboanga SS. (Min.)	For correction by CSFMD.
78	OR-A-17-3162	Mindanao1/ December 4-8, 2017	Dilapidated roof gutter of the warehouse at Zamboanga SS. (Min.)	For correction by CSFMD.
79	OR-A-17-3163	Mindanao1/ December 4-8, 2017	The rechargeable emergency light inside the control room at Zamboanga SS is not mounted. (Min.)	For installation by CSFMD.
80	OR-A-17-3164	Mindanao1/ December 4-8, 2017	The rechargeable emergency light inside the generator set room at Zamboanga SS is not in use. (Min.)	For correction by CSFMD.
81	OR-A-17-3165	Mindanao1/ December 4-8, 2017	The exhaust fan inside the battery room at Zamboanga SS has no power switch. (Min.)	For correction by CSFMD.
82	OR-A-17-3166	Mindanao1/ December 4-8, 2017	The battery of the generator set at Zamboanga SS is not securely mounted. (Min.)	For correction by District.
83	OR-A-17-3167	Mindanao1/ December 4-8, 2017	The window-type airconditioning units at Tumaga CBS have no drain hose. (Min.)	For correction by CSFMD.
84	OR-A-17-3168	Mindanao1/ December 4-8, 2017	The exhaust fan inside the battery room at Tumaga CBS has no power switch. (Min.)	For correction by CSFMD.
85	OR-A-17-3169	Mindanao1/ December 4-8, 2017	Improper installation of light switch inside the power house at Tumaga CBS. (Min.)	For correction by CSFMD.
86	OR-A-17-3170	Mindanao1/ December 4-8, 2017	The fire alarm control panel at the control building has battery fault indication and on “mute” mode at Pitogo SS. (Min.)	For correction by CSFMD.
87	OR-A-17-3171	Mindanao1/ December 4-8, 2017	The exhaust fans at the cable gallery of the control building have no protective grill/cover at Pitogo SS. (Min.)	For correction by CSFMD.
88	OR-A-17-3172	Mindanao1/ December 4-8, 2017	Three (3) exhaust fans at the cable gallery of the control building have no power switch at Pitogo SS. (Min.)	For correction by CSFMD.
89	(MIN-AC-17-58) OR-A-17-3196	MindanaoAC/ December 4-8, 2017	Radio Station License facing Malalag is expired at Calumpang RS. (Min.)	Corrected before closing meeting by NTD-MSO.
90	OR-A-17-3197	MindanaoAC/ December 4-8, 2017	MW Radio (ZTE) and multiplexer (ZTE) facing Gensan ACC has no SEIL at Calumpang RS. (Min.)	Corrected before closing meeting by NTD-MSO.
91	OR-A-17-3198	MindanaoAC/ December 4-8, 2017	48VDC Battery Rack 1 & 2 has no grounding at Calumpang RS. (Min.)	Corrected before closing meeting by NTD-MSO.
92	OR-A-17-3199	MindanaoAC/ December 4-8, 2017	MW Radio (Nokia) facing Calumpang has no SEIL at Malalag RS. (Min.)	Corrected before closing meeting by NTD-MSO
93	OR-A-17-3200	MindanaoAC/ December 4-8, 2017	48VDC Battery Rack 1 has no grounding at Malalag RS. (Min.)	Corrected before closing meeting by NTD-MSO.
94	OR-A-17-3201	MindanaoAC/ December 4-8, 2017	Presence of decommissioned Battery Charger at Malalag RS. (Min.)	For pull-out and submission of retirement report by

Annex 2. TransCo Summary of Inspection Report for Projects Under Construction (PUC)

No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
				NTD-MSO.
95	OR-A-17-3202	MindanaoAC/ December 4-8, 2017	VHF Radio has no radio license at Malalag RS. (Min.)	For renewal by NTD-MSO.
96	OR-A-17-3203	MindanaoAC/ December 4-8, 2017	Battery Charger 1 (Statron) has busted indication light for "Mains Failure" at Tupi RS. (Min.)	Corrected before closing meeting by NTD-MSO.
97	OR-A-17-3204	MindanaoAC/ December 4-8, 2017	Flooded-type batteries are below minimum water level at Tupi RS. (Min.)	Corrected before closing meeting by NTD-MSO.
98	OR-A-17-3205	MindanaoAC/ December 4-8, 2017	Batteries of bank no. 2 have corroded terminals at Tupi RS. (Min.)	Corrected before closing meeting by NTD-MSO.
99	OR-A-17-3206	MindanaoAC/ December 4-8, 2017	Battery Bank No. 1 rack has no grounding at Tupi RS. (Min.)	Corrected before closing meeting by NTD-MSO.
100	OR-A-17-3207	MindanaoAC/ December 4-8, 2017	No standby communication equipment (i.e. IP Phone or VHF Radio) at Tupi RS. (Min.)	For provision of IP phone by NTD-MSO.
101	OR-A-17-3208	MindanaoAC/ December 4-8, 2017	A drum of diesel fuel outside the powerhouse is not stored properly at General Santos ACC (Ref: DAO-04-36 "Hazardous Waste and Chemical Management) (Min.)	Corrected before closing meeting by GSACC.
102	OR-A-17-3209	MindanaoAC/ December 4-8, 2017	No water potability signages posted at Calumpang Repeater Station (Ref: DAO 91-03 "Code on Sanitation – Potability Signage, Sanitary Permit") (Min.)	Corrected before closing meeting by GSACC.
103	OR-A-17-3210	MindanaoAC/ December 4-8, 2017	A container of diesel fuel inside the HazMats Storage Facility is not stored properly at Calumpang RS (Ref: DAO-04-36 "Hazardous Waste and Chemical Management) (Min.)	Corrected during inspection by CSFMD.
104	OR-A-17-3211	MindanaoAC/ December 4-8, 2017	17.5kVA stand-by generator set has expired Permit-to- Operate at Malalag Repeater Station. (Ref: R.A. 8749 "Clean Air Act") (Min.)	For renewal by PCO-MSO.
105	OR-A-17-3212	MindanaoAC/ December 4-8, 2017	Used batteries exceeded the one (1) year storage limit at Tupi Repeater Station. (Ref: DAO-04-36 "Hazardous Waste and Chemical Management") (Min.)	For hauling by CSFMD and disposal by WMD.
106	OR-A-17-3213	MindanaoAC/ December 4-8, 2017	HazWaste Storage Facility has insufficient secondary containment to capture leaks at Tupi Repeater Station. (Ref: R.A. 9275 "Clean Water Act") (Min.)	For correction by CSFMD.
107	OR-A-17-3214	MindanaoAC/ December 4-8, 2017	The design and size of the posted security signage on the main glass door of the control building is not in accordance with the security manual standard at Gensan ACC. (Min.)	Corrected before closing meeting by PSS/CSFMD.
108	OR-A-17-3215	MindanaoAC/ December 4-8, 2017	Window type AC unit of the control building has no drain hose at Gensan ACC. (Min.)	For correction by CSFMD.
109	OR-A-17-3216	MindanaoAC/ December 4-8, 2017	Fire suppression extinguisher of the control building has no inspection tag at Gensan ACC. (Min.)	For correction by District QSE/CSFMD.
110	OR-A-17-3217	MindanaoAC/ December 4-8, 2017	The color and design of the posted security signages are not in accordance with the security manual standard at Calumpang RS. (Min.)	Corrected before closing meeting by PSS/CSFMD.
111	OR-A-17-3218	MindanaoAC/ December 4-8, 2017	Window type AC unit of the control building has no drain hose at Calumpang RS. (Min.)	For correction by CSFMD.
112	OR-A-17-3219	MindanaoAC/ December 4-8, 2017	Posted DOLE Registry of Establishment is addressed to MSO-MRCC Carmen CDO at Calumpang RS. (Min.)	For correction by District QSE should be addressed where the establishment is located..

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No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
113	OR-A-17-3220	MindanaoAC/December 4-8, 2017	Steel frames and cyclone wires of the main gate are rusty at Malalag RS. (Min.)	For repainting by CSFMD.
114	OR-A-17-3221	MindanaoAC/ December 4-8, 2017	Posted safety signage on the main gate is dilapidated at Malalag RS. (Min.)	For replacement by QSE.
115	OR-A-17-3222	MindanaoAC/ December 4-8, 2017	Portion of the seclusion fence top guard is rusty, loosed and with several snapped strands at Malalag RS. (Min.)	For repair by CSFMD.
116	OR-A-17-3223	MindanaoAC/ December 4-8, 2017	The color and design of the posted security signages are not in accordance with the security manual standard at Malalag RS. (Min.)	Corrected before closing meeting by PSS/CSFMD.
117	OR-A-17-3224	MindanaoAC/ December 4-8, 2017	UNSAFE CONDITION – Guardrails are incomplete at Malalag RS. (Min.)	For correction by CSFMD.
118	OR-A-17-3225	MindanaoAC/ December 4-8, 2017	Front and rear doors of the control building are infested by termites at Malalag RS. (Min.)	For repair by CSFMD.
119	OR-A-17-3226	MindanaoAC/ December 4-8, 2017	AC units of the control building have no drain hose/s at Malalag RS. (Min.)	For correction by CSFMD.
120	OR-A-17-3227	MindanaoAC/ December 4-8, 2017	Medicine cabinet has insufficient medical supply at Malalag RS. (Min.)	For replenishment by CSFMD/Nurse.
121	OR-A-17-3228	MindanaoAC/ December 4-8, 2017	Battery of the emergency light is exhausted at Malalag RS. (Min.)	For replacement by CSFMD.
122	OR-A-17-3229	MindanaoAC/ December 4-8, 2017	The color and design of the posted security signages are not in accordance with the security manual standard at Tupi RS. (Min.)	Corrected before closing meeting by PSS/CSFMD.
123	OR-A-17-3230	MindanaoAC/ December 4-8, 2017	Paint of the front and rear doors are chipped-off at Tupi RS. (Min.)	For repainting by CSFMD.
124	OR-A-17-3231	MindanaoAC/ December 4-8, 2017	Vines and or evergreen plants are trailing the seclusion fence top guard at Tupi RS. (Min.)	For clearing by CSFMD.
125	OR-A-17-3232	MindanaoAC/ December 4-8, 2017	Exterior ceiling at the back of the control building is damaged at Tupi RS. (Min.)	For repair by CSFMD.
126	OR-A-17-3233	MindanaoAC/ December 4-8, 2017	AC unit of the control building has no drain hose at Tupi RS. (Min.)	For correction by CSFMD.
127	OR-A-17-3234	MindanaoAC/ December 4-8, 2017	Steel door of the Hazwaste Facility is rusty at Tupi RS. (Min.)	For repainting by CSFMD.
128	OR-A-17-3235	MindanaoAC/ December 4-8, 2017	Medicine cabinet inside the control room is empty at Tupi RS. (Min.)	For replenishment by CSFMD/Nurse.
129	OR-A-17-3236	MindanaoAC/ December 4-8, 2017	DOLE Registry of Establishment is addressed to Carmen, Cagayan De Oro City at Tupi RS. (Min.)	For correction by District QSE should be addressed where the establishment is located.

Source: Transco

Annex 3. NGCP Related Petitions to ERC as of 30 April 2018

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
ERC Case No. 2018-017RC/ March 23, 2018	Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation the Philippines and Phinma Energy Corporation (Bulacan Plant) with Prayer for the Issuance of Provisional Authority	1. Immediately ISSUE a provisional authority to implement the 2017 ASPA, to take effect upon expiration of the 2012 ASPA or on the July 2018 Billing Period; 2. APPROVE, after notice and hearing, the 2017 ASPA.	Awaiting ERC Order/ Notice of hearing
ERC Case No. 2018-016RC/ March 23, 2018	Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation the Philippines and Phinma Energy Corporation (Subic Plant) with Prayer for the Issuance of Provisional Authority	1. Immediately ISSUE a provisional authority to implement the 2017 ASPA, to take effect upon expiration of the 2012 ASPA or on the July 2018 Billing Period; 2. APPROVE, after notice and hearing, the 2017 ASPA.	Awaiting ERC Order/ Notice of hearing
ERC Case No. 2018-010RC/Feb. 28, 2018	Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines (NGCP) and Masinloc Power Partners Co. Ltd. (MPPCL), with Prayer for Issuance of Provisional Authority	1. Immediately ISSUE a provisional authority to implement the subject ASPA executed on 08 September 2017; 2. ALLOW NGCP the full recovery of ancillary services for the provision of Regulating Reserve by MPPCL during the Interim Period as provided in the ASPA; 3. APPROVE, after notice and hearing, the subject ASPA;	As per ERC order dated April 3, 2018, the jurisdictional and expository presentation were conducted on April 27, 2018. ERC will issue an Order to set the date for the continuance of hearing.
ERC Case No. 2017-116RC/Dec. 22, 2017	In the Matter of the Application for the Approval of Force Majeure Event Regulated FM Pass-Through for Typhoon Nina in Luzon, in Accordance with the Rules for Setting Transmission Wheeling Rates, with Prayer for Provisional Authority	1. DECLARE Typhoon Nina in Luzon as Force Majeure Events (FME); Immediately GRANT Provisional Approval to implement and bill the following FM Pass-Through Amounts starting January 2018 billing month to December 2020 for Luzon, or until such time that the amounts incurred are fully recovered: 2. APPROVE the FME CAPEX amounting to One Hundred Thirty-Four Million Four Hundred Two Thousand Eight Hundred Eighty-Four Pesos (PhP 134,402,884.00) incurred by NGCP for the repair, restoration and rehabilitation of the damaged transmission assets and other related facilities due to FME Typhoon Nina in Luzon; 3. APPROVE, after due notice and hearing, the proposed FM Pass-Through Amounts to be collected from the Luzon customers starting January 2018 billing month or until such time that the amounts incurred are fully recovered:	Awaiting ERC Order/ Notice of hearing

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
		4. APPROVE and ALLOW the recovery of the Net Fixed Asset Value of the transmission assets and other related facilities damaged by the FME Typhoon Nina in Luzon amounting to One Hundred Ninety-Three Million One Hundred Fourteen Thousand Three Hundred Eighty Pesos (PhP I93,114,380.00), 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; and 5. EXCLUDE the proposed Pass-Through Amounts from theside constraint calculation.	
ERC Case No. 2017-113RC/ Dec. 13, 2017	In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines and San Roque Power Corporation, with Prayer for the Issuance of Provisional Authority	1. Immediately ISSUE a ProvisionalAuthority to implement the 2017 ASPA, to take effect upon expiration of the 2012 ASPA; 2. APPROVE, after notice and hearing, the 2017 ASPA.	• On March 22, 2018, the Jurisdictional and Expository presentation were conducted and terminated. • On April 16, 2018, the Pre-trial was conducted and the continuance of the evidentiary hearing was set on June 7, 2018.
ERC Cases No. 2017-110 RC/ Dec. 1, 2017	In the Matter of the Application for the Approval of the Implementation of Additional Capital Expenditure Program for the Calendar Years 2017 - Beyond 2020, with Prayer for the Issuance of Provisional Authority	1. Immediately ISSUE an Order provisionally authorizing the implementation of the proposed CAPEX projects; and 2. APPROVE, after notice and hearing, the proposed CAPEX projects.	• TransCo filed its Petition for intervention dated January 11, 2018. • On March 27, 2018, the ERC posted on its website an Order dated March 8, 2018 setting the date for the initial hearing of the case on May 15, 2018.
ERC Case No. 2017-100 RC/ Oct. 26, 2017	In the Matter of Application for the Approval of the Connection Charges and Residual Subtransmission Charges for Calendar Years 2014 and 2015 on Subtransmission Assets of the National Grid Corporation of the Philippines, with Prayer for Provisional Authority	1. ISSUE a Provisional Authority to implement and commence the billing and collection of the proposed CY 2015 CC/RSTC beginning the billing month of January 2018. 2. APPROVE the recovery of the computed CY 2014 and 2015 CC/RSTC provided in this application from all Transmission Customers. 3. ALLOW NGCP to bill and collect under-recoveries resulting from the difference in the actual collection made by NGCP for CY 2015 and 2016 vis-a-vis the proposed CY2014 and 2015 CC/RSTC which should have been collected for the years CY2015 and 2016; and DIRECT NGCP to refund any over-recovery arising from such difference.	Awaiting ERC Order/ Notice of hearing

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
		4. ALLOW NGCP to bill and collect the deferred CC/RSTC for disposed sub-transmission assets; 5. ALLOW NGCP to impose a 3% Franchise Tax on CC/RSTC to be reflected as a separate line item in the Power Bill.	
ERC Case No. 2017-093R/ October 13, 2017	Application for Approval of the Implementation of the Cebu-Bohol 230 kV Interconnection Project and Nabas-Caticlan-Boracay Transmission Project.	1. Immediately issue a provisional authority to implement the Cebu-Bohol 230 kV Interconnection & Nabas-Caticlan-Boracay Transmission Line Projects; 2. Approve, after notice and hearing, the projects.	On March 19, 2018, the ERC posted on its website an Order dated March 8, 2018 setting the dates and venues for hearing as follows: a. April 18, 2018 – Jurisdictional and expository presentation (Bohol) b. April 19, 2018 – Expository presentation (Cebu) c. April 26, 2018 – Expository Presentation (Aklan) d. May 4, 2018 – Expository, Pre- Trial, and Evidentiary (ERC Pasig)
ERC Case No. 2017-089R/ October 12, 2017	Application for Approval of the ASPA between NGCP and Cebu Energy Development (CEDC)	1. Immediately issue a provisional authority to implement the subject ASPA; 2. Approve, after notice and hearing, the subject ASPA.	Per ERC Order dated 4 January 2018, the jurisdictional, expository, pre-trial and evidentiary hearing is set on 22 February 2018.
ERC Case No. 2017-088R/ October 12, 2017	Application for Approval of the ASPA between NGCP and Panay Energy Development (PEDC)	Immediately issue a provisional authority to implement the subject ASPA; Approve, after notice and hearing, the subject ASPA.	Per ERC Order dated 4 January 2018, the jurisdictional, expository, pre-trial and evidentiary hearing is set on 1 February 2018.
ERC Case No. 2017-083RC/September 19, 2017	In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines and PANASIA Energy, Inc., with Prayer for the Issuance of Provisional Authority	1. Immediately issue a provisional authority to implement the 2017 ASPA, to take effect upon expiration of the 2012 ASPA or on the April 2018 Billing Period 2. Approve, after notice and hearing, the 2017 ASPA.	• Per ERC Order dated 18 October 2017, the jurisdictional, expository, pre-trial and evidentiary hearing is set on 7 December 2017 at 10:00AM at the Big 8 Hotel, National Highway, Visayan Village, Tagum City, Davao Del Norte. • Per ERC Order dated 18 December 2017, the jurisdictional, expository, pre-trial and evidentiary hearing is set on 18 January 2018. • On March 9, 2018 ERC posted on its website an Order dated November 28, 2017 granting Provisional Authority to coapplicant NGCP and PANASIA to Implement their ASPA, subject to some conditions.

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
ERC Case 2017-077RC/ August 25, 2017	In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines and First Gen Hydro Power Corporation with Prayer for the Issuance of Provisional Authority	1. Immediately ISSUE a provisional authority to implement the subject ASPA; 2. ALLOW NGCP the full recovery of ancillary services cost for the provision of Anillary services effective upon execution of the ASPA 3. APPROVE, after notice and hearing, the subject ASPA.	• On November 23, 2017, the Expository, Pre-trial and partial evidentiary hearing was done. Continuance of haering was initially set on January 5, 2018. • Per ERC Order dated 13 December 2017, the continuation of hearing was conducted and concluded on 11 January 2018. Awaiting ERC Resolution. • On March 9, 2018 ERC posted on its website an Order dated November 3, 2017 granting Provisional Authority to coapplicant NGCP and FGHPC to Implement their ASPA, subject to some conditions.
ERC Case 2017-076RC/ Aug. 18, 2017	Joint Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines (NGCP) and Therma Marine, Inc. (For Mobile 2) and Approval of the Incidental Energy Supply Agreement (IESA) Template	1. Immediately ISSUE a Provisional Authority to implement the subject ASPA and immediately ISSUE a provisional authority to implement the subject IESA template; 2. APPROVE, after notice and hearing, the subject ASPA and IESA template	As per ERC Order/ Notice of Hearing dated 18 October 2017 the initial hearing was conducted on 7 December 2017. On March 9, 2018, ERC posted on its website an Order dated Oct 26, 2017 granting Provisional Authority to co-applicant NGCP and TMI to Implement their ASPA, subject to some conditions. On the otherhand the proposal for Incedental Energy Supply Agreement Template (IESA) is deferred for further evaluation. On March 12, 2018 – the pre trial and evidentiary hearing were conducted and terminated. Coapplicants were directed to submit their joint FOE within 10 days after the hearing.
ERC Case 2017-075RC/ August 18, 2017	In the Matter of the Joint Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines (NGCP) and Therma Marine, Inc. (For Mobile 1) and Approval of the Incidental Energy Supply Agreement (IESA) Template with Prayer for the Issuance of Provisional Authority	1. Immediately ISSUE a provisional authority to implement the subject ASPA and immediately ISSUE a provisional authority to implement the subject IESA template 2. APPROVE, after notice and hearing, the subject ASPA and IESA template	• As per ERC Order/ Notice of Hearing dated 18 October 2017, the initial hearing was conducted on 7 December 2017. • On March 9, 2018, ERC posted on its website an Order dated October 26, 2017 granting Provisional Authority to coapplicant NGCP and TMI to implement their ASPA, subject to some conditions. While, the proposal for Incedental Energy Supply Agreement Template (IESA) is deferred for further evaluation. • On March 12, 2018, the pre trial and evidentiary hearing were conducted and terminated. Coapplicants were directed to

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
			submit their joint FOE within 10 days after the hearing.
ERC Case 2017-070/ August 3, 2017	In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines and Phinma Energy Corporation, with Prayer for the Issuance of Provisional Authority	1. Immediately ISSUE a provisional authority to implement the subject ASPA; 2. ALLOW NGCP the full recovery of ancillary services cost for the provision of Anillary services effective upon execution of the ASPA 3. APPROVE, after notice and hearing, the subject ASPA.	• On January 5, 2018, the Evidentiary presentation of coapplicant NGCP and Phinma was concluded. • On January 26, 2018, Intervenor DOE manifest that they will no longer present a witness. Coapplicant NGCP and Phinma were given 10 days to submit their joint FOE. • On February 15, 2018 the continuation of hearing was reset on April 12, 2018.
ERC Case 2017-034/ April 27, 2017	In The Matter Of The Application for The Approval Of The Implementation Of The Visayas·Mindanao Interconnection Project, With Prayer For Provisional Authority	1. Immediately ISSUE an order provisionally authorizing the implementation of the Visayas-Mindanao Interconnection Project; 2. APPROVE, after notice and hearing, the Application for the implementation of the Visayas-Mindanao Interconnection Project.	• GRANTED INTERIM RELIEF per ERC Order dated 11 July 2017 and docketed on 4 September 2017, subject to certain conditions. • Pursuant to ERC order dated June 7, 2017 , the ERC conducted the following: - July 7, 2017- Jurisdictional and Expository for visayas. - July 13, 2017 – Expository for Mindanao - July 20, 2017 – Expository, pre-trial and evidentiary. Thereafter, the Commission orders NGCP to submit its FOE within 30 days and the intervenors to submit reply within 15 days after receipt of NGCP's FOE.
ERC Case 2017-025RC/ March 23, 2017)	In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement (ASPA) Between the National Grid Corporation of the Philippines (NGCP) and Green Core Geothermal, Inc. (GCGI), with Prayer for the Issuance of Provisional Authority	1. Immediately ISSUE a Provisional Authority to implement the subject ASPA effective on 24 February 2017; 2. ALLOW NGCP the full and retroactive recovery of ancillary services cost for the provision of Regulating Reserve by GCGI pursuant to the subject ASPA (effective on 24 February 2017); 3. APPROVE, after notice and hearing, the subject ASPA.	• PROVISIONALLY APPROVED per ERC Order dated 6 June 2017 and docketed on 18 September 2017, subject to certain conditions. • Pursuant to ERC order dated June 13, 2017 the Jurisdictional, expository, pre-trial and evidentiary hearing was concducted on July 7, 2017

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
ERC Case 2017-024RC/ March 23, 2017	In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement (ASPA) Between the National Grid Corporation of the Philippines (NGCP) and Energy Development Corporation (EDC), with Prayer for the Issuance of Provisional Authority	1. Immediately ISSUE a provisional authority to implement the subject ASPA effective on 24 February 2017; 2. ALLOW NGCP the full and retroactive recovery of ancillary services cost for the provision of Regulating Reserve by EDC pursuant to the subject ASPA (effective on 24 February 2017); 3. APPROVE, after notice and hearing, the subject ASPA.	• Pursuant to ERC order dated 5 June 2017 The jurisdictional, expository, pre-trial and evidentiary hearing was conducted on 6 July 2017 in Negros Oriental. • On August 31, 2017 ERC posted on its website an order dated June 6, 2017, granting coapplicant a Provisional Authority to implement the ASPA subject to some condition.
ERC Case 2017-017RC/ March 9, 2017	In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement (ASPA) Between the National Grid Corporation of the Philippines (NGCP) and 1590 Energy Corporation (1590EC) with Prayer for the Issuance of Provisional Authority	1. Immediately ISSUE a provisional authority to Implement the subject ASPA 2. APPROVE, after notice and hearing, the subject ASPA.	• Pursuant to ERC order dated 20 June 2017 The jurisdictional, expository, pre-trial and evidentiary hearing was conducted on July 12, 2017 in San Fernando, La Union. Continuation of evidentiary was set on August 7, 2017 • On August 31, 2017 ERC posted on its website an order dated May 23, 2017, granting coapplicant a Provisional Authority to implement the ASPA subject to some condition.
ERC Case 2017-016RC/ March 3, 2017	In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement (ASPA) Between the National Grid Corporation of the Philippines (NGCP) and SN Aboitiz Power – Benguet, Inc. (SNAP-BI) with Prayer for the Issuance of Provisional Authority	1. Immediately ISSUE a provisional authority to Implement the subject ASPA; 2. APPROVE, after notice and hearing, the subject ASPA.	• Pursuant to ERC order dated April 27, 2017, the jurisdictional and expository was conducted on June 8, 2017 at the ERC Hearing Room, Pacific Center, Pasig City. • On August 31, 2017 ERC posted on its website an order dated May 16, 2017, granting coapplicant a Provisional Authority to implement the ASPA subject to some condition.
ERC Case No. 2016-165RC/ August 24, 2016	In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement (ASPA) Between the National Grid Corporation of the Philippines and SN Aboitiz Power - Benguet, Inc., with Prayer for the Issuance of Provisional Authority.	1. ISSUE a provisional authority to Implement the subject ASPA; 2. After notice and hearing, APPROVE the subject ASPA.	On March 9, 2018, ERC posted on its website an Order dated Feb 28, 2017 granting Provisional Authority to co-applicant NGCP and SNAP-BI to implement their ASPA, subject to some conditions.

Source: Transco

Annex 4. Private Sector Initiated Power Projects in Luzon (COMMITTED) as of 31 December 2017

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
COAL						
Pagbilao 3 Coal-Fired Thermal Power Plant***	Pagbilao Energy Corporation	TeaM Energy / Aboitiz Power	Pagbilao Power Station, Nrgy. Ibabang Polo, Pagbilao, Quezon	420	Aug 2017	Jan 2018
Limay Power Plant Project Phase II Unit 3	SMC Consolidated Power Corporation	SMC Consolidated Power Corporation	Brgy. Lamao, Limay, Bataan	150	Sep 2017	Mar 2018
GNPower Dinginin Supercritical Coal-Fired Power Plant Unit 1	GNPower Dinginin Coal Plant Ltd. Co.	GNPower Mariveles Coal Plant Ltd. Co	Mariveles, Bataan	600	Oct 2018	Mar 2019
San Buenaventura Power Ltd. Co. (SBPL) Project	San Buenaventura Power Ltd. Co. (SBPL)	QPPL / EGCO	Barangay Cagsiay 1, Mauban, Quezon[b]	500	Dec 2018	Dec 2019
Masinloc Expansion Project Unit 3	AES Masinloc Power Partners Co., Inc.	AES Masinloc Power Partners Co., Inc.	Zambales	300	Sep 2019	Dec 2019
Limay Power Plant Project Phase II Unit 4	SMC Consolidated Power Corporation	SMC Consolidated Power Corporation	Brgy. Lamao, Limay, Bataan	150	Aug 2019	Dec 2019
RPEI Coal-Fired Power Plant	Redondo Peninsula Energy, Inc.	Meralco PowerGen Corporation	Sitio Naglatore, Cawag, Subic Bay Freeport Zone	600	Dec 2019	Dec 2019
GNPower Dinginin Supercritical Coal-Fired Power Plant Unit 2	GNPower Dinginin Coal Plant Ltd. Co.	GNPower Mariveles Coal Plant Ltd. Co	Mariveles, Bataan	600	Dec 2019	Jan 2020
AOE Coal-Fired Power Plant Project Unit 1	Atimonan One Energy	Meralco PowerGen Corporation	Atimonan, Quezon	600	June 2021	June 2021
Global Luzon Coal-Fired Power Plant	Global Luzon Energy Development Corporation	Global Luzon Energy Development Corporation	Brgys. Carisquis and Nalvo Sur, Luna, La Union	670	Nov 2021	Jan 2022
SUBTOTAL				**5,190.0**		
BIOMASS						

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
SJCiPower Rice Husk-Fired Biomass power Plant Project Phase 2***	San Jose City I Power Corporation	San Jose City I Power Corporation	Brgy. Tulat, San Jose, Nueva Ecija	12	Aug 2017	March 2018
ACNPC WTE Biomass Power Plant Project	Asian Carbon Neutral Power Corporation	Asian Carbon Neutral Power Corporation	Tarlac City, Tarlac	Phase 2 – 1 MW	Jan 2018	March 2018
Isabela Rice husk-Fired Biomass Power Plant Project	Isabela La Suerte Rice Mill Corporation	Isabela La Suerte Rice Mill Corporation	Isabela	5	Jan 2018	March 2018
Central Azucarera Bagasse-Fired Cogeneration Power Plant Project	Central Azucarera Don Pedro, Inc.	Central Azucarera Don Pedro, Inc.	Batangas	31.875	Jan 2018	March 2018
SUBTOTAL				**49.9**		
NATURAL GAS						
EWC Combined Cycle Gas Fired Power Plant	Energy World Corp. (EWC)	Energy World Corp. (EWC)	Brgy. Ibabang Polo, Grande Island, Pagbilao, Quezon	650.0	2018	2018
SUBTOTAL				**650.0**		
OIL-BASED						
SLPGC Gas Turbine Power Project U4***	Southwest Luzon Power Generation Corporation (SLPGC)	DMCI Power Corporation	San Rafael, Calaca, Batangas	23	April 2017	March 2018
SLPGC Gas Turbine Power Project U5***	Southwest Luzon Power Generation Corporation (SLPGC)	DMCI Power Corporation	San Rafael, Calaca, Batangas	23	April 2017	March 2018
SUBTOTAL				**46.0**		
SOLAR						
Sta. Rita Solar Phase II	Jobin-Sqm Inc.	Jobin-Sqm Inc.	Mt. Sta. Rita, Morong and Hermosa, Bataan	92.86	January 2018[b]	March 2018
SUBTOTAL				**92.9**		
GEOTHERMAL						
Maibarara 2 Geothermal Project	Maibarara Geothermal Inc.	Maibarara Geothermal Inc.	Batangas	12.0	Jan 2018	March 2018

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
Bacman 3 (Tanawon) Geothermal Project	Energy Development Corporation	Energy Development Corporation	Guinlajon, Sorsogon	31.0	Dec 2022	Dec 2022 (Target Testing & Commissioning)
SUBTOTAL				**43.0**		
HYDRO						
Maris Main Canal 1 HEP	SN Aboitiz Power Generation	SN Aboitiz Power	Ramon, Isabela	8.5	January 2018	March 2018
Tubao	Tubao Mini-Hydro Electric Corporation	Tubao Mini-Hydro Electric Corporation	Tubao, La Union	1.5	December 2018	December 2018 (Target Testing and Commissioning)
Majayjay	Majayjay Hydro Power Company, Inc.	Majayjay Hydro Power Company, Inc.	Majayjay, Laguna	3	December 2018	December 2018 (Target Testing and Commissioning)
Labayat River (Upper Cascade)	Repower Energy Development Corporation	Repower Energy Development Corporation	Real, Quezon	3	December 2018	December 2018 (Target Testing and Commissioning)
Colasi	Colasi Mini Hydro Electric Power Plant Corporation	Colasi Mini Hydro Electric Power Plant Corporation	Mercedes, Camarines Norte	1	December 2019	December 2019 (Target Testing and Commissioning)
Man-Asok	Benguet Electric Cooperative	Benguet Electric Cooperative	Buguias, Benguet	3	December 2019	December 2019 (Target Testing and Commissioning)
Dupinga Hydroelectric Power Project	Constellation Energy Corporation	Constellation Energy Corporation	Gabaldon, Nueva Ecija	3	December 2019	December 2019 (Target Testing and Commissioning)
Lalawinan Mini-Hydro Power Project	Repower Energy Development	Repower Energy Development	Real, Quezon	3	December 2019	December 2019 (Target Testing and Commissioning)
Didipio 1	AT Dinum Company	AT Dinum Company	Kasibu, Nueva Vizcaya	2.1	December 2020	December 2020 (Target Testing and Commissioning)
Ibulao Hydroelectric Power Project	Hydrocore, Inc.	Hydrocore, Inc.	Lagawe, Ifugao	4.5	December 2020	December 2020 (Target Testing and Commissioning)
Abdao HEP	AV Garcia Power Systems Corp.	AV Garcia Power Systems Corp.	Tabaan Sur, Tuba, Benguet	2	December 2020	December 2020 (Target Testing and Commissioning)

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
Barit (Irrigation Discharge) Hydroelectric Power Project	Nascent Technologies	Nascent Technologies	Buhi, Camarines Sur	0.4	December 2020	December 2020 (Target Testing and Commissioning)
Dibuluan	Greenpower Resources Corp	Greenpower Resources Corp	San Agustin, Isabela	5	December 2020	December 2020 (Target Testing and Commissioning)
Kabayan 2 (Natalang HEP)	Hedcor Cordillera, Inc.	Hedcor Cordillera, Inc.	Kabayan, Benguet	38	December 2020	December 2020 (Target Testing and Commissioning)
Maapon River Mini-Hydro Power Project (MHP)	Renesons Energy Corporation	Renesons Energy Corporation	Brgy. Piis, Lucban, Quezon	2.6	December 2020	December 2020 (Target Testing and Commissioning)
Didipio 2	AT Dinum Company	AT Dinum Company	Kasibu, Nueva Vizcaya	9.4	December 2020	December 2020 (Target Testing and Commissioning)
Talubin Hydropower Project	Mountain Province Electric Cooperative, Inc.	Mountain Province Electric Cooperative, Inc.	Bontoc, Mountain Province	4.9	December 2020	December 2020 (Target Testing and Commissioning)
Laguio Malaki 1	Enervantage Suppliers Co., Inc.	Enervantage Suppliers Co., Inc.	Mauban, Quezon	1.6	December 2021	December 2021 (Target Testing and Commissioning)
Pinacanauan	Sunwest Water & Electric Co., Inc.	Sunwest Water & Electric Co., Inc.	Peñablanca, Cagayan	6	December 2021	December 2021 (Target Testing and Commissioning)
Laguio Malaki 2	Enervantage Suppliers Co., Inc.	Enervantage Suppliers Co., Inc.	Mauban, Quezon	3.1	December 2021	December 2021 (Target Testing and Commissioning)
Davidavilan	PTC Energy, Inc.	PTC Energy, Inc.	Mauban, Quezon	1	December 2021	December 2021 (Target Testing and Commissioning)
Matuno 1	Smith Bell Mini Hydro Corporation	Smith Bell Mini Hydro Corporation	Ambaguio, Nueva Vizcaya	7.4	December 2021	December 2021 (Target Testing and Commissioning)
Lamut	Enerhighland Corporation	Enerhighland Corporation	Asipulo & Lamut, Ifugao	6.00	December 2021	December 2021 (Target Testing and Commissioning)
Hungduan	Kiangan Mini Hydro Corporaion	Kiangan Mini Hydro Corporaion	Kiangan, Ifugao	4.04	December 2021	December 2021 (Target Testing and Commissioning)

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
Alilem	Philnew Hydro Power Corporation	Philnew Hydro Power Corporation	Alilem, Ilocos Sur	16.2	December 2022	December 2022 (Target Testing and Commissioning)
Ilaguen	Isabela Power Corporation	Isabela Power Corporation	San Mariano & San Guillermo	19	December 2022	December 2022 (Target Testing and Commissioning)
Matuno	Epower Technologies Corporation	Epower Technologies Corporation	Bambang, Nueva Ecija	8	December 2022	December 2022 (Target Testing and Commissioning)
Disabungan	Greenpower Resources Corporation	Greenpower Resources Corporation	San Mariano, Isabela	4.8	December 2022	December 2022 (Target Testing and Commissioning)
Cawayan 2	Sunwest Water & Electric Co., Inc.	Sunwest Water & Electric Co., Inc.	Sorsogon, Sorsogon	1	December 2022	December 2022 (Target Testing and Commissioning)
Quirino	Philnewriver Power Corp.	Philnewriver Power Corp.	Quirino, Ilocos Sur	11.5	December 2022	December 2022 (Target Testing and Commissioning)
Matuno 2	Smith Bell Mini Hydro Corporation	Smith Bell Mini Hydro Corporation	Bambang, Nueva Ecija	7.9	December 2022	December 2022 (Target Testing and Commissioning)
Piapi	Repower Energy Developement	Repower Energy Developement	Mauban, Quezon	3.30	December 2022	December 2022 (Target Testing and Commissioning)
Tignoan River (Upper Cascade) HEP	Repower Energy Development Corp	Repower Energy Development Corp	Real, Quezon	1.5	December 2022	December 2022 (Target Testing and Commissioning)
Asin	Kiangan Mini Hydro Corporaion	Kiangan Mini Hydro Corporaion	Kiangan, Ifugao	7.04	December 2022	December 2022 (Target Testing and Commissioning)
Ilaguen 3	Isabela Power Corporation	Isabela Power Corporation	Echague, Isabela	11.00	December 2022	December 2022 (Target Testing and Commissioning)
Addalam	Quirino Resources Development Corp.	Quirino Resources Development Corp.	Aglipay, Quirino	14.20	December 2022	December 2022 (Target Testing and Commissioning)
Kapangan	Cordillera Hydro Electric Power Corporation	Cordillera Hydro Electric Power Corporation	Kapangan & Kibungan, Benguet	60	December 2023	December 2023 (Target Testing and Commissioning)

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
Ibulao 2	Enerhighland Corporation	Enerhighland Corporation	Municipalities of Kiangan, Lamut and Lagawe , Province of Ifugao	7.40	December 2023	December 2023 (Target Testing and Commissioning)
Addalam	Quirino Power Energy Corporation	Quirino Power Energy Corporation	Aglipay, Quirino	3.80	December 2024	December 2024 (Target Testing and Commissioning)
Tinoc 1	Quadriver Energy Corp.	Quadriver Energy Corp.	Tinoc, Ifugao	4.1	December 2025	December 2025 (Target Testing and Commissioning)
Tinoc 4	Philnew Hydro Power Corporation	Philnew Hydro Power Corporation	Tinoc, Ifugao	5	December 2025	December 2025 (Target Testing and Commissioning)
Tinoc 2	Philnew Hydro Power Corporation	Philnew Hydro Power Corporation	Tinoc, Ifugao	11	December 2025	December 2025 (Target Testing and Commissioning)
Tinoc 3	Quadriver Energy Corp.	Quadriver Energy Corp.	Tinoc, Ifugao	8	December 2025	December 2025 (Target Testing and Commissioning)
Tumauini (Lower Cascade)	Quadriver Energy Corp.	Quadriver Energy Corp.	Tumauini, Isabela	7.8	December 2025	December 2025 (Target Testing and Commissioning)
Tumauini (Upper Cascade)	Philnew Hydro Power Corporation	Philnew Hydro Power Corporation	Tumauini, Isabela	14	December 2025	December 2025 (Target Testing and Commissioning)
Tinoc 5	Philnew River Power Corporation	Philnew River Power Corporation	Tinoc, Ifugao	6.9	December 2025	December 2025 (Target Testing and Commissioning)
Tinoc 6	Philnew River Power Corporation	Philnew River Power Corporation	Tinoc, Ifugao	8	December 2025	December 2025 (Target Testing and Commissioning)
Ilaguen 2	Isabela Power Corporation	Isabela Power Corporation	Dinapique, Isabela	14	December 2025	December 2025 (Target Testing and Commissioning)
Danac	Philnewriver Power Corp.	Philnewriver Power Corp.	Sugpon, Ilocos Sur	13.2	December 2025	December 2025 (Target Testing and Commissioning)
SUBTOTAL				**439.23**		
TOTAL				6,511.0		

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
BATTERY**						
AES Battery Storage – Masinloc Project Unit 1	AES Philippines Power Partners Co., LTD.	AES Philippines Power Partners Co., LTD.	Masinloc, Zambales	10.0	2018	2018
SUBTOTAL				**10.0**		

** Excluding Off-grid power projects*
*** for accounting purposes; declared capacity for Ancillary Services (AS) to the system*
**** on-going testing and commissioning*
Source: DOE

Annex 5. Private Sector Initiated Power Projects in Luzon (INDICATIVE) as of 31 December 2017

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Commissioning
COAL					
SRPGC Coal-Fired Power Plant	St. Raphael Power Generation Corporation	St. Raphael Power Generation Corporation	Brgy. San Rafael, Calaca, Batangas	700	Dec 2019
Merbau Coal Fired Thermal Power Plant	Merbau Corporation	JG Summit Holdings, Inc.	Brgy. Pinamukan Ibaba, Batangas City	600	Dec 2019
Masinloc Expansion Project Unit 4	AES Masinloc Power Partners Co., Inc.	AES Masinloc Power Partners Co., Inc.	Zambales	300	Dec 2020
AOE Coal-Fired Power Plant Project Unit 1	Atimonan One Energy	Meralco PowerGen Corporation	Atimonan, Quezon	600	June 2021
H & WB PCB Supercritical Coal-Fired Power Plant	H & WB ASIA PACIFIC (PTE LTD) CORPORATION	H & WB ASIA PACIFIC (PTE LTD) CORPORATION	Jose Panganiban, Camarines Norte	700	Unit 1 - Dec 2021 Unit 2 - Dec 2025
AOE Coal-Fired Power Plant Project Unit 2	Atimonan One Energy	Meralco PowerGen Corporation	Atimonan, Quezon	600	TBD
SMC Circulating Fluidized Bed Coal-Fired Power Plant	SMC Global Power	SMC Consolidated Power Corporation	Brgy. Ibabang Polo, Pagbilao, Quezon	600	TBD
SMC Circulating Fluidized Bed Coal-Fired Power Plant	SMC Global Power	SMC Consolidated Power Corporation	Sariaya, Quezon	600	TBD
Quezon Coal-Fired Power Plant	Orion Pacific Prime Energy, Inc.	Orion Pacific Prime Energy, Inc.	Tagkawayan, Quezon	1200	TBD
Zestpower Coal Thermal Plant	Zestpower Corporation	Zestpower Corporation	Mariveles, Bataan	660	TBD
Lucidum Coal Power Plant	Lucidum Energy, Inc.	Lucidum Energy, Inc.	Silanguin Bay, Zambales	300	TBD
KEPCO Pangasinan Coal-Fired Power Plant	KEPCO Philippines Corporation	KEPCO Philippines Corporation	Sual, Pangasinan	1000	TBD
SUBTOTAL				**6,660.0**	

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Commissioning
OIL-BASED					
Aero Derivative Combined Cycle Power Plant	Calamba Aero Power Corporation	Calamba Aero Power Corporation	Calamba, Laguna	150	TBD
AC Energy Modular Genset (Diesel) Power Plant	AC Energy DevCo, Inc.	AC Energy DevCo, Inc.	Pililia, Rizal	300	TBD
SUBTOTAL				**450.00**	
NATURAL GAS					
Sta. Maria Power Plant (Phase II)	First Gen Ecopower Solutions Inc.	First Gen Ecopower Solutions Inc.	Santa Rita, Batangas	450	June 2020
Batangas CCGT Plant Unit 1	Therma Batangas Gas, Inc.	Therma Batangas Gas, Inc.	Brgy. Libjo, Batangas City	300	TBD
Batangas CCGT Plant Unit 2	Therma Batangas Gas, Inc.	Therma Batangas Gas, Inc.	Brgy. Libjo, Batangas City	400	TBD
Batangas CCGT Plant Unit 3	Therma Batangas Gas, Inc.	Therma Batangas Gas, Inc.	Brgy. Libjo, Batangas City	400	TBD
Sta. Ana CCGT Power Plant	Phinma Energy Corporation	Phinma Energy Corporation	Port Irene, Sta. Ana, Cagayan	383	TBD
Sual CCGT Floating Power Plant	Phinma Energy Corporation	Phinma Energy Corporation	Brgy. Baquioen, Sual, Pangasinan	383	TBD
VIRES LNG-Fired Power Barge Project	VIRES Energy Corporation	VIRES Energy Corporation	Batangas Bay Area, Batangas	500	TBD
SUBTOTAL					
GEOTHERMAL					
Bacman 4 Botong - Rangas Geothermal Project	Energy Development Corporation	Energy Development Corporation	Bacon District, Sorsogon, Sorsogon City	20	Dec 2022
Kayabon Geothermal Project	Energy Development Corporation	Energy Development Corporation	Manito, Albay	30	Dec 2025
Bacon-Manito Geothermal Power Project	Energy Development Corporation	Energy Development Corporation	Bacon-Manito, Sorsogon	80	TBD
SUBTOTAL				**130.0**	
HYDRO					
Kabayan 1	Hedcor Benguet, Inc.	Aboitiz Power	Kabayan, Benguet	20	Mar 2019
Kabayan 3	Hedcor Benguet, Inc.	Aboitiz Power	Kabayan, Benguet	27	Mar 2019
Bineng 1-2b Combination HEPP	Hedcor, Inc.	Aboitiz Power	La Trinidad, Benguet	19	Mar 2019

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Commissioning
Tignoan HEP	Aurora All Asia Energy Corp.	Aurora All Asia Energy Corp.	Real, Quezon	20	Jul 2019
Biyao	AV Garcia Power Systems Corp.	AV Garcia Power Systems Corp.	Balbalan, Kalinga	0.8	Aug 2019
Ranggas	Clean and Green Energy Solutions, Inc.	Clean and Green Energy Solutions, Inc.	Goa & Tigaon, Camarines Sur	1.5	Jul 2019
Ibulao 1	Kiangan Mini Hydro Corporaion	Kiangan Mini Hydro Corporaion	Kiangan, Ifugao	6	Sep 2020
Bansud	PTC Energy, Inc.	PTC Energy, Inc.	Mauban, Quezon	1.0	Oct 2020
Maris Main Canal2 HEP	SN Aboitiz Power Generation	SN Aboitiz Power Generation	Alfonso Lista, Ifugao	1.75	Dec 2020
Alimit (100MW)	SN Aboitiz Power-Ifugao	SN Aboitiz Power-Ifugao	Lagawe, Ifugao	100.0	Jan 2021
Alimit (240 MW)	SN Aboitiz Power-Ifugao	SN Aboitiz Power-Ifugao	Lagawe, Ifugao	240.0	Jan 2021
Olilicon HEPP	SN Aboitiz Power-Ifugao	SN Aboitiz Power-Ifugao	Lagawe, Ifugao	10.0	Jan 2021
Cervantes-Mankayan-Bakun HEPP	Hedcor, Inc.	Hedcor, Inc.	Benguet	27.0	Mar 2021
Addalam	Quirino Resources Development Corporation	Quirino Resources Development Corporation	Cabarroguis, Quirino	14.20	Dec 2021
Chico HEPP	San Lorenzo Ruiz Piat & Water	San Lorenzo Ruiz Piat & Water	Tabuk, Kalinga	150.0	Dec 2023
Kibungan Pumped-Storage HEPP	COHECO Badeo Corp	COHECO Corp	Kibungan, Benguet	500.0	TBD
SUBTOTAL				**2,738.3**	
BIOMASS					
Polillo Biomass Power Plant Project	Renesons Energy Polillo, Inc.	Renesons Energy Polillo, Inc.	Quezon	1.5	May 2019
NREDC Biomass Power Plant Project	Natures Renewable Energy Development Corporation	Natures Renewable Energy Development Corporation	Cagayan	24	June 2019
Santa Biomass Power Project	Satrap Power Corporation	Satrap Power Corporation	Brgy. Nagpanaoan, Santa, Ilocos Sur	10	June 2019
EcoMarket Solutions Coconut Waste-Fired Biomass Power Project	EcoMarket Solutions, Inc.	EcoMarket Solutions, Inc.	Aurora	2.5	December 2019
CJ Global Waste-to-Energy Power Project	CJ Global Green Energy Philippines Corp.	CJ Global Green Energy Philippines Corp.	Camarines Sur	20	December 2020

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Commissioning
Napier Grass-Fired Biomass Power Plant	Grass Gold Renewable Energy Corp	Grass Gold Renewable Energy Corp	Nueva Ecija	12	December 2020
FQBC Biogas Power Plant Project	First Quezon Biogas Corporation	First Quezon Biogas Corporation	Nueva Ecija	1.2	December 2020
HEC Rice Husk-Fired Biomass Power Plant Project	Hypergreen Energy Corporation	Hypergreen Energy Corporation	Quezon	12	December 2020
VSGPC Multi-Feedstock Biomass Power Plant Project	V.S. Gripal Power Corporation	V.S. Gripal Power Corporation	Bulacan	6	December 2021
Bataan 2020 Multi-Feedstock Cogeneration Power Plant	Bataan 2020, Inc.	Bataan 2020, Inc.	Mariveles, Bataan	25	TBD
SUBTOTAL				**114.2**	
SOLAR					
Botolan Solar Power Project	Solar Power Utilities Generator Corporation	Solar Power Utilities Generator Corporation	Brgy. San Juan, Botolan, Zambales	39.27	2018
Macabud Solar Photovoltaic Power Project	ATN Philippines Solar Energy Group, Inc.	ATN Philippines Solar Energy Group, Inc.	Brgy. Macabud, Rodriguez, Rizal	30	2018
Concepcion Solar Power Project	Enfinity Philippines Renewable Resources, Inc	Enfinity Philippines Renewable Resources, Inc	Brgy. Sta. Rosa, Concepcion Tarlac	50.55	2018
Cavite Solar Power Project	Enfinity Philippines Renewable Resources, Inc	Enfinity Philippines Renewable Resources, Inc	Cavite Economic Zone, Rosario Cavite	3	2018
Cordon Solar PV Power Project	Greenergy Solutions, Inc.	Greenergy Solutions, Inc.	Cordon, Isabela	50	February 2019
Earthenergy Solar Power Plant	Earthenergy Corp.	Earthenergy Corp.	Balayan, Batangas	30	May 2019
V-Mars Solar Power Project	V-Mars Solar Energy Corporation	V-Mars Solar Energy Corporation	San Jose/Lupao, Nueva Ecija	10	Dec 2019
SJC Solar Power Project	SJC Solar Power Corporation	SJC Solar Power Corporation	San Jose City, Nueva Ecija	10	Dec 2019
RGEC Solar Power Project	Roxas Green Energy Corporation	Roxas Green Energy Corporation	Nasugbu and Tuy, Province of Batangas	30	Dec 2019
Calabanga Solar Power Project	Calabanga Renewable Energy Inc.	Calabanga Renewable Energy Inc.	Calabanga, Camarines Sur	50	Dec 2019
FPI Solar PV Power Project	Firmgreen Phils. Inc.	Firmgreen Phils. Inc.	Tarlac City, Tarlac	50	December 2019
Nueva Ejica Solar Power Project	Firmgreen Phils. Inc.	Firmgreen Phils. Inc.	Pantabangan, Nueva Ecija	100	December 2019
Sta. Maria Solar PV Power Project	Greenergy Solutions, Inc.	Greenergy Solutions, Inc.	Sta. Maria, Isabela	125	December 2019
Solana Solar PV Phase 1	Solana Solar Alpha, Inc.	Solana Solar Alpha, Inc.	Hermosa, Bataan	24	December 2019

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Commissioning
Solana Solar PV Phase 2	Solana Solar Alpha, Inc.	Solana Solar Alpha, Inc.	Hermosa, Bataan	14	December 2019
Sta. Maria Solar Power Project	East Coast Fas Renewable Energy and Industrial Corporation	East Coast Fas Renewable Energy and Industrial Corporation	Sta. Maria, Isabela	30	February 2020
Santa Solar Power Project	Satrap Power Corporation	Satrap Power Corporation	Brgy. Nagpanaoan, Santa, Ilocos Sur	20	March 2020
Talugtug Solar PV Power Project	Greenergy Solutions, Inc.	Greenergy Solutions, Inc.	Talugtug, Nueva Ecija	125	May 2020
Greenergy Capas Solar PV Power Project	Greenergy Solutions, Inc.	Greenergy Solutions, Inc.	Capas, Tarlac	50	May 2020
Ilagan II Solar PV Power Project	Greenergy Solutions, Inc.	Greenergy Solutions, Inc.	Ilagan City, Isabela	100	May 2020
Cabanatuan Solar Power Plant	Greentech Solar Energy Inc.	Greentech Solar Energy Inc.	Cabanatuan, Nueva Ecija	6.25	June 2020
Bongabon Solar Power Plant	Greentech Solar Energy Inc.	Greentech Solar Energy Inc.	Bongabon, Nueva Ecija	18.8	April 2022
Magsingal Solar Power Plant	Neoenergy Corporation	Neoenergy Corporation	Magsingal, Ilocos Sur	100	TBD
San Manuel 1 Solar Power Project	Pilipinas Newton Energy Corp.	Pilipinas Newton Energy Corp.	San Manuel, Pangasinan	70	TBD
San Manuel 2 Solar Power Project	Pilipinas Einstein Energy Corp.	Pilipinas Einstein Energy Corp.	San Manuel, Pangasinan	70	TBD
Calamba and Tanauan Solar Power Project	Solar Philippines Tanauan Corporation	Solar Philippines Corporation	Tanauan, Batangas	100	TBD
Capas Solar PV Power Project	Sindicatum C-Solar Power Inc.	Sindicatum C-Solar Power Inc.	Capas, Tarlac	22	TBD
Horus Solar Power Plant Project	Horus Solar Energy Corporation	Horus Solar Energy Corporation	Morong, Bataan	45	TBD
Tanauan Batangas Solar I Power Project	Solar Philippines Tanauan Corporation	Solar Philippines Tanauan Corporation	Tanauan, Batangas	100	TBD
Bugallon Solar Power Plant	Phinma Energy Corporation	Phinma Energy Corporation	Brgy. Salomague North Bugallon, Pangasinan	45	TBD
Laguna Lake Bangyas Solar Power Plant	Nuevo Solar Energy Corporation	Nuevo Solar Energy Corporation	Calacan and Victoria, Laguna	25	TBD
Lumban Solar Power Plant	Nuevo Solar Energy Corporation	Nuevo Solar Energy Corporation	Lumban, Laguna	37	TBD
San Miguel Solar Power Plant	Powersource First Bulacan Solar Inc.	Powersource First Bulacan Solar Inc.	San Miguel, Bulacan	50	TBD

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Commissioning
Tarlac Solar Power Project	Solar Philippines Commercial Rooftop Projects, Inc.	Solar Philippines	Tarlac City, Tarlac	100	TBD
Bawi Solar Power Plant	Phinma Energy Corporation	Phinma Energy Corporation	Lipa City & Padre Garcia, Batangas	45	TBD
Iba Palauig 1 Solar Power Project	Solar Philippines Commercial Rooftop Projects, Inc.	Solar Philippines, Inc.	Iba, Zambales	300	TBD
Iba Palauig 2 Solar Power Project	Solar Philippines Commercial Rooftop Projects, Inc.	Solar Philippines, Inc.	Iba, Zambales	300	TBD
Energence Solar Power Plant	Energence Solar Power Project	Energence Solar Power Project	Northern Runway Approach of Clark International Airport	35	TBD
Balayan Solar Power Project	Solar Philippines Commercial Rooftop Projects, Inc.	Solar Philippines, Inc.	Balayan & Calaca, Batangas	200	TBD
Sta. Rosa Nueva Ecija 2 Solar	Solar Philippines Commercial Rooftop Projects, Inc.	Solar Philippines, Inc.	Sta. Rosa, Peñaranda, San Leonardo, Nueva Ecija	450	TBD
Concepcion Tarlac 2 Solar	Solar Philippines Commercial Rooftop Projects, Inc.	Solar Philippines, Inc.	Concepcion City, Tarlac	200	TBD
SUBTOTAL				**3,259.8**	
WIND					
Pasuquin East Wind Power Project Phase I	Energy Logics Philippines, Inc.	Energy Logics Philippines, Inc.	Pasuquin, Ilocos Norte	48	Dec 2018
Balaoi Wind Power Project	Northern Luzon UPC Asia Corporation	Northern Luzon UPC Asia Corporation	Brgy. Balaoi, Pagudpud, Ilocos Norte	45	Dec 2018
Sembrano Wind Power Project	Alternergy Sembrano Wind Corporation	Alternergy Sembrano Wind Corporation	Mt. Sembrano, Mabitac, Laguna	80.4	Feb 2019
Pagudpud Wind Power Project	EDC Pagudpud Wind Power Corporation	EDC Pagudpud Wind Power Corporation	Brgy. Balaoi and Caunayan, Pagudpud, Ilocos Norte	84	Jun 2019
Burgos 2 Wind Power Project	EDC Pagali Burgos Wind Power Corporation	Energy Development Corporation	Burgos, Ilocos Norte	183	Dec 2019

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Commissioning
Matnog 1 Wind Power Project	Energy Development Corporation	Energy Development Corporation	Matnog, Sorsogon	153	Aug 2020
Matnog 2 Wind Power Project	Energy Development Corporation	Energy Development Corporation	Matnog, Sorsogon	206	Aug 2020
Matnog 3 Wind Power Project	Energy Development Corporation	Energy Development Corporation	Matnog, Sorsogon	206	Aug 2020
Talisay Wind Power Project	Currimao Solar Energy Corp.	Currimao Solar Energy Corp.	Camarines Norte	50	TBD
Talim Wind Power Project	Currimao Solar Energy Corp.	Currimao Solar Energy Corp.	Rizal	140	TBD
Calatagan Wind Power Project	Currimao Solar Energy Corp.	Currimao Solar Energy Corp.	Batangas	80	TBD
SUBTOTAL				**1275.4**	
TOTAL				**17,443.7**	
BATTERY**					
AES Battery Storage – Masinloc Project Unit 2	AES Philippines Power Partners Co., LTD.	AES Philippines Power Partners Co., LTD.	Masinloc, Zambales	10	TBD
AES Battery Storage – Masinloc Project Unit 3	AES Philippines Power Partners Co., LTD.	AES Philippines Power Partners Co., LTD.	Masinloc, Zambales	10	TBD
AES Battery Storage – Masinloc Project Unit 4	AES Philippines Power Partners Co., LTD.	AES Philippines Power Partners Co., LTD.	Masinloc, Zambales	10	TBD
AES Battery Storage – Laoag Project	AES Philippines Power Partners Co., LTD.	AES Philippines Power Partners Co., LTD.	Laoag, Ilocos Norte	40	TBD
AES Battery Storage – Bantay Project	AES Philippines Power Partners Co., LTD.	AES Philippines Power Partners Co., LTD.	Bantay, Ilocos Norte	40	TBD
Enerhiya Central Battery Energy Storage Project	SunAsia Energy Inc.	SunAsia Energy Inc.	Concepcion, Tarlac	40	TBD
Enerhiya Sur I Battery Energy Storage Project	SunAsia Energy Inc.	SunAsia Energy Inc.	Lemery and Tuy, Calaca, Batangas	40	TBD
Enerhiya Sur II Battery Energy Storage Project	SunAsia Energy Inc.	SunAsia Energy Inc.	Lumban, Laguna	40	TBD
SUBTOTAL				**230.0**	

** Excluding Off-grid power projects*
*** for accounting purposes; declared capacity for Ancillary Services (AS) to the system*
Source: DOE

Annex 6. Private Sector Initiated Power Projects in Visayas (COMMITTED) as of 31 December 2017

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
COAL						
Therma Visayas Energy Project	Therma Visayas Inc.	Aboitiz Power Corporation	Brgy. Bato, Toledo City, Cebu	300.00	January 2018	U1 – Jan 2018 U2 – Mar 2018
Concepcion Coal-fired Power Plant Unit 2	Palm Thermal Consolidated Holdings Corp.	AC Energy Holdings, Inc./ Palm Thermal Consolidated Holdings Corporation	Brgy. Nipa, Concepcion, Iloilo	135.00	Mar 2018	Dec 2018
SUBTOTAL				**435.00**		
OIL-BASED						
CENPRI Diesel Power Plant	Central Negros Power Reliability, Inc.	Energreen Power Development & Management, Inc.	Brgy. Calumangan, Bago City, Negros Occidental	8	U5 – February 2018	U5 – March 2018
SUBTOTAL				**8.00**		
HYDRO						
Igbulo (Bais) Hydroelectric Power Project	Century Peak Energy Corporation	Century Peak Energy Corporation	Igbaras, Iloilo	5.1	March 2018	March 2018 (Target Testing and Commissioning)
Timbaban	Oriental Energy and Power Generation Corporation	Oriental Energy and Power Generation Corporation	Madalag, Aklan	18.0	February 2019	February 2019 (Target Testing and Commissioning)
Cantakoy	Quadriver Energy Corp.	Quadriver Energy Corp.	Danao, Bohol	8	December 2020	December 2020 (Target Testing and Commissioning)
Amlan (Plant A)	Natural Power Sources Integration, Inc.	Natural Power Sources Integration, Inc.	Amlan, Negros Oriental	3.2	December 2020	December 2020 (Target Testing and Commissioning)
Amlan (Plant C)	Natural Power Sources Integration, Inc.	Natural Power Sources Integration, Inc.	Amlan, Negros Oriental	0.8	December 2020	December 2020 (Target Testing and Commissioning)
Malugo	Vivant-Malogo Hydropower, Inc	Vivant-Malogo Hydropower, Inc	Silay City, Negros	6	December 2020	December 2020 (Target Testing and Commissioning)

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
Loboc Hydroelectric Power Project	Sta. Clara Power Corporation	Sta. Clara Power Corporation	Loboc, Bohol	1.2	December 2020	December 2020 (Target Testing and Commissioning)
Caroan	Antique electric Cooperative	Antique electric Cooperative	Sebaste, Antique	0.84	December 2020	December 2020 (Target Testing and Commissioning)
Ipayo	Antique electric Cooperative	Antique electric Cooperative	Sebaste, Antique	0.84	December 2020	December 2020 (Target Testing and Commissioning)
Main Aklan River Hydroelectric Power Project	Sunwest Water & Electric Company, Inc.	Sunwest Water & Electric Company, Inc.	Libacao, Aklan	15	December 2021	December 2021 (Target Testing and Commissioning)
Ilaguen 4	Isabela Power Corporation	Isabela Power Corporation	Echague	10	December 2021	December 2021 (Target Testing and Commissioning)
Lower Himogaan	LGU Sagay	LGU Sagay	Sagay, Negros Occidental	4	December 2022	December 2022 (Target Testing and Commissioning)
Bansud	Sunwest Water & Electric Company, Inc.	Sunwest Water & Electric Company, Inc.	Bansud & Gloria, Oriental Mindoro	1.5	December 2022	December 2022 (Target Testing and Commissioning)
Basak II	Meadowland Developers, Inc.	Meadowland Developers, Inc.	Badian, Cebu	0.5	December 2025	December 2025 (Target Testing and Commissioning)
Amlan (Plant B)	Natural Power Sources Integration, Inc.	Natural Power Sources Integration, Inc.	Amlan, Negros Oriental	1.5	December 2025	December 2025 (Target Testing and Commissioning)
Hilabangan (Lower Cascade)	Century Peak Energy Corporation	Century Peak Energy Corporation	Kabankalan, Negros Occidental	3	December 2025	December 2025 (Target Testing and Commissioning)
Hilabangan (Upper Cascade)	Century Peak Energy Corporation	Century Peak Energy Corporation	Kabankalan, Negros Occidental	4.8	December 2025	December 2025 (Target Testing and Commissioning)
Maninila (Lower Cascade)	Century Peak Energy Corporation	Century Peak Energy Corporation	San Remigio, Antique	4.5	December 2025	December 2025 (Target Testing and Commissioning)

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
Maninila (Upper Cascade)	Century Peak Energy Corporation	Century Peak Energy Corporation	San Remigio, Antique	3.1	December 2025	December 2025 (Target Testing and Commissioning)
Sibalom (Upper Cascade)	Century Peak Energy Corporation	Century Peak Energy Corporation	San Remigio, Antique	4.2	December 2025	December 2025 (Target Testing and Commissioning)
Sibalom (Middle Cascade)	Century Peak Energy Corporation	Century Peak Energy Corporation	San Remigio, Antique	4	December 2025	December 2025 (Target Testing and Commissioning)
Sibalom (Lower Cascade)	Century Peak Energy Corporation	Century Peak Energy Corporation	San Remigio, Antique	3.3	December 2025	December 2025 (Target Testing and Commissioning)
SUBTOTAL				**103.4**		
GEOTHERMAL						
Biliran Geothermal Plant Project Phase 1	Biliran Geothermal Incorporated	Orka Energy Philippine (Iceland)	Biliran, Biliran	50.00	Sep 2018	U1 – Sep 2018 U2 – Mar 2019 U3 – Jul 2021 U4 – Nov 2022 U5 – Jan 2023 U6 – Jul 2023
SUBTOTAL				**50.0**		
BIOMASS						
VMC Cogeneration Power Plant Project	Victorias Milling Company, Inc.	Victorias Milling Company, Inc.	Victoria, Negros Occidental	40	January 2018	March 2018
HPC Cogeneration Power Plant Project	Hawaiian-Philippine Company	Hawaiian-Philippine Company	Negros Occidental	20.58	January 2018	March 2018
SCBI Multi-Feedstock Biomass Power Plant Project	San Carlos Biopower, Inc.	San Carlos Biopower, Inc.	Negros Occidental	20	January 2018	March 2018
BISCOM Cogeneration Power Plant Project	BISCOM, Inc.	BISCOM, Inc.	Binalbagan, Negros Occidental	48	December 2018	December 2018 (Target Testing and Commissioning)
Bais Bagasse-Fired Cogeneration Power Plant Project	Central Azucarera Don Pedro	Central Azucarera Don Pedro	Calasagan, Bais City, Negros Occidental	25	December 2018	December 2018 (Target Testing and Commissioning)
SNBI Cane trash-Fired Biomass Power Plant Project	South Negros BioPower, Inc.	South Negros BioPower, Inc.	Negros Occidental	25	December 2019	December 2019 (Target Testing and Commissioning)

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
SUBTOTAL				**178.58**		
TOTAL				**774.9**		

Source: DOE

Annex 7. Private Sector Initiated Power Projects in Visayas (INDICATIVE) as of 31 December 2017

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Commissioning
COAL					
SPC Coal Power Plant Project	SPC Power Corporation	SPC Power Corporation	Brgy. Colon, Naga City, Cebu	300.00	TBD
SUBTOTAL				**900.00**	
NATURAL GAS					
Argao Floating CCGT Power Plant	Phinma Energy Corporation	Phinma Energy Corporation	Brgy. Bulasa, Argao, Cebu	138	TBD
SUBTOTAL				**138**	
SOLAR					
Grid Tied Solar Farm	E & P Green Energy, Inc.	E & P Green Energy, Inc.	Biliran, Blliran	25	December 2018
Tigbauan Solar Power Project	Solexar Energy International, Inc.	Solexar Energy International, Inc.	Brgy. Cordova Norte and Bantud, Tigbauan, Iloilo	34.3	December 2018
Victorias Solar Power Project	VictoriaSolar Energy Corp.	VictoriaSolar Energy Corp.	Brgy. XII, Victorias City, Negros Occidental	30.6	December 2018
Ceko Solar PV Project (Daanbantayan Solar PV Power Project)	CEKO Solar Farm Systems Corp.	CEKO Solar Farm Systems Corp.	Brgy. Tominjao, Daan Bantayan, Cebu	100	April 2019
Silay Phase II Solar Power Project	Silay Solar Power Inc.	Silay Solar Power Inc.	Silay City, Negros Occidental	10	April 2019
Mabinay Solar Power Project	Lohas and Soul Lighting, Inc.	Lohas and Soul Lighting, Inc.	Mabinay, Negros Oriental	90	December 2019
Bogo V Solar Power Project	Sun Premier Bogo Philippine Corporation	Sun Premier Bogo Philippine Corporation	Bogo , Cebu	16.7	May 2020
Bogo 3 Solar Power Plant	Sun Premier Bogo Philippine Corporation	Sun Premier Bogo Philippine Corporation	Bogo, Cebu	15	May 2020
Sunpalo Solar Power Plant	Sunpalo Solar Energy, Inc.	Sunpalo Solar Energy, Inc.	San Miguel, Leyte	100	September 2020
Medellin Solar Power Plant	Solar Philippines, Inc.	Solar Philippines, Inc.	Medellin, Cebu	300	TBD
Puente Al Sol Solar Power Plant	Puente Al Sol, Inc.	Puente Al Sol, Inc.	Cadiz City, Negros Occidental	70	TBD
SUBTOTAL				**791.6**	
GEOTHERMAL					
Dauin Geothermal Project	Energy Development Corporation (EDC)	Energy Development Corporation (EDC)	Dauin, Negros Oriental	40.00	Dec 2025
SUBTOTAL				**40.0**	

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Commissioning
HYDRO					
Aklan Pumped-Storage Hydropower	Strategic Power Development Corp.	Strategic Power Development Corp.	Malay, Aklan	300	Feb 2024
Bolusao Pumped Storage	San Lorenzo Samar and Water, Inc.	San Lorenzo Samar and Water, Inc.	Lawaan, Eastern Samar	300	Mar 2024
Ilog Hydroelectric Power Plant	PHINMA Energy Corporation	PHINMA Energy Corporation	Mabinay, Negros Occidental	21.6	TBD
SUBTOTAL				**621.6**	
WIND					
Pulupandan Wind Power Project	First Maxpower International Corporation	First Maxpower International Corporation	Pulupandan, Negros Occidental	50.00	2018
Bronzeoak Wind Power Project	Bronzeoak Philippines, Inc.	Bronzeoak Philippines, Inc.	Calatrava, Salvador Benedicto and San Carlos, Negros Occidental	100	February 2020
Iloilo 1 Wind Project	Energy Development Corporation	Energy Development Corporation	Batad & San Dionisio, Iloilo	213	August 2020
Iloilo 2 Wind Project	Energy Development Corporation	Energy Development Corporation	Concepcion, Iloilo	500	August 2020
Negros Wind Project	Energy Development Corporation	Energy Development Corporation	Manapla & Cadiz, Negros Occidental	262	August 2020
Nabas Wind Power Project Phase II	PetroWind Energy Corporation	PetroWind Energy Corporation	Brgy. Pawa, Nabas, Aklan	14.00	September 2021
Montesol Wind Power Project	Monte Solar Energy, Inc.	Monte Solar Energy, Inc.	Bais City, Manjuyod and Mabinay, Negros Oriental	54	June 2022
Aklan I Wind Power Project Phase I	Tri-Conti Elements Corporation	Tri-Conti Elements Corporation	Nabas-Malay, Aklan	75	TBD
Ubay Wind Power Project	Tri-Conti ECC Renewables Corporation	Tri-Conti Elements Corporation	Anda, Candijay & Guindalman, Bohol	80	TBD
Ivisan Wind Power Project	Tri-Conti ECC Renewables Corporation	Tri-Conti Elements Corporation	Ivisan, Capiz	50	TBD
SUBTOTAL				**1,398.0**	
BIOMASS					
MCEI Multi-Feedstock Biomass Power Plant Project	Megawatt Clean Energy, Inc.	Megawatt Clean Energy, Inc.	Negros Occidental	12.00	Dec 2020
UGEP Rice Husk-Fired Biomass Power Plant Project	UGEP Ormoc Biomass Power	UGEP Ormoc Biomass Power	Leyte	2.5	Dec 2020
SUBTOTAL				**14.5**	

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Commissioning
OIL-BASED					
Datem Energy Northern Samar Diesel Power Plant Project	Datem Energy Corporation	Datem Energy Corporation	Northern Samar	10.00	TBD
Marubeni Diesel Genset Facility	Marubeni Corporation	Marubeni Corporation	Isabel, Leyte	70.0	TBD
SPC Ubay Diesel Power Plant Project	Supreme Power Corporation	Supreme Power Corporation	Ubay, Bohol	7.2	TBD
Sulzer Diesel Power Plant	General Milling Corporation	General Milling Corporation	GMC Complex, Lapu-Lapu City, Cebu	5.5	TBD
Caterpillar Diesel Power Plant	General Milling Corporation	General Milling Corporation	GMC Complex, Lapu-Lapu City, Cebu	2	TBD
Cummins Diesel Power Plant	General Milling Corporation	General Milling Corporation	GMC Complex, Lapu-Lapu City, Cebu	1	TBD
SUBTOTAL				**55.7**	
TOTAL				**3,399.4**	
BATTERY**					
AES Battery Storage - Kabankalan Project	AES Philippines Power Partners Co., LTD.	AES Philippines Power Partners Co., LTD.	Kabankalan, Negros Occidental	40	2018
Enerhiya Delas Islas I Battery Energy Storage Project	SunAsia Energy Inc.	SunAsia Energy Inc.	Amlan, Negros Oriental	15	TBD
Enerhiya Delas Islas II Battery Energy Storage Project	SunAsia Energy Inc.	SunAsia Energy Inc.	Ormoc, Leyte	15	TBD
Enerhiya Delas Islas III Battery Energy Storage Project	SunAsia Energy Inc.	SunAsia Energy Inc.	Compostela, Cebu	15	TBD
Cadiz Energy Storage Project	EQ Energy Storage Inc	EQ Energy Storage Inc	Cadiz City, Negros Occidental	15	TBD
Silay Battery Energy Storage	Global Silay Energy Solutions	Silay Solar Power Inc.	Silay, Negros Occidental	30	TBD

** Excluding Off-grid power projects*
*** for accounting purposes; declared capacity for Ancillary Services (AS) to the system*
Source: DOE

Annex 8. Private Sector Initiated Power Projects in Mindanao (COMMITTED) as of 31 December 2017

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
COAL						
GNPower Kauswagan Clean Coal-Fired Power Plan	GN Power Kauswagan Ltd. Co.	GNPower Ltd. Co	Kauswagan, Lanao del Norte	600	Dec 2017	Mar 2018
Southern Mindanao Coal Fired Power Station Unit 2	Sarangani Energy Corporation (SEC)	Alsons Power Corporation	Brgy, Kamanga, Maasim, Sarangani	100	Dec 2018	Jan 2019
SUBTOTAL				**700.0**		
OIL-BASED						
Peakpower Soccsargen, Inc. Bunker Fired Power Plant	Peakpower Soccsargen, Inc.	Peakpower Soccsargen, Inc.	General Santos City, South Cotabato	13.94	January 2018	January 2018 (Target Testing & Commissioning)
Peakpower San Francisco, Inc. Bunker Fired Power Plant	Peakpower San Francisco, Inc.	Peakpower San Francisco, Inc.	San Francisco, Agusan del Sur	5.2	January 2018	January 2018 (Target Testing & Commissioning)
Peakpower Budiknon, Inc. Bunker Fired Power Plant	Peakpower Bukidnon, Inc.	Peakpower Bukidnon, Inc.	Manolo Fortich, Bukidnon	10.4	January 2018	January 2018 (Target Testing & Commissioning)
SUBTOTAL				**29.54**		
HYDRO						
New Bataan	Euro Hydro Power (Asia) Holdings, Inc.	Euro Hydro Power (Asia) Holdings, Inc.	New Bataan, Compostela Valley	2.4	January 2018	March 2018
Manolo Fortich I	Hedcor Bukidnon, Inc.	Hedcor Bukidnon, Inc.	Santiago, Bukidnon	43.4	January 2018	March 2018
Manolo Fortich 2	Hedcor Bukidnon, Inc.	Hedcor Bukidnon, Inc.	Santiago, Bukidnon	25.4	January 2018	March 2018
Lake Mainit	Agusan Power Corporation	Agusan Power Corporation	Jabonga, Agusan del Norte	25	January 2018	March 2018
Asiga	Asiga Green Energy Corp.	Asiga Green Energy Corp.	Santiago, Agusan del Norte	8	August 2019	August 2019 (Target Testing and Commissioning)
Bubunawan Hydroelectric Power Project	First Gen Mindanao Hydropower Corp.	First Gen Mindanao Hydropower Corp.	Baungon and Libona, Bukidnon	23	December 2021	December 2021 (Target Testing and Commissioning)
Culaman Hydroelectric Power Project	Oriental Energy and Power Generation Corporation	Oriental Energy and Power Generation Corporation	Manolo Fortich, Bukidnon	10	December 2021	December 2021 (Target Testing and Commissioning)

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
Katipunan River Mini Hydro Power Project	Repower Energy Development	Repower Energy Development	Cabanglasan, Bukidnon	6.2	December 2021	December 2021 (Target Testing and Commissioning)
Upper Manupali	Bukidnon II Electric Cooperative, Inc.	Bukidnon II Electric Cooperative, Inc.	Valencia City, Bukidnon	4.4	December 2022	December 2022 (Target Testing and Commissioning)
Mangima Hydroelectric Power Project	Philnew Hydro Power Corporation	Philnew Hydro Power Corporation	Manolo Fortich, Bukidnon	10	December 2022	December 2022 (Target Testing and Commissioning)
New Bataan	Euro Hydro Power (Asia) Holdings, Inc.	Euro Hydro Power (Asia) Holdings, Inc.	New Bataan, Compostela Valley	2.4	January 2018	March 2018
Manolo Fortich I	Hedcor Bukidnon, Inc.	Hedcor Bukidnon, Inc.	Santiago, Bukidnon	43.4	January 2018	March 2018
Manolo Fortich 2	Hedcor Bukidnon, Inc.	Hedcor Bukidnon, Inc.	Santiago, Bukidnon	25.4	January 2018	March 2018
Lake Mainit	Agusan Power Corporation	Agusan Power Corporation	Jabonga, Agusan del Norte	25	January 2018	March 2018
Asiga	Asiga Green Energy Corp.	Asiga Green Energy Corp.	Santiago, Agusan del Norte	8	August 2019	August 2019 (Target Testing and Commissioning)
Bubunawan Hydroelectric Power Project	First Gen Mindanao Hydropower Corp.	First Gen Mindanao Hydropower Corp.	Baungon and Libona, Bukidnon	23	December 2021	December 2021 (Target Testing and Commissioning)
Culaman Hydroelectric Power Project	Oriental Energy and Power Generation Corporation	Oriental Energy and Power Generation Corporation	Manolo Fortich, Bukidnon	10	December 2021	December 2021 (Target Testing and Commissioning)
Katipunan River Mini Hydro Power Project	Repower Energy Development	Repower Energy Development	Cabanglasan, Bukidnon	6.2	December 2021	December 2021 (Target Testing and Commissioning)
Upper Manupali	Bukidnon II Electric Cooperative, Inc.	Bukidnon II Electric Cooperative, Inc.	Valencia City, Bukidnon	4.4	December 2022	December 2022 (Target Testing and Commissioning)
Mangima Hydroelectric Power Project	Philnew Hydro Power Corporation	Philnew Hydro Power Corporation	Manolo Fortich, Bukidnon	10	December 2022	December 2022 (Target Testing and Commissioning)
Mat-i-2	Philnew Hydro Power Corporation	Philnew Hydro Power Corporation	Cagayan de Oro, Misamis Oriental	1.6	December 2022	December 2022 (Target Testing and Commissioning)

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
Mat-i-3	Philnew Hydro Power Corporation	Philnew Hydro Power Corporation	Cagayan de Oro, Misamis Oriental	3.25	December 2022	December 2022 (Target Testing and Commissioning)
Lower Maladugao River Mini-Hydropower Project	Bukidnon Maladugao Hydro Power Corporation	Bukidnon Maladugao Hydro Power Corporation	Kalilangan and Wao, Bukidnon	15.7	December 2022	December 2022 (Target Testing and Commissioning)
Maladugao (Upper Cascade) Hydroelectric Power Project	UHPC Bukidnon Hydro Power I Corporation	UHPC Bukidnon Hydro Power I Corporation	Kalilangan, Bukidnon	8.4	December 2022	December 2022 (Target Testing and Commissioning)
Maramag	Maramag Mini-Hydro Corp	Maramag Mini-Hydro Corp	Maramag, Bukidnon	1.4	December 2022	December 2022 (Target Testing and Commissioning)
Manupali	Matic Hydropower Corp	Matic Hydropower Corp	Valencia, Bukidnon	9	December 2022	December 2022 (Target Testing and Commissioning)
Malitbog	Philnewriver Power Corp.	Philnewriver Power Corp.	Malitbog, Bukidnon	3.4	December 2022	December 2022 (Target Testing and Commissioning)
Pulanai	Repower Energy Development	Repower Energy Development	Valencia, Bukidnon	10.6	December 2022	December 2022 (Target Testing and Commissioning)
Langaran	Kaltimex Langaran Hydro, Inc.	Kaltimex Langaran Hydro, Inc.	Calamba, Misamis Occidental	3.60	December 2022	December 2022 (Target Testing and Commissioning)
Alamada	Euro Hydro Power (Asia) Holdings, Inc.	Euro Hydro Power (Asia) Holdings, Inc.	Alamada, North Cotabato	2.84	December 2022	December 2022 (Target Testing and Commissioning)
Polandoc	Euro Hydro Power (Asia) Holdings, Inc.	Euro Hydro Power (Asia) Holdings, Inc.	Leon Postigo, Zamboanga del Norte	5.70	December 2022	December 2022 (Target Testing and Commissioning)
Titunod	Euro Hydro Power (Asia) Holdings, Inc.	Euro Hydro Power (Asia) Holdings, Inc.	Kolambogan, Lanao del Norte	3.60	December 2022	December 2022 (Target Testing and Commissioning)
Bayug	Euro Hydro Power (Asia) Holdings, Inc.	Euro Hydro Power (Asia) Holdings, Inc.	Iligan, Lanao del Norte	17.81	December 2022	December 2022 (Target Testing and Commissioning)
Kalaong 1	Alsons Energy Development Corp.	Alsons Energy Development Corp.	Maitum, Sarangani	7.40	December 2022	December 2022 (Target Testing and Commissioning)

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
Puyo Hydroelectric Power Project	First Gen Mindanao Hydropower Corp.	First Gen Mindanao Hydropower Corp.	Jabonga, Agusan del Norte	30	December 2023	December 2023 (Target Testing and Commissioning)
Kalaong 2	Alsons Energy Development Corp.	Alsons Energy Development Corp.	Maitum, Sarangani	4.80	December 2023	December 2023 (Target Testing and Commissioning)
Sawaga River Mini Hydro Power Project	Repower Energy Development	Repower Energy Development	Malaybalay, Bukidnon	4.5	December 2024	December 2024 (Target Testing and Commissioning)
Cabadbaran Hydroelectric Power Project	First Gen Mindanao Hydropower Corp.	First Gen Mindanao Hydropower Corp.	Cabadbaran, Agusan del Norte	9.75	December 2024	December 2024 (Target Testing and Commissioning)
Tagum	Sta. Clara Power Corp.	Sta. Clara Power Corp.	Maco, Compostela Valley	2.60	December 2024	December 2024 (Target Testing and Commissioning)
Tagoloan	First Gen Mindanao Hydropower Corp.	First Gen Mindanao Hydropower Corp.	Impasugong & Sumilao, Bukidnon	39	December 2025	December 2025 (Target Testing and Commissioning)
Pasonanca	Philcarbon, Inc.	Philcarbon, Inc.	Zamboanga City	0.5	December 2025	December 2025 (Target Testing and Commissioning)
Clarin	Philnew Hydro Power Corporation	Philnew Hydro Power Corporation	Clarin, Misamis Occidental	5	December 2025	December 2025 (Target Testing and Commissioning)
Mat-i-I	Philnew Hydro Power Corporation	Philnew Hydro Power Corporation	Claveria, Cagayan de Oro	4.85	December 2025	December 2025 (Target Testing and Commissioning)
Lanon (Lam-alu)	Euro Hydro Power (Asia) Holdings, Inc.	Euro Hydro Power (Asia) Holdings, Inc.	Lake Sebu, South Cotabato	9.5	December 2025	December 2025 (Target Testing and Commissioning)
Silo-o	Philnewriver Power Corp.	Philnewriver Power Corp.	Malitbog, Bukidnon	3.29	December 2025	December 2025 (Target Testing and Commissioning)
Agus III	Maranao Energy Corporation	Maranao Energy Corporation	Pantar & Balo-I, Lanao del Sur & Lanao del Norte	225	December 2025	December 2025 (Target Testing and Commissioning)
SUBTOTAL				**590.9**		
BIOMASS						

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Testing & Commissioning	Target Commercial Operation
GEEC Biomass Cogeneration System***	Green Earth Enersource Corporation	Green Earth Enersource Corporation	Maguindanao	3.5	May 2017	March 2018[b]
PTCI Rice Husk-Fired Biomass Cogeneration Facility	Philippine Trade Center, Inc.	Philippine Trade Center, Inc.	Maguindanao	3	June 2017	March 2018
LPC Rice Husk-Fired Biomass Power Plant Project	Lamsan Power Corporation	Lamsan Power Corporation	Maguindanao	5.5	Nov 2017	March 2018
SUBTOTAL				**12.0**		
TOTAL				**1,332.4**		

Source: DOE

Annex 9. Private Sector Initiated Power Projects in Mindanao (INDICATIVE) as of 31 December 2017

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Commissioning
COAL					
Ozamiz Power Coal Fired Power Plant	Ozamiz Power Generation, Inc.	Ozamiz Power Generation, Inc.	Brgy. Pulot,Ozamiz City,Misamis Occidental	Phase 1 - 2 x 150MW Phase 2 - 1 x 150MW	Phase 1 – Jun 2021 Phase 2 – Dec 2022
SMC Davao Power Plant Project Phase II	San Miguel Consolidated Power Corporation	San Miguel Consolidated Power Corporation	Brgy. Culaman, Malita, Davao del Sur	300.0	**TBD**
SRPI CFB Coal-Fired Power Station	San Ramon Power Inc.	Mapalad Power Corporation	Sitio San Ramon, Bgry. Talisayan, Zamboanga City	100.0	**TBD**
SMC Global Power	SMC Global Power	San Miguel Consolidated Power Corporation	Brgy. Darong, Santa Cruz, Davao del Sur	328	**TBD**
Balingasag Coal-Fired Power Plant	Minergy Coal Corporation	Minergy Coal Corporation	Brgy. Mandangoa, Balingasag, Misamis Oriental	110.0	**TBD**
SUBTOTAL				**1,138.0**	
GEOTHERMAL					
Mindanao 3 Geothermal	Energy Development Corporation	Energy Development Corporation	Kidapawan, North Cotabato	30.0	Dec 2022
SUBTOTAL				**30.0**	
HYDRO					
Limbatangon Hydroelectric Power Project	Turbines Resource & Development Corp.	Turbines Resource & Development Corp.	Cagayan de Oro City, Misamis Oriental	9	2018
Tumalaong Hydroelectric Power Project	First Gen Mindanao Hydropower Corp.	First Gen Mindanao Hydropower Corp.	Baungon, Bukidnon	9	2018
Kitaotao 1	Hedcor Bukidnon, Inc.	Hedcor Bukidnon, Inc.	Bukidnon	70	March 2019
10 MW Cabulig-2 Hydroelectric Power Plant Project	Mindanao Energy Systems, Inc.	Mindanao Energy Systems, Inc.	Jasaan, Misamis Oriental	10	December 2018
Puyo Hydroelectric Power Project	First Gen Mindanao Hydropower Corp.	First Gen Mindanao Hydropower Corp.	Jabonga, Agusan del Norte	30	December 2019
Davao Hydroelectric Power Project	San Lorenzo Ruiz Olympia	San Lorenzo Ruiz Olympia	Davao City	140	December 2023
SUBTOTAL				**268.0**	
SOLAR					
Sumilao Solar Project	Sunasia Energy, Inc.	Sunasia Energy, Inc.	Sumilao, Bukidnon	2	2018
GenSan Solar Power Project Phase I	Del Sol Energy CGS, Inc.	Del Sol Energy CGS, Inc.	Brgy. Conel, General Santos City, South Cotabato	48	December 2018

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Commissioning
GenSan Solar Power Project Phase II	Del Sol Energy CGS, Inc.	Del Sol Energy CGS, Inc.	Brgy. Tambler, General Santos City, South Cotabato	48	December 2018
Astroenergy Solar Power Project	Astroenergy Gensan Inc.	Astroenergy Gensan Inc.	General Santos City, South Cotabato	60	December 2018
San Francisco Solar Power Project	Gpower Inc.	Gpower Inc.	San Francisco, Agusan del Sur	10	December 2018
Jasaan Solar Power Project	Lohas and Soul Lighting, Inc.	Lohas and Soul Lighting, Inc.	Jasaan, Misamis Oriental	60	December 2019
Lal-lo Solar PV PP	NAREDCO Corp.	NAREDOCO Corp.	Maasim, Sarangani	100	TBD
Ecoglobal Solar	Ecoglobal, Inc.	Ecoglobal, Inc.	Zamboanga City	30	TBD
Hayes Solar Power Project	Hayes Solar Energy Corporation	Hayes Solar Energy Corporation	Villanueva, Misamis Oriental	27	TBD
Opol Solar Power Project	Electra Ecoenergy Corporation	Electra Ecoenergy Corporation	Brgy. Patag, Opol, Misamis Oriental	25	TBD
SUBTOTAL				**410.0**	
BIOMASS					
Napier Grass-Fired Biomass Power Plant Project	Manolo Fortich Biomass Energy Corporation	Manolo Fortich Biomass Energy Corporation	Bukidnon	12	2018
Malay-balay Bio-Energy Corporation Multi Feedstock Generating Facility	Malaybalay Bio-Energy Corporation	Malaybalay Bio-Energy Corporation	Bukidnon	10	Dec 2020
Woody Biomass Power Plant Project	CARAGA Renewable Energy Corporation	CARAGA Renewable Energy Corporation	Agusan del Norte	23.5	Dec 2020
NAREDCO Biogas Power Plant	Natures Renewable Energy Development Corporation	Natures Renewable Energy Development Corporation	Lal-lo Cagayan	24	Dec 2020
Napier Grass-Fired Biomass Power Plant Project	Pilipinas Joule Enery Corporation	Pilipinas Joule Enery Corporation	Bukidnon	5	Dec 2020
Crystal Sugar Bagasse-Fired Co-generation Power Plant	Crystal Sugar, inc.	Crystal Sugar, Inc.	Maramag, Bukidnon	14.9	TBD
SUBTOTAL				**89.4**	
OIL					
TPI Diesel Power Plant	Total Power Incorporated	Total Power Incorporated	Mati, Davao Oriental	5.88	TBD

Name of the Project	Project Proponent	Mother/ JV Company	Location	Rated Capacity (MW)	Target Commissioning
Nickel Asia Diesel Power Project	Nickel Asia Corporation	Nickel Asia Corporation	Surigao City, Surigao del Norte	10.9	TBD
Panasia Malita Diesel Power Plant	Panasia Energy, Inc.	Millennium Energy, Inc.	Malita, Davao	20	TBD
MOPP 4 Diesel Power Plant	King Energy Generation Inc.	King Energy Generation Inc.	Brgy. San Isidro, Jimenez, Misamis Oriental	8.43	TBD
SUBTOTAL				**45.21**	
TOTAL				**1,980.6**	

Source: DOE

Annex 10. ERC Approved Capital Expenditure Projects as of November 2017 to April 2018

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
Pampanga I Electric Cooperative, Inc. (PELCO I) ERC CASE NO. 2015-082 RC	**CAPITAL EXPENDITURE PROJECTS (2016-2018)**			28 April 2015/ 28 November 2017
	Uprating of Plaza Luma substation from 10MVA to 20MVA	Acquisition and installation of 20MVA power transformer and accessories as replacement of the existing 10MVA capacity to meet the growing number of connections and increasing demands of its customer.	19,034,954.40	
	Restoration of San Isidro substation	Re-commissioning of the San Isidro substation by replacing the defective 5MVA power transformer by utilizing an available spare of 5MVA power transformer. To acquire the whole barangay of Sta. Lucia to form part of its service area. To meet the growing number of connections and increasing demands of its customer.	6,161,505.00	
	Rehabilitation/upgrading of the substation switchgears	To maintain effective operation and ensure reliable performance of these medium voltage protection equipment.	5,487,428.60	
	Primary and Secondary Distribution Project	To avoid danger and hazards to lives and properties.	42,390,372.07	
	Procurement of 330 units pole-mounted distribution transformers	To accommodate new customers of PELCO I.	17,109,000.00	
	Service drops for new residential connections	To accommodate new customers of PELCO I.	4,433,760.00	
	KWH Meters for new customer connections	To accommodate new customers of PELCO I.	8,433,580.00	
	Acquisition of spare/back-up protection and switching devices	To ensure the continuity of service. If the problem arises on any of its installed protection and switching device, a replacement unit is always ready and available.	3,750,000.00	
	Construction of Multi-Purpose Building that houses Fitness and Health Gym, Library and Museum	The building is needed for several activities and functions which are beneficial to employees and member-consumers.	3,064,739.91	
	Construction of covered Parking Area for Service Vehicles	To provide the vehicles a covered parking facility. This will help in prolonging the service life of the vehicles by protecting them from factors which can affect the physical features and mechanical performance of the vehicles when they are parked at PELCO I's compound.	1,626,225.96	
	Construction of Wash Area and Public Restrooms	To avoid renting the services of Portable Toilet Providers during the Annual General membership Assembly and during outdoor activities being undertaken by PELCO I employees and other Electric Cooperatives (ECs) inside the premises of the main	849,434.14	

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
		compound considering PELCO I have only two available comfort rooms inside the covered court.		
	Renovation of Warehouse Building including the Information Technology (IT) Repair and Storage Room, Lineman's quarter and Meter Shop	PELCO I warehouse building, stock room, IT repair and storage room, lineman's quarter, and meter shop were constructed in 1972. While they are still functional, they are already dilapidated and evidently needs renovation and repairs.	1,141,968.71	
	Construction of Pole Stock Yard and Service Roads	The present open space yard at the back of PELCO I main office serves as a stock/pile yard for the different sizes of concrete and steel poles. However, the ground level of the said yard is below the water flood level. Thus, the ground yard should be elevated by earth-filling. The service Roads must be concreted so that the pole stock yards will become accessible even during rainy or flood seasons.	2,216,126.80	
	Construction of Fuel Refilling Station	To minimize overhead cost on fuel expense, PELCO I should have its own fuel refilling station inside its compound. As part of PELCO I's corporate social responsibility project, PELCO I will allow member-consumers to purchase gasoline or diesel from the proposed fuel refilling station at a very low price (no mark-up of profit).	1,071,499.18	
	Procurement of Transportation Vehicles	To facilitate efficient maintenance services, the number of transportation service vehicles must be sufficient and must always be in good condition.	95,232,000.00	
	Acquisition of Mobile Bunk House	The proposed project will help in providing the linemen safety, security and convenience while participating in various task force organized by NEA and regional association of ECs and facing the challenges of different situations.	2,250,000.00	
	Acquisition of Electronic Meter Standard and Phantom Load	PELCO I have only one available electronic meter standard and phantom load unit in its meter shop. Said units are insufficient to test all pulled-out meters. Thus, there is a need to procure another meter standard and phantom load unit.	1,200,000.00	
	Acquisition of Distribution System Application Software (DSAS)	To provide the planners a more accurate and updated distribution system data.	660,000.00	
	Acquisition of Daylight Ultraviolet Imaging Camera	PELCO I proposed to procure one unit Daylight Ultraviolet Imaging Camera which can sensitively locate any electrical discharge on insulators. With the said project, leaky insulators will be identified/replaced to avoid or minimize faults.	4,000,000.00	

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
Don Orestes Romualdez Electric Cooperative, Inc. (DORELCO) **ERC Case No. 2012-032RC**	**Network Project**			
	Installation of one (1) unit 5/6.25 MVA 69/13.2 kV 3-phase Power Transformer with OLTC, one (1) unit SF6 PCV, two (2) units vacuum breaker and its complete accessories, and steel structure gantry.	To relieve the 5 MVA Javier Substation	**29,486,228.75**	08 March 2012/ 12 December 2017
	Construction of a total 0.36 km, multi-incomer bus work for existing Javier and the proposed new Mayorga Substation. - The project includes construction of 360 meters of 69 kV Tie-line and four (4) pcs. Of air break switch (motorized) 69 kV. This project will provide additional 69 kV sub-transmission line supply to the existing Javier substation and the proposed Mayorga substation in Mayorga, Leyte.	The sub-transmission line that connects Javier Substation did not meet the criteria for N-1 redundancy of the grid. The physical construction of the said 69 kV line going to Javier Substation can be considered radial since this line of about 300 meters was just tapped from the existing NGCP sub-transmission system coming from Tolosa ABS going to Maasin Substation. This is complimentary project of Project No. 4 (Acquisition and Installation of 5/6.25 MVA Substation in Barangay Luna, Mayorga).	**4,180,000.00**	
	Construction of two (2) out-going Feeders for the proposed new Mayorga Substation.	In every installation of new substation, new feeder is always a part of construction. For this project, about 0.06 km of primary line is about to be extended in order to connect it from the existing feeders it is about to serve. This project is a complimentary project of Project No. 4 (Acquisition and Installation of 5/6.25 MVA Substation in Barangay Luna, Mayorga).	**73,066.77**	
	Other Network Project			
	Installation Materials for New Residential Customer (Add-on)	The Magna Carta for Residential Consumer mandates all distribution utility to provide meters and materials for Standard Connection Facilities (SCF) to all applicants for electric services within its franchise area.	**13,519,800.00**	
Surigao del Sur I Electric Cooperative, Inc. (SURSECO I) **ERC CASE NO. 2014-113 RC**	**INTERIM CAPITAL EXPENDITURE PROJECTS**			05 August 2014/ 12 December 2017
	Replacement of old and defective kWH Meter	The project is aimed at providing accurate reading of electric consumption.	2,746,833.12	
	Replacement of Rotten poles	To ensure that the materials installed in the distribution system are compliant with the acceptable level of safety.	4,972,661.00	
	Replacement of defective and overloaded Transformers	To provide certainty and assurance of continuous service against the possibility of breakdown or failure of old and dilapidated distribution transformer.	1,292,023.38	
	Installation of Recloser at San Fernando and Barobo Substations	The secondary protection devices are defective and are showing signs of malfunction due to old age. Malfunctioning was manifested during an incident wherein the tender was unable to restore the power of Feeder 1 due to jammed knob. Also, two feeders are	2,280,000.00	

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
		protected by old power fuses, which will be replaced with vacuum circuit reclosers.		
	Primary Line Looping	To further improve system reliability.	1,629,132.00	
	Installation of Air Break Switches	To further improve system reliability.	626,005.00	
	Procurement of kilowatt-hour Meters and Service Drop Wires Capacity	To provide electric service to residential customers.	888,830.00	
Tarlac I Electric Cooperative, Inc. (TARELCO I) **ERC CASE NO. 2015-105 RC**	**CAPITAL EXPENDITURE PROGRAM (2015-2018)**			01 June 2015/ 12 December 2017
	Installation of Secondary Safety Equipment for Camiling 10MVA Power Transformer	To ensure the safety of TARELCO I's Camiling Substation.	5,371,839.00	
	Installation of Primary and Secondary Safety Equipment for Paniqui 10MVA Power Transformer	To ensure the safety of TARELCO I's Paniqui Substation.	10,265,051.50	
	Installation of Primary and Secondary Safety Equipment for Paniqui 5MVA Power Transformer	To ensure the safety of TARELCO I's Paniqui Substation.	6,755,679.51	
	Advance Installation of 10MVA at Mayantoc Town	To address the projected capacity problem of TARELCO I's Camiling 10MVA substation.	42,653,731.59	
	Construction of 20MVA Power Transformer	To address the projected capacity problem of TARELCO I's Gerona 10MVA substation.	32,628,288.00	
	Backbone Conductor Uprating, Line Conversion with twelve (12) Line Section Phase Balancing and Capacitor Placement of Sta. Ignacia Feeder of Sta. Ignacia 10MVA Substation	To address the power quality problem of Sta. Ignacia Feeder.	37,632,320.05	
	Installation of Recloser at Feeder Midstream of Sta. Ignacia Feeder	To address the safety concern of Sta. Ignacia Feeder in terms of feeder protection.	874,157.77	
	Installation of two (2) units of Recloser at Sta. Ignacia Feeder	To address the reliability concern of TARELCO I's Sta. Ignacia Feeder.	1,748,315.53	
	Electrical Line Requirement	To accommodate the new customers of TARELCO I.	127,708,301.28	
	Relocation of Electrical Lines along Highways and Major Roads due to Road Widening	To maintain a safe and reliable distribution network.	26,863,831.34	
	Conductor Uprating	To address the safety and increasing demand of TARELCO I's distribution system.	35,439,112.06	
	Transformer Load Management	To address/accommodate the increasing demand of the system.	1,605,064.30	
	Distribution Transformer Requirement	To address the increasing demand of TARELCO I.	54,744,490.69	
	Kilowatt-Hour Meter Replacement Requirement	To provide accurate measurement of energy consumed by each member-consumers.	20,628,664.21	

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
	Kilowatt-Hour Meter New Connection Requirement	To accommodate the new customers of TARELCO I.	84,277,900.53	
	Re-routing of 69kV Line at Tagumbao, Gerona	To provide a safe and reliable distribution system.	10,000,000.00	
	Replacement of Wood and Improvised Poles and Re-routing of Lines	To maintain a safe and reliable distribution network.	20,715,519.59	
	Construction of Tie Line	To maintain reliable supply of electricity.	4,699,865.96	
	Rehabilitation and Reconducturing from San Fernando, Victoria to Salapungan, Gerona	To ensure the safety of TARELCO I's distribution lines.	2,949,714.99	
	Extension of 1-Phase Primary Line	To ensure the safety of TARELCO I's distribution system.	639,606.68	
	Construction of Satellite Offices	To improve service efficiency.	9,507,763.86	
	Substation Graveling	To maintain the safety level of TARELCO I's substations.	633,047.16	
	Lot Acquisition for Satellite Offices	TARELCO I will acquire lot/properties where the proposed satellite offices will be constructed.	5,714,500.00	
	Renovation of Facilities	To rehabilitate or renovate the Calayaan Area Office, GM's Staffhouse and Administration Building for the convenience of its personnel and member-consumers.	9,034,105.00	
	Rehabilitation of Headquarters' Water System	The project involves the repair and replacement of pipes and other parts of the ECs Main Office Water System.	519,500.00	
	Procurement of Engineering Software and Updates	TARELCO I intend to acquire additional engineering software and updates to facilitate the planning monitoring process of its system. To improve service efficiency.	623,400.00	
	Procurement of Voltage Detector	Accurate testing and data gathering will be safely undertaken with the use of appropriate devices with high standard of accuracy.	160,006.00	
	Office Materials and Equipment	Purchase of the following equipment: Security Cameras for Collection Offices and substation to monitor the day to day activity within its premises and to fraudulent acts; Voice and Video Teleconferencing to facilitate communications among personnel at different locations; Time Attendance Automation, payroll and HR System to automate the HR system of the EC in order to eliminate human error and ensure the accuracy of personnel records; and Multimedia projector to be used in consumer's education, AGMA and other activities of the EC.	1,845,264.00	
	Procurement of Boom/Drill Truck	To improve service efficiency.	12,468,000.00	
	Short Circuiting and Earthing Equipment	To ensure the safety of TARELCO I's personnel.	353,260.00	

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
	Power Back-up System and Circuit Protection	To maintain service efficiency.	2,181,900.00	
	Power Quality Analyzer	To improve service efficiency.	1,240,000.00	
	Load Logger	To improve service efficiency.	1,246,800.00	
	69kV Line Fault Indicator	To improve service efficiency.	1,542,915.00	
	Online Network System Upgrade	To improve service efficiency.	3,000,000.00	
	Technical Data Management Program for TSD	To improve service efficiency.	2,500,000.00	
	Kilowatt-Hour Meter Reading Device and Accessories for kWhr Meter Readers	To improve service efficiency.	5,326,750.49	
	Service and Utility Vehicle	To improve service efficiency.	48,901,474.86	
	Personal Protective Equipment (PPE)	To ensure the safety of TARELCO I's personnel.	17,938,289.33	
	Lot Acquisition for Satellite Offices	To improve service efficiency.	5,992,300.00	
	Infrastructure Projects	To improve service efficiency.	3,250,000.00	
	Substation Maintenance and Commissioning Test Set	To improve service efficiency.	4,422,993.53	
	Kilowatt-Hour Meter Test Bench	To improve service efficiency.	1,381,786.88	
	Halo-Meter	To improve service efficiency.	960,000.00	
	Construction of a new Area Office in Cuyapo, Nueva Ecija	To improve service efficiency.	2,775,809.50	
Aurora Electric Cooperative, Inc. (AURELCO) **ERC CASE NO. 2017-010 RC**	**FORCE MAJEURE CAPEX PROJECT**			17 February 2017/ 12 December 2017
	Repair and restoration of AURELCO's distribution lines, facilities and equipment, and sub-offices after sustaining considerable damage from the onslaught of Typhoons "Karen" and 'Lawin"	The project was necessary in order to restore electric power and achieve a continuous, safe, and reliable power supply in the affected areas.	9,185,025.83	
Misamis Oriental I Rural Electric Cooperative, Inc. (MORESCO I) **ERC CASE NO. 2015-012 RC**	**UNPLANNED TIE LINE CAPITAL PROJECT**			30 January 2015/ 20 February 2018
	Construction of 69kV Tie Line from the new NGCP Opol Substation in Kamagon, Opol to MORESCO I's Patag-Opol Substation, and installation of single metering scheme at NGCP Opol Substation.	The said 69kV Tie Line will replace the current connection of MORESCO I's Patag-Opol Substation, and shall likewise serve as the connection between Canitoan and Mambuaya Substations.	14,154,685.85	
Nueva Ecija I Electric Cooperative, Inc. (NEECO I)	**NETWORK PROJECTS**			15 September 2010 / 20 March 2018
	Construction of 1-20MVA substation in the City of Gapan	To address overloading of the Malapit Substation and under voltage problems	30,888,888.00	

<table>
<tr><th>APPLICANT</th><th>PROJECT DESCRIPTION</th><th>RATIONALE</th><th>PROJECT COST (PhP)</th><th>DATE FILED/ APPROVED</th></tr>
<tr><td rowspan="11">ERC CASE NO. 2010-118 RC</td><td>Relocation of 1-10MVA power transformer to San Roque, San Isidro and Construction of 5km. 69 KV lines</td><td>To address overloading of the Malapit Substation and under voltage problems</td><td>29,307,873.00</td><td rowspan="11"></td></tr>
<tr><td>Expansion of lines in ten (10) Sitios:
<table>
<tr><th>Sitio</th><th>Brgy.</th><th>Municipality</th></tr>
<tr><td>Herrera St</td><td>Malapit</td><td>San Isidro</td></tr>
<tr><td>Paraan St.</td><td>Malapit</td><td>San Isidro</td></tr>
<tr><td>Purok 1</td><td>Niyugan</td><td>Jaen</td></tr>
<tr><td>Purok 7</td><td>San Jose</td><td>Jaen</td></tr>
<tr><td>Pantoc</td><td>San Francisco</td><td>San Antonio</td></tr>
<tr><td>Sitio Pinaglabanan</td><td>Poblacion</td><td>San Antonio</td></tr>
<tr><td>Guapito St.</td><td>Sta. Rita</td><td>Cabiao</td></tr>
<tr><td>Irrigation</td><td>Sta. Rita</td><td>Cabiao</td></tr>
<tr><td>Villareal St.</td><td>Sto. Cristo Norte</td><td>Gapan City</td></tr>
<tr><td>Purok 4</td><td>Bulak</td><td>Gapan City</td></tr>
</table></td><td>This project is part of the mandates of NEECO I as a distribution utility.</td><td>5,727,700.00</td></tr>
<tr><td>Rehabilitation of dilapidated primary and secondary lines</td><td>To ensure safety in operating an electric distribution system.</td><td>13,899,153.00</td></tr>
<tr><td>Replacement of Old and Stop kWh Meters</td><td>To provide accurate measurement of energy consumed by each member-consumer</td><td>18,116,400.00</td></tr>
<tr><td>Replacement of overloaded distribution transformers</td><td>To ensure that the equipment installed in the distribution system is operating at the highest level of safety. Using a dilapidated and overload DTs may pose hazard to life and property.</td><td>24,111,091.00</td></tr>
<tr><td>Replacement of broken insulators, rotten poles and defective fuse cut outs</td><td>By replacing broken insulators, rotten woods poles and defective cut-outs will ensure safety, and at the same time addressing unreliable supply of electric power due to defective electrical equipment.</td><td>13,025,072.00</td></tr>
<tr><td>Add Ons</td><td>The electric cooperative has the obligation to provide distribution services and connections to its distribution system end users within its franchise area.</td><td>13,510,086.00</td></tr>
<tr><td colspan="3">NON-NETWORK PROJECT</td></tr>
<tr><td>Logistic Support</td><td></td><td>6,591,624.00</td></tr>
<tr><td colspan="3">APPROVAL OF THE PROPOSED PROJECT (FOR IMPLEMENTATION)</td></tr>
<tr><td>Construction of 1-20MVA Substation in Sapang, Jaen and Construction of five (5) km. 69 kV Lines</td><td>To address overloading of the Malapit Substation and under voltage problems</td><td>46,224,528.00</td></tr>
<tr><td rowspan="2">Agusan Del Sur Electric Cooperative, Inc. (ASELCO)</td><td colspan="3">FORCE MAJEURE</td><td rowspan="2">15 September 2015/ 03 April 2018</td></tr>
<tr><td>Rehabilitation of Lines Damaged by Typhoon Seniang</td><td>The weather disturbance caused massive damaged on the distribution lines of the Applicant, resulting to power blackout lasted for 6 days from December 29, 2014 to</td><td>10,028,445.00</td></tr>
</table>

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
ERC Case No. 2015-166RC	- These projects were undertaken by ASELCO after the occurrence of the force majeure event consists of the repair and restoration of the cooperative's damaged distribution line and equipments.	January 3, 2015. Repair and restoration of the damaged euipments were done phase to phase from December 9, 2014 to January 3, 2015, incurring unprogrammed expenditures. Materials used in the urgent repair and restoration were procured, from suppliers on account at the least cost available.		
	EMERGENCY CAPEX			
	Installation of 10 MVA Substation and 0.1 km 69kV line - The 10 MVA Sibstation and 69 kV Subtransmission Line wil be installed at Pisaan, Sa Francisco, Agusan Del Sur. An additional capacity project to accommodate the load growth of the San Francisco Subtation's service area and other possible loads to come. And also, to prevent possible damages that overloaded San Francisco Substation can cause.	As of 2014, ASELCO's San Francisco 10 MVA Substation loading has almost reached its maximum capacity. It reached up to 9.8 MW which is more than 70% of its highest rating capacity. For the 1st quarter of 2015, an additional big load customer with an initial power demand of 1.2 MW was added to its current loading. The abrupt increase of loading from 2014 to 2015 was due to the additional big loads particularly of the two commercial shopping malls that were unexpected to come-in and therefore were not included in the previous forecasting of the substations. These malls were situated in one municipality, San Francisco, and construction was done for a very short period of time. Thus, results to the overloading of San Francisco Substation. The short term remedy was temporarily transfer loads of the substation while the long term solution is on-going.	28,891,875.00	
	Procurement of AMR kWh meters - This project is for the replacement of inefficient kWh Metrs to determine the accurate consumption of the customers. The meter to be used for replacement are meters with high precision accuracy and is capable of on-field or office-based automatic meter reading, disconnection and reconnection to minimize system's loss. Meters shall be in accordance to ERC specified accuracy at 100% in consideration to the ERC and consumer's welfare.	kWh meters are considered as cash private register of very EC. Being installed in the consumers, normal functionality, accuracy and protection must be considered. Broken and unsecured kWh meters causes inaccurate energy consumption registration. Also, the testing of the aging kWh meters suggested the replacement. For it was found out that significant amount of energy were not reflected in the energy sales of the EC due to its inefficient performance. Test results suggest that aging meters is way below the 2% tolerance of meter accuracy thus causes the EC to suffer from the loss of revenue.	20,057,175.00	

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
	Procurement of Automatic Recloser (SCADA-ready, Open Protocol) - The project shall provide safety and better supply continuity of electric service to the member-consumer-owners. ASELCO shall procure an autmotaic recloser for the replacement of cut-out assembly installed in the feeders of ASELCO located at Bayugan City and Prosperidad which were damaged by Typhoon Senyang.	The EC used the fused cut-out used to function as sectionalizer in the Backbone Distribution Line as temporary replacement of the damaged reclosers. When interruption occurs, maintenance crew and their vehicle need to go to respective service area to manually reactivate the power even if the trouble is a temporary fault only. The mechanism can cause a prolong duration of interruption.	2,205,000.00	
	Procurement of Meter Test Set - This project is for the procurement of a new Meter Test Set for the use of ASELCO.	The current Meter Test Set, used as reference standard, malfunctioned. The EC is proposing this project for a better Meter Shop Performance by having an accurate reference standard	897,440.00	
	UNPLANNED CAPEX			
	Upgrading of Lateral Primary and Secondary Distribution Line - To accommodate the customer load requirements, lateral lines need to be upgraded. The most important service area that needs an upgrading attention due to its increase in load density is in the area of Purok 2, Brgy. 4 to Purok 4, Brgy.2 San Francisco, Agusan Del Sur from Single Phase to Thre Phase with a distance of 0.96km. Another upgrading will be in J.C. Aquino St. to Ninoy Aquino Blvd. to Magsaysay, Poblacion, Prosperidad, Agusan Del Sur from Single Phase to Three Phase with a distance of 2.21 km.	Several member-owner-consumers are complaining of low voltage problems in this service area. The proposed upgrading of line is to improve customer requirements in such a way that an EC response positively in compliance to the service standards criteria as set by the Philippine Distribution Code.	2,544,949.00	
	Procurement of Three Phase Electronic Meters and Instrument Transformer (CT & PT) - This project intends to replace the high voltage consumers' used meters in order to accurately determine the actual demand and energy consumption of the consumer.	Some of the kWh Meter installed to the 3-Phase consumers were difficult to read which leads to inaccurate reading of electricity consumption and prone to pilferage.	5,230,852.00	
	Procurement of AMR kWh meters - This will replace the aged, broken and unsecured kWh Meters installed in the premises of the consumers. This kWh Meters has the capability to read,	ASELCO has some part of critical area for disconnection even reconnection. This was identified legibly by Area Managers due to numerous reported complaints and customers' ledger shows unpaid amounts that reflect in a single route. These customers		

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
	disconnect and reconnect consumer meters on field and office-based in accordance with ERC policy of disconnection.	who are situated in the critical area are hard to disconnect and still able to continue its energy consumption without disconnection.		
	Upgrading of Backbone Distribution Line - The project is intended to upgrade the single phase line to three-phase to address the power quality, reliability and system loss of the EC's backbone line. The EC intends to loop the backbone distribution line which will benefit the meber-consumer-owners due to the impact of iproved voltage levels, reduce system loss and lesser interruption by having power supply support from multiple directions.	Result of technical simulations suggest the need of upgrading in balance loading per phase, address expected volateg quality dteriorations as power demands increases. The area is expected to increase the power requirements due to the emerging of industrial and commercial loads.		
	Relocation and Upgrading of the 5 MVA Substation and Constructtion of 69kV line - The Municipality of Rosario, with its increasing demand of power, experiences power interruptions because of high/low voltage drop due to the substantial distance of the Distribution Lines from the Substation where it is currently connected. In order to remedy this, the stand-by 5 MVA Power Transformer will be utilized for the installation of Rosario Substation.	The Municipality of Rosario is a fast growing power consuming municipality due to its load growth particularly on its mining sector. This area is served by an overextended backbone line fro San Francisco Substations which is about 21 km. away. The fast increasing number of consumers and their corresponding power requirements resulted to power quality problems and higher system's loss. This particular municipality is a load center therefore putiing up a substation on it will address its problem on power capacity for incoming customers, power quality, and system's.		
	Perimeter Pencing - This perimeter fencing will cover the ASELCO's premises at San Isidro, San Francisco, Agusan Del Sur.	Equipments of some area of the EC were not safe of intruders because of the absence of fencing. This is a negative factor in providing better service to member consumers.		

Source: ERC

Annex 11. NPC-incurred Amount on Grant of Mandatory Rate Reduction

Billing Month	MERALCO	REST OF LUZON	TOTAL LUZON	VISAYAS	MINDANAO	TOTAL
2001						1,682,000,000.00
2002						3,051,860,000.00
2003						3,223,300,000.00
2004						3,467,100,000.00
2005						3,267,100,000.00
2006						2,624,120,000.00
2007						2,679,840,000.00
2008	786,079,461.86	832,317,675.85	1,618,397,137.71	561,119,367.51	635,133,615.12	2,814,650,120.34
2009	588,151,359.71	706,070,755.91	1,194,222,115.62	566,935,169.51	689,177,083.02	2,550,334,367.15
2010	202,192,491.42	83,694,601.88	285,887,093.30	427,552,082.83	714,165,916.31	1,427,545,092.44
2011	101,220,503.49	53,654,853.12	155,448,933.21	269,063,509.57	742,749,200.70	1,167,291,643.48
2012	17,089,283.62	17,148,265.50	34,237,549.12	226,319,497.74	714,532,284.67	975,089,331.53
2013	5,709,192.08	0	5,709,192.08	213,015,951.12	699,932,744.81	918,657,888.01
2014	-	-	-	170,046,642.19	738,280,984.52	908,327,626.71
Jan-15	-	-	-	2,880,825.99	52,985,437.72	55,866,263.71
Feb-15	-	-	-	2,528,586.80	53,081,511.45	55,610,098.25
Mar-15	-	-	-	1,823,548.22	49,670,485.01	51,494,033.23
Apr-15	-	-	-	2,386,645.40	51,278,493.95	53,665,139.35
May-15	-	-	-	2,961,698.64	49,473,822.26	52,435,520.90
Jun-15	-	-	-	3,299,287.92	51,187,883.72	54,487,171.64
Jul-15	-	-	-	3,430,054.53	44,687,161.80	48,117,216.33
Aug-15	-	-	-	2,846,599.09	42,265,605.65	45,112,204.74
Sep-15	-	-	-	2,363,991.24	45,952,136.29	48,316,127.53
Oct-15	-	-	-	1,524,909.43	48,465,110.30	49,990.019.73
Nov-15	-	-	-	1,379,202.45	42,598,493.39	43,977,695.84
Dec-15	-	-	-	1,459,777.97	42,930,723.67	44,390.501.64
Jan-16	-	2,056,346.94	2,056,346.94	-	1,945,101.98	4,001,448.92
Feb-16	-	1,973,871.25	1,973,871.25	-	2,049,961.38	4,023,832.63
Mar-16	-	1,953,078.74	1,953,078.74	-	1,951,000.98	3,904,079.72
Apr-16	-	1,886,615.97	1,886,615.97	-	2,214,918.19	4,101,534.16
May-16	-	2,535,660.68	2,535,660.68	-	2,089,154.51	4,624,815.19
Jun-16	-	2,550,094.69	2,550,094.69	-	1,915,226.84	4,465,321.53
Jul-16	-	2,342,599.90	2,342,599.90	-	1,909,263.97	4,251,863.87
Aug-16	-	2,233,285.35	2,233,285.35	-	2,030,002.55	4,263,287.90
Sep-16	-	1,868,144.41	1,868,144.41	-	1,918,386.45	3,786,530.86
Oct-16	-	1,776,621.46	1,776,621.46	-	1,887,756.18	3,664,377.64
Nov-16	-	1,766,697.11	1,766,697.11	-	2,065,945.32	3,832,642.43

Billing Month	MERALCO	REST OF LUZON	TOTAL LUZON	VISAYAS	MINDANAO	TOTAL
Dec-16	-	1,60,5691.64	1,60,5691.64	-	2,058,219.66	3,663,911.30
Jan-17	-	1,534,254.42	1,534,254.42	-	622,036.78	2,156,291.20
Feb-17	-	1,642,699.66	1,642,699.66	-	654,200.86	2,296,900.52
Mar-17	-	1,310,503.17	1,310,503.17	-	566,101.61	1,876,604.78
Apr-17	-	1,570,572.80	1,570,572.80	-	640,900.58	2,211,473.38
May-17	-	1,740,776.78	1,740,776.78	-	684,994.52	2,425,771.30
Jun-17	-	708,940.16	708,940.16	-	726,868.89	1,435,809.05
Jul-17	-	460,706.83	460,706.83	-	3,767.00	460,706.83
Aug-17	-	708,390.94	708,390.94	-	-	708,390.94
Sep-17	-	178,506.74	178,506.74	-	-	178,506.74
Oct-17	-	9,554.59	9,554.59	-	-	9,554.59
Nov-17	-	822,037.82	1,039,944.60	-	2,203,660.64	3,243,605.24
Dec-17	-	861,299.81	1,149,459.29	-	2,165,669.28	3,315,128.57
Jan-18		844,154.05	1,044,971.73		2,191,799.46	3,236,771.19
Feb-18		884,743.64	954,060.94		2,151,312.36	3,105,373.30
Mar-18		852,845.60	1,030,989.71		2,193,716.00	3,224,705.71
TOTAL	**7,299,131,892.18**	**7,525,942,566.49**	**14,725,648,035.27**	**6,462,001,348.15**	**10,135,402,335.61**	**31,323,051,719.02**

Source: NPC