

31st Electric Power Industry Reform Act (EPIRA) Implementation Status Report

(For the Report Period October 2017)

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 31st Status Report on EPIRA implementation provides updates on various reform programs embodied in Republic Act No. 9136 as of October 2017. The EPIRA is now on its 17th year of implementation with various developments while challenges are continued to be addressed by the DOE in collaboration with the Energy Regulatory Commission (ERC), the attached agencies and key stakeholders.

Among the major reforms implemented, the privatization of remaining National Power Corporation (NPC) generating assets and Independent Power Producer (IPP) contracts including other disposable assets continued to be undertaken by Power Sector Assets and Liabilities Management Corporation (PSALM) with indicative target to complete the disposal by 2019. However, the privatization design for Agus-Pulangui Hydro Power Complexes is being studied and thereafter will be discussed with Congress to determine whether the same will be privatized or not. Relatedly, with the PSALM's mandate to dispose the government's power related assets, it likewise achieved significant reduction in the country's foreign debts from the beginning balance in 2000 of PhP830.7 billion to PhP490.7 billion (or USD9.72 billion) as of 2nd Quarter of 2017 or a decrease of PhP340 billion.

As regard to the Wholesale Electricity Spot Market (WESM) implementation, the market continued to be confronted by frequent outages of key capacities, however, market prices were relatively stable with load-weighted average prices recorded below PhP4/kWh on a monthly basis from May to October 2017. Among the significant development was the ongoing preparation by the DOE, Philippine Electricity Market Corporation (PEMC) and the National Grid Corporation of the Philippines (NGCP) of the implementation of the WESM in Mindanao and the change from 1-hour to 5-minute dispatch interval. Correspondingly, various amendments to the WESM Rules and Market Manuals were adopted to ensure the seamless transition to a new dispatch interval.

Challenges to the implementation of retail competition and open access (RCOA) were faced by the DOE and the ERC as various groups filed court cases against the implementation of various policies which were promulgated to improve the competitiveness and transparency in the retail market. Despite such, significant improvement in the exercise of choice of electricity end-users was noted with the increase in the registration of Contestable Customers from only 240 in June 2013 to 898 as of October 2017.

With regard to the EPIRA vision of widening the ownership base of the power sector, the generation sector is seen as moderately concentrated in terms of ownership wherein around 10 companies are owning majority of the generating capacities. In so far as compliance to market share limitation, based on DOE data, no entity breached the grid and national caps at 30% and 25%, respectively. Relatedly, the ERC held in abeyance the issuance of the annual determination of compliance to market share limitation pending completion of its study on the existing guidelines setting the installed generating capacity and the market share limitation per grid and the national grid.

Meanwhile, the power supply situation during the 1st half of 2017 remained stable despite incidences of plant and transmission outages, earthquake, and security concerns. Total dependable capacity for the national grid was at 13,109 MW while maximum available capacity was recorded at 12,394 MW. Coal power plants continued to provide the bulk of power generation at 50% followed by natural gas at 29%. The peak demand for this period recorded an all-time high of 10,054 MW in Luzon grid last 09 May 2017.

Electricity prices for the period in review exhibited downward movement in all grids and in most distribution utilities. On the average, the country's electricity rates were lower by 12

centavos in September 2017 at PhP7.74/kWh as compared to the June 2017 level of PhP7.86/kWh. The reduction was brought by lower generation and transmission costs during the comparative period.

The household electrification level as of October 2017 is around 90.7%. For the remaining unelectrified households, the DOE in collaboration with various entities, continues to implement existing programs and activities specified in the Household Electrification Development Plan (HEDP) towards the new target of full household electrification by 2022 covering both on-grid and off-grid areas.

In terms of benefits to host communities, the total financial benefits accrued to PhP11.3 billion as of April 2017. Out of this amount, PhP7.0 Billion was already obligated for the implementation of various projects, leaving an available balance of PhP4.3 Billion.

II. PRIVATIZATION

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

For the report period, the sale of Sucat Thermal Power Plant (STPP) structures was completed with Riverbend Consolidated Mining Corporation (RCMC) as the winning bidder which offered to buy the asset in the amount of PhP305,200,000.00. The Notice of Award was issued on 30 June 2017 and consequently, PSALM received the full payment from RCMC and other closing deliverables on 31 July 2017. The closing date and turnover of STPP to RCMC was held on 02 August 2017 which marks the 30-month period within which RCMC has to undertake the following:

- 1) Dismantling of all STPP structures to ground zero;
- 2) Treatment and disposal of all toxic substances and hazardous wastes; and
- 3) Remediation of the present site, all in accordance with Philippine Law and in compliance with environmental rules and regulations

The national government remains the owner of the lot and upon completion by RCMC of the said responsibilities. The STPP site will be ready to host any development project by February 2020.

Meanwhile, pending privatization of the Malaya Thermal Power Plant (MTPP), PSALM continued to outsource the operations and maintenance of the plants. For the period 25 August 2017 until 25 August 2018, PSALM awarded the Operation and Maintenance Service Contract (OMSC) for MTPP STX Marine Service Co., Ltd. with the lowest calculated bid of PhP287,983,216.00. Under the OMSC, STX Marine shall ensure the day-to-day upkeep, management and maintenance or repair of the power plant and its equipment.

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 October 2017

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	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			
Sucat Thermal	850.00	Awarded to Riverbend Consolidated Mining Corporation (RCMC) and turned over on 02 August 2017	
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 October 2017

Grid	Plant Name	Contracted Capacity (MW)	Bid Date	Turnover Date
Luzon Grid	Casecnan Multi-Purpose Hydro	140.00	2019	
	Benguet Mini Hydro ¹⁷	30.75	IPP contract to expire in 2018	
	Caliraya-Botocan-Kalayaan Hydro	728.00	2019	
	Sub-total Luzon	898.75		
Visayas Grid	Unified Leyte - Bulk Energy	160.00*		
	- Security Strip	40.00		

Grid	Plant Name	Contracted Capacity (MW)	Bid Date	Turnover Date
	Sub-total Visayas	200.00		
Mindanao Grid	Mindanao Coal-Fired	200.00		
	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) PSALM Board approval of the bidding process for the Cebu Diesel Power Plant (DPP) II and Aplaya DPP Land. Relative to this, the PSALM Privatization, Bids and Awards Committee (PBAC) approved the Request for Proposal/Quotation and the Terms of Reference for the procurement of the Third Party Appraiser on 07 July 2017.
- 2) Payment by SEM-Claca Power Corporation (SCPC) of the land purchase price amounting to PhP10,564,504.12 (inclusive of VAT) for the Optioned Assets covering Lot No. 1348 of Batangas Coal-Fired Thermal Power Plant CFTPP Land (CFTTP). The original copies of the executed Deed of Absolute Sale and Title for the said Optioned Assets was turned over by PSALM to SCPC on 31 August 2017.
- 3) Ongoing procurement of services of the Third Party Appraiser for the Manila Thermal Power Plant (TPP), Bauang DPP and Laoag DPP Land.
- 4) For the sale of waste industrial diesel/bio-diesel oil and sludge located at Ilijan Natural Gas Power Plant (INGPP), Ilijan, Batangas City, Ecology Specialist, Inc., (ESI) was declared as the highest-ranking bidder out of 5 bidders. Thereafter, the NOA and the Notice To Proceed (NTP) were issued to ESI on 09 August and 22 August 2017, respectively. ESI shall comply its obligation for 195 working days from the receipt of the NTP.
- 5) For the package sale of unserviceable assets, junk and scrap materials at Kalayaan Pumped Storage Power Plant, Kalayaan Stockyard and Malaya Thermal Power Plant, Cleveland Diesel Parts & Services, Inc. was declared as the highest bidder out of 6 bidders, with a financial bid amounting to PhP9,099,999.99. Consequently, PSALM issued the NOA to Cleveland Diesel Parts & Services, Inc. on 11 October 2017; and
- 6) Ongoing sale for the unserviceable and other disposable assets for BacMan Laydown Area at Manito, Albay; and Ligao Stockyard at Ligao, Albay; and Tiwi Geothermal Power Plant at Tiwi, Albay

C. Privatization Proceeds

As of 3rd Quarter 2017, 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\$11.53 billion.

Table 3. Privatization Proceeds as of 3rd Quarter 2017, (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	4.05	2.05
Appointment of IPPAs	10.24	3.86	6.38
TOTAL	19.96	11.53	8.44

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\$10.4 billion or 99.06% was used for the liquidation of financial obligations. The difference between the total amount collected and total utilization in the amount of US\$0.804 billion is placed in temporary investments while awaiting utilization.

Table 4. Privatization Proceeds Utilization as of 3rd Quarter 2017

Particulars	In US\$ Billion
Debt Prepayment	1.30
Regular Debt Service	6.50
Lease Obligations	2.64
Others	0.10
TRANSCO Opex	0.00
TOTAL	10.54

USD:PhP = 50.466 (BSP Guiding Rate dated 30 June 2017)

Source: PSALM

D. Concession of the National Transmission Network

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

For the report period, the new composition of the Joint PSALM Technical Working Group (TWG) is formed for the Assessment of the NGCP's Compliance with the Concession Agreement, and Inspection of Books and Records (IBR) for year 5 (CY 2016).

Following are the updates on submission of the IBR checklist:

Technical Sub-team	Date of Submission
Operation and Maintenance	13 July 2017
Planning, Engineering and Construction Records	17 July 2017
System Operations and Telecom	
Metering, Grid Code and Transmission Planning	18 July 2018

Meanwhile, following are the remaining activities for the assessment period of CY 2016:

	Activities	Date
1	Conduct of IBR at NGCP's TDC's 1 and 2	02-20 October 2017
2	Submission of IBR Report to the PSALM-Transco Secretariat by the Sub-groups	23 October 2017
3	PSALM-Transco and NGCP meeting regarding the IBR	
4	Transmittal of IBR Report to the NGCP	

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

With regard to NGCP's compliance to CMA, TransCo conducted inspections of PUC and new projects' summary of observations and the responses of the Concessionaire as shown in Annex 2.

E. Sale of Sub-Transmission Assets (STAs)

The sale of TransCo's STAs involves 123¹ 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.

In compliance with the mandate of EPIRA and under the guidelines set by the ERC, TransCo in January 2016 signed one (1) sale contract with DU amounting to about PhP2.9 Million.

As of 31 October 2017, 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 PhP4.3² billion 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 October 31, 2017 posted at the ERC website. The rest of the sale contracts are for filing with the ERC for evaluation and approval.

Following the EPIRA provision to extend concessional financing to ECs, TransCo implemented lease purchase arrangements with a term of 20 years. Of the 113 sale contracts already signed, 76 are under lease purchase agreements with 65 ECs/consortia, valued at about PhP4 billion. The remaining 37 involved sales to private DUs/consortia.

Table below shows the summary of the sale as of the report period.

Table 5. Summary Table of STAs Sale Per Region as of 31 October 2017

Region	DUs	Amount	ECs	Amount	PDU	Amount
North Luzon	34	1,673,152,549.20	23	1,251,339,111.00	11	421,813,438.20
South Luzon	17	1,155,312,490.46	8	204,095,886.59	9	951,216,603.87
Visayas	29	1,211,689,831.22	19	752,875,198.72	10	458,814,632.50
Mindanao	33	1,916,546,545.94	26	1,818,609,326.08	7	97,937,219.86
Total	113	5,956,701,416.82	76	4,026,919,522.39	37	1,929,781,894.43

Source: Transco

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:

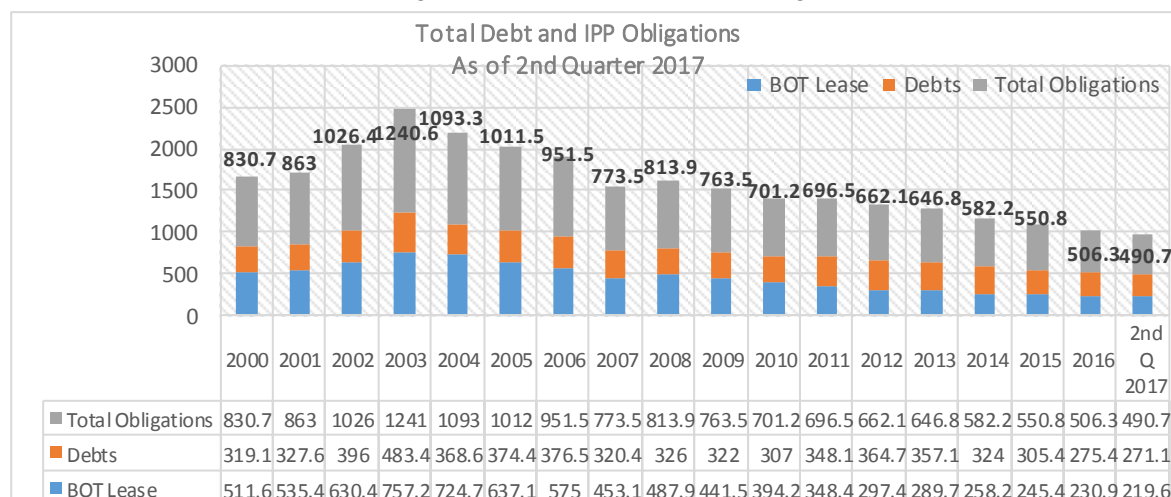
- Exclusion of some assets from the ERC approval due to reclassification from sub-transmission to transmission assets
- The lower amount of valuation was used as basis of the ERC approval
- Exclusion of some assets from the ERC approval since said assets are not yet connected to the sold assets
- Exclusion of some assets from the ERC approval due to decommissioning
- DU withdrawal from the ERC Joint Application of the sale contract
- 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 as of 2nd Quarter of 2017 was reduced to PhP490.7 billion (or USD9.72 billion) or a decrease of PhP340 billion. In terms of currency, almost half (50.06%) of PSALM's debt is denominated in dollars, amounting to PhP135.8 billion. Peso-denominated debt accounts for 39.70%, equivalent to PhP107.6 billion. The remaining debt is in Japanese Yen (10.24%), amounting to PhP27.8 billion.

Figure below shows the movement of the financial obligations of PSALM from 2000 to 2nd Quarter 2017.

Figure 1 - Total Debt and IPP Obligations



Source: PSALM

Table 6. Financial Obligations as of 2nd Quarter 2017

	PhP Equivalent (In Billions)	USD Equivalent (In Billions)
Debts	271.14	5.37
IPP Lease Obligations	219.64	4.35
Total	490.78	9.72

*Figures based on 2nd Quarter 2017 Statement of Financial Position.

Table 7. Financial Obligations by Currency as of 2nd Quarter 2017

Currency	Debt	IPP Lease	Debt	IPP Lease	Debt	IPP Lease
	Amount in PhP Equivalent (In Millions)		Amount in USD Equivalent (In Millions)			
USD	135,749.5	219,193.9	2,689.9	4,343.4	50.06%	99.76
PHP	107,644.1	528.9	2,133.0	10.5	39.70%	0.24
JPY	27,752.1	-	549.9	-	10.24%	-
	271,145.7	219,722.8	5,372.8	4,353.9	100.00%	100.00%

Exchange Rates Used: BSP Guiding Rate dated 30 June 2017

USD : PhP 1.00 = 50.4660

JPY : PhP 1.00 = 0.4500

EUR : PhP 1.00 = 57.7432

KRW : PhP 1.00 = 0.0440

Source: PSALM

IV. ELECTRICITY RATES

This Section provide 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 September 2017 is around PhP7.74/kWh, 12 centavos lower compared with the June 2017 national average electricity rate. All of the three major grids posted a reduction with the highest by Luzon at 17 centavos/kWh. Both Visayas and Mindanao average electricity rates went down by 15 centavos/kWh and 4 centavos/kWh, respectively.

Meanwhile, the ECs' average systems rate for September 2017 is at PhP7.65/kWh, 10 centavos lower compared to June 2017 rate. Among the three (3) grids, Visayas grid experienced a significant reduction of 0.51 centavos from PhP7.80/kWh in June 2017 to PhP7.29/kWh in September 2017. The reduction was brought by lower generation and transmission costs specifically for Visayas ECs which likewise brought down the level of taxes and subsidies.

As can be gleaned from Table 8, the ECs' national average unbundled residential electricity rate for September 2017 was PhP9.45/kWh. Visayas grid still has the highest average effective residential electricity rates at around PhP9.63/kWh of which generation costs comprise 55%. On the average, generation costs comprise the bulk of the ECs residential rates at around 53 percent followed by distribution, supply and metering charges (DSM) at 18 percent.

Among the three (3) grids, Luzon EC residential customers paid the lowest generation costs at PhP4.79/kWh. Distribution cost is the next largest component of ECs' residential electricity rates cost comprising about 18 percent followed by transmission at 10%.

Figure 2 - National Average Electricity Rates



Figure 3 - Electric Cooperatives' Average Electricity Rates

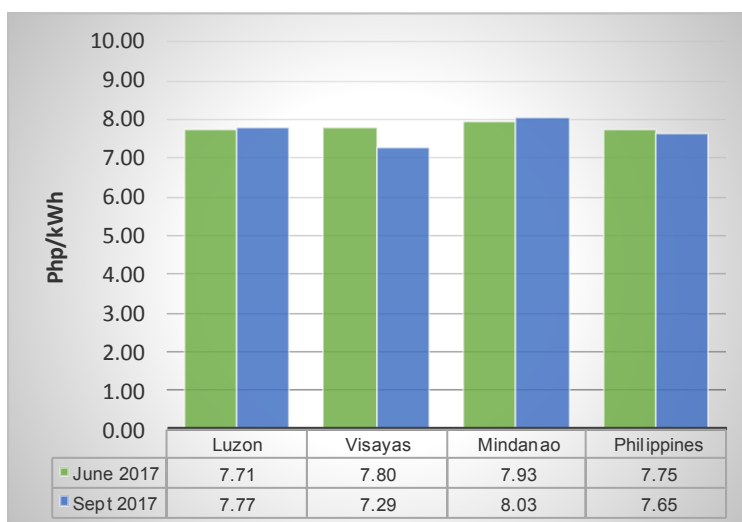


Table 8. EC's Unbundled Average Residential Electricity Rates, September 2017

Bill Subgroup	LUZON		VISAYAS		MINDANAO		NATIONAL	
	PhP/kWh	% share	PhP/kWh	% share	PhP/kWh	% share	PhP/kWh	% share
Generation	4.79	52.4	4.82	53.5	5.14	53.35	5.01	53.03
Transmission	0.98	10.7	0.70	7.8	0.98	10.18	0.95	10.02
System Loss	0.79	8.6	0.71	7.8	0.80	8.29	0.79	8.34
DSM ¹	1.71	18.7	1.82	20.2	1.69	17.55	1.73	18.34
RFSC ²	0.36	4.0	0.36	3.9	0.49	5.08	0.39	4.16
Other Charges ³	(0.07)	(0.7)	-0.06	(0.7)	-0.09	(0.96)	-0.04	(0.46)
Subsidy ⁴	0.04	0.45	0.06	0.7	0.07	0.74	0.06	0.64
Universal Charges ⁵	0.53	5.8	0.55	6.1	0.51	5.31	0.51	5.35
Other Taxes ⁶	0.01	0.11	0.07	0.74	0.04	0.46	0.06	0.58
Total	9.14	100	9.02	100	9.64	100	9.45	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

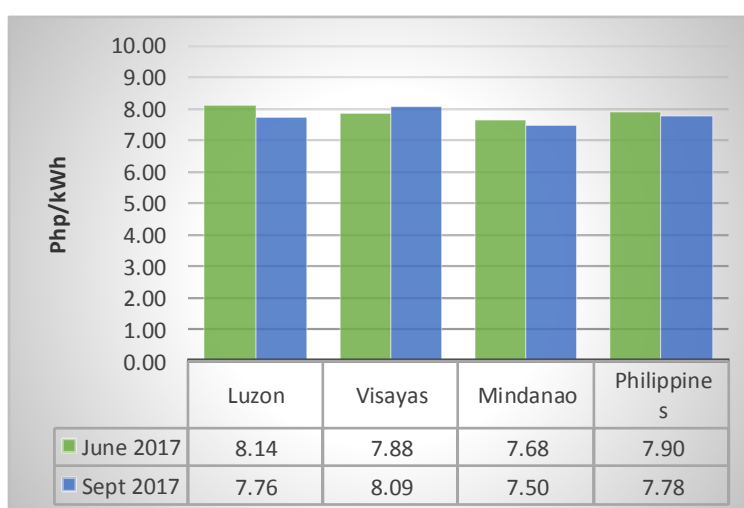
⁶ Local Franchise & Business Taxes, Real Property Tax

Source: NEA

The national average systems rates of PIOUs

posted an overall reduction of 12 centavos/kWh from PhP7.90/kWh in June 2017 to PhP7.78/kWh in September 2017. Only the Visayas grid posted an increase of 21 centavos/kWh while Luzon and Mindanao average electricity rates went down by 39 centavos/kWh and 18 centavos/kWh, respectively.

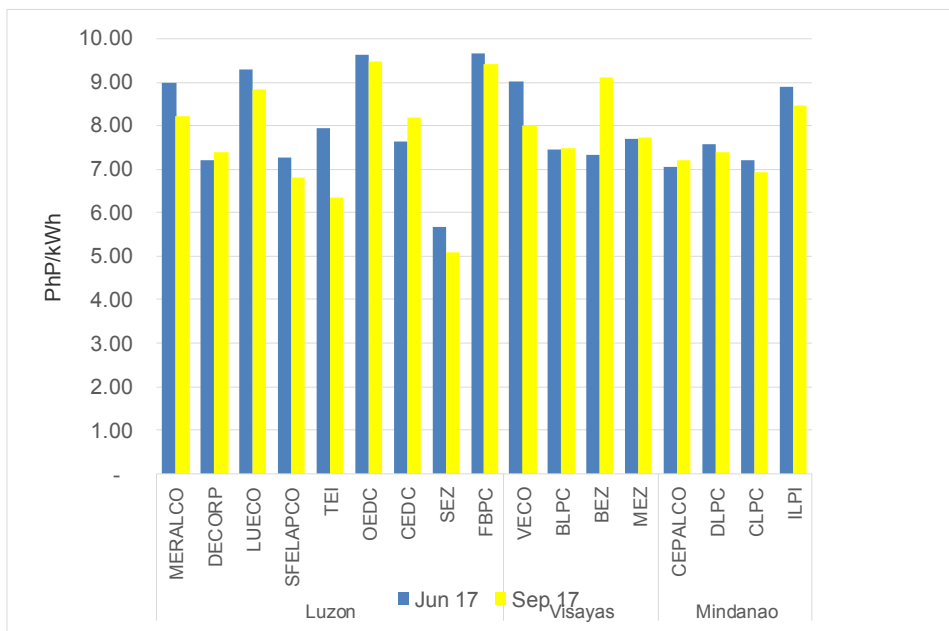
Figure 4 – Private Investor-Owned Utilities' Average Electricity Rates



Among the PIOUs, Electric

Distribution Company (OEDC) posted the highest electricity rates for the month of September 2017 at PhP 9.48/kWh. On the other hand, the lowest average rates was noted for Subic EnerZone (SEZ) at PhP PhP5.08/kWh. The low rates can be attributed to the customer profile of SEZ which is around 75% industrial, 20% commercial and 5% residential, on the basis of kilowatt-hour sales. In the Visayas grid, Visayan Electric Company (VECO) average electricity rates for September 2017 was lower by PhP1.01/kWh compared to the June 2017 level of PhP8.01/kWh. Bohol Light Power and Company (BLPC) and Mactan EnerZone (BEZ) both posted a minute 3 centavos/kWh increase while Balamban Enerzone had a significant increase of PhP1.78/kWh. For Mindanao grid, except for Cagayan Electric Power and Light Company (CEPALCO) which had a of 15 centavos/kWh increase in average electricity rates, all other PIOUs showed significant reduction as follows: Iligan Light and Power Company (ILPI) at 42 centavos/kWh, Cotabato Light and Power Company (CLPC) at 26 centavos/kWh and Davao Light and Power Company (DLPC) at 19 centavos/kWh.

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



MERALCO, the largest distribution utility in the country, posted a reduction in its average electricity rates in the amount of 76 centavos/kWh, from Php8.99/kWh in June 2017 to Php8.22/kWh in September 2017. For the same period, MERALCO's effective residential rates for the different residential customer classes ranged from Php9.88/kWh to Php10.46/kWh of which the highest component was generation costs at Php4.54/kWh. MERALCO distribution charges for its different residential customer classes comprised 26-29% of the total effective residential rates equivalent to about Php2.59/kWh and Php3.03/kWh, respectively. Systems loss charges on the other hand was 53-centavos/kWh.

Table 9. Summary of MERALCO Residential Unbundled Power Rates, September 2017 (Php/kWh)

BILL SUBGROUP	0 to 200 kWh	% Share	201 to 300 kWh	% Share	301 to 400 kWh	% Share	Over 400 kWh	% Share
Generation	4.54	46%	4.54	47%	4.54	46%	4.54	43%
Transmission	0.73	7%	0.73	8%	0.73	7%	0.73	7%
System Loss	0.53	5%	0.53	6%	0.53	5%	0.53	5%
Distribution	2.59	26%	2.24	23%	2.52	25%	3.03	29%
Subsidies*	0.07	1%	0.07	1%	0.07	1%	0.07	1%
Universal Charge	0.38	4%	0.38	4%	0.38	4%	0.38	4%
Fit-All Renewable	0.18	2%	0.18	2%	0.18	2%	0.18	2%
Government Taxes	0.86	9%	0.89	9%	0.93	9%	0.99	9%
TOTAL	9.88	100%	9.57	100%	9.88	100%	10.46	100%

* Lifeline Rate Charges (applicable to 101 kWh consumption and up) + Cross Subsidy Charge

** For fixed 200, 300, 400 & 500 kWh consumption respectively

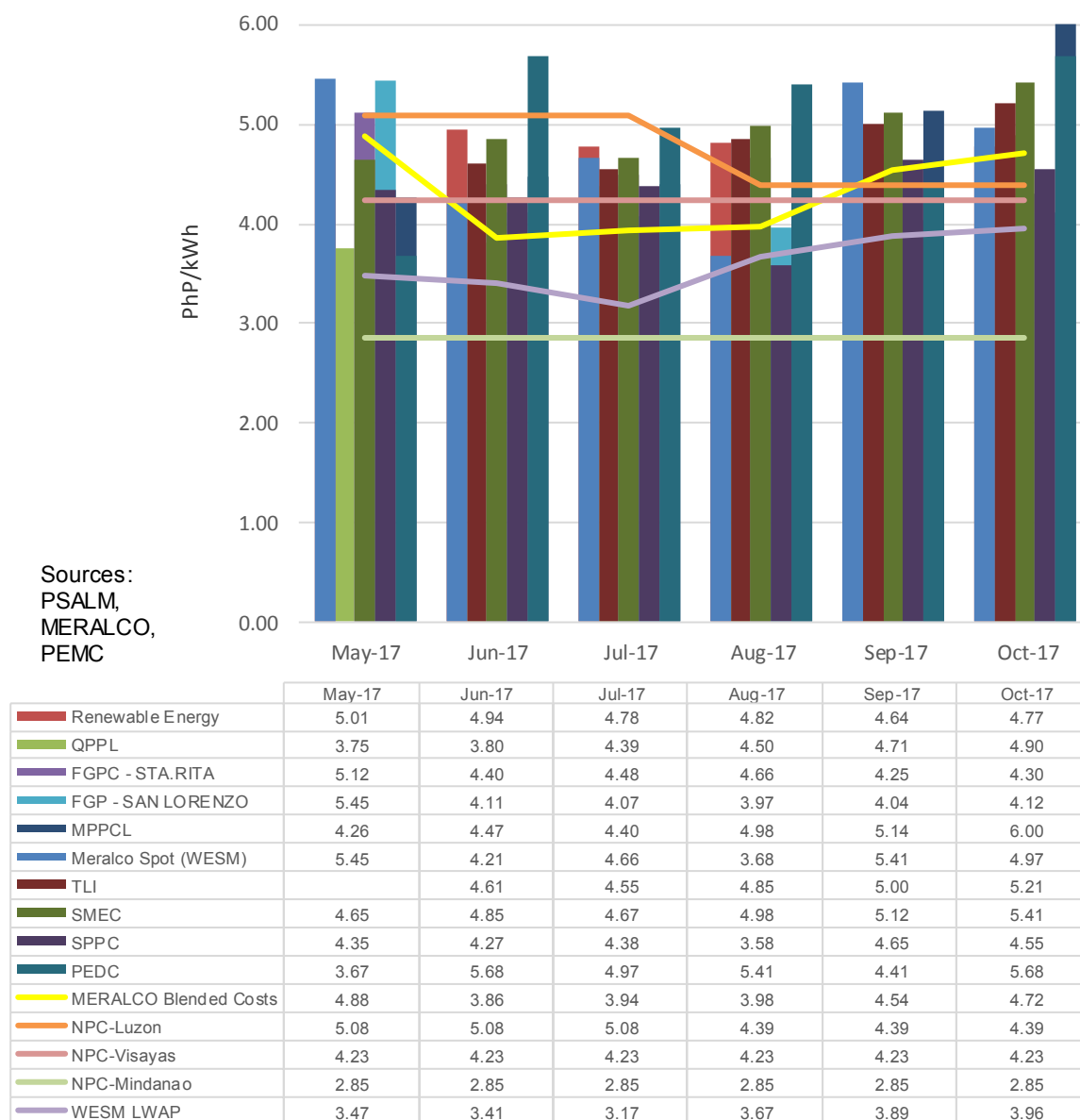
Source: <http://www.meralco.com.ph>

For the report period, MERALCO's blended generation charges ranged from a low of Php3.86/kWh to a high of Php4.88/kWh. MERALCO's low generation costs during the period June to August 2017 was attributed to the refund of over-recovery on pass-through charges by MERALCO from January 2014 to December 2016, totaling around Php6.9 billion.

Compared to the NPC regulated rates for Luzon, MERALCO's generation charges were relatively lower from May 2017 to August 2017. However, the NPC regulated rates was lower starting September 2017 with the full recovery by PSALM of the 10th to 17th Generation Rate Adjustment Mechanism and the 15th to 16th Incremental Currency Exchange Rate Adjustments as duly approved by the ERC.

WESM Load Weighted Average Prices were likewise relatively lower during the period in review from a low of PhP3.17/kWh to a high of PhP3.96/kWh. The relatively stable prices in the WESM during the period in review can be attributed to sufficient supply margin starting July 2017 onwards.

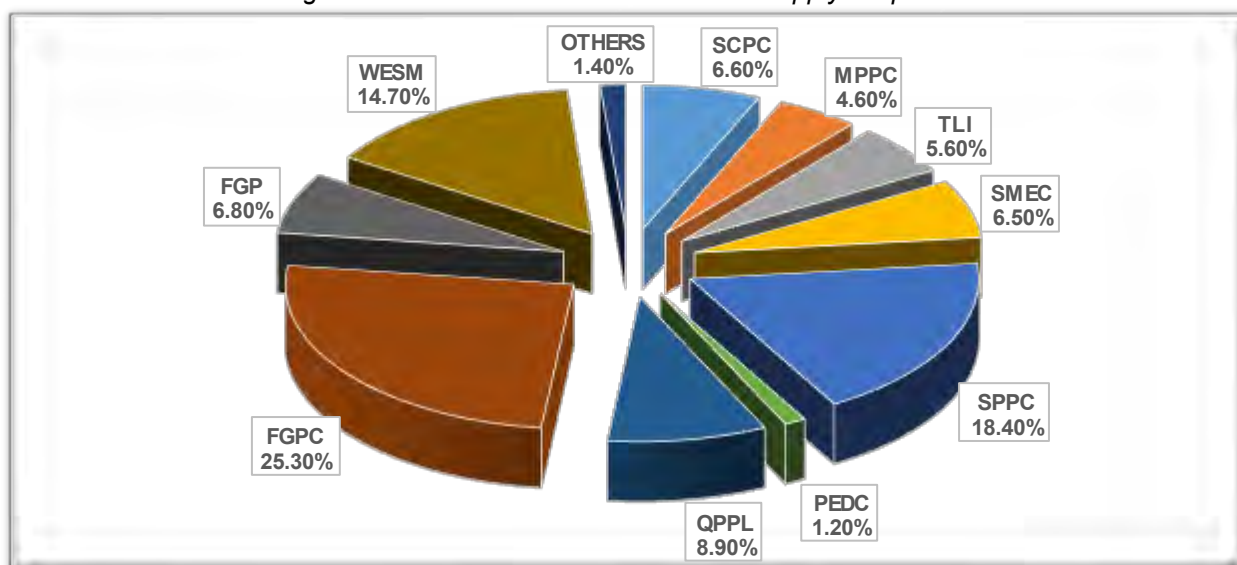
Figure 6 – MERALCO Detailed Generation Charge



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

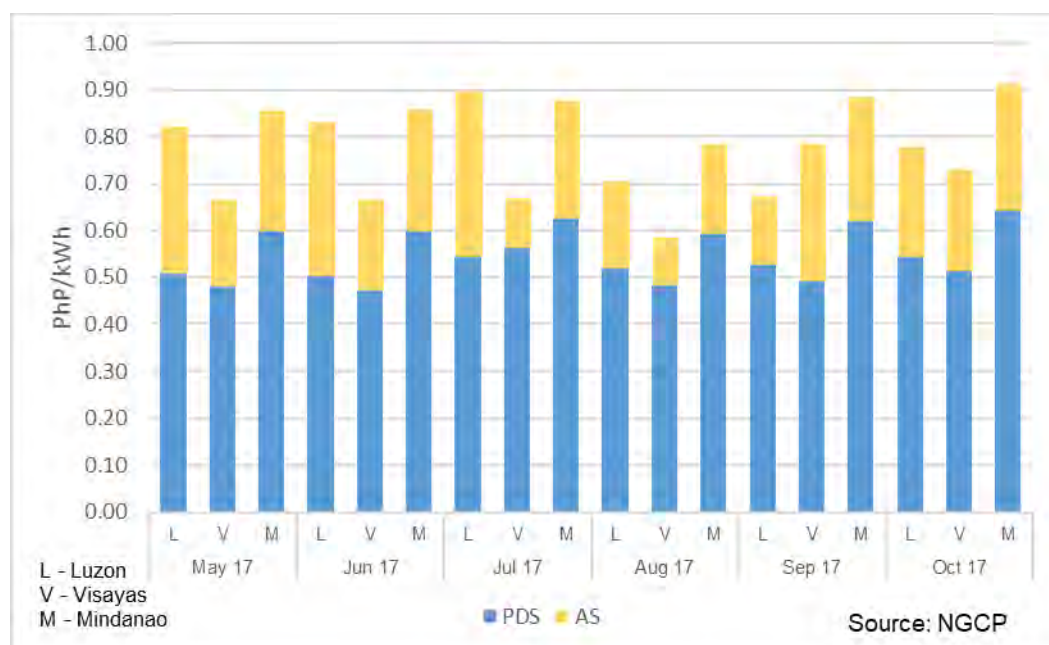
Figure 7 provides MERALCO's average bulk power purchase for the month of September 2017 which came from South Premier Power Corporation (SPPC) at 18.50%, FGPC - Sta. Rita at 23.20%, First Gas Corporation – San Lorenzo at 12% which are all natural gas powered plants. About 12.3% of MERALCO's power supply requirement is bought from the WESM.

Figure 7 - Sources of MERALCO Power Supply Requirement



Source: MERALCO

Figure 8 - NGCP Average Effective Transmission Charges



Source: NGCP

Transmission charges, on the average, comprise around 8% to 10% of a DU's average electricity rates. For the period May 2017 to October 2017, Mindanao Grid recorded the highest transmission charges at 86 centavos/kWh of which 61 centavos was paid for the power delivery service while 25 centavos/kWh went to ancillary services. The Visayas grid has the lowest average transmission costs at 68 centavos of which power delivery service was around 50 centavos/kWh while ancillary services

costs 18 centavos/kWh. The highest transmission costs for the report period was noted in the Mindanao Grid at about 91 centavos/kWh in October 2017.

On the Feed-in-Tariff Allowance (FIT-All), starting June 2017 billing month, the new FIT-All rate of PhP0.1830/kWh was implemented in compliance with the ERC Decision on the application of the TRANSCO regarding 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 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)

As of 31 October 2017, remittances of collecting entities (CEs) to PSALM amounted to PhP132.67 billion with interest earnings from deposits and placements of UC funds amounted to PhP0.153 billion. On the other hand, UC fund disbursement amounted to PhP131.80 billion.

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

Table 10. UC Collections as of 31 October 2017 (in Billion PHP)

Particulars	Remittances	Interests	Disbursements	Balance
Special Trust Fund – Missionary Electrification (ME) NPC-SPUG	71.82	0.04	71.86	0.01
Special Trust Fund – ME Renewable Energy Developer Cash Incentive (REDCI)	0.43	0.00	0.22	0.21
Special Trust Fund – Environmental Charge (EC)	1.99	0.10	1.49	0.60
Special Trust Fund – Stranded Contract Cost (SCC)	58.24	0.01	58.23	0.02
Stranded Debts	0.19	0.00	0.00	0.19
TOTAL	132.67	0.15	131.80	1.02

Source: PSALM

Accounting for the inflows and outflows of the UC fund leaves it with a balance of about PhP1.02 billion as of 31 October 2017.

1. Remittances for CY 2017

For the period May 2017 to October, 2017, PSALM received Php33.85 billion in UC remittances broken down as follows:

Table 11. UC Remittances to PSALM for the period May 2017-October 2017 (In Billion PhP)

Month	UC-ME (NPC-SPUG)	UC-ME (REDCI)	EC	SCC	SD	Total/Month
May 2017	0.88	0.01	0.01	1.10		2.00
June 2017	1.04	0.01	0.02	1.30		2.37
July 2017	1.04	0.01	0.02	1.30		2.37
August 2017	1.05	0.01	0.02	1.30		2.38
September 2017	1.02	0.01	0.02	1.28	0.04	2.37
October 2017	1.04	0.01	0.02	1.30	0.15	2.52
Total	6.07	0.06	0.11	7.58	0.19	14.01

Note: Difference of .001 with previous reports was due to rounding off.

Source: PSALM

2. Disbursements for CY 2017

For the period May to October 2017, PSALM disbursed a total amount of PhP24.84 billion to UC beneficiaries as follows:

Table 12. UC Disbursements of PSALM for the Period May 2017 to October 2017 (in PhP Billion)

Month	ME (NPC-SPUG)	ME (REDCI)	SCC	SD	Total/Month
May 2017	0.87	0.00	1.08		1.94
June 2017	1.05	0.04	1.32		2.40
July 2017	1.05	0.00	0.82		1.87
August 2017	1.05	0.00	1.79		2.84
September 2017	1.02	0.01	1.27	0.04	2.30
October 2017	1.06	0.00	1.32	0.15	2.38
Total	6.10	0.05	7.60	0.19	13.73

Source: PSALM

For the report period, PSALM disbursed PhP6.10 billion to NPC-SPUG to fund the missionary electrification functions, chargeable against the UC-ME fund. This is pursuant to the ERC Decisions/Orders reflected in Table 17.

Table 13. ERC Decisions on True-Up Adjustments

Date	Particulars	ERC Case No.
12 August 2013	ERC Decision on CY 2011 True-up Adjustments (PhP4.651 billion)	2012-085 RC
10 October 2013	ERC Decision on CY 2010 True-up Adjustments (PhP2.566 billion)	2012-046 RC
03 November 2013 & 17 August 2015	ERC Order on CY 2015 UC-ME Subsidy	2014-135 RC
20 April 2015	ERC Order on CY 2014 UC-ME Subsidy (PhP2.763 billion)	2012-85 RC

In accordance with the ERC decision dated 28 January 2013 under Case No. 2011-091 RC, the amount of PhP6.97 billion was transferred from the UC-SCC STF to the UC-SCC SFA for the period October 2016 to April 2017.

3. ERC Approved UC Rates

The table below shows the ERC-approved UC rates being implemented as of 30 August 2017:

Table 14. Effective UC Rates

Type of UC	PhP/kWh
UC-ME	0.1561
UC-EC	0.0025
UC-SCC	0.1938
Total	0.3524

Source: ERC

4. Updates on UC Rate Application

- **UC- ME**

For March 2017, all distribution utilities and NGCP bills the UCME rate of PhP0.1561/kWh to end-user customers.

In an Order dated 22 June 2015, the ERC provisionally approved the Cash Incentive rate of PhP2.1007/kWh for SunWest Water and Electric Company, Inc (SUWECO), subject to the condition that the rate shall be effective and applicable only on the subsequent cash incentive claims of SUWELCO from receipt of the Order, among others.

- **UC-EC**

NPC filed the following petitions before ERC for the availment of the environmental share from the UC, and are still pending resolution by the ERC.

Table 15. NPC Filings for UC –EC

ERC Case No.	Date Filed	Calendar Year	Amount (In PhP)
2014-021 RC	12 March 2014	2014	320,008,239.75
2015-050-RC	12 March 2015	2015	426,875,421.95
2016-019 RC	14 March 2016	2016	426,710,057.72
Total			1,173,593,719.42

Source: ERC

- **UC-SCC and SD**

The table below shows PSALM's UC applications still pending with the ERC.

Table 16. NPC Filings for UC SCC/SD

Particulars	Date Applied	Period Covered	Amount (PhP B'n)	Proposed Rate (PhP/kWh)	Proposed Recovery Period	Remarks
UC-SCC (<i>Motion for Reconsideration</i>)/ ERC Case No. 2011-091 RC	06 March 2013	CYs 2007 - 2010	8.55	0.0308	4 years	-

Particulars	Date Applied	Period Covered	Amount (PhP B'n)	Proposed Rate (PhP/kWh)	Proposed Recovery Period	Remarks
						<ul style="list-style-type: none"> In an Order dated 06 March 2017, ERC authorized PSALM to continuously implement the UC-SCC rate of PhP0.1938/kWh until the amount of PhP53.851 billion US-SCC is fully recovered. ERC also directed all the DUs and NGCP to continuously collect from the consumer the UC-SCC rate starting March 2017 billing period. On 07 June 2017, PSALM submitted to ERC the Variance Analysis Report (VAR) covering the remittance period 01 April 2013 to 31 December 2016 duly audited by COA. In the said VAR, PSALM reported an under recovery of PhP7.780 billion out of the PhP53.851 billion CYs 2007-2010 UC-SCC approved by ERC.
UC SCC Availment / ERC Case No. 2015-139 RC	24 July 2015	CY 2014	7.35	0.0907	1 year	- Awaiting ERC notice of public hearings
UC SCC ERC Case No. 2017-066 RC	06 July 2017	CY 2016	3.68	0.0429	1 year	- Awaiting ERC decision.
UC-SD (Motion for Reconsideration)/ ERC Case No. 2013-195 RC	07 August 2017	CYs 2011-2012	21.40	0.0234	9 years	-
						<ul style="list-style-type: none"> In a Decision dated 27 June 2017, the ERC approved the following filed on 30 September 2013 leaving a variance amounting to 16.94 with modification PSALM's CYs 2011 – 2012 UC-SD True-Up Adjustments effective to its next billing period All DUs and the NGCP are directed by the ERC to collect and amount applying the approved SD rate from its consumers starting on the next billing period. The collected amount should be remitted to PSALM on or before the 15th day of the succeeding month until the amount of SD True-up for CY 2011 and CY 2012 has been fully recovered. The filed MR is to reinstate the exclusion of the fuel and purchase power cost and inclusion of CYs 2011-2012 ACRM True-Up Adjustments.
UC-SD (True-up Adjustment)/ ERC Case No. 2015-144 RC	30 July 2015	CY 2014	1.35	0.0013	10.5 years	- Awaiting submission of Manifestation from Intervenor Meralco
UC-SD (True-Up Adjustments)/ ERC Case No. 2016-150 RC	30 June 2016	CY 2015	27.67	0.0283	9.5 years	- Awaiting ERC decision
UC-SD (True-Up Adjustments)/ ERC Case No. 2017-069 RC	31 July 2017	CY 2016	34.64	0.0407	8.5 years	- Awaiting ERC decision
Total			PhP104.64			

Source: ERC

On 6 July 2017, the ERC issued a Decision on the petitions filed by PSALM regarding ERC Case No. 2013-160 RC and 2014-111 RC for the Availment of the National Power Corporation's Stranded Contract Costs (SCC) Portion of the Universal Charge for Calendar Years 2011 to 2013. In the afore-cited Order, the ERC authorized PSALM to continuously implement the UC-SCC rate of PhP0.1938/kWh for ten (10) months starting July 2017 Billing period (June 26 to July 25m 2017 billing period).

Accordingly, all DUs and the NGCP are directed to continue to collect from the consumers the above UC-SCC charge starting July 2017 billing period (June 26 to July 25, 2017 billing period) and remit the same to PSALM.

On 27 June 2017, the ERC issued a Decision on the application of the PSALM regarding ERC Case No. 2013-195 RC for the petition for True-Up Adjustments for the National Power Corporation's Stranded Debts Portion of the Universal Charge for the Calendar Year 2011-2012. In the afore-cited Order, the ERC authorized PSALM to continuously implement the UC-SD rate of PhP0.0265/kWh until the amount of PhP24.198Bn is fully recovered.

Accordingly, all DUs and the NGCP are hereby directed to collect from the consumers the above UC-SD charged starting on the next billing period and remit the same to PSALM.

Finally, PSALM shall, on a yearly basis, include in its Variance Analysis Report (VAR) the status of the collection of the approved UC-SD True-Up amount for CY 2011 and CY 2012.

C. Lifeline Rate Subsidy

The provision of lifeline rate subsidy is allowed by Section 73 of the EPIRA which defines the lifeline rate as a subsidized rate given to low-income captive market end-users who cannot afford to pay at full cost. This program is extended for another ten (10) years with the enactment of Republic Act No. 10150 entitled "*An Act Extending the Implementation of the Lifeline Rate, Amending for the Purpose Section 73 of Republic Act Numbered Ninety-One Thirty-Six, Otherwise Known as the "Electric Power Industry Reform Act of 2001"*" on June 2011.

Based on the available data for the period June 2017, the total amount of subsidy provided to lifeline consumers was PhP448 million which translated to an PhP2.06/kWh per month subsidy to lifeline customers in the whole country. The amount of subsidy paid for by the non-lifeline customers of PDUs is at PhP0.06/kWh, while those in the EC's franchise area is at PhP0.03/kWh.

Meanwhile, table below shows the June 2017 status of lifeline rate subsidy implementation, as provided by the ERC.

Table 17. Summary of Lifeline Subsidy Implementation, June 2017

Particulars	MERALCO	Other PDUs	ECs	Total
Subsidy Provided by Non-Lifeline Customers (in PhP)	213,433,143	219,011,565	15,735,953	448,180,662
kWh Consumption of Lifeline Customers	98,426,055	109,009,186	10,412,195	217,847,436
kWh Consumption of Non-Lifeline Customers	3,540,795,107	3,848,900,523	450,210,240	7,839,905,879
Subsidy Provided to Lifeline Customers (PhP/kWh)	2.17	2.01	1.51	2.06
Subsidy Provided by Non-Lifeline Customers (PhP/kWh)	0.06	0.06	0.03	0.06

Source: ERC Investigation & Enforcement Division

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. This discount is currently being enjoyed by customers in the off-grid areas served by the National Power Corporation-Small Power Utilities Group (NPC-SPUG).

Based on available data, from January 2016 to October 2017, total discounts granted by NPC-SPUG have amounted to PHP62.34 million. Of this amount, 55% or PHP34.41 million was enjoyed by the Luzon customers while 45% was granted to the residential customers in Mindanao.

Table 18. NPC-incurred Amount on Grant of Mandatory Rate Reduction

Billing Month	Luzon	Mindanao	Philippines
Jan to Dec 2016	24,548,708.14	24,034,938.01	48,583,646.15
Jan to Oct 2017	9,864,906.09	3,895,103.24	13,760,009.33
Total	34,413,614.23	27,930,041.25	62,343,655.48

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 under Annex 11.

V. COMPETITION

This section provides an update on key areas of competition to include the operation of the WESM, commercial operations of Retail Competition and Open Access (RCOA), ongoing preparations for the WESM Mindanao and the Reserve Market, among others. This section also provide update as necessary to the electric power industry participants' compliance to cross-ownership prohibition and limitations provided primarily under Section 45 of the EPIRA.

A. Wholesale Electricity Spot Market (WESM) Operational Highlights

As of 25 October 2017, the integrated WESM (Luzon and Visayas) in terms of the number of participants accounted in the billing for September remained constant. It has a total of 261 registered participants comprising 110 generating companies and 151 customers, breakdown into 16 PDUs, 71 ECs, 59 Bulk users, and five (5) Wholesale Aggregators.

Table 19. Registration Update as of 25 October 2017 (Luzon and Visayas)

CATEGORY	REGISTERED						
	TOTAL	DIRECT			INDIRECT		
		LUZ	VIS	LUZ/VIS	LUZ	VIS	LUZ/VIS
Generation Companies	110	73	34	3	0	0	0
Customers							
<input type="checkbox"/> Private distribution utilities & Local government utilities	16	8	3	0	5	0	0
<input type="checkbox"/> Electric cooperatives	71	28	28	0	15	0	0
<input type="checkbox"/> Directly Connected Customers	59	9	6	1	33	8	2
<input type="checkbox"/> Wholesale aggregators	5	0	0	5	0	0	0
Total Customer Trading Participants	151	45	37	6	53	8	2
TOTAL PARTICIPANTS	261	118	71	9	53	8	2

Source: PEMC

For the billing period of May to October 2017, the average system-wide demand for the month of May slightly increased to 9,781 MW brought about by the hot weather. However, it slightly dropped to 9,640 MW in June despite the onset of the rainy season. This further decreased to 9,353 MW from 26 June until 06 July, and to 7,749 MW from 06 July (1700H) to 25 July when the Visayas market was suspended by the ERC due to the power system disturbance brought by the intensity scale 5 earthquake.

Following the earthquake-related tripping on 06 July 2017, the Luzon-Leyte HVDC Interconnection remained unavailable for the whole billing month of August. The 6.5 magnitude earthquake separated the market into two pricing regions – Luzon and Visayas. Likewise, demand generally followed a decreasing trend with the passage of several typhoons during the first and last weeks of August averaging at 7,886 MW in Luzon and 1,464 MW in Visayas.

The Luzon-Leyte HVDC Interconnection remained unavailable until 07 September (2200H). Thus, for the period of 26 August to 07 September (2200H), market monitoring indices were calculated separately for Luzon and Visayas. It averaged at 7,669 MW in Luzon and 1,474 MW in Visayas. However, when the HVDC between Luzon and Visayas normalized on 07 September 2017 (2300H), the demand was recorded at 9,362 MW.

The highest peak demand for the period of May to October was 11,886 MW which occurred in the month of June.

Based on record, the effective supply in May increased to 12,077 MW but it slightly dropped in June 2017 to 12,022 MW. It continued to decline to 11,715 MW and 9,938 MW from 25 June to 06 July and 06 July to 25 July 2017, respectively. This was at a time when the Visayas market was suspended and Luzon solely operated in a normal operation. For the month of August 2017, the supply averaged at 10,011 MW in Luzon and 1,852 MW in Visayas. Also, an average of 10,054 MW and 1,870 MW in Luzon and Visayas were distinctly recorded during the period of 26 August to 07 September (2200H). Moreover, on 07 September 2017 (2300H) until 25 September 2017, the supply averaged at 11,599 MW and it increased to 11,790 by the end of October 2017 billing month.

The reserve schedule documented little differences at 788 MW in May, 828 MW in June, 757 MW for the period of 26 June to 06 July 2017 and 812 MW from 06 July to the end of the current billing month. Whereas, in August, it averaged at 716 MW in the Luzon grid and slightly increased in the September 2017 billing month to 720 MW. After the repair of the HVDC Interconnection last 07 September 2017 (2300H), reserve schedule reached 738 MW. It averaged at a capacity of 840 MW from 26 September to 25 October.

For the total WESM registered capacity, figure stood at 17,704 MW in May. This posted a slight increase from April 2017 attributable to the change in the maximum registered capacity of Palinpinon GPP I. In June 2017, the total capacities increased to 17,748 MW attributed to the registration of additional from the 24 MW oil-based facility of Phinma Energy Corporation, and the increase in the registered capacity of SLPGC CFTPP from 280 MW (2 x 140 MW) to 300 MW (2 x 150 MW). In July 2017, the total WESM registered capacity for the integrated Luzon and Visayas market stood at 17,748 MW, however, this decreased to 14,708 MW brought about by the 06 July 2017 tremor.

Furthermore, for the Luzon grid, registered capacity increased to 15,126 MW by the end of August 2017 billing month attributed to the registration of additional 436-MW unit of Pagbilao coal plant. In September 2017, the WESM registered capacity in Luzon was 15,136 MW which showed an increase from last month attributable to the registration of the additional 12 MW biomass facility of San Jose City I Power Corporation effective 08 September 2017. Finally, it continued to increase with an average of 18,183 MW for the month of October.

In terms of the total WESM registered capacity traded in WESM, 67% was offered in May averaging at 11,891 MW. On the other hand, a higher capacity was offered in June at an average of 12,051 accounting for about 68%. This was followed by 11,699 MW and 9,989 MW which are 66% and 68% of the total registered capacity of July.

For the month of August, an average of 10,069 MW was offered in the Luzon market and 1,754 MW in Visayas accounting for about 67% and 58%, respectively. This trend dipped to 9,942 MW which constituted 66% in Luzon and 1,727 MW accounting 57% in Visayas for September. Yet, the capacity offered grew to 11,866 MW in October which is 65% from the total registered capacity.

Table below summarizes the capacities unavailable to the market.

Table 20. Unavailable Capacities in the Market based on PEMC Report

Month	Outage Capacity	Capacity Not Offered	Ancillary Services
May 2017	1,664 MW	2,118 MW	86 MW
% of total registered Capacity	9 %	12 %	0.5 %

Month	Outage Capacity	Capacity Not Offered	Ancillary Services
June 2017	1,561 MW	2,042 MW	89 MW
% of total registered Capacity	9 %	12 %	0.5 %
July 2017 (Prior to the ERC's suspension of Visayas on July 6 @ 1700H)	1,786 MW	2,155 MW	82 MW
% of total Registered Capacity	10%	12%	0.5%
July 2017 (With ERC's suspension from July 6 @ 1700H to the end of the month)	1,719 MW	1,602 MW	-
% of total Registered Capacity	11.7 %	11 %	-
August 2017 (Luzon)	2,187 MW	1,459 MW	-
% of total Registered Capacity	14.5%	9.65%	-
August 2017 (Visayas)	198 MW	424 MW	45 MW
% of total Registered Capacity	6.5 %	14%	1.5%
September 2017 (Luzon)	2,298 MW	1,768 MW	-
% of total Registered Capacity	15.2%	11.7%	-
September 2017 (Visayas)	198 MW	418 MW	21 MW
% of total Registered Capacity	6.5 %	14%	0.7%
October 2017	2,919 MW	1,689 MW	-
% of total Registered Capacity	16 %	9 %	-

A lower level of capacity on outage was observed in May at an average of 1,664 MW. This was driven by the decrease in the outages involving natural gas and coal plants. Similarly, the outage capacity continued to decrease to an average of 1,561 MW in June lowered by 6.2%. This can be attributed to the decrease in the outage capacity involving coal-fired and oil-based plants.

For the month of July, plant outage capacity averaged at 1,786 MW noting an increase of 14.4% prior to the ERC's market suspension in the Visayas grid. This however slightly decreased by 3.75% to 1,719 MW after the occurrence of earthquake. In Luzon, the rise in outage capacity of coal-fired plants mainly drove the overall increase of power plant outages. High outage capacity was observed among natural gas plants at the onset of the billing month during the first and second weeks of July. On the other hand, natural gas, geothermal, and hydro plants all incurred a decrease in outage capacity. The Visayas grid experienced significant increase in the outage capacity of geothermal plants driven by the outages triggered by the earthquake last 06 July.

Throughout the August billing month, higher level of outage capacity was noted in the Luzon grid. This averaged at 2,187 MW and showed an increase of 31.11% from last July. Comparison was meant to the outage capacity in the Luzon region during the July billing month which is 1,668 MW and not to the total outage capacity of the integrated Luzon and Visayas. This was driven by high outage incidents among coal plants which went on outage in June and remained unavailable within the month.

The Visayas grid posted an average outage capacity of 198 MW indicating a decrease of 43.6% from last month. This is a comparison on the outage capacity in the Visayas region during the July billing month at 351 MW and is not to the total outage capacity of

Luzon and Visayas. Bulk of the capacity that went on outage in the region was caused by outages of geothermal plants. Several units of Leyte A geothermal plants were greatly hit by the earthquake. Major coal plant outages were attributed on the need to conduct of corrective maintenance and steam valve rectification.

For the month of September, an increase of 5.15% in Luzon pegged at 2,298 MW and 198 MW in Visayas were reported on outage. Outage capacities of coal, natural gas and oil-based plants were driven by the deactivated shutdown of Malaya 1 and 2 but this time this is due to the impact of typhoon Maring. Majority of the capacity that went on outage in Visayas grid during the month remained to be on account of geothermal plants. On the other hand, major coal plant outages in the Visayas region were attributable to forced outages.

Furthermore, an increase of 16.9% was noted in October 2017 at 2,929 MW. Growth in this month's outage capacity was driven by the coal plants, natural gas and oil-based plants in Luzon and with higher outages in geothermal and coal-fired plants in the Visayas region.

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

Table 21. Major Plant Outages

Month	Luzon	Visayas	
May 2017	Calaca 1 & 2 GN Power 1 & 2 Masinloc 2 Pagbilao 1 SLPGC 1,3 & 4 SMC 1 Sual 1 Bacman 1, 2 & 3 Makban 3,5,6,7 Tiwi 1& 3 Ambuklao 3 Angat m 3 & 4 Binga 1, 3 and 4 Caliraya 1 & 2	Magat 1 & 2 Pantabangan 2 San Roque 2 & 3 AVION 1 & 2 Ilijan A1 Ilijan B2 San Gabriel Sta. Rita 1 Limay 1 Malaya 1 & 2 Republic 2 BT2020 IPower	CEDC 2 Kepco Salcon 2 PALM 1 PEDC 1,2 & 3 Mahanagdong A1 Leyte 1,2 & 3 PGPP2 Unit 2 & 4 CENPRI 2 & 3 Bohol 4 PB102 Unit 2 FFHC
June 2017	GN Power 1 & 2 SMC 1 Sual 2 Calaca 2 Pagbilao 1 QPPL SLPGC 2 & 4 SLTEC 1 & 2 Bacman 2 Makban 3,5,6,7,8 & 9 Tiwi 1& 3	Angat M 1,2,3 & 4 Binga 2 San Roque 1,2 & 3 Caliraya 1 & 2 Avion 1 Ilijan B2 Sta. Rita 2 & 4 San Lorenzo 1 & 2 Malaya 1 Republic 2	Kepco Salcon 1 Upper Mahiao 3 Leyte 2 Nasulo PGPP2 Unit 4 Cebu Diesel 2 & 3 CENPRI 2 & 4 Bohol 3
July 2017	APEC 1 GN Power 1 & 2 Masinloc 1 SMC 1 Sual 2 Pagbilao 1 Bacman 3 Makban 3,5,6,7,8 & 9 Tiwi 1& 3	Ambuklao 2 Angat M 3 Kalayaan 3 & 4 Avion 2 Sta. Rita 1, 2, 3 & 4 Limay 2 & 3 TMO Unit 3 & 4 SLPGC 4	Kepco Salcon 1 & 2 PALM 1 & 3 PEDC 3 Mahanagdong A1 & A2 Malitbog 1, 2, 3, & BC Upper Mahiao 1,2,3 & 4 Leyte 1 & 2 PGPP2 Unit 4 Cebu Diesel 3 Bohol 1
August 2017	APEC 1 GN Power 1 Masinloc 1	Makban 3,5,6 & 9 Tiwi 1&3 Angat M 3	PALM PEDC 2 Mahanagdong A1 &

	SMC 1 & 2 Sual 2 Calaca 1 & 2 Pagbilao 1, 2 & 3 QPPL SLPGC 1, 2 & 4 SLTEC 2 Bacman 3	Kalayaan 1, 3 & 4 Avion 1 & 2 Ilijan A1, A2, A3, B1, B2 and B3 Sta. Rita 1 San Lorenzo 1 Limay 2, 3 & 6	A2 Malitbog 3 Upper Mahiao 3 Leyte 1 PGPP2 Unit 4 Cebu Diesel 1,3,4 & 5 CENPRI 3 & 4 Bohol 1,2,3 & 4 PB102 Unit 4
September 2017	GN Power 1 & 2 Masinloc 1 & 2 SMC 2 Sual 1 & 2 Calaca 1 & 2 Pagbilao 2 & 3 SLPGC 1&4 Bacman 3 Makban 3,4,5 & 6 Tiwi 1 & 3 Kalayaan 2, 3 & 4	Avion 1 & 2 Ilijan A1, B1, B2 & B3 San Gabriel Sta. Rita 2 & 3 San Lorenzo 1 Limay 1, 3 & 6 Malaya 1 & 2	CEDC2 TPC Sangi 1 & 2 PALM 1 PEDC 3 Mahanagdong A1 & A2 Malitbog 3 Leyte 1 & 3 PGPP2 Unit 1 & 4 Cebu Diesel 1,3,4,5 & 6 CENPRI 2 & 4 Bohol 1,2 & 4 PDPP3 E
October 2017	GN Power 1 & 2 Masinloc 1 SMC 1 Sual 1 & 2 Calaca 2 Pagbilao 1, 2 & 3 QPPL SLPGC 2 & 4 Bacman 1 & 3 MGPP 1 Makban 5 & 6 Tiwi 1 & 3 Angat M 3 Caliraya 1 & 2 Kalayaan 3 & 4	Avion 1 & 2 Ilijan A1, A2, A3, B1, B2 & B3 San Gabriel Sta. Rita 1 & 3 San Lorenzo 1 Limay 1, 6 & 7 Malaya 1 & 2	PALM 1 CEDC 3 Mahanagdong A1 & A2 Malitbog 2 & 3 Upper Mahiao 4 Leyte 1, 2 & 3 PGPP2 Unit 3 & 4 Cebu Diesel 1,3 & 4 CENPRI 2 & 3 Bohol 3 PB101 Unit 4

Slightly tighter supply and demand condition was observed in May 2017 driven by the high level of demand requirement. The supply margin averaged at 1,508 MW which was lowered by 16.7% compared with the preceding month. In June 2017, driven by the decrease in the system demand, the supply margin widened by 3.1% to an average of 1,554 MW. In July 2017, it averaged at 1,606 MW which is higher by 3.3%. Following the Visayas' suspension, the supply margin averaged at 1,376 MW in the same billing month which decreased by 14.3%, indicating a better demand and supply condition in Luzon for the rest of the month.

In August 2017, supply margin averaged respectively at 1,409 MW and 388 MW in Luzon and Visayas. In September 2017, it recorded an average of 1,664 MW in Luzon and 396 MW in Visayas showing an increase of almost 18.1% and 2.1%. Subsequent to the restoration of the HVDC between Luzon and Visayas, it averaged 1,499 MW from 07 September (2300H) to 25 September 2017. Lastly, October 2017 billing month noted an average of 1,709 MW which is the highest value for the entire billing period.

Despite the tighter supply and demand condition in May 2017, a comparison with the April billing month showed that the system load-weighted average price (LWAP) manifested a decrease of 13% at PhP3,471/MWh from last month. The maximum price recorded for the month was PhP22,374/MWh on 02 May 2017 coinciding with the trading interval with the lowest supply margin observed. Consequently, June 2017 billing month

posted a LWAP of PhP3,414/MWh, which is a slight decrease of 1.64%. The maximum price recorded in the month was PhP15,164/MWh which occurred on June 14, 2017 at 1800H.

In July 2017, market prices averaged at PhP3,169/MWh, recording a 7.2% decline from last month's prices. The maximum price for the month was PhP10,256/MWh on 30 June 2017 at 1600H, when the margin between demand and supply was tight brought about by high outage capacity during the trading day. Similarly, market price levels in Luzon for August 2017 billing month remained low for the most part. It averaged at 3,836 MW with the peak price of PhP32,898/MWh on 16 August 2017 from 1000H to 1400H.

As an additional information, the Visayas grid was placed under market intervention from July 6 up to August 1, 2017 due to generation deficiency brought about by the aforementioned earthquake. Administered prices were applied for the billing and settlement during those intervals. The average price during the period was at PhP2,389/MWh and recorded a maximum of PhP8,278/MWh.

In the period of 26 August to 07 September 2017, spike in the market price was observed on 30 August 2017 at 1100H, reaching to as high as PhP22,117/MWh. The Visayas grid recorded lower market prices when compared to Luzon and posted a maximum price of PhP7,956/MWh on 07 September 2017 at 1800H. Following the resumption of operations of the HVDC connection starting 07 September 2017 at 2300H, the integrated Luzon and Visayas market resumed normal operations. System-wide market prices averaged at PhP4,343/MWh and the highest market price was recorded at PhP15,250/MWh posted on 08 September 2017 at 1500H.

Moreover, the LWAP averaged at 3,960 PhP/MWh by the end of October billing month. It documented a highest price of PhP33,347/MWh on 23 October 2017 at 1800H, following the tight supply condition during the period.

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)

- Reviewed and deliberated the Market Assessment Report for March 2017 (MAG-MMAR-2017-03), April 2017 (MAG-MMAR-2017-04), May 2017 (MAG-MMAR-2017-05), June 2017 (MAG-MMAR-2017-06) and July 2017 (MAG-MMAR-2017-07) submitted by the Market Assessment Group (MAG);
- Reviewed and deliberated the Retail Market Assessment Report for the 1st quarter covering the period 26 December 2016 to 25 March 2017 submitted by the MAG;
- Reviewed and deliberated the Retail Market Assessment Report for 2nd Quarter of 2017 covering the period 26 March to 25 June 2017 submitted by the MAG;
- Reviewed and deliberated the Annual Market Assessment Report covering the period 26 December 2015 to 25 December 2016 submitted by the MAG; and
- 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 22. 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
February 2017	42	37	6,140	17	13	460
March 2017	44	38	6,436	13	10	223
April 2017	45	38	7,038	17	14	654
May 2017	42	37	6,403	18	14	943
June 2017	45	38	5,931	27	14	587
July 2017	43	37	2,610	10	8	96
August 2017	38	46	1,558	15	20	1,056

- 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 23. 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
October 2016	34	27	22,960	18	12	7,981
October 2016 (Addendum)	1	1	2,880	-	-	-
November 2016	28	22	20,078	17	11	9,531
November 2016 (Addendum)	2	2	2,880	2	2	5,179
December 2016	21	16	13,225	17	11	8,027
January 2017	23	17	13,859	12	7	6,694
February 2017	18	13	10,691	14	8	8,401
March 2017	20	15	10,264	13	8	7,011

- 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 30 and 31:

Table 24. March to August 2017 (RFI-RTD)

Month	RTD (Total No of Generator – TP)
March 2017	57
April 2017	62
May 2017	60
June 2017	62
July 2017	53
August 2017	53

Table 25. October 2016 to March 2017 (RFI-MOR)

Month	MOR (Total No of Generator – TP)
October 2016	43
November 2016	43
December 2016	43
January 2017	25
February 2017	32
March 2017	33

- Reviewed the Monthly Monitoring Report on the Submission of Projected Output and Nomination of Loading Levels for 25 March to 25 August 2017.

Table 26. MMR on Submission of Projected Output and Nomination of Loading Levels

No. of non-scheduled, must-dispatch and priority dispatch generating units	March 2017	April 2017	May 2017	June 2017	July 2017	August 2017
Registered	70	70	70	70	70	71
Registered units that started WESM Participation	48	49	51	51	53	54
a. Submitted nomination of loading levels and projected output in all trading intervals	14	12	12	12	15	16
b. Did not submit their nomination of loading level and projected output in some or all of the covered trading intervals	34	37	39	39	38	38

- Reviewed the Over-riding Constraints for March to August 2017

Table 27. Over-riding Constraints

	March 2017	April 2017	May 2017	June 2017	July 2017	August 2017
Total Number of over-riding events	12,569	13,865	13,481	11,933	8,435	8,343
Involved Luzon generating plants	37	47	49	39	34	42
Involved Visayas generating plants	20	13	17	14	7	7

	March 2017	April 2017	May 2017	June 2017	July 2017	August 2017
Event Category	Security Limit Events (7.5%) Non-Security Limit Events (92.5%)	Security Limit Events (9%) Non-Security Limit Events (91%)	Security Limit Events (12.3%) Non-Security Limit Events (87.7%)	Security Limit Events (7.4%) Non-Security Limit Events (92.6%)	Security Limit Events (3%) Non-Security Limit Events (97%)	Security Limit Events (4%) Non-Security Limit Events (96%)

- 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

- In May 2017, the MSC discussed comments submitted by the Rules Change Committee (RCC) on certain proposed revisions. MSC subsequently approved and transmitted to the RCC their proposed amendments covering the following:
 - a. The MSCEM Manual as regards to the timeline for the submission of Market Intervention Reports; and
 - b. Reviewed seven (7) Manuals affected by the proposal to replace “PEM Committee” with “WESM Governance Committee”.
- In 09 June 2017, MSC attended the Rules Change Committee (RCC) meeting and continued to discuss the revisions of the said manuals.

Proposed WESM Penalty Manual

- In July 2017, the MSC reviewed the proposed revisions on WESM Penalty Manual for submission to the DOE;
- On 14 August 2017, the MSC issued a resolution approving the said Manual and presented it to the PEMC Transition Committee on the same date;
- On 14 September 2017, the MSC conducted a consultation meeting on the proposed WESM Penalty Manual with the Rules Change Committee (RCC) as part of its consultation process. The MSC agreed to review the proposed WESM Penalty Manual to consider the inclusion of an automatic penalty scheme (APS). The MSC noted to re-conduct the posting and consultation process once the proposed WESM Penalty Manual is revised and finalized; and
- In October 2017, the MSC continued its review of the proposed WESM Penalty Manual to include an Automatic Penalty Scheme (APS). The MSC noted to also revise the affected provisions in the proposed Market Surveillance Manual and WESM Rules, as applicable.

Proposed Penalty Utilization Manual

- In May 2017, the MSC agreed to issue a resolution approving the proposed Penalty Utilization Manual subject to additional revisions discussed during the presentation of the proposal; and
- In July 2017 to August 2017, the MSC finalized and submitted its comments to the ECO on the possibility of utilizing collected penalties. The MSC also presented to the Transition Committee the overview of

its functions and responsibilities, including its activities and accomplishments, and also presented the proposed WESM Penalty Manual as part of its consultation.

Proposed Market Surveillance Manual

- In view of RCC's observations that the Market Surveillance Manual is not aligned with the RCC-approved WESM Rules provisions related to anti-competitive behavior (ACB), the MSC proposed further changes to the said manual and provided additional comments for RCC's consideration through email on 20 September.
- Reviewed the Market Intervention Events
 - The MSC requested the Visayas-SO for a detailed report/clarification on the market intervention (MI) event that occurred on 05 November 2016 at 2000H;
 - In June 2017, the MSC also requested inputs/comments from the MO and SO on the MSC's proposed template for MI event report. The final template was transmitted for the MO and SO's reference in preparation for future reporting of MI event;
 - In September 2017, the MSC reviewed the market intervention (MI) events covering the period 01 August 2017 – 19 September 2017. Due to insufficient information reported in the SO MI Event Report, the MSC requested the SO for a more detailed report for the August 2017 incident that would include, the Significant Incident Report pursuant to the Philippine Grid Code 2016; and
 - MSC reviewed the detailed report of the SO regarding the 05 November 2016 MI incident that happened in Corella Substation and recommendations. As an internal procedure, the MSC shall prepare MI event report and submit this to the PEM Board.
- Meeting with Global Business Power Corporation (GBPC)
 - In June 2017, the MSC discussed with representatives from GBPC WESM Rules compliance issues and noted the operational limitations and clarifications presented by GBPC. MSC likewise called the attention of the GBPC's compliance obligations on their reportorial submission.
- Reviewed the MSC Quarter Report for Q2 2017
- Participated in the Performance Assessment and Audit Team Task Force
 - The MSC designated its representatives to the Performance Assessment and Audit Team (PAAT) Task Force; and
 - The MSC participated in the following meetings facilitated by the DOE:
 - a. Audit Team Task Force kick-off Meeting held on 27 June 2017;
 - b. Pre-workshop Meeting for the formation of the PAAT Task Force held on 05 July 2017; and
 - c. Workshop on Performance Assessment and Audit for All Power Generation, Transmission and Distribution Systems and Facilities held on 28 July 2017 to 01 August 2017.
- Participated in the 1st Market Participants Update for 2017 & 4th Retail Market Participants' Meeting.

2. Technical Committee (TC)

- Proposed Amendments to the WESM Rules and relevant Manuals on the participation of Non-Generator Resources (BESS – Battery Energy Storage System)
 - In May 2017, the TC agreed that no changes in the procedures for submission of generation and offers for the Battery Energy Storage System (BESS) are necessary as the relevant clauses are still applicable. On the DOE's issue regarding the requirements for metering facility for FIT-eligible generating units which intend to install a BESS in its facility, the TC agreed that a BESS which falls under this classification, shall register as a separate Trading Participant for purposes of settlement;
 - From June 2017 to August 2017, the TC continued the review and finalized its draft proposed amendments and agreed to transmit it to PEMC departments for its comments and inputs;
 - In September 2017, the TC discussed the inputs and comments of PEMC on its draft proposed amendments to the WESM Rules and relevant Market Manuals covering the Participation of Non-Generator Resources. During their meeting last September 2017. The agreement was to invite representatives from concerned PEMC departments to fully discuss and finalize the amendments in its next scheduled meeting; and
 - In October 2017, PEMC presented to the TC the classification of NGRs in the WESM. The TC adopted PEMC's proposal for the same to be categorized as a Generation Company. The TC likewise adopted the PEMC's proposal to include pumped-storage units (PSUs) in the classification of Generation Companies as the same are not covered by the description of NGRs. PEMC agreed to submit the subsequent amendments to the affected Market Manuals for further review of the TC and afterwards to be submitted to the Rules Change Committee.

- Study on the Operation of the Reserve Market and Integration of Variable Renewable Energy Sources
 - In July 2017, the TC agreed to adopt the draft study on the Operation of the Reserve Market and the Integration of Variable Renewable Energy (VRE) Resources in the WESM the terminologies provided in the approved Philippine Grid Code (PGC) 2016 Edition. Similarly, the TC provided additional inputs on the said study;
 - On 07 August 2017, the TC deferred the discussion on the ongoing study covering the Operation of Reserve Market and the Integration of VRE Resources pending the output of the public expository consultation on the Ancillary Services Procurement Plan (ASPP) with the Energy Regulatory Commission (ERC);
 - In September 2017, the TC reviewed and provided inputs on the draft study covering the Operation of the Reserve Market and Integration of Variable Renewable Energy Resources. The TC likewise assigned specific deadlines for their respective inputs to be discussed in their next scheduled regular meeting; and
 - In October 2017, the TC agreed to look into the following: a.) Difficulties faced by renewable energy power plants in providing accurate forecasts deemed essential so as not to affect the allocated reserve quantities; and b.) Location of Variable Renewable Energy (VRE) installations which did not consider grid availability/constraints.

- Reviewed of TC Internal Rules
 - In June 2017, the TC finalized and approved the proposed amendments to the TC Internal Rules Issue 4.0 through TC Resolution No. 2017-01 entitled, “*A Resolution Adopting the Technical Committee Internal Rules Issue 4.0.*”
- RCC Proposed Amendments
 - In May 2017, the TC reviewed the published RCC proposed amendments to the WESM Market Manuals on: (a) Price Determination Methodology; (b) Constraint Violation Coefficient and Pricing Re-run; and (c) Information Disclosure and Confidentiality.

2. Rules Change Committee (RCC)

- Proposed Amendments to the WESM Manual on Dispatch Protocol Manual, Issue 12
 - In July 2017, the RCC agreed with the following procedures for addressing anticipated excess generation for inclusion in the Dispatch Protocol Manual (DPM):
 1. Excess generation was defined as the situation when the aggregate technical Pmin of generating units is greater than the forecasted demand (as proposed Section 18.3.1).
 2. If there is still an indication of the occurrence of excess generation five (5) hours from the affected hourly interval, the System Operator shall prescribe the restriction of must-dispatch and priority dispatch generating units (as proposed Section 18.3.5).
 3. If there is still an indication of the occurrence of excess generation three (3) hours from the affected hourly interval, the System Operator shall prescribe the shut-down of generating units based on the excess generation merit order table to be provided by the Market Operator (as proposed Section 18.3.6).
 4. The excess generation merit order table shall consider the transmission loss factors determined through the 1200H day-ahead projection, including the following order for shut-down (as proposed Section 18.3.6):
 - d.1) Fast start scheduled generating units
 - d.2) Must dispatch generating units
 - d.3) Priority dispatch generating units
 - d.4) Non-scheduled generating units
 - d.5) Scheduled generating units.
 - The RCC submitted RCC Resolution No. 2017-08 to the PEM Board on 27 July 2017.
- Proposed Amendments to the WESM Rules and Market Manuals on: (a) Market Surveillance; and (b) Enforcement and Compliance
 - In May 2017, the RCC agreed to remand to the MSC the proposal specifically requesting the MSC to: a) further review the WESM Rules clauses and Manuals that would be affected by the amendment adopting the term WESM Governance Committee instead of PEMC

- Committee; and b) include a reasonable timeline for the submission of Market Intervention Reports;
- In June 2017, the RCC discussed and finalized the proposed amendments to the WESM Rules and WESM Manual on Market Surveillance, Compliance and Enforcement. The body agreed to: (1) replace the terms “PEM Board Committees” and “PEM Committees” with “WESM Governance Committees” in various affected WESM Manuals, and (2) revise the timeline of the Market Surveillance Committee’s submission to the PEM Board of the Market Intervention Report;
 - In August 2017, the RCC approved the concurrent submission to the PEM Board of the proposed amendments; and
 - In September 2017, the RCC was informed that the Market Surveillance Committee (MSC) shall defer the consultation of the proposed WESM Penalty Manual in order to add the imposition of the automatic penalty scheme. The RCC also noted that the draft WESM Manual on Market Surveillance and the proposed WESM Manual on Enforcement and Compliance, both currently being finalized for endorsement to the PEM Board, will be further revised in relation to the revisions to be made to the proposed WESM Penalty Manual. Both manual were being finalized for endorsement to the PEM Board,
- Proposed Amendments to the WESM Manual on Metering Standards and Procedures
 - In May 2017, the RCC approved the proposed amendments subject to the presentation of a sample computation of the Site-Specific Loss Adjustment (SSLA);
 - In June 2017, the RCC continued with its deliberation of the proposal, with the discussion focusing on PEMC’s presentation of a comparison of sample computations for SSLA using 5-minute meter data for seven (7) sample metering points based on a 1-hour and 15-minute resolution which will be divided by three;
 - In July 2017, the RCC agreed to include the sample computations of SSLA using actual 5-minute meter readings from three (3) metering points;
 - In August 2017, the RCC continued with the finalization of the proposed amendments; and
 - In September 2017, the RCC approved the submission of the subject proposal to the PEM Board upon assessing that the same was not affected by the changes made to the proposal regarding the change in location of metering points.
 - Update on the *Proposed Amendments* to the WESM Manual on (i) Metering Standards and Procedures, (ii) Market Network Model Development and Maintenance Criteria and Procedures, and (iii) Registration, Suspension and Deregistration Criteria and Procedures related to the Change in the Location of Metering Points.
 - In October 2017, the PEMC presented to the RCC the revised proposed amendments to the WESM Rules and various WESM Manuals, which revisions were the result of the discussions made during the RCC Sub-committee meeting convened on 22 September 2017;
 - The main revisions made to the original proposal were intended to address in the short and long-term settlement of Trading Participants;

- This is in consideration of various scenarios where the metering point, connection point and the *market trading node* are not co-located; and
- Having reviewed the proposed revisions to the WESM Rules and to the WESM Manuals on (i) Metering, (ii) Market Network Model and (iii) Registration, the RCC approved the proposal as amended by the Subcommittee for endorsement to the PEM Board.
- Proposed General Amendments to the Price Determination Methodology Manual (PDM) and the Constraint Violation Coefficients and Pricing Re-run (CVC-PR) Manual were originally submitted as urgent amendments.
 - Proposed Amendments to the WESM Rules, Retail Rules, and Retail Manual for Clarifications on Retail Market Integration:
 - In October 2017, the RCC approved the proposal for endorsement to the PEM Board due to the agreement to likewise subject the proposal regarding retail market integration for discussion of the RCC Subcommittee; and due to PEMC's note that it was not affected by the changes made to the proposal regarding location of metering points.
 - Updates on the RCC Work Plan:
 - In October 2017, the RCC reviewed its Work Plan for the year 2017 and requested for updates from concerned parties on the items which were marked for submission to the Committee.
 - PEM Board Approval of RCC Proposed Amendments
 - On 26 October 2017, the RCC presented the following proposals for approval and endorsement to the DOE: a.) Proposed Amendments to the Market Operator Information Disclosure and Confidentiality Manual for the Implementation of Enhancements to WESM Design and Operations; and b.) Proposed Amendments to the WESM Manual on Dispute Resolution regarding WESM Arbitration Fees and Costs. The PEM Board approved both proposals as amended for endorsement to the DOE.

3. Dispute Resolution Administration (DRA)

- In September 2017, the draft *Guidelines for the ADR Support Service Center for WESM Mediation* and the draft *Guidelines for the ADR Support Service Center for WESM Arbitration* were reviewed and revised. This was in light of the new proposed changes to the Dispute Resolution Manual submitted to the RCC. It was agreed that, in subsequent meetings, a prescribed scheme or schedule of mediators' fees will be developed and additional templates will be drafted for use in certain mediation and arbitration procedures; and
- In October 2017, initial discussions were made regarding the appropriate mode of arbitration in the Retail Market. Considering the dynamics of participants in the Retail Market, 'pendulum' or 'final offer' arbitration scheme is being looked into as a suitable mode to resolve disputes at the retail level through arbitration. Also, within the period, the Proposed Amendments to the Dispute Resolution Manual regarding Arbitration Fees and Costs were likewise re-submitted to the PEM Board following the RCC's further review of the proposal in light of the DRA's provision of additional justification for the proposed new schedule of fees and costs. The PEM Board subsequently approved the said proposal for endorsement to the DOE.

4. PEM Audit Committee (PAC)

- 2016 Market Audit
 - In September 2017, the external auditor had submitted the draft reports for the review of information on security, bid-to bill analysis, market software and systems, including process and compliance with the rules and manuals for the 6th Market Operations (MO) Audit. The draft reports were provided to the auditees for comments;
 - For the 3rd Review of Metering Installations and Arrangements (RMIA3), the external auditor initially submitted the draft reports on the 3rd RMIA for the eleven (11) MSPs while the draft reports for MERALCO and PEMC-BSMD have yet to be submitted;
 - For the 6th Market Operations (MO) Audit, the PAC and Audit-TWG concluded the close-out meetings with the process owners and External Auditors on 23 October 2017. For the 3rd Review of Metering Installations and Arrangements (RMIA3), the close-out meetings with the Metering Service Providers and PEMC-Billing, Settlement and Metering Department (BSMD) were concluded on 9-11 & 27 October 2017; and
 - During the close-out meetings, the External Auditors presented the draft report findings and discussed the Auditee action plans/response. All final reports for the joint 6th MO Audit and 3rd Review of Metering Installations and Arrangements were to be submitted by the External Auditor on November 2017.
- Independent Software Audit of the New Market Management Systems (NMMS) and the Central Registration and Settlement Systems (CRSS) Status as of September 2017.
 - In September 2017, the external auditor has submitted the draft preliminary report for the CRSS software certification audit. The draft preliminary report was submitted to the auditee for comments;
 - On 11 October 2017, the External Auditor presented among the process owners, PAC and Audit-Technical Working Group the findings on the CRSS Software Certification Audit based on the submitted draft preliminary report. There were no major audit finding issues although additional data was needed to be provided by the process owners for the External Auditors to verify that the daily and monthly VEE process is being correctly implemented; and
 - On 12 October 2017, the External Auditor submitted the Progress Report for the New MMS Software Certification Audit, which the PAC and Audit-TWG reviewed during its special meeting on 20 October 2017.

C. WESM Mindanao Update

After the conduct of public consultations and finalization workshop on the draft Department Circular as well as other consultative activities, Department Circular No. DC2017-05-0009 entitled “Declaring the Launch of the Wholesale Electricity Spot Market (WESM) in Mindanao and Providing for Transition Guidelines” was signed by Secretary Alfonso G. Cusi on 4 May 2017. It was then published in two newspapers of general circulation on 23 May 2017 and became effective on 7 June 2017. It was also posted to the DOE website along with the matrix of comments received from stakeholders and the corresponding responses.

Department Circular No. DC2017-05-0009 has the following salient features:

- Launching of WESM in Mindanao on 26 June 2017 (Launch Date) in line with the following guiding principles:
 - Uniform application of WESM Rules and Market Manuals to the WESM in Mindanao;
 - Support representation of Mindanao stakeholders through the establishment of a Mindanao WESM Transition Committee to be attached as one of the committees under the Philippine Electricity Market (“PEM”) Board, and representations in the PEM Board and other working committees as may be applicable; and
 - Promotion of greater transparency through continuing Information, Education and Communication (“IEC”) campaigns to the stakeholders.
- Conduct of the Trial Operations Program (TOP) to be participated by the Market Operator, System Operator and Trading Participants commencing on the Launch Date until commercial operation of WESM in Mindanao.
- Commercial operation shall be declared upon compliance of the criteria for commencement of full commercial operations, which are as follows:
 - All systems and procedures including all interfaces between and among the WESM Participants necessary for the operation of the WESM in the Mindanao Grid are in place and in conformity with the requirements set under the WESM Rules and Market Manuals;
 - The TOP has been successfully implemented;
 - The forecasting, scheduling, dispatch, pricing, metering, and settlement processes of the WESM are fully operational in the Mindanao Grid;
 - Training programs shall have been conducted for the Mindanao WESM Participants;
 - The Price Determination Methodology (PDM) for the enhanced WESM design has been approved by the ERC and duly published; and
 - The New Market Management System (“NMMS”) has been certified as compliant with the WESM Rules and Market Manuals by an independent auditor.
- In addition, upon effectivity of the Department Circular:
 - Registration of WESM participants in Mindanao shall commence;
 - The Interim Mindanao Dispatch Protocol (IMDP) or Annex B of Department Circular No. DC2017-05-0009, which details the transition guidelines to be complied with by Mindanao electric power industry participants, shall apply until Commercial Operations is declared by the DOE; and
 - The Interim Mindanao Electricity Market (IMEM), which was established in 2013, shall be terminated.

Pursuant to Department Circular No. DC2017-05-0009, the DOE conducted IEC Campaigns from May 2017 to July 2017 to empower and familiarize consumers on the implementation of an electricity market in Mindanao. The IEC Campaigns were held in the cities of General Santos, Cagayan de Oro and Davao and was attended by energy experts, power industry participants, as well as investors, consumers, members of the academe, local government units and other stakeholders.

To kickstart the participation of WESM Mindanao Trading Participants, a TOP Kick-off Meeting and Orientation on Department Circular No. DC2017-05-0009 was held on 25 May 2017 in General Santos City and on 30 May 2017 in Davao City, respectively.

On 28 June 2017, WESM Mindanao was formally launched at the SMX Convention Center in Davao City with participation from key personalities and organizations and power industry stakeholders. Presidential Spokesperson Ernesto Abella, DOE Secretary Alfonso G. Cusi, Mindanao Development Authority Secretary Datu Abul Khayr Dangcal Alonto and then PEMC President Melinda L. Ocampo spearheaded the switch-on ceremony.

For the report period, the National Grid Corporation of the Philippines (NGCP), Philippine Electricity Market Corporation (PEMC) and Trading Participants continue to implement the TOP and IMDP in preparation for the commercial operation of WESM in Mindanao. As part of its oversight function, the DOE has facilitated and will continue to facilitate coordination with concerned entities to discuss updates and issues encountered and undertake necessary actions to ensure target commercial operation date of June 2018 will be met.

Meanwhile, the ERC held a hearing on PEMC's application on the price determination methodology (PDM) for the enhanced WESM design, last 20 September 2017. This is the 3rd hearing on the application where PEMC provided an expository presentation in Pasig City and Cebu City last August 2017. The ERC likewise directed the conduct of additional expository presentations to be held in General Santos City and Cagayan de Oro City.

As part of the preparations for the integration of Mindanao in the WESM, PEMC held the Market Network Model (MNM) Consultation Meeting last 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.

D. Retail Competition and Open Access (RCOA)

As of 26 October 2017, Central Registration Body (CRB) has registered a total of 1,003 Retail Competition and Open Access (RCOA) participants. This comprises of 898 Contestable Customers (CC), 28 Retail Electricity Suppliers (RES), 12 Local Retail Electricity Suppliers (LRES), 21 Supplier of Last Resort (SOLR), and 44 Retail Metering Service Provider (RMSP).

The total number of registered participants grew by 263% (from 276 to 1,003). Likewise, total number of expected participants grew by 78% (from 961 to 1,706). The total registrant makes up of about 59% (1,003 of 1,706) of the total RCOA expected participants in the retail market.

From 240 in June 2013, registered contestable customers increased to 898 in September 2017. Similarly, registered suppliers, namely Retail Electricity Suppliers (RES) and LRES increased from 15 to 28 and 3 to 12, respectively. At the same time, from none in June 2013, 21 DUs registered as SOLR. While, from 18 in June 2013, 44 DUs registered as RMSP.

Table 28. Summary of RCOA Registration

Membership Category		Expected			Registered		
		26 Jun 2013	25 Aug 2017	Increase	26 Jun 2013	25 Sep 2017	Increase
Contestable Customers	1MW	892	1,560	75%	240	820	242%
	750kW	-	-	-	-	78	-
	Total	892	1,560	75%	240	898	274%
Suppliers	RES	19	30	58%	15	28	87%
	LRES	13	24	85%	3	12	300%
	Total	32	54	69%	18	40	122%
SOLR		9	44	389%	0	21	-
RMSP		28	48**	71%	18	44	144%
Grand Total		961	1,706	78%	276	1,003	263%

Source: ERC, PEMC

Out of 898 registered contestable customers, 875 have had recorded transactions with their respective supplier. Participation of Contestable Customers has grown to as high as 274% (from 240 to 898) compared to that of initial registration. Thus far, as many as 58% (898 out of 1,560) of end-users issued with certificate of contestability are registered in the retail market.

In July 2017, a Licensed RES named Bac-Man Geothermal, Inc. registered in the contestable market. This is among the 40 Suppliers operating in the retail market – 28 RES and 12 LRES.

Meanwhile, a total of 18 CC switches have been completed indicating that the contestable customers which have switched are practicing their power of choice.

Table 29. Customer Switching

	Contestable Customers	Former Supplier	New Supplier	Contract Switch
1	Manila Water Company, Inc.	TAO-EDC	ACE	6/26/17
2	Manila Water Company, Inc.	TAO-EDC	ACE	6/26/17
3	Manila Water Company, Inc.	TAO-EDC	ACE	6/26/17
4	Manila Water Company, Inc.	TAO-EDC	ACE	6/26/17
5	Manila Water Company, Inc.	TAO-EDC	ACE	6/26/17
6	Keppel Philippines Marine, Inc.	ADVENT	TAO	6/26/17
7	Universal Robina Corporation	MERALCO-SOLR	AESI	7/26/17

Contestable Customers		Former Supplier	New Supplier	Contract Switch
8	San Miguel Corporation Mandaue	VECO	SMCCPC	8/26/17
9	PSi Technologies, Inc.	DPSI	Mpower	8/26/17
10	PSi Technologies, Inc.	DPSI	Mpower	8/26/17
11	PSi Technologies, Inc.	DPSI	Mpower	8/26/17
12	De La Salle University – Dasmariñas	FGES	BGI	9/26/17
13	De La Salle University Health Science	FGES	BGI	9/26/17
14	Green Era Bio-Tech Corporation	FGES	BGI	9/26/17
15	Hoc Po Feeds Corporation	FGES	BGI	9/26/17
16	Pilipinas Kyohritsu, Inc.	FGES	BGI	9/26/17
17	Rockwell Land Corporation (Edades Tower and Garden Villas)	FGES	BGI	9/26/17
18	Rockwell Land Corporation (The Grove)	FGES	BGI	9/26/17

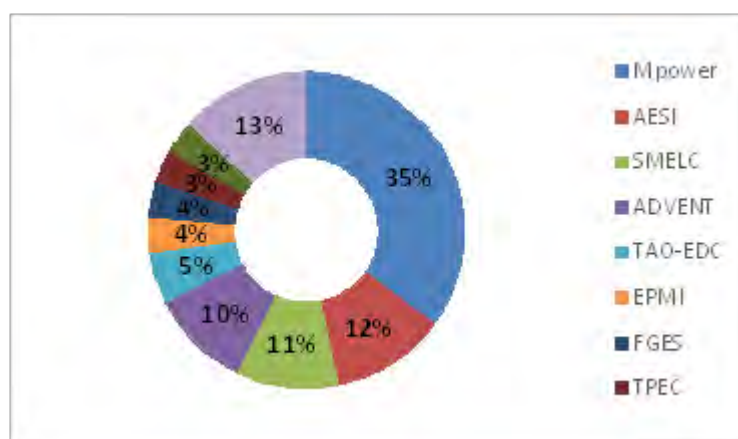
Source: PEMC

Five (5) accounts of the Manila Water Company., Inc. have switched from Trans-Asia Oil & Energy Development (TAO-EDC) to ACE; and three (3) accounts of Psi Technology, Inc. switched from Direct Power Services, Inc. (DPSI) to Mpower. Further, newest registered RES have switched seven (7) contestable customers that were formerly served by an affiliate First Gen Energy Solutions (FGES). The Universal Robina Corporation, the first and lone contestable customer served by a SOLR since July of 2016, finally switched from MERALCO to Aboitiz Energy Solutions, Inc. (AESI).

1. RES Market Share

MPOWER remains the leading Supplier with about 35% of the total sales. It was followed by the AESI with 12%, San Miguel Electric Corporation (SMELC) with 11% and Advent with 10%. Ecozone Power Management, Inc. (EPMI), FGES, Team (Philippines) Energy Corporation (TPEC), and DirectPower Services, Inc. (DPSI) contributed with 5%, 4%, 4%, 3%, and 3%, respectively, while 21 others shared the remaining 13% of the total supply.

Figure 9 - RES Market Share by Suppliers



Source: PEMC

The market sales of the consistent leading Mpower significantly declined by early 2017, the phase when imposition of the on the restriction on the operations of the DUs operating as LRES was supposed to be implemented. Last report period, the share of Mpower was 45% of the share. Mpower is a Local RES of MERALCO, the largest DU in the Country.

Relative to the Temporary Restraining Order (TRO) issued by the Supreme Court in view of the petition filed by the Philippine Chamber of Commerce and Industry, San Beda College Alabang Inc., Ateneo De Manila, and Riverbanks Development Corp. in a case docketed as G.R. No. 228588, the DOE and ERC thru the Office of the Solicitor General, filed an Omnibus Motion on 26 July 2017 to reiterate its prayer to lift the said TRO, or as an alternative, to clarify the scope of the TRO, as follows:

- Limit the scope of the TRO to the substantive issues raised in G.R. No. 228588;
- Allow the ERC to issue new RES licenses and to renew existing ones; and
- Allow DOE and ERC to lower the threshold for contestability as provided for in the Resolution No. 10, Series of 2016.

While awaiting for the release of the final resolution of the case on G.R. No. 228588 by the SC, the DOE drafted two (2) separate policies for Contestable Customers and Suppliers with salient features as follows:

- Providing Policies On The Implementation Of Retail Competition And Open Access (RCOA) For Contestable Customers In The Philippines Electric Power Industry:
 - Upon the effectivity of the Circular, all CCs with a monthly average peak demand of 750 kW and above, for the past 12 months, may participate in the Retail Market;
 - By 26 June 2018 or on an earlier date specified by the ERC, all eligible electricity End-users to become CCs with a monthly average peak demand of 500 kW to 749 kW for the past 12 months may voluntarily participate in the Retail Market; and
 - By 26 December 2018 or on an earlier date specified by the ERC, electricity End-users within a contiguous area whose aggregate average peak demand is not less than 500 kW for the preceding 12-month period may aggregate their demand to be part of the Contestable Market and may voluntarily enter into RSC with the Aggregators.
- Providing Policies On The Implementation Of Retail Competition And Open Access (RCOA) For Retail Electricity Suppliers (RES) In The Philippine Electric Power Industry :
 - Subject to the qualifications set by the ERC in accordance with the EPIRA and its implementing rules, any of the following entities may be considered to become a RES:
 - A Generation Company or Affiliate thereof;
 - An Affiliate of a Distribution Utility;
 - Retail Aggregators;
 - An IPP Administrator; and
 - Any Prospective Generation Company- A Prospective Generation Company shall refer to any person or entity which power generation project is undergoing construction or planned its construction that has been included in the DOE's Power Development Plan (PDP).
 - A licensed RES engaged in the generation and distribution sectors of the power industry shall functionally and structurally unbundle its supply business, as provided for in RA 9136 and Rule 10 of the rules and regulations to implement Republic Act No. 9136; and

- DUs may provide electricity services to CCs within its franchise area as a Local RES, upon authorization from the ERC; Provided, That the DU shall comply with the unbundling provisions of the RA 9136 and Rule 10 of the rules and regulations to implement Republic Act No. 9136.

On 07 September 2017, during the ‘E-Power Mo!’ Energy Investment Forum and Stakeholders’ Conference Breakout Session at Marco Polo in Cebu, the Draft Circulars were presented before the Stakeholders and subjected to Public Consultation. Thereafter, the DOE held parallel Information, Education and Communication (IEC) Campaign and Public Consultation at Park-Inn by Radisson, Clark in Pampanga on 10 October 2017 and at Ace Hotel in Pasig City on 16 October 2017.

E. Market Share Monitoring

On 23 May 2017, the ERC issued Resolution No. 05, Series of 2017, entitled “A Resolution Setting the Installed Generating Capacity and the Market Share Limitation per Grid and the National Grid for 2017” after holding in abeyance the issuance of the annual determination to complete its study on the existing guidelines.

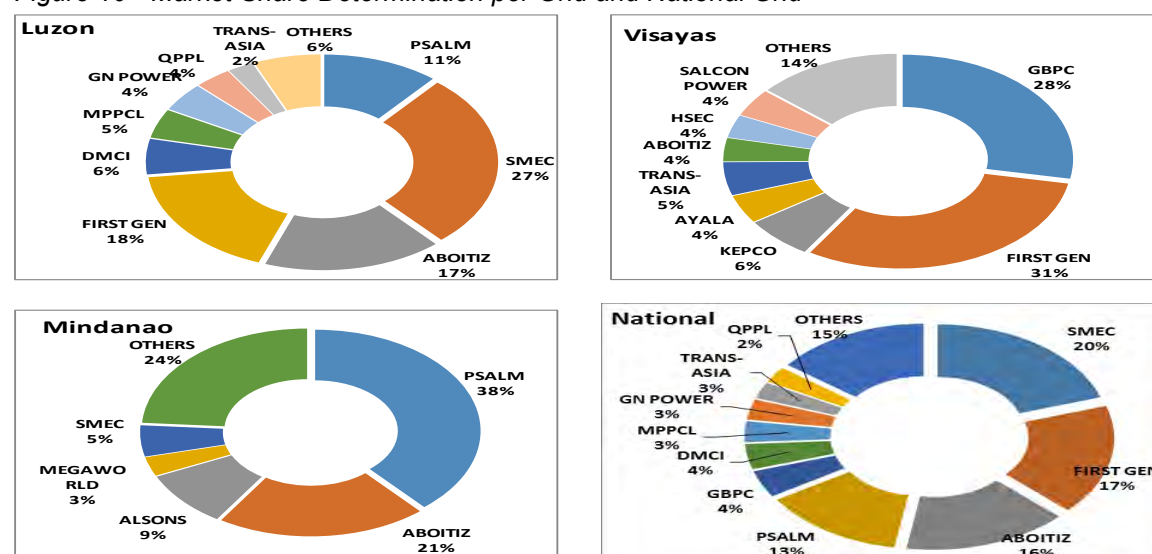
As provided in the EPIRA, limitations shall be 30% of the total installed capacity per Grid and 25% for the National Grid. Based on the aforementioned latest Resolution, the ERC set the 2017 installed generating capacity per Grid and the National Grid, as follows:

Table 30. 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	14,570,958.44	30%	4,371,287.53
Visayas	3,077,848.70	30%	923,354.61
Mindanao	3,021,116.91	30%	906,335.07
National	20,669,924.05	25%	5,167,481.01

From the list of existing power plants for 2017, 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:

Figure 10 - Market Share Determination per Grid and National Grid



Source: DOE List of Existing Power Plants, 2017

In Luzon, San Miguel Corporation continues to dominate the generation business with an installed capacity of 3,985 MW which is equivalent to 27% of the total installed capacity in the Luzon grid. This is followed by First Gen of the Lopez Family with an installed capacity of 2,555 MW which is equivalent to 18% market share and Aboitiz Group having an installed capacity of 2,494 MW, gaining 17% market share in Luzon.

In Visayas, First Gen. holds about 952 MW installed capacity in the grid or equivalent to 31% followed by GBPC of Metrobank Group with 862 MW installed capacity. KEPCO, Trans-Asia, and Ayala Group continue to capture the market of generation business with 6%, 5% and 4% share in the Visayas, respectively.

In Mindanao, the Government continues to dominate the generation business in the grid thru the IPP contracts of the PSALM and the NPC. The Aboitiz group holds the largest part of the installed generation in Mindanao with 21% followed by Alsons with 9%, SMEC with 5% and Megaworld with 3%.

For the National Grid, SMEC has the largest market share, holding 20% of the 20,670 MW National installed capacity, followed by First Gen of Lopez Group with 17%, Aboitiz Group has 16% while the Government thru PSALM and NPC has only 13% share remaining. For the report period, the DOE finds no generation company or other entity has breached the market share limitations per Grid and the National Grid.

F. Market Concentration

To measure the current Philippine power market concentration, the DOE uses the Herfindahl-Hirschman index (HHI) computation. HHI³ 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 31. Retail Electricity Suppliers' Herfindahl-Hirschman Index (HHI)

Ranking	Market Players	Installed Generating Capacity (MW)	Percent Share (National Installed Generating Capacity)	% Share (squared)
1	SMEC	4,135	20%	400.18
2	FIRST GEN	3,507	17%	287.79
3	ABOITIZ	3,227	16%	243.77
4	PSALM	2,780	13%	180.88
5	GBPC	862	4%	17.38
6	DMCI	802	4%	15.05
7	MPPCL	660	3%	10.20
8	GN POWER	652	3%	9.94
9	TRANS-ASIA	519	3%	6.30
10	QPPL	511	2%	6.11
11	OTHERS	3,016	15%	212.95
	TOTAL	20,670		HHI = 1390.54

³ The State of Competition in the Philippine Manufacturing Industry, Rafaelita Mercado-Aldaba

Based on the above computation, the HHI as of May 2017 is 1390.543 which indicate a ***moderately concentrated power market or a market with substantial level of competition.***

VI. POWER SUPPLY SECURITY AND RELIABILITY

The Philippine Power System faced several challenges from January to June 2017 which include the occurrence of an earthquake, several forced outages, load dropping incidents, and security issues particularly in Mindanao. Despite these concerns, the country's power system was easily stabilized due to the immediate response and strong coordination among all energy stakeholders. The increase in power generation capacities and incidence of low demand during critical periods also aid in maintaining the stability of the power system during the first half of 2017.

To ensure the delivery of quality, reliable, affordable, and secured electricity supply, the DOE initiated the issuance of policies for resiliency, conduct of performance assessment and technical audit for all energy facilities, and reactivated the Inter-Agency Task Force on Securing Energy Facilities (IATFSEF), among others.

A. Power Supply

The country's total installed capacity remained dominated by coal at 35% or 7,568 MW, followed by renewable energy at 32.55% or 7,038 MW, oil-based at 16.58% or 3,584 MW, and natural gas at 15.87% or 3,431 MW. In terms of power generation, coal remained the major source of electricity for Luzon, Visayas, and Mindanao with a combined share at 49% or 21,707 MWh. Newly operational plants from January-June 2017 are mainly coal and solar power plants which added 150 MW and 78 MW to the total installed capacity. Capacities which will be coming in the pipeline are largely coal power projects with 4,465 MW committed and 9,903 MW indicative capacities.

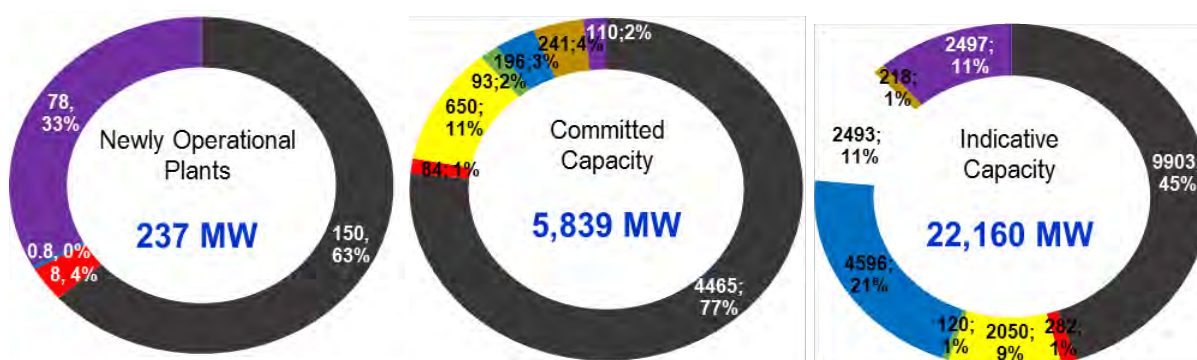
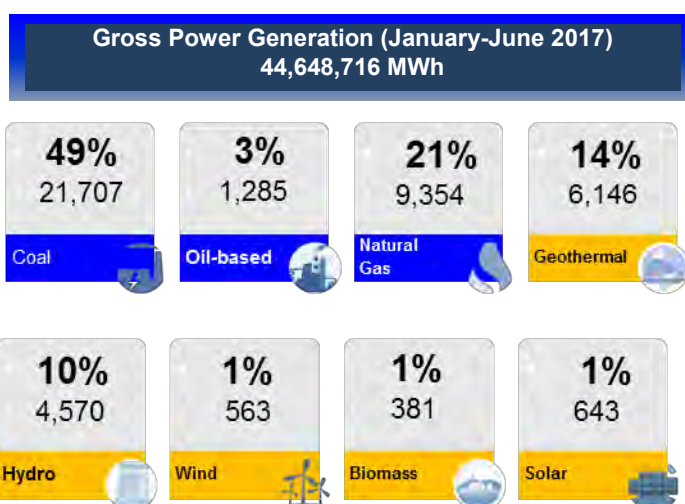


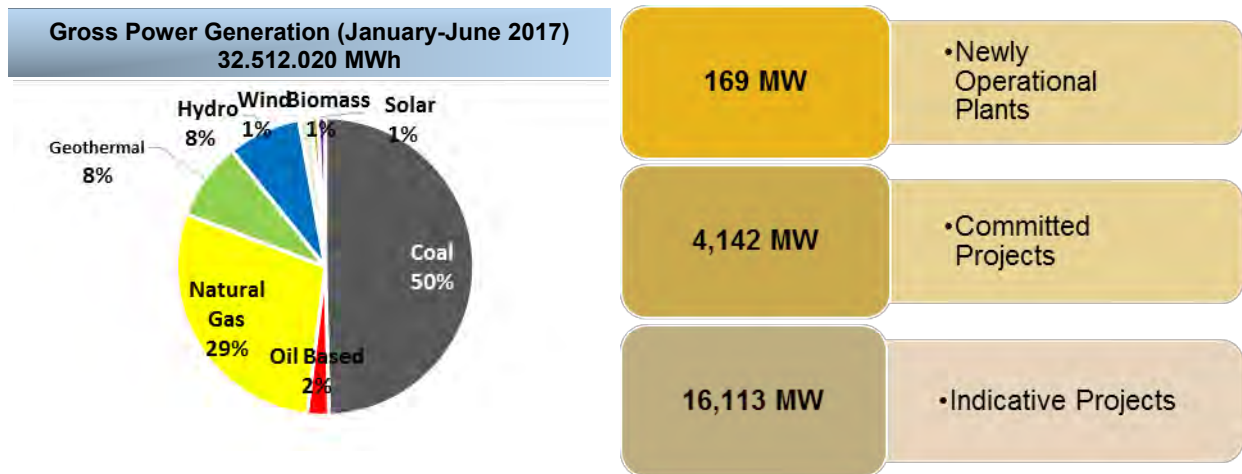
Table 32. Philippine Installed, Dependable and Available Capacity from January-June 20

Fuel Type	Installed		Dependable		Available		
	MW	Percent Share (%)	MW	Percent Share (%)	Min	Max	Average
Coal	7,568	35.00	7,230	37.01	3,845	7,084	5,530
Oil-Based	3,584	16.58	2,817	14.42	1,469	2,548	2,267
Natural Gas	3,431	15.87	3,291	16.84	1,198	3,295	2,774
Renewable Energy	7,038	32.55	6,199	31.73	3,177	6,136	4,822
<i>Geothermal</i>	1906	8.82	1752	8.97	1097	1775	1,428
<i>Hydro</i>	3638	16.83	3241	16.59	1801	3136	2,610
<i>Wind</i>	427	1.97	383	1.96	3	398	160
<i>Biomass</i>	224	1.04	160	0.82	25	131	103
<i>Solar</i>	843	3.90	663	3.39	251	696	521
TOTAL	21,621	100.00	19,537	100.00	9,689	19,063	15,393
1st Half 2016	14,348	-	13,109	-	6,712	12,394	10,361

LUZON POWER SITUATION

Table 33. Luzon Installed, Dependable and Available Capacity from January-June 2017 (in MW)

Fuel Type	Installed		Dependable		Available		
	MW	Percent Share (%)	MW	Percent Share (%)	Min	Max	Average
Coal	5,444	35.99	5,230	37.70	2,842	5,135	4,003
Oil Based	2,133	14.10	1,655	11.93	777	1,572	1,384
Natural Gas	3,430	22.67	3,291	23.72	1,198	3,295	2,774
Renewable Energy	4,120	27.24	3,699	26.66	1,981	3,850	2,886
<i>Geothermal</i>	833	5.51	782	5.64	407	872	590
<i>Hydro</i>	2,538	16.78	2,324	16.75	1,487	2,342	1,967
<i>Wind</i>	337	2.23	293	2.11	1	308	113
<i>Biomass</i>	87	0.58	66	0.48	22	63	51
<i>Solar</i>	325	2.15	233	1.68	64	265	165
TOTAL	15,128	100.00	13,874	100.00	6,798	13,852	11,047
1st Half 2016	14,348	-	13,109	-	6,712	12,394	10,361



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.
- Two earthquakes occurred in Mabini, Batangas on 08 April 2017 causing generator tripping with a total capacity of 1,570 MW in the Batangas area. The affected power plants were Avion Unit 2 (50 MW), San Lorenzo Units 1 and 2 (500 MW), Ilijan B (600 MW), and San Gabriel (420 MW). This incident triggered the issuance of Yellow Alert on 10-11 April 2017 and Red Alert on 10 April 2017. Luzon grid became stable on 16 April 2017 with the synchronization of most of the affected power plants to the grid.
- An Automatic Load Dropping (ALD) incident occurred on 7 June 2017 due to the outage of the 300 MW Calaca Coal-Fired Power Plant (CFPP) Unit 2 and the 150 MW SLPGC CFPP Unit 2. The outage of the power plants was due to the actuation of Batangas System Integrity Protection Scheme (SIPS) caused by the auto-tripping of Calaca-Amadeo 230 kV transmission line 2.
- The 647 MW Sual Coal-Fired Power Plant (CFPP) Unit 2 went on forced outage on 14 June 2017 triggering an ALD incident of 614 MW in the system 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. As best option, Team Sual will purchase a new transformer and the target synchronization of Sual CFPP Unit 2 is by February 2018.
- At the end of 1st half 2017, a total of 168.8 MW increase in the installed capacity was recorded with the entry of the power plants listed below. In addition, a total of 4,142 MW committed capacity and 16,113 indicative capacity is recorded as of 30 June 2017.

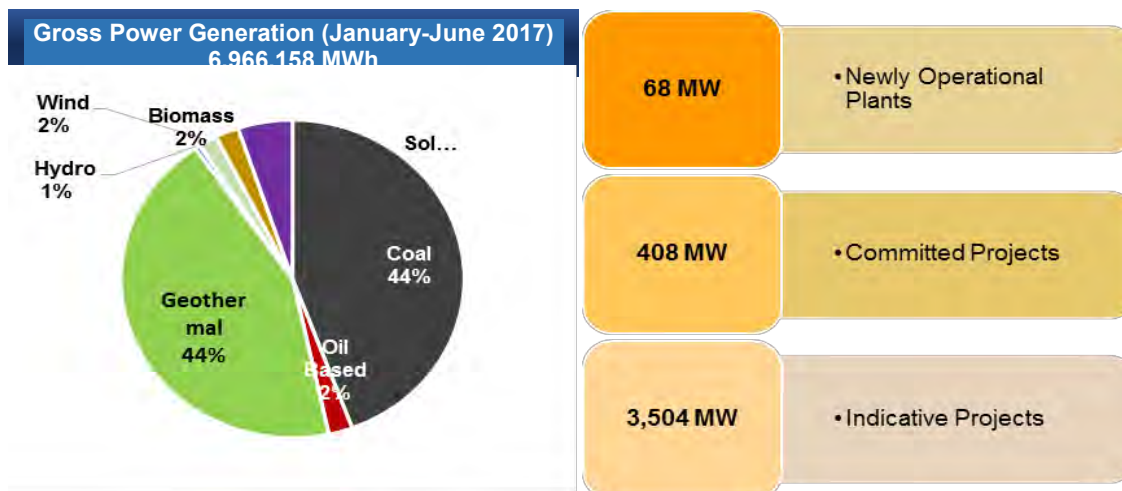
Table 34. Luzon Additional Capacities (01 January to 30 June 2017)

Newly-Operating Power Plants	Location	Installed Capacity (MW)	Dependable Capacity (MW)	Commercial Operation Date
COAL				
SCPC Limay CFPP Unit 1	Limay, Bataan	150.0	150.0	May 2017
SUBTOTAL		150.0	150.0	
HYDRO				
San Luis Mini HEPP	San Luis, Aurora	0.8	0.8	January 2017
SUBTOTAL		0.8	0.8	
SOLAR				
Mariveles Solar	Mariveles, Bataan	18.0	12.6	February 2017
SUBTOTAL		18.0	12.6	
TOTAL		168.8	163.4	

VISAYAS POWER SITUATION

Table 35. Visayas Installed, Dependable and Available Capacity from January-June 2017 (in MW)

Fuel Type	Installed		Dependable		Available		
	MW	Percent Share (%)	MW	Percent Share (%)	Min	Max	Average
Coal	1,054	31.43	1,050	35.64	638	1,046	892
Oil Based	663	19.77	447	15.17	252	435	394
Natural Gas	1	0.03	0	0.00	0	0	0
Renewable Energy	1,635	48.76	1,449	49.19	844	1,369	1,198
<i>Geothermal</i>	965	28.78	870	29.53	646	803	756
<i>Hydro</i>	20	0.60	18	0.61	6	17	11
<i>Wind</i>	90	2.68	90	3.05	2	90	47
<i>Biomass</i>	101	3.01	84	2.85	3	68	52
<i>Solar</i>	459	13.69	387	13.14	187	391	332
TOTAL	3,353	100.00	2,946	100.00	1,734	2,850	2,484
1st Half 2016	2,965	-	2,498	-	1,323	2,383	2,019



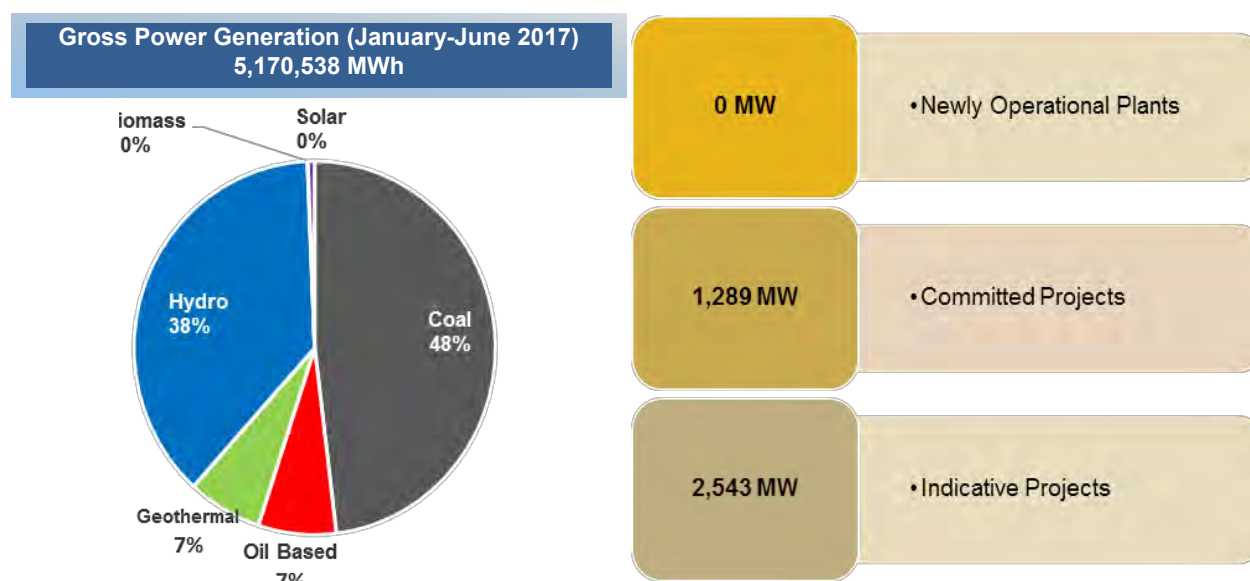
Significant Incidents:

- For the first half of 2017, the total gross generation of power plants in the Visayas grid reached a total of 6,966 GWh. Fifty four percent (54%) or a total of 3,719 GWh came from generation facilities powered by renewable energy resources; 44% or 3,090 GWh came from coal-fired power plants; and 2% or 157 GWh came from oil-based power plants.
- From the months of January until June 2017, the power situation in the Visayas grid 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 simultaneous outages of large coal-fired or geothermal power plants.
- As of June 2017, a total of 68 MW of installed capacity was added to the Visayas grid composed of solar and diesel-fired power generation facilities. Committed and indicative capacities as of the first half of 2017 reached 408 MW and 3,504 MW, respectively.

Table 36. Visayas Additional Capacities (01 January to 30 June 2017)

Newly-Operating Power Plants	Location	Installed Capacity (MW)	Dependable Capacity (MW)	Commercial Operation Date
OIL-BASED				
Calumangan DPP U4	Bago City, Negros Occidental	8.00	6.40	May 2017
SUB-TOTAL		8.00	6.40	
SOLAR				
FIRST TOLEDO Solar Power Project	Toledo, Cebu	60.00	49.00	June 2017
SUB-TOTAL		60.00	49.00	
TOTAL 2017 1st Half		68.00	55.40	
TOTAL 2016		623.90	567.00	
TOTAL 2015		227.0	173.4	

MINDANAO POWER SITUATION



Significant Incidents:

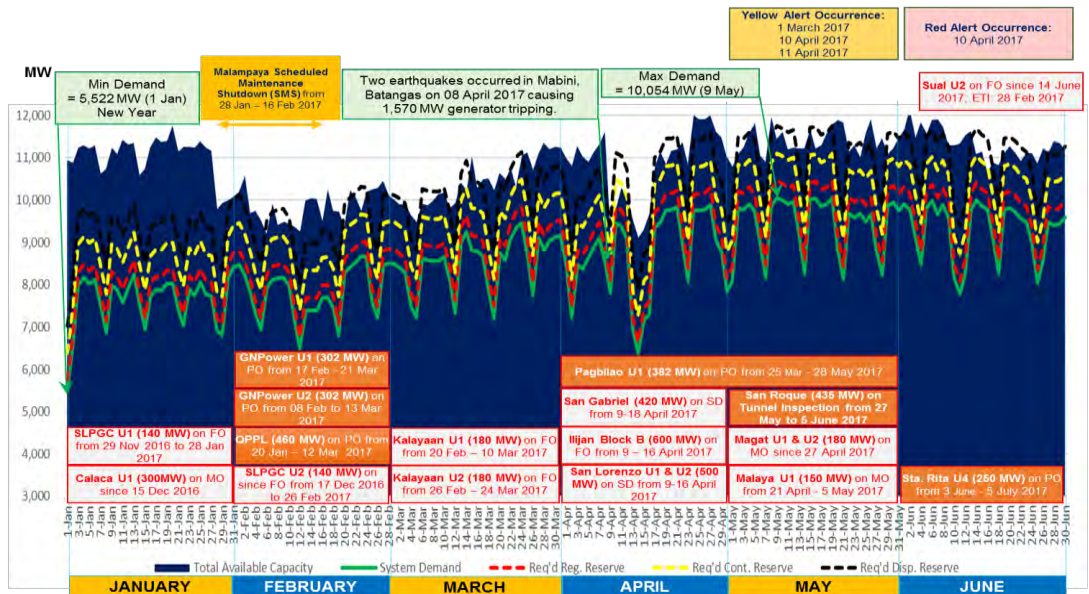
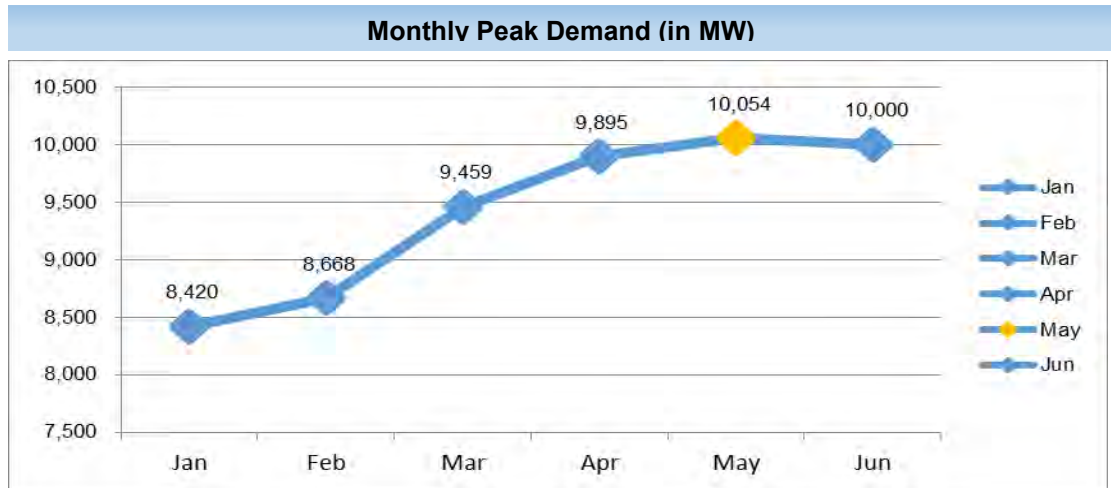
- Power situation in the Mindanao Grid has been stable for the first half of 2017 compared to previous years due to the sufficient available supply.
- Power generation in Mindanao reached 5,170 GWh for the first half of 2017. Almost half of the grid's power generation came from coal-fired power plants at 2,486 GWh. For renewable energy, hydro power plants' share at 38% or 1,947 GWh was the largest, followed by geothermal at 7% or 344 GWh, solar power plants at 0.6% or 31 GWh, and biomass at 0.04% or 2 GWh. The remaining 7% or 360 GWh came from oil-based power plants.
- There were no additional power plants that went on commercial operation in Mindanao from January to June 2017, but there are a number of coal-fired power plants which came online and currently undergoing testing and commissioning:
 - 135 MW FDC Misamis Coal Unit 3
 - 150 MW SMC Malita Coal Unit 3
 - 3x55 MW Minergy Balingasag Coal Units 1-3
- The Inter-Agency Task Force on Securing Energy Facilities (IATFSEF) composed of the DOE, National Power Corporation (NPC), National Electrification Administration (NEA), Power Sector Assets and Liabilities Management Corporation (PSALM), National Grid Corporation of the Philippines (NGCP), Lanao Del Sur Electric Cooperative, Inc. (LASURECO), Philippine National Police (PNP), Armed Forces of the Philippines (AFP), and other industry players continue to push for the restoration of energy facilities in the province of Lanao del Sur and Marawi City which are damaged by the ongoing military operations versus the Maute group since May 2017.

B. System Peak Demand

1. LUZON

Luzon reached new all-time high system peak demand at 10,054 MW which occurred on 09 May 2017, 2:27 PM with corresponding 11,218 MW available capacity. This peak demand is 3.26% higher than the previous year at 9,726 MW.

Luzon Demand-Supply Situation 01 January 2017 – 30 June 2017

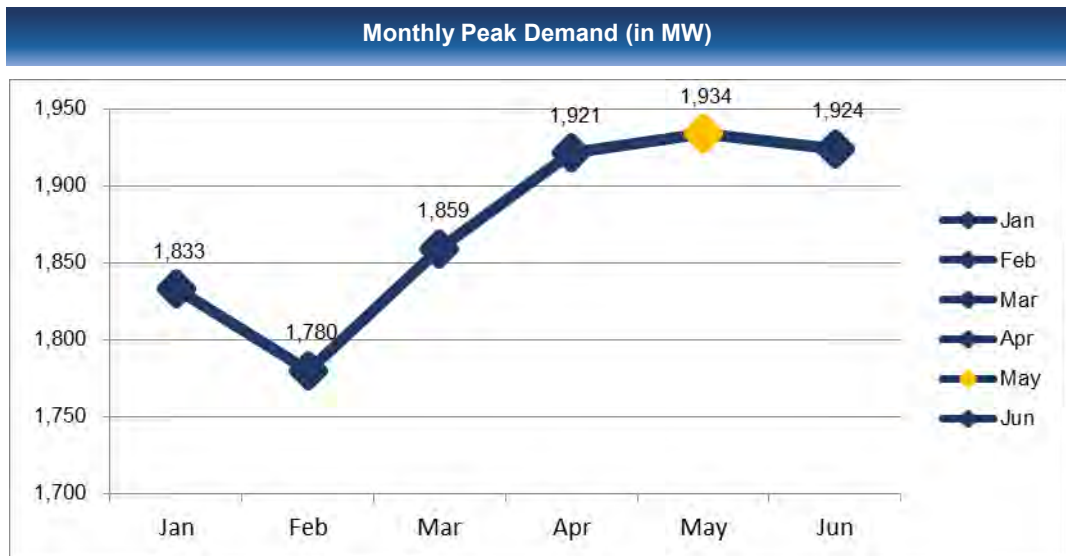


Source: National Grid Corporation of the Philippines (NGCP) Daily Operations Report

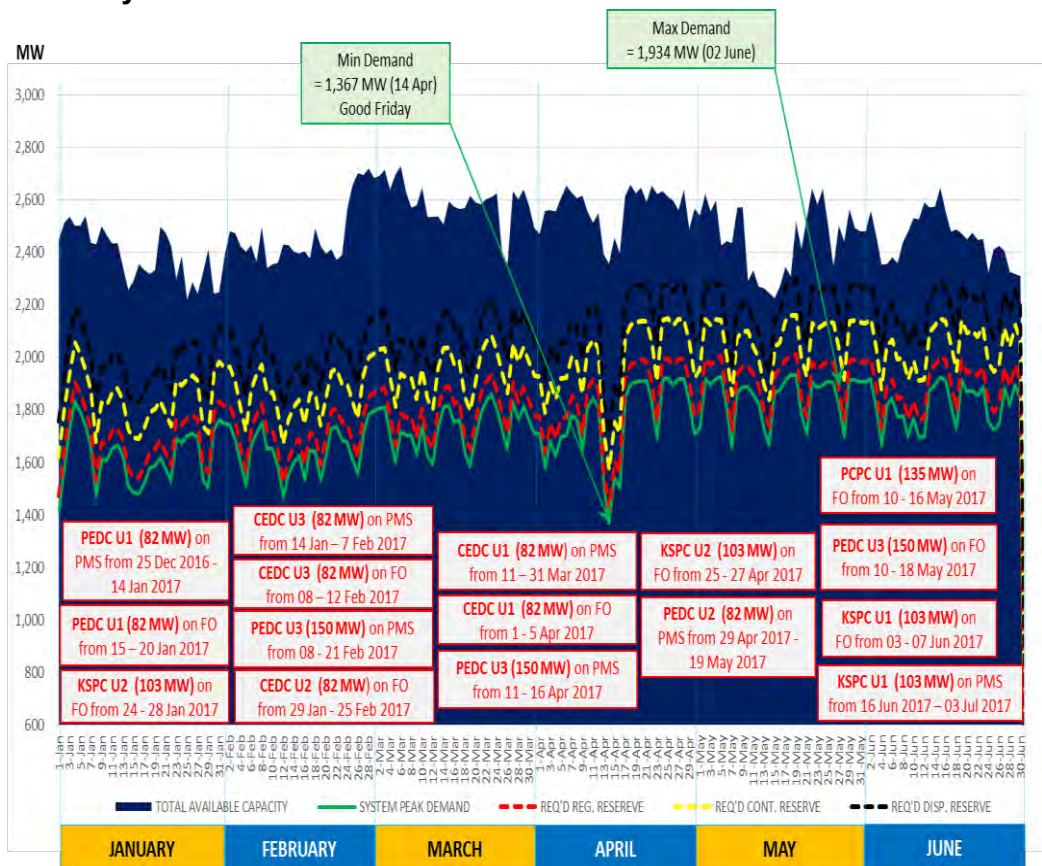
Notes:
FO – Forced Outage / PO – Planned Outage / MO – Maintenance Outage / SD – Shutdown

2. VISAYAS

Highest system peak demand in Visayas at 1,934 MW occurred on 02 June 2017, 2:10 PM with corresponding 2,558 MW available capacity. This peak demand is 2.11% higher than the previous year at 1,894 MW.

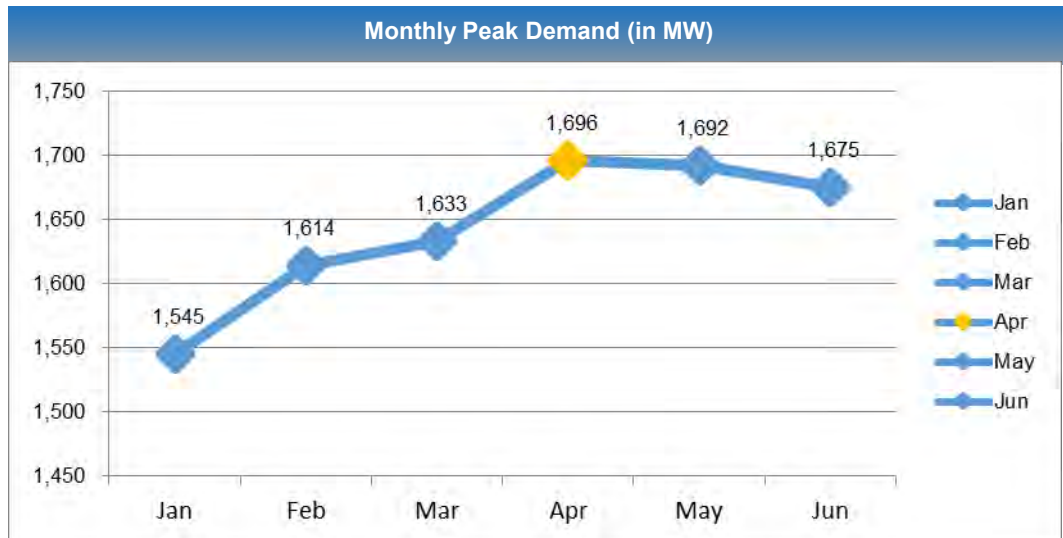


Visayas Demand-Supply Situation 01 January 2017 – 30 June 2017

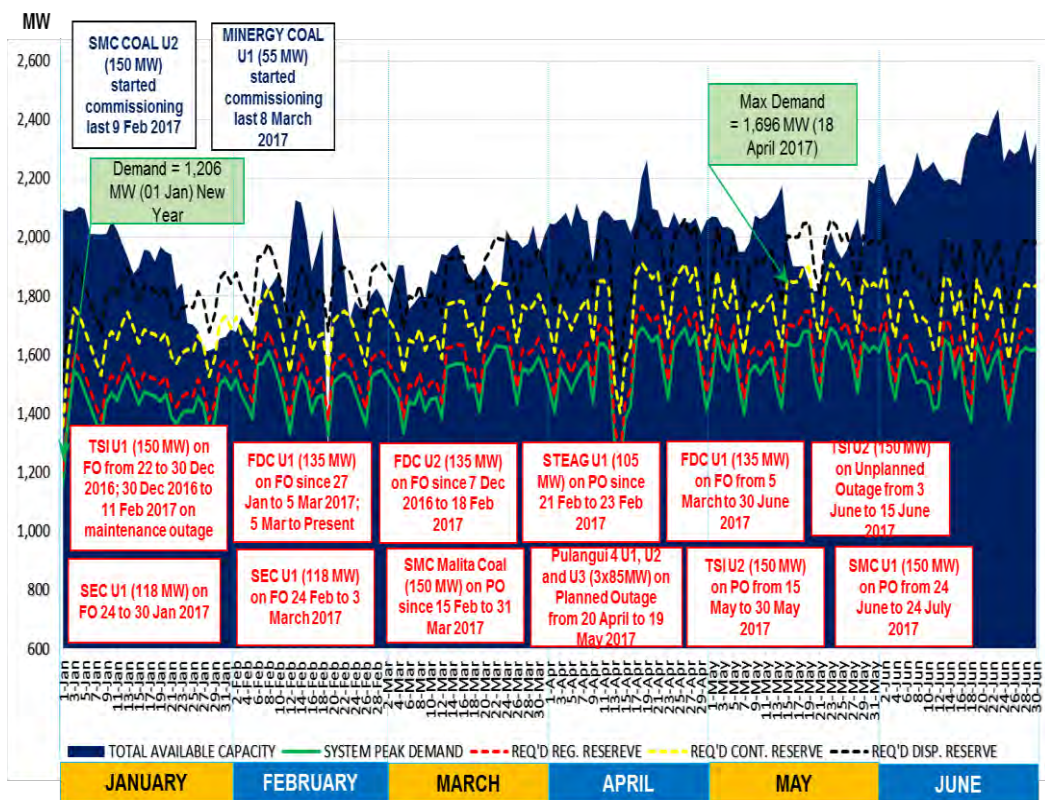


3. Mindanao

Highest system peak demand in Mindanao at 1,696 MW occurred on 18 April 2017, 2:46 PM with corresponding 2,202 MW available capacity. This peak demand is 2.60% higher than the previous year at 1,653 MW.



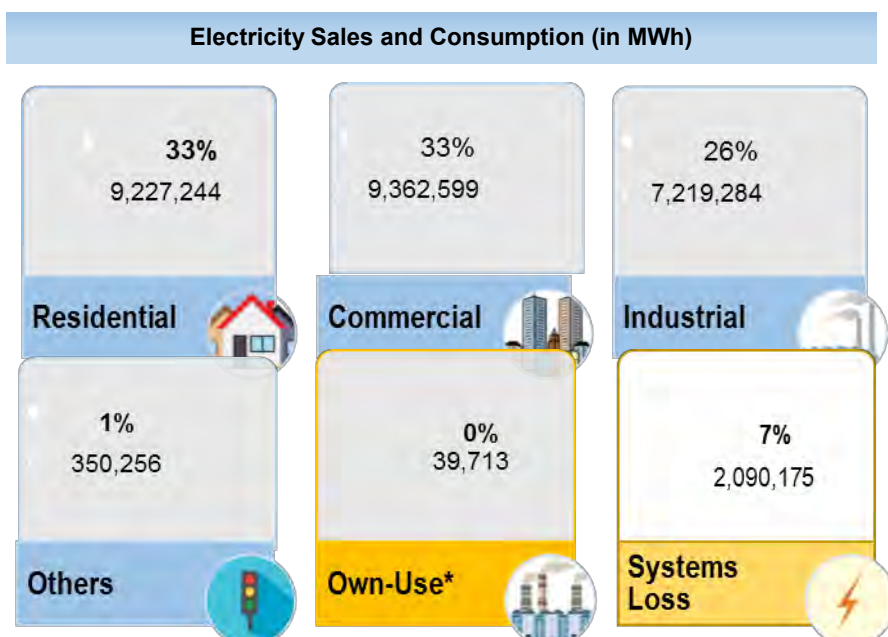
Mindanao Demand-Supply Situation 01 January 2017 – 30 June 2017



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

C. Electricity Sales and Consumption

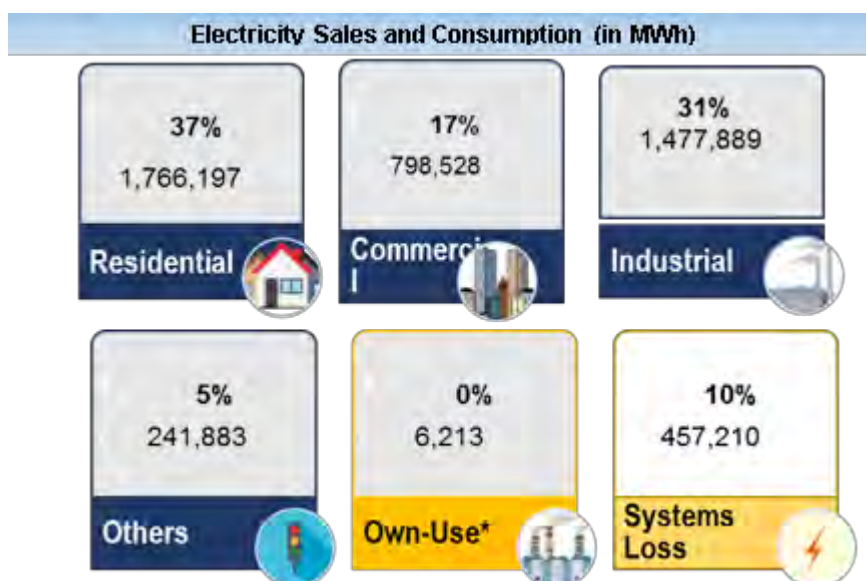
1. LUZON



**Note: Most DUs consider own-use as part of electricity sales to the commercial sector with reference to ERC Resolution No. 11 Series of 2010*

- Electricity sales and consumption in Luzon from January to June 2017 reached a total of 28,289,272 MWh. This is 2.13% higher than the same period in 2016 at 27,700,584 MWh.
- This is driven by the consumption of the residential sector at 34% or 9,227,244 MWh.
- Luzon's share to the country's total electricity sales and consumption remained the largest at 75%.

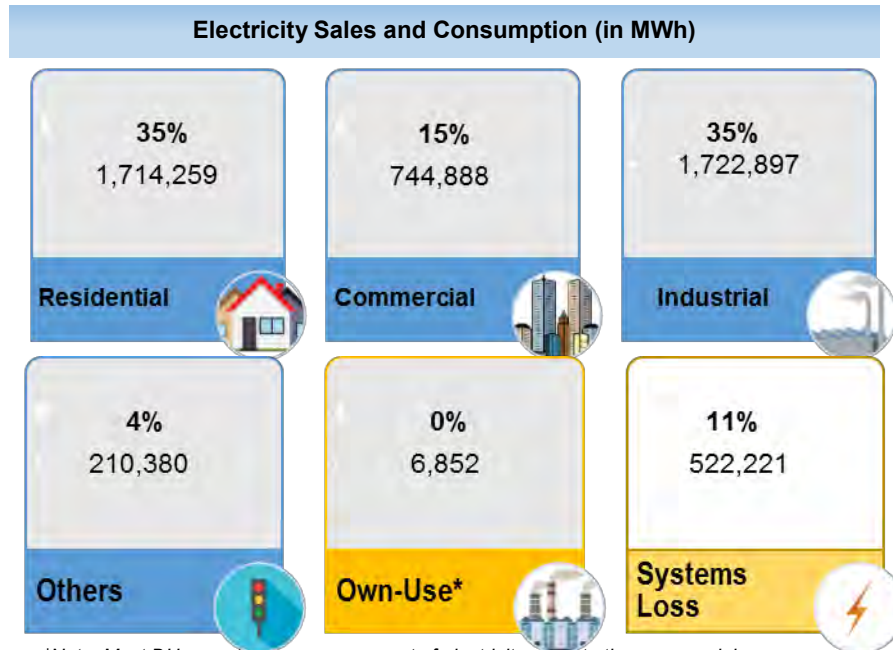
2. VISAYAS



**Note: Most DUs consider own-use as part of electricity sales to the commercial sector with reference to ERC Resolution No. 11 Series of 2010*

- Electricity sales and consumption in Visayas from January to June 2017 reached a total of 4,747,921 MWh. This is 0.41% higher than the same period in 2016 at 4,728,529 MWh.
- Similar to Luzon, electricity consumption in the Visayas is also driven by the residential sector at 37% or 1,766,197 MWh.
- Visayas' share to the country's total electricity sales and consumption is at 12%.

3. MINDANAO



**Note: Most DUs consider own-use as part of electricity sales to the commercial sector with reference to ERC Resolution No. 11 Series of 2010*

- Electricity sales and consumption in Mindanao from January to June 2017 reached a total of 4,921,497 MWh. This is 1.54 % higher than the same period in 2016 at 4,846,988 MWh.
- This is driven by the consumption of the residential and industrial sectors with at par shares at 35% and 34%, respectively.
- Mindanao's share to the country's total electricity sales and consumption is at 13%.

D. Status of Government Generating Assets

1. Agus VI HEPP Upgrading Project

The Project consists of engineering investigation, design, manufacturing and installation of new hydropower turbines and blades for the upgrading 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 installation units 1 and 2, variation orders and 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.

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	October 2017

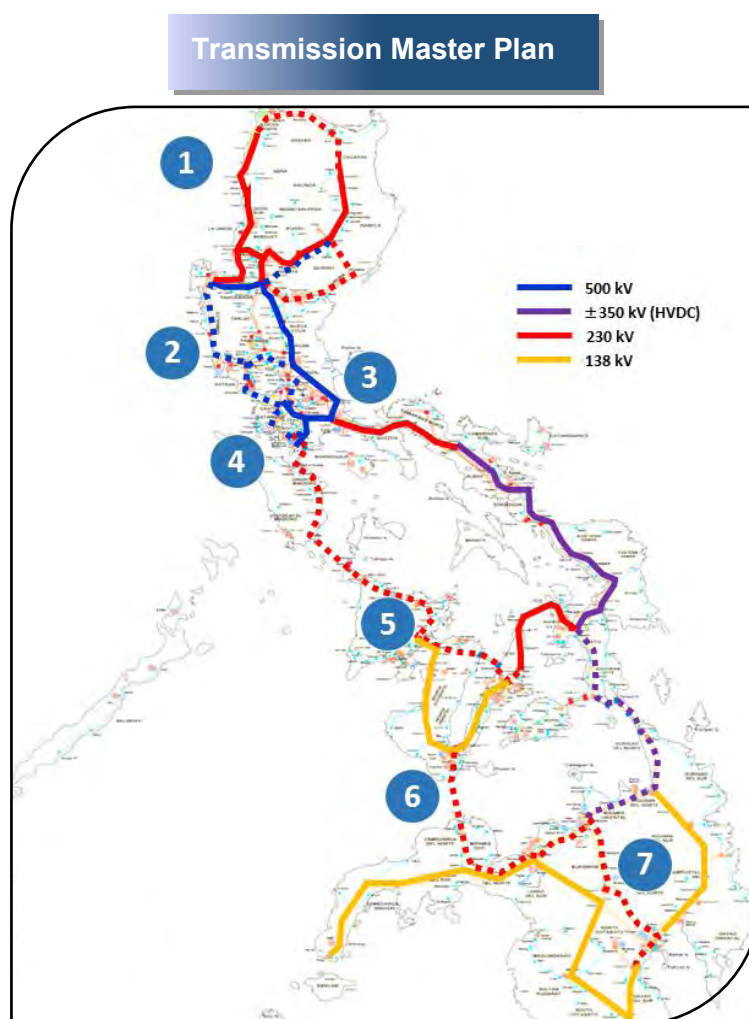
As of 31 October 2017, the Project's overall accomplishment is 99.96%. Table below shows the detailed activities which were already taken.

Table 37. Project Over-All Accomplishments as of 31 October 2017

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

E. Status of Transmission Projects



- 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. 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)

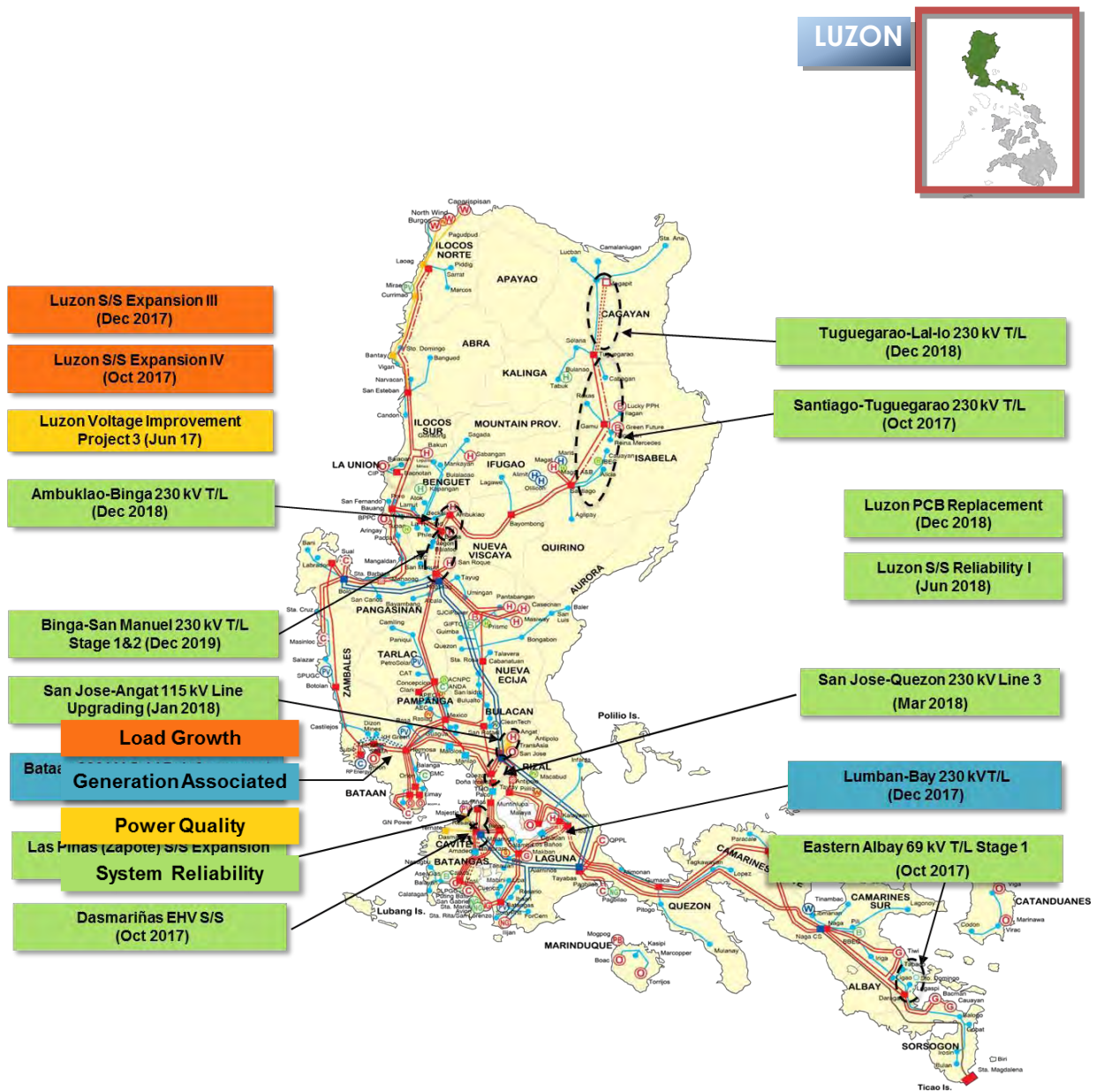
- ERC-approved
- To accommodate excess generation

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

- **Luzon Substation Expansion Project 3**
 - Estimated Time of Completion (ETC): December 2017
 - Status: 99.74 % complete
 - To maintain the provision for N-1 contingency due to increasing load.
- **Luzon Substation Expansion Project 4**
 - ETC: October 2017
 - Schedule 1: 100 % complete
 - Schedule 2: 95.51 % complete
 - To add substation capacity to accommodate load growth.

GENERATION ASSOCIATED

- **Lumban (Kalayaan)-Bay (Makban) 230 kV Transmission Line Project**
 - Transmission line component: 100 % complete
 - Substation component: 98.29 % complete
 - To increase the capacity of this corridor in order to accommodate any generation dispatch scenarios.
- **Bataan 230 kV Grid Reinforcement Project**
 - ETC: June 2018
 - Status: Checking of manufacturer's drawings
 - To optimize the existing transmission lines by increasing the capacity without acquiring new right-of-way in order to accommodate new generation capacity addition.

POWER QUALITY

- **Luzon Voltage Improvement Project 3 (Laoag Substation)**
 - ETC: for energization on 26 June 2017
 - Status: 100 % complete
 - 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

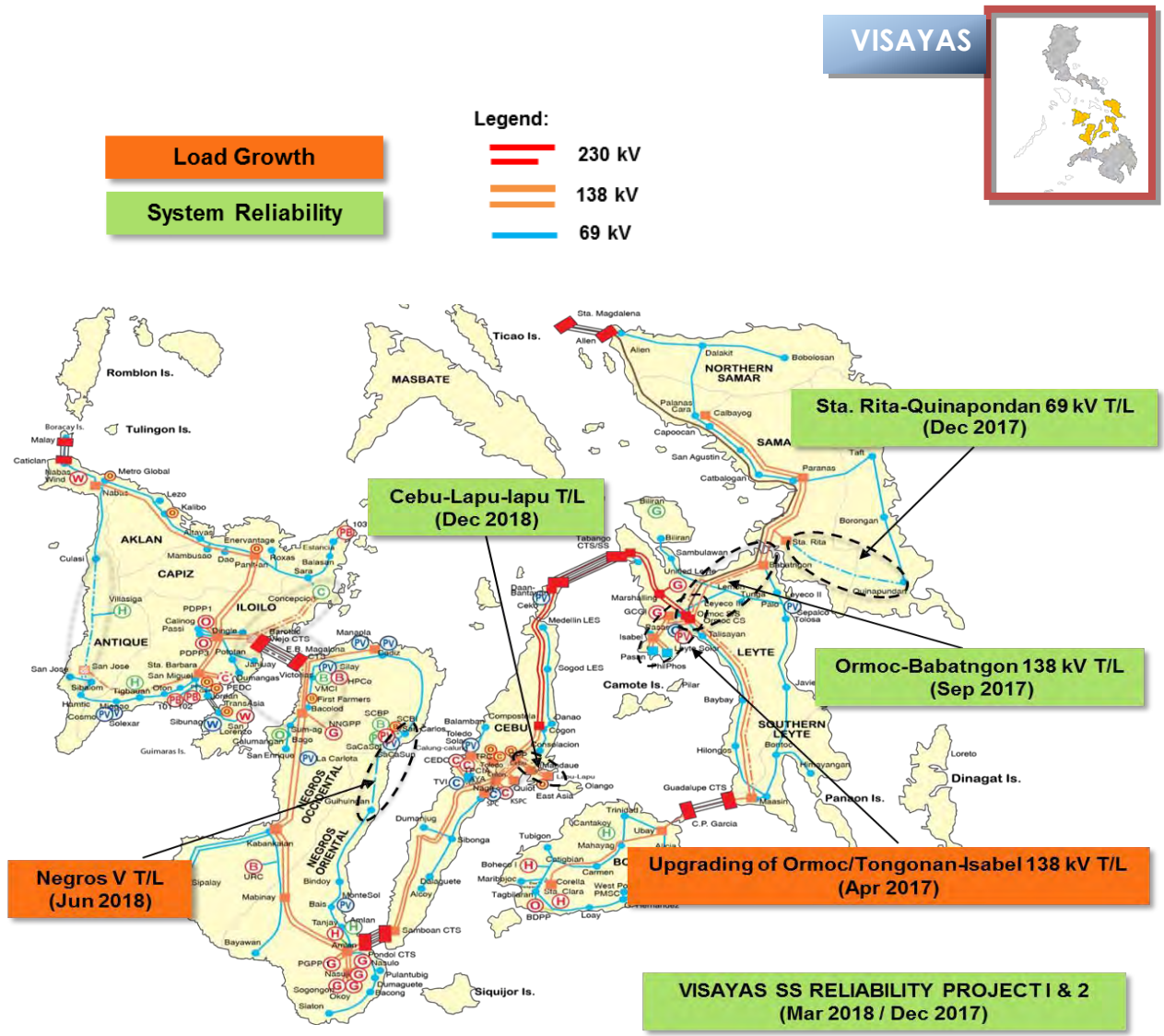
- **Luzon Power Circuit Breaker (PCB) replacement**
 - ETC: December 2018
 - Status: 72.63 % complete
 - To replace old PCBs to improve substation reliability at San Jose, Labo, Malaya and Gumaca.
- **San Jose-Quezon (Balintawak) Line 3**
 - ETC: March 2018
 - Status: 86.16 % complete
 - To increase transfer capacity of the existing corridor and maintain the N-1 contingency provision.

- **Ambuklao-Binga 230 kV Transmission Line Project**
 - ETC: December 2018
 - Status: 91.3 % 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
 - Status: 98.43 % complete
 - To add substation capacity to provide N-1 contingency.

SYSTEM RELIABILITY

- **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
 - Status: 98.4 % complete
 - Stage 2 (San Manuel S/S)**
 - ETC: Dec 2018
 - Status: 83.81 % complete
- **Santiago-Tuguegarao 230 kV Transmission Line Project**
 - ETC: October 2017
 - Transmission line component: 99.81 % complete
 - Substation component: 97.53 % complete
 - To provide N-1 contingency for the existing transmission corridor serving Isabela and Cagayan
- **Dasmariñas EHV Substation Expansion Project**
 - ETC: October 2017
 - Status: 99.92 % complete
 - To maintain the provision for N-1 contingency for the transformers at Dasmariñas drawdown substation.
- **Las Piñas (Zapote) Substation Expansion Project**
 - ETC: December 2017
 - Status: 98.90 % complete
 - 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**
 - ETC: October 2017
 - Erection: 87 % complete
 - 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.

- **San Jose-Angat 115 kV Transmission Line Upgrading Project**
 - ETC: January 2018
 - Status: 80 % 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: 3.84 % complete
 - Substation component: 31.65 % 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.



LOAD GROWTH

- **Negros V Transmission Project**
 - ETC: June 2018
 - Status: 84.84 % complete
 - To accommodate load growth in Northeastern Negros and to provide operational flexibility.
- **Upgrading of Ormoc/Tongonan-Isabel 138 kV Transmission Line (Typhoon Yolanda)**
 - ETC: August 2017
 - Status: 96.06 % complete
 - To address the system limitation and restore the reliability of the Ormoc/Tongonan-Isabel 138 kV Transmission Line.

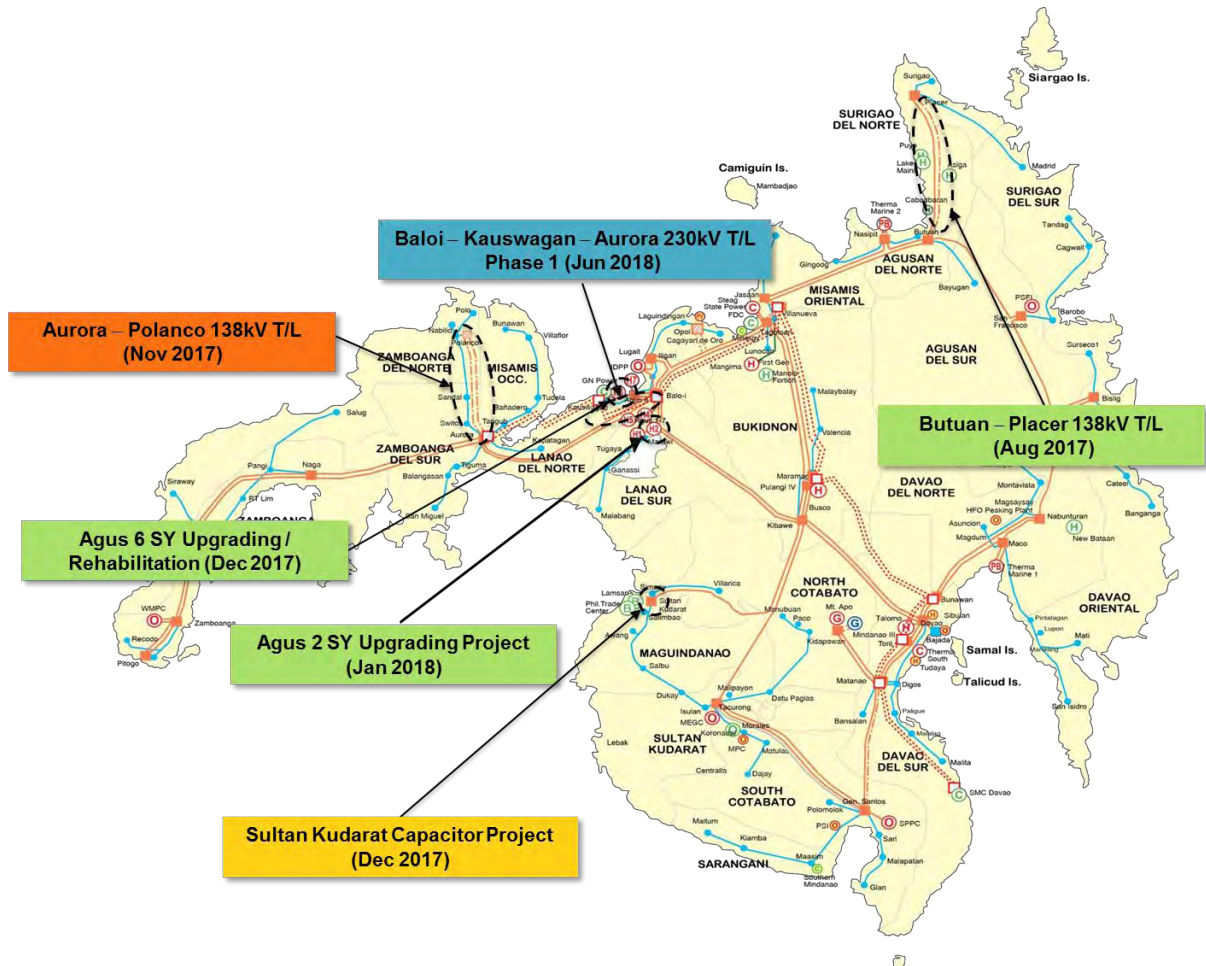
SYSTEM RELIABILITY

- **Ormoc-Babatngon 138 kV Transmission Line Project**
 - ETC: September 2017
 - Transmission line component: 98.69 %
 - 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.
 - **Ormoc/Babatngon Substations**
 - ETC: August 2017
 - Status: 99.26 % complete
 - **Amlan/Bacolod/Cadiz/Maasin/Samboan Substations**
 - ETC: March 2018
 - Status: 92.03 % complete
- **Visayas Substation Reliability Project 2**
 - ETC: August 2017
 - Status: 99.29 % complete
 - To add substation capacity to provide N-1 contingency.
- **Sta. Rita-Quinapondan 69 kV Transmission Line Project**
 - ETC: December 2017
 - Status: 99.67 % complete
 - To make Quinapondan 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: 96.91 % complete
 - To increase transfer capacity of the existing corridor and maintain the N-1 contingency provision.

- Load Growth
- Generation Associated
- Power Quality
- System Reliability

- Legend:**
- ▬ 230 kV
 - ▬ 138 kV
 - ▬ 69 kV

MINDANAO



LOAD GROWTH

- **Aurora-Polanco 138 kV Transmission Line Project**
 - ETC: November 2017
 - Transmission line component: 91.63 %
 - Substation component: 83.47 %
 - 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: 32.58% complete
 - 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 2017
 - Status: 45 % complete
 - To improve the voltage profile in the area.

SYSTEM RELIABILITY

- **Butuan-Placer 138 kV Transmission Line Project**
 - ETC: August 2017
 - Transmission line component: 85.95 %
 - Substation component: 100 %
 - To provide N-1 contingency to the existing line.
- **Agus 6 Switchyard Upgrading Rehabilitation Project**
 - ETC: December 2017
 - Status: 79.87 % complete
 - To ensure the operational reliability of the plant's switchyard.
- **Agus 2 Switchyard Upgrading/Rehabilitation Project**
 - ETC: January 2018
 - Status: Checking of manufacturer's drawings
 - To address the deteriorating physical and operational condition of the switchyard.

F. Distribution Infrastructure Projects

1. ERC-Approved Capital Expenditure (CAPEX) Projects

For the report period, the ERC granted approval to the Capital Expenditure (CAPEX) Project applications filed by Ilocos Norte Electric Cooperative, Inc. (INEC), Northern Samar Electric Cooperative, Inc. (NORSAMELCO), First Laguna Electric Cooperative, Inc. (FLECO), Biliran Electric Cooperative, Inc. (BILECO), Clark Electric Distribution Corporation (CEDC), Negros Occidental Electric Cooperative, Inc. (NOCECO), Olongapo Electricity Distribution Corp. (OEDC, Ticao Electric Cooperative Inc. (TISELCO), and Samar I Electric Cooperative, Inc. (SAMELCO I). Details of this project is shown in Annex 10.

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

For this report period, the 2nd term loan of Misamis Oriental II Electric Cooperative, Inc. (MORESCO II) increased the number of participating ECs with full or partial loan releases under the Electric Cooperative Partial Credit Guarantee (ECPCG) Program to 24 while the deferment of the application of Sorsogon I Electric Cooperative, Inc. (SORECO I) due to expiration of guarantee approval validity reduced the number of committed accounts under the said Program to four (4). Total loan amount from the 24 ECs reaches PHP3 billion while that of the committed accounts stand at PHP490.5 million.

The ECPCG Program created the guarantee facility that provides partial credit guarantee coverage of up to 80% of the outstanding loans of ECs from commercial banks for the financing of the ECs power distribution system upgrades. An expansion of the Program to extend the guarantee coverage to ECs renewable energy (RE) projects to be funded from the Clean Technology Fund via the Philippines Renewable Energy Development (PHRED) Project has been issued a Special Presidential Authority on 23 January 2017.

Table 38. 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. (DANEKO)	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

	EC	Loan Amount	ECPCG Program	Lender	Signing Date of Loan and Guarantee
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 (2 nd loan)	81.07	64.86	DBP	May 13, 2014
21	BUSECO (3rd loan)	25.88	20.70	Security Bank	May 08, 2015
22	Central Negros Electric Cooperative, Inc. (CENECO)	191.68	153.34	Security Bank	March 07, 2016
23	MORESCO II (2 nd Loan)	40	32.00	Security Bank	September 6, 2016
Sub-Total		2,808.82	2,247.06		

* These accounts were originally booked by Allied Bank prior to its merger with PNB.

Source: DOE, LGUGC

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

Table 39. Household Electrification Level

For the report period, the household electrification level of the country is estimated at 90.7% based on the major updates provided by the 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 39). This means that the Government already achieved its 90% household electrification target ahead of schedule

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

The Household Electrification Development Plan (HEDP) 2013-2017

At the meantime, the Government shall continue all the existing programs and activities specified in the HEDP to contribute to its new goal of total household electrification by 2022 of which include both on-grid and off-grid electrification approaches in providing electricity services.

Thus, the present sectoral challenge is on how to define the next phase of the total electrification program beyond 2017. The Government will have to deal with the most remote areas and households in the countryside which are most difficult to undertake. There is also a need to establish a clear-cut policy for slum electrification that addresses the issue of the informal settlers both in rural and urban areas of the country.

In the aspect of electrification planning, DUs and ECs will have to take more the proactive stance in assessing the potential impacts of the household electrification in their respective plans such as increased demand, potential overloading of the distribution facilities and key performance parameters. For off-grid electrification, there is a need to undertake primary data gathering and detailed assessment of the unelectrified remote areas of the country in order to develop actual off-grid electrification projects using renewable energy systems (solar PV systems, micro-hydro, etc.) and even hybrid diesel/renewable systems as least-cost technology solutions in said areas.

To meet these new challenges, the DOE will have to further strengthen the Household Unified Strategic Electrification (HOUSE) Team composed of concerned DOE line units, NEA, NPC-SPUG, DILG, DOF, DBM, and representatives from DUs and ECs. The next tasks of the HOUSE Team shall include the review the results of the existing programs under the HEDP, the development of specific recommendations in addressing the current issues in the household electrification, and the formulation of the new targets and programs beyond 2017.

Recently, the DOE has received a funding support of about 60 Million Euros from the European Union to implement the Project entitled “Access to Sustainable Energy Programme” (ASEP). The Technical Assistance component of the ASEP will undertake capacity building of the DOE and the HOUSE Team in updating the rural and missionary electrification programs including the development of a detailed off-grid electrification program beyond 2017.

On-going and Planned Programs and Activities

Consistent with HEDP, following are the different projects and activities that directly support the HH electrification goal of the Government, namely:

- ***Grid Electrification***

- 1. NEA’s Sitio Electrification Program (SEP)**

This refers to NEA’s program of attaining 100 percent 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 have 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 have 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.

Respective distribution utilities will then submit to the Department of corresponding project proposal for DOE’s funding approval under the ER 1-94 Electrification Fund.

For 2017, 16 electrification projects where completed and inspected (14 areas are off-grid EF projects, 2 are 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 are reported energized out of 30,512 approved and allocated with House-wiring and KWH meter Subsidy.

For the 2016 NIHE Program, 16,214 household are 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 approved and obligate a total of 183,000 households. As of June 30, 2017, the DOE have already approved 12 project proposal with total of 79,949 household beneficiaries. The DOE is currently processing several project proposal to meet the target for the year 2017.

- **Off-Grid Electrification**

1. Solar PV Mainstreaming (PVM) Project

This PVM project is co-financed by the EU-Philippines “Access to Sustainable Energy Programme (ASEP), DOE, participating Electric Cooperatives and the recipient households. It targets 40,500 households for the next three (3) years to be provided with solar PV electrification as a utility service offering by the Electric Cooperatives. To date, eight (8) ECs have committed to participate in the Project. Activities undertaken over the past months include (a) market segmentation through remote sensing and geo-tagging of potential households beneficiaries, (b) firming up the service packages and technical specifications of the products to be offered to the households; (c) establishing the PV supply chain; and (d) creation of the Solar Business Unit (SBUs) within the ECs organizational structure.

Of recent events, ASEP through the World Bank and Global Partnership on Output-based Aid (GPOBA), organized the first Philippines Offgrid Electrification Expo held at SMX MOA, Pasay City from September 21-23, 2016 and participated in by international and local PV suppliers. The participants of this Expo had the opportunities to learn more about the incentive program, demonstrate their off-grid products, network with international off-grid industry leaders (e.g., distributors of Lighting Global certified products and 2015-16 Global LEAP Awards Winners and Finalists), meet with local electricity cooperatives to explore ways to conduct business in the growing off-grid market.

Meanwhile, the Energy Regulatory Commission (ERC) approved in 25 October 2016, the benchmark tariff for SHS to be adopted by the ECs as follows:

SHS Capacity	Zone A	Zone B	Zone C
50 Wp	207	215	222
30 Wp	180	187	195

The Benchmark SHS Tariff is the best approximation of the operating costs an EC incurs in providing electricity service to all SHS Customers, including the cost of maintaining and replacing the SHS components as necessary, and both direct and indirect overhead costs (ie., salaries, transportation cost, etc)

The costs of servicing SHS for more remote and difficult to reach areas shall be considered through an incremental cost adjustment that will apply to SHS Customers in such areas. This adjustment will be common across all ECs serving SHS Customers in the same defined zones, referring to the distance of SHS customers from the EC's main office, the farthest (Zone C) as the highly mountainous areas and islands/islets.

2. 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 offgrid electrification. Said interest was 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 as QTP in Barangay Rio Tuba. For the reporting period, the average monthly electricity generation has reached 331,345 kWh, the average monthly electricity sales is 293,736.8 kWh, and the overall installed capacity is 1.60MW (3x350 kW + 1x500 kW + 1x50kW gensets) covering the highest recorded peak demand of 744kW. The average system loss is 11.3%.

Meanwhile, there are 1,870 households connected in the system. In the case of the remaining unelectrified households 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) replacement and upgrading of overloaded transformer in Sitio Sto. Niño from 37.5kVA to 50kVA; b) total replacement of old and mechanical kWh meters with digital meters; c) installation of meters on poles; d) rehabilitation and upgrading of existing office facilities; e) upgrading of wooden poles to steel poles in main transmission lines, and; f) relocation of main line poles in Macadam highway due to the road widening.

To address the potential growth in Sitio Canumay due to plan of extending and upgrading the existing lines by fourth (4th) Quarter of 2017, PSPI installed an additional 1x500 kW genset last April 2017.

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

PSPI continues to operate its existing generating facility in the island. For the reporting period, the average net electricity generation was 214,821.6 kWh per

month and the average electricity sales was 201,439.6 kWh. The installed capacity now is 1.00 MW (2x500 kW gensets). Highest recorded peak demand is 533kW and the average system loss is 6.13%.

Furthermore, 32 additional households are electrified translating to a 3.1% increase in the number of households served during the past six (6) months. Based on the barangay records, out of 1,227 households in the island, 1,075 are connected to the mini grid system, achieving 87.6% electrification level. The remaining 152 households are targeted to be connected to the grid in the following year.

c. Liminangcong, Taytay, Palawan

The mini-grid systems in these barangays are funded by the Provincial Government of Palawan (PGP) and is being operated by a Barangay Power Association from 1995-2012. In February 2013, a Master Agreement was signed between PGP and PSPI to take-over the management and operations. Consequently, an Alliance with Palawan Electric Cooperative, Inc. (PALECO) was signed in November 2013 for the electrification of remote and unviable areas through the QTP Program of which this area was also included.

Currently, the total number of connected customers is 789 which results to 65.75% electrification level and expected to increase due to upcoming line extensions. The installed capacity is 450 kW (2x225k kW gensets) and has a recorded peak demand of 228 kW with an average loss is 10.80%. PSPI has an on-going replacement of defective household kilowatt-hour meters and upgrading of distribution system to reduce the losses.

From March to August 2017, the average monthly net electricity generation is 53,793.33 kWh and the average monthly electricity sales is 48,355.83 kWh.

d. Brgy. Cabayugan , Puerto Princesa City

On 05 October 2016, the ERC approved the: (i) application of Sabang Renewable Energy Corporation (SREC) for Authority to Operate (ATO) as a QTP in Barangay Cabayugan, Puerto Princesa City, Palawan and (ii) correspondingly, its QTP Service and Subsidy Agreement (QSSA) with the NPC.

On 20 January 2017, SREC submitted a Motion for Reconsideration (MR) to ERC for the view that the decision was based on assumptions which SREC could not move to execution given the project viability.

On 25 July 2017, SREC received the Decision for its MR from the ERC dated 9 May 2017. SREC is pursuing construction with the approved rates.

SREC has aligned several local contractors and suppliers and ready to be deployed as soon as DOE issues Declaration of Commerciality, the release of the letter for tax incentives from Board of Investments, and financial close is reached. Meanwhile, the land purchase was completed and all engineering design work is ready. Negotiations for the debt financing are also soon to be concluded. Groundbreaking is projected on November 2017.

As of September 2017, 321 commercial and residential customers have signed the Grid Connection Agreement, covering approximately 70% of the expected demand.

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

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, the DOE expects to receive the technical and financial proposals for the potential QTPs in Semirara Island in the Municipality of Caluya, Antique (with 3 barangays).

f. DOE Household Electrification Program Using RE System (HEP)

The program involves the energization of off-grid households using: Mature renewable energy technologies such as photovoltaic solar home (PV SHS), Photovoltaic streetlights and Micro-hydro systems (if a hydropower resource is available within a reasonable distance from the clustered household beneficiaries).

Table 40. Status of DOE HEP

YEAR	TOTAL NO. OF HOUSEHOLDS		NO. OF HOUSEHOLDS PER REGION			HEP YEAR
	TARGET	ACCOMP.	LUZON	VISAYAS	MINDANAO	
2016	5600	5,741	109	1,934	2,945	HEP 2014 Lots 1 & 2
			-	753	-	HEP 2015 Repeat Order - Lot 1
TOTAL	5,600	5,741	109	1,934	2,945	

Source: DOE

For the report period, a total of 5,741 individuals PV SHS to households were completed by REMB as compared to their annual target of 5,600 households.

Table 41. DOE HEP for 2017-2018

YEAR	TOTAL NO. OF HOUSEHOLD	NO. OF HOUSEHOLDS PER REGION			REMARKS
		LUZON	VISAYAS	MINDANAO	
2017	29,807	1,316	3,664	6,738	HEP 2015 Lots 1 & 2
		-	-	926	HEP 2015 Repeat Order - Lot 2
		3,664	3,318	10,181	HEP 2016 Lots 1 & 2
2018	18,879	4,030	3,650	11,199	HEP 2017*
TOTAL	48,686	9,010	10,632	29,044	

Note: Assumed 10% increase in HEP 2016 total number of household beneficiaries

Source: DOE

For 2017, continuing target of a total of 29,807 households to be provided by individual PV SHS under HEP. While for 2018, a total of 18,879 household are targeted under said HEP.

From 90% household electrification level by 2017, the DOE is looking on attaining 100 percent electrification of targeted and identified households by 2022. As to how to achieve this goal, the HOUSE Team represented by DOE together with its attached agencies (NEA and NPC) and concerned stakeholders will undertake the following:

1. Settle issues that arose during the implementation of HEDP in achieving the 90 percent level by 2017;
2. Target and identify household consumers that can be connected in the distribution system which will be done by setting a baseline number and target household per franchise area of the DUs based on the recent released 2015 National Census; and
3. For off grid electrification, separate electrification plan will be developed to achieve its total household electrification. This will be done by establishing an inventory of all the off-grid areas and a well maintained database of its status of electrification will help DOE in achieving its 100% household electrification in off grid areas.

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 Electric Cooperatives (ECs) for Operation and Competition

As of September 30, 2017, NEA released a total of PhP1.58 Million loans to 37 ECs with the following break down:

	Amount (PhP in Million)
Short-term Credit Facility (average)	53
Stand-by Credit Facility (average)	130
Capital Projects	1145
Working Capital	250
Total	PhP1,579 Million

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
June 05-07, 2017	Electricity Market: Power Supply Contracting, WESM & Retail Competition	73
June 27-29, 2017	General safety for ECs	44
August 10-12, 2017	Electric Power Industry Structure, Market & Regulation	35
September 09-11, 2017	CAPEX-OPEX Planning and Rate Making	51

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 2017 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 42. Summary of Financial Benefits from Inception to April 2017 (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.

From May 2017 – October 2017, 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, Sarangani, and Lanao del Sur.

Table 43. Project Approval (In PhP Million) May 2017 – October 2017

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 44. Fund Release (In PhP Million) May 2017 – October 2017

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 45. Financial Audit (In PhP Million) May 2017 – October 2017

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 Electric Cooperatives, conduct 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.

- Information and Education Campaign

As a result of the increasing number of generating facilities operating in the country today, the DOE conducted series of IEC which intends to inform and educate new power plant owners and their designated Community Relations Officers (CRO) together with their host communities on the processes involved in availing projects under ER 1-94 program.

The DOE was also able to provide an overview of the total electrification situation of the country and other existing programs and strategies on rural electrification.

IECs were successfully held on the following schedules:

Date	Location
September 6, 2017	Cebu
September 21, 2017	Ilocos Norte
October 5, 2017	Metro Manila
October 19, 2017	Cagayan de Oro

Beyond providing electricity, the DOE is committed to provide projects with long lasting social impact to build a better and brighter future for the people especially the communities hosting the Generation Facility through the Energy Regulations No. 1-94 program. Below are few examples of these projects:





Project Title: Construction of Sta. Cruz-Badas Farm to Market Road, Municipality of Placer, Province of Surigao del Norte
 Project Cost: 1,899,996.20
 Fund Type: DLF
 Power Plant: Therma Marine Mobile 2



Project Title: Installation of Baywalk Lighting in Sta. Rita Aplaya, Batangas City
 Project Cost: PhP 3,301,227
 Fund Type: DLF
 Power Plant: First Gas Power - Sta. Rita



Project Title: Acquisition of Ambulance for Kidapawan City
 Project Cost: PhP 750,000.00
 Fund Type: RWMHEEF
 Power Plant: Mt. Apo Geothermal Power Plant



Project Title: Establishment of Provincial Tree Seeding Nursery (Phase I), Tubod, Lanao del Norte
 Project Cost: PhP 5,876,247.68
 Fund Type: RWMHEEF
 Power Plant: AGUS HEPs



Project Title: Construction of Two (2) Units Communal Public Toilet in Brgy. Pandiaranao, Tugaya, Lanao del Sur
 Project Cost: PhP 53,163.00
 Fund Type: RWMHEEF
 Power Plant: AGUS HEPs



Project Title: Const. of Municipal Risk Reduction Management Center, Brgy. West Poblacion, Balo-i, Lanao del Norte
 Project Cost: PhP 2,090,471.67
 Fund Type: DLF
 Power Plant: AGUS HEPs

ANNEXES

Annex 1. TransCo Inspection Report Based on Concession Agreement (May 2017 to October 2017)

No.	Inspection Report No.	Location	Name of Project/ Transmission Facilities	Inspection Date
LUZON				
1	SLR-D1-17-19	District 1 South Luzon	Dasmariñas, Biñan, Muntinlupa, Las Piñas, Batangas, Ternate, Calaca & Rosario S/S, Bolbok, Cuenca & Taal LES and Tamayo RS	May 8-12, 2017
2	NLR-D1-17-20	District 1 North Luzon	Bauang, Bacnotan, San Esteban, Bantay, Currimao, and Laoag S/S	May 8-12, 2017
3	NLR-D6-17-22	District 6 North Luzon	Mexico, Cabanatuan, San Rafael, Concepcion S/S, Pantabangan HEP S/Y, Pantabangan LES, Pantabangan RS, and Central Luzon Area Control Center (CLACC)	May 22-26, 2017
4	SL-MTDA-17-23	South Luzon	MTD-A, Calamba, Laguna	May 29-June 2, 2017
5	SL-MB-17-26	South Luzon	South Luzon MTD-B Office in Daraga, Albay	June 19-23, 2017
6	NLR-D2-17-27	North Luzon	La Trinidad & Binga S/S, Ambuklao Switchyard and Itogon LES	June 19-23, 2017
7	NLR-D3-17-30	District 3 North Luzon	San Manuel, Nagsaag, Bolo, Labrador, and Balingueo Substations	July 17-21, 2017
8	NLR-D5-17-31	District 5 North Luzon	Hermosa, Limay, BCCPP, Olongapo, Botolan S/S, Subic (Hanjin) and SBMA Switching Station	July 17-21, 2017
9	NLR-PR-17-11	North Luzon	San Jose-Angat 115 kV Transmission Upgrading Project	July 26-28, 2017
10	NLR-D7-17-32	District 7 North Luzon	San Jose, Quezon, Doña Imelda, Taytay, Malaya S/S, Angat, San Mateo Repeater Stations, and Angat Power House	July 31-August 4, 2017
11	NLR-NC-17-33	Head Office, Luzon	National Control Center & Luzon system Operation	July 31-August 4, 2017
12	NLR-AC-17-34	North Luzon	North Luzon ACC, Tuba and Ampucao RS	August 14-18, 2017
13	NLR-MA-17-36	North Luzon	North Luzon MTD-A Office in San Fernando, La Union	August 14-18, 2017
14	SLR-D3-17-38	District 3 South Luzon	Naga, Tiwi, Daraga & Labo S/S, Iriga, Libmanan, Talisay, Ligao, Balogo & Bulan LES, Naga HVDC Converter Station, Calabanga Electrode Station and Sta. Magdalena CTS & Naga ACC	August 28-31, 2017
15	NLR-PR-17-13	North Luzon	San Jose-Quezon 230 kV Transmission Project (Line 3)	August 29-September 1, 2017
16	SLR-D2-17-41	District 2 South Luzon	Tayabas, Gumaca, Lumban, San Juan, and Bay S/S, Calamba, Los Baños, Pitogo, Mulanay and Lopes LES and Maunong RS	September 11-15, 2017
17	SLR-D1-17-43	District 1 South Luzon	Dasmariñas, Biñan, Muntinlupa, Las Piñas, Batangas, Ternate, Calaca & Rosario S/S, Bolbok & Taal LES and Tamayo RS	September 25-29, 2017
18	NLR-RS-17-47	North Luzon	Enrile & Ramos Repeater Stations	Oct. 23-27, 2017
VISAYAS				
1	VIS-PR-17-08	Visayas	Ormoc-Maasin Transmission Project	May 15-19, 2017
2	VIS-RS-17-21	Visayas	Ivisan and Tangalan (Jawili) Repeater Stations	May 22-26, 2017
3	VIS-RC-17-24	Visayas	Visayas Regional Control Center (VRCC) and Minglanilla (Majic) Repeater Facility	June 5-9, 2017
4	VIS-AC-17-25	Visayas	Panay ACC & Jordan Repeater Station	June 5-9, 2017
5	VIS-D4-17-28	District 4 Visayas	Sta. Barbara, Barotac Viejo, Dingle, Panit-an, Nabas, Concepcion & San Jose S/S, San Juan CTS and Boracay LES	June 19-23, 2017
6	VIS-PR-17-09	Visayas	Sta. Rita-Quinapondan 69kV T/L Project	June 20-23, 2017
7	VIS-D2-17-29	District 2 Visayas	Cebu, Naga, Colon, Quiot, Toledo, Calongcalong, Ubay, Compostela, Daanbantayan, Corella & Tagbilaran S/S, Mandaue & Mactan GIS, Pajo, Medellin, Garcia Hernandez, Sogod,	July 3-7, 2017

No.	Inspection Report No.	Location	Name of Project/ Transmission Facilities	Inspection Date
			Danao, Medellin & Sibonga LES, Garcia Hernandez & Trinidad CBS, and Daanbantayan, Samboan & CP Garcia CTS	
8	VIS-PR-17-10	Visayas	Ormoc-Babatngon 138 kV Transmission Project, VSRP1 & 2	July 4-7, 2017
9	VIS-D3-17-35	District 3 Visayas	Bacolod, Cadiz, Kabankalan, Sipalay, Amlan, Mabinay S/S, Victorias Capacitor Bank Station, E. B. Magalona, Pondol Cable Terminal Stations, and Negros ACC	August 14-18, 2017
10	VIS-PR-17-12	Visayas	Cebu-Negros-Panay(CNP) 230 kV Backbone Project –Stage 1	August 15-18, 2017
11	VIS-RS-17-44	Visayas	North Cebu Repeater Stations	Oct. 2-6, 2017
12	VIS-PR-17-15	Visayas	Panitan-Nabas138 kV Transmission Line Upgrading Project	Oct. 3-6, 2017
13	VIS-D1-17-46	Visayas	Ormoc, Maasin, Tabango, Babatngon, Calbayog, Paranas & Sta. Rita S/S, Guadalupe CTS, Hilongos PCB Station, Albuera Electrode Station, Tolosa CBS and Ormoc HVDC Station	Oct. 9-13, 2017
14	VIS-PR-17-16	Visayas	Cebu-Lapu-lapu 230 kV Transmission Line Project	Oct. 25-27, 2017
MINDANAO				
1	MIN-AC-17-37	Mindanao	Davao Area Control Center, Mintal Repeater Station & Matina Repeater Station	August 28-31, 2017
2	MIN-MB-17-39	Mindanao	Davao, Mindanao MTDB	August 28-31, 2017
3	MIN-AC-17-40	Mindanao	Butuan Area Control Center in Barangay Kinamlutan, Butuan City and Carmen RS	September 11-15, 2017
4	MIN-PR-17-14	Mindanao	Butuan-Placer 138 kV Transmission Line Project	September 12-15, 2017
5	MIN-D3-17-42	District 3 Mindanao	Cagayan De Oro, Kibawe, Maramag & Pulangi, Tagoloan, Villanueva and Jasaan (Aplaya) S/S	September 25-29, 2017
6	MIN-RC-17-45	Mindanao	Mindanao System Operations & Cugman RS	Oct. 9-13, 2017
	MIN-AC-17-48	Mindanao	Zamboanga Area Control Center (ZACC) in Lunzuran, Zamboanga City	Oct. 23-27, 2017
	MIN-D4-17-49	District 4 Mindanao	Butuan, Nasipit, Bislig, San Francisco and Placer (Anislagan) Substations	Oct. 23-27, 2017

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-17-11) OR-P-17-0117	26-28 July 2017/ San Jose-Angat T/L Project	Out of the 61 Steel Towers (ST) of San Jose-Angat 115 kV T/L Upgrading Project (SJATLUP), 29 ST were erected and 32 were still un-erected	On-going erection works. Erection was affected by ROW & existing poles of live line of the San Jose-Angat 115 kV Line 3.
2	OR-P-17-0118	26-28 July 2017/ San Jose-Angat T/L Project	The stringing of Power Conductor, Overhead Ground Wire (OHGW) and Optical Ground Wire (OPGW) for the SJATL 115 kV Project has not yet started/completed.	Stringing of conductor, OPGW & OPHW is dependent on the handover of the remaining six (6) tower sites under phase 1 which is under expropriation proceeding.
3	OR-P-17-0119	26-28 July 2017/ San Jose-Angat T/L Project	The construction of slope protections and diversion canals for the 8 towers of the SJATLUP has not yet started/completed.	Submission of design drawing for slope protection and diversion canals for submission for the month of August.
4	OR-P-17-0120	26-28 July 2017/ San Jose-Angat T/L Project	The Writ of Possessions (WOP) for the six (6) tower sites (under expropriation) of the SJATLUP are not yet issued.	Consistent follow-up and assistance to Legal officers.
5	OR-P-17-0121	26-28 July 2017/ San Jose-Angat T/L Project	The wood poles & steel poles of the existing SJATLUP Line 3 (single circuit) including the 50 linear km-556.6 MCM power conductor are not yet dismantled.	50% of the Wood Poles & Steel Poles are already retired. Remaining 50% is dependent on the energization of phase 1 (phase 2 remaining).
6	OR-P-17-0122	26-28 July 2017/ San Jose-Angat T/L Project	The existing RCC (Norzagaray) line from the existing line 1 of the SJATL 115 kV line is not yet transferred to line 2.	For deletion in the contract. The existing RCC (Norzagaray) line was already transferred permanently to Line 2.
7	OR-P-17-0123	26-28 July 2017/ San Jose-Angat T/L Project	The connection of the existing RCC (Bulacan) HOLCIM/ TransAsia line has not yet transferred back to line 1 of the existing SJATL 115 kV line.	To be transferred to Line 1 upon energization of Phase 2 (SJA 1-25) of the upgrading project.
8	OR-P-17-0124	26-28 July 2017/ San Jose-Angat T/L Project	The NGCP-approved Contract Time Extension (CTE) of 322 calendar days (moving the contract expiry from 20 June 2016 to 7 May 2017) for the SJATL 115 kV Project has already expired.	A CTE No. 2 was already submitted to NGCP for approval.
9	OR-P-17-0125	26-28 July 2017/ San Jose-Angat T/L Project	The contractor has not yet corrected the punchlists (Item Nos. IA/B/C/D/E/F/G/H/I/J/K & New Findings) on Inspection Report No. IR/QSMD-17-46/CTM dated 7 April 2017 for the San Jose 115 kV S/S (SJATLUP).	Deficiencies were already corrected. For closeout of QSMD.
10	OR-P-17-0126	26-28 July 2017/ San Jose-Angat T/L Project	The following decommissioned equipment at San Jose 115 kV S/S (SJATLUP) are not yet turned-over to WMD: a) 2 sets - 115 kV PCB; b) 1 set - 115 kV DS; c) 1 set - 115 kV CT; & d) 3 units - 115 kV LT (hanging);	Prepared turn-over documents and for signature of acceptance.
11	OR-P-17-0127	26-28 July 2017/ San Jose-Angat T/L Project	The spares, spare parts & tools for the San Jose 115 kV S/S (SJATLP) are not yet turned-over to WMD.	Partially turn-over. On-going turn-over of secondary equipment spares and tools.
12	OR-P-17-0128	26-28 July 2017/ San Jose-Angat T/L Project	The Certificates of Completion of Test & Commissioning (CCTC) for San Jose 115 kV S/S (SJATLUP) are not yet approved.	En-route for signing of concerned NGCP employees.
13	OR-P-17-0129	26-28 July 2017/ San Jose-Angat T/L Project	The Certificates of Energization (COE) for San Jose 115 kV S/S (SJATLUP) are not yet approved.	En-route for signing of concerned NGCP employees.
14	(NLR-PR-17-13) OR-P-17-0143	29 August -1 September 2017/ San	Out of the 90 Steel Structures (Steel Tower, Steel Pole & Diving Bus) of San	Foundation & erection works are on-going.

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)
		Jose-Quezon 230 kV T/L 3	Jose-Quezon 230 kV T/L3 Project (SJQTL3), 56 are still un-erected.	Several towers sites were affected by ROW issues.
15	OR-P-17-0144	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The stringing of Power Conductor, Overhead Ground Wire (OHGW) and Optical Ground Wire (OPGW) for SJQTL3 has not yet started/completed.	The stringing works will start upon completion of erection per stringing section.
16	OR-P-17-0145	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The existing Caysio Line is not yet terminated to Tower No. 451 of the existing Cruzna-Daan (CND)- Quezon Line (under the SJQTL3).	The termination works is affected by expro caseon SJC-15-16 and SJC-15.
17	OR-P-17-0146	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The installation of Optical Ground Wire (OPGW) for the existing Caysio-San Jose 230 kV T/L (under the SJQTL3) including the swinging of existing OPGW from Tower No. 451 of CND-Quezon 230 kV Line to the new Steel Pole of Caysio-San Jose Tapping Point are not yet completed.	On-going installation on San Jose-Caysio Line. OPGW Stringing section no. 2 affected by expro case on SJC-15-16 and SJC-15.
18	OR-P-17-0147	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The transfer connection of Duhat Line from Bay 82 to 83 (under the SJQTL3) is not yet started.	Dependent on the swinging of Quezon - San Rafael (CND) Line to San Jose Substation via San Jose-Caysio Line.
19	OR-P-17-0148	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The dismantling of pole structures of the existing San Jose-Quezon 115 kV Single Circuit T/L (under the SJQTL3) and hauling to NGCP Stockyard is not yet completed.	On-going.
20	OR-P-17-0149	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The retiring of Overhead Ground wire (OHGW) of the existing Caysio-San Jose Line (under the SJQTL3) and hauling to NGCP Stockyard is not yet completed.	On-going retiring of OHGW and installation of OPGW on San Jose - Caysio Line. OPGW Stringing section no. 2 affected by expro case on SJC-15-16 and SJC-15.
21	OR-P-17-0150	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	Retiring and re-reeling, segregating, packing and hauling to NGCP Stockyard of one side of the existing OHGW, 19 km from Tower NO. 451 to CND (under the SJQTL3) have not yet started.	For deletion in contract. As per NGCP Design and Telecom Group, the existing OPGW is still sufficient to the present requirement. EDD to issue Design Change Notice.
22	OR-P-17-0151	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The substation equipment and materials for the Quezon S/S component (under the SJQTL3) were completely delivered, however, construction/installation works have not yet started.	The remaining works were proposed for contract deletion due to delays in the resolution of ROW problems to transmission line portion.
23	OR-P-17-0152	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The Inspection Report No. IR/QSMD-17-46/CTM dated 7 April 2017 for the San Jose 230 kV S/S (SJQTL3) is not yet closed.	Awaits deletion of remaining contract items. Deficiencies were already corrected. For closeout of QSMD.
24	OR-P-17-0153	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The spares, spare parts & tools for the San Jose 230 kV S/S (SJQTL3) are not yet completely turned-over to WMD.	Partially turned-over. On-going turn-over of secondary equipment spares and tools.
25	OR-P-17-0154	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The As-Built Drawings for San Jose 230 kV S/S (SJQTL3) are not yet approved.	MTD-B Mexico completed the review with remarks for correction. For preparation of transmittal document to SLPD.
26	OR-P-17-0155	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The Structure List Report for San Jose 230 kV S/S (under SJQTL3) is not yet approved.	Already submitted at NGCP H.O. for approval.
27	OR-P-17-0156	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The Certificates of Completion of Testing & Commissioning (CCTC) for San Jose 230 kV S/S (SJQTL3) are not yet signed/approved.	Already submitted at NGCP H.O. for signature.

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)
28	OR-P-17-0157	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The Certificates of Energization (COE) for San Jose 230 kV S/S (SJQTL3) are not yet signed/approved.	Already submitted at NGCP H.O. for signature.
29	OR-P-17-0158	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The Certificate of Final Completion (CFC) for 230 kV San Jose S/S (SJQTL3) is not yet approved.	Certificate of Energization (COE) already submitted for signature.
30	OR-P-17-0159	29 August -1 September 2017/ San Jose-Quezon 230 kV T/L 3	The Certificates of Project Turn-over for San Jose 230 kV S/S (SJQTL3) are not yet approved.	Waiting for Certificate of Final Completion (CFC).
VISAYAS				
1	(VIS-PR-17-08) OR-P-17-0085	16-19 May 2017/ Ormoc-Maasin 138 kV Transmission Project	The contractor has already corrected deficiencies listed on Inspection Report No. IR/QSMD-17-59/JJB for the Ormoc-Maasin 138 kV T/L Project (T/L Portion). Except for XLPE issue.	On-going XLPE installation.
2	OR-P-17-0086	16-19 May 2017/ Ormoc-Maasin 138 kV Transmission Project	The excess materials of Ormoc-Maasin 138 kV T/L Project (T/L Portion) are not yet turned-over to WMD-NGCP.	Ready for turn-over to WMD.
3	OR-P-17-0087	16-19 May 2017/ Ormoc-Maasin 138 kV Transmission Project	The Certificate of Completion of Test & Commissioning for the Ormoc-Maasin 138 kV T/L Project (T/L Portion) has not yet issued.	Routed for signing by concerned personnel.
4	OR-P-17-0088	16-19 May 2017/ Ormoc-Maasin 138 kV Transmission Project	No approved Certificate of Final Completion (CFC) for the Ormoc-Maasin 138 kV T/L Project (T/L Portion).	Routed for signing by concerned personnel.
5	OR-P-17-0089	16-19 May 2017/ Ormoc-Maasin 138 kV Transmission Project	The Ormoc-Maasin 138 kV T/L Project (T/L Portion) is not yet turned-over to VOM.	Waiting for the approval of the CFC.
6	OR-P-17-0090	16-19 May 2017/ Ormoc-Maasin 138 kV Transmission Project	No approved Project Completion Report (PCR) for the Ormoc-Maasin 138 kV T/L Project (T/L Portion).	Under preparation.
7	OR-P-17-0091	16-19 May 2017/ Ormoc-Maasin 138 kV Transmission Project	The contractor has already corrected deficiencies listed on the Inspection Report No. IR/QSMD-17-16/OJLD for the Ormoc & Maasin S/S (components of Ormoc-Maasin 138 kV T/L Project). Except for D1-VOM concerns.	Waiting for scheduled shutdown
8	OR-P-17-0092	16-19 May 2017/ Ormoc-Maasin 138 kV Transmission Project	No Variation Order for the un-installed 69 kV substation equipment (duplication with the other on-going project) at Ormoc S/S (components of Ormoc-Maasin 138 kV T/L Project).	For processing of VO Closeout
9	OR-P-17-0093	16-19 May 2017/ Ormoc-Maasin 138 kV Transmission Project	No approved As-Built Drawings and Structure List for Ormoc & Maasin S/S (components of Ormoc-Maasin 138 kV T/L Project).	Contractor has submitted the drawings. On-going review of draft drawings.
10	OR-P-17-0094	16-19 May 2017/ Ormoc-Maasin 138 kV Transmission Project	No approved Certificate of Final Completion (CFC) for Ormoc & Maasin S/S (components of Ormoc-Maasin 138 kV T/L Project).	Waiting for the corrections of the remaining punchlist.
11	OR-P-17-0095	16-19 May 2017/ Ormoc-Maasin 138 kV Transmission Project	No approved Project Completion Report (PCR) for Ormoc & Maasin S/S (components of Ormoc-Maasin 138 kV T/L Project).	On-going preparation.
12	(VIS-PR-17-09) OR-P-17-0096	20-23 June 2017/ Sta. Rita - Quinapundan T/L Project	The NGCP issued Contract Time Suspension (CTS) effective April 1, 2016 for Sta. Rita-Quinapundan 69 kV T/L Project (SRQTL3).	The CTS was issued due to unavailability of two (2) stringing sections. The work will resume upon the issuance of Writ of Possession on pole site SRQ-477.
13	OR-P-17-0097	20-23 June 2017/ Sta. Rita - Quinapundan T/L Project	The power conductor and overhead ground wire for SRQTL3 are not yet completely strung.	Two spans (SRQ-475 to 477) remain for stringing due to ROW problem. Stringing will resume upon the issuance of Writ of Possession on pole site SRQ-477.

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)
14	OR-P-17-0098	20-23 June 2017/ Sta. Rita - Quinapundan T/L Project	The spares, spare parts and tools for the SRQTLT were already turned-over to Warehouse Management Division (WMD), however, the copy of the report is not yet available during the audit.	For submission of signed/ approved turn-over report.
15	OR-P-17-0099	20-23 June 2017/ Sta. Rita - Quinapundan T/L Project	The SRQTLT is already 99.67% completed, however, Joint Final Inspection (JFI) is not yet conducted.	To conduct inspection upon the completion of level 1 (project) and level 2 (ECD) inspections.
16	OR-P-17-0100	20-23 June 2017/ Sta. Rita - Quinapundan T/L Project	The As-built Drawings/ Structure List Report for SRQTLT is not yet approved.	The review of As-built Drawings/Structure List Report submitted by the Contractor is in progress.
17	(VIS-PR-17-10) OR-P-17-0101	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	The proposed Contract Time Extension (CTE) of AER Construction & Development Co., for the Ormoc-Babatngon 138 kV T/L Project (T/L Portion) under Purchase Order No. 350000077 has not yet approved.	CTE #1 routed for approval.
18	OR-P-17-0102	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	The contractor has not yet corrected the punchlists on Inspection Report No. QMD-17-208 for the Ormoc-Babatngon 138 kV T/L Project (T/L Portion).	Correction works ongoing.
19	OR-P-17-0103	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	The contractor has not yet corrected the punchlists on Inspection Report No. IR/QSMD-17-82/JCBV for the Ormoc and Babatngon S/S under the OBTLT, VSRP 1 & 2.	On-going corrections.
20	OR-P-17-0104	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	The As-Built Drawings / Structure List Report for Ormoc and Babatngon S/S under the OBTLT, VSRP 1 & 2 has not yet approved.	On-going review by NGCP.
21	OR-P-17-0105	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	The Certificate of Final Completion (CFC) for Ormoc and Babatngon S/S under the OBTLT, VSRP 1 & 2 has not yet approved.	On process.
22	OR-P-17-0106	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	The Project Completion Report (PCR) for Ormoc and Babatngon S/S under the OBTLT, VSRP 1 & 2 has not yet completed.	On-going preparation.
23	OR-P-17-0107	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	Three (3) out of the 12 units 138 kV CT at Maasin S/S under VSRP1 were not yet installed.	For installation.
24	OR-P-17-0108	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	The following Station AC & DC Auxiliary Distribution System at Maasin S/S under VSRP1 were not yet installed. a. 230 VAC Distribution Boards b. 125 VDC Distribution Boards	For installation.
25	OR-P-17-0109	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	Outdoor lighting system and outlets System at Maasin S/S under VSRP1 were not yet installed.	For installation.
26	OR-P-17-0110	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	The one (1) unit 15 kV Metalclad Switchgear at Maasin S/S under VSRP1 is not yet decommissioned.	For decommissioning.
27	OR-P-17-0111	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	The by-pass structures and associated line materials for Hilongos Feeder at Maasin S/S under VSRP1 were not yet delivered.	For delivery.
28	OR-P-17-0112	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	The following interchanging of Hilongos and Maasin Feeders at Maasin S/S under VSRP1 were not yet delivered. a. Double Circuit Self Supporting Steel Poles (3 poles) b. Transmission line materials	For delivery.
29	OR-P-17-0113	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	The existing protection panels at Maasin S/S under VSRP1 were not yet modified.	For modification.
30	OR-P-17-0114	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	The existing SAS at Maasin S/S under VSRP1 were not yet modified.	For modification.

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-P-17-0115	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	The fire protection system at Maasin S/S under VSRP1 were not yet installed.	For Installation.
32	OR-P-17-0116	4-7 July 2017/ Ormoc-Babatngon 138 kV Transmission Project	The air conditioning and ventilation system at Maasin S/S under VSRP1 were not yet delivered.	For delivery.
33	(VIS-PR-17-12) OR-P-17-0130	15-18 August 2017/ Barotac Viejo S/S-E. B. Magalona CTS Submarine Cable	The As-Built Drawings for Barotac Viejo-E.B. Magalona Sub-Cable are not yet approved.	Submitted for approval concerned NGCP Department Heads.
34	OR-P-17-0131	15-18 August 2017/ Barotac Viejo S/S-E. B. Magalona CTS Submarine Cable	The energized Barotac Viejo-E.B. Magalona Sub-Cable is not yet turned-over to VOM.	Certificate of Turn-over is for approval of concerned NGCP personnel.
35	OR-P-17-0132	15-18 August 2017/ Barotac Viejo S/S-E. B. Magalona CTS Submarine Cable	The Project Completion Report (PCR) for the Submarine-Cable Portion of CNP-1 is not yet completed.	On-going preparation.
36	OR-P-17-0133	15-18 August 2017/ Bacolod S/S-E. B. Magalona CTS Transmission Line	The contract for the Bacolod-E.B. Magalona T/L Project already expired on June 13, 2017 and no Contract Time Extension (CTE) has been approved.	Enroute for approval by management.
37	OR-P-17-0134	15-18 August 2017/ Bacolod S/S-E. B. Magalona CTS Transmission Line	The contractor has erected only 91 steel towers out of the 132 for the Bacolod-E.B. Magalona T/L Project.	On-going erection of the remaining STs. ROW affected the progress of the project.
38	OR-P-17-0135	15-18 August 2017/ Bacolod S/S-E. B. Magalona CTS Transmission Line	Thirty-two (32) out of the 132 tower sites of the Bacolod-E.B. Magalona T/L Project are still not workable.	On-going processing of Deed of Absolute Sale (DOAS) and negotiations with the affected landowners and waiting for court resolution for the tower sites under expropriation.
39	OR-P-17-0136	15-18 August 2017/ Bacolod S/S-E. B. Magalona CTS Transmission Line	Six (6) out of the 12 stringing sections of the Bacolod-E.B. Magalona T/L Project are still unworkable.	On-going processing of Deed of Absolute Sale (DOAS) and negotiations with the affected landowners and waiting for court resolution for the tower sites and inbetween tower sites under expropriation.
40	OR-P-17-0137	15-18 August 2017/ Bacolod Substation	The Contract Time Extension No. 1 for the construction/ installation of Substation Portion of CNP-1 expired on April 16, 2017.	CTE No. 2 was already submitted and being evaluated by NGCP Head Office for approval.
41	OR-P-17-0138	15-18 August 2017/ Bacolod Substation	The Bacolod S/S of CNP-1 is substantially completed but not yet energized.	Will be energized upon the completion of the following remaining works: 1. line protection (after completion of OHTL Portion); and 2. integration of old & new bus protection (on-going).
42	OR-P-17-0139	15-18 August 2017/ Bacolod Substation	The following scope of works at Bacolod S/S of CNP-1 have not yet completed: 1. Expansion & modification of the existing NDME (NR PCS996); & 2. Wiring, termination and reconfiguration of the existing NARI NS3500 Bay Control Unit (BCU).	On-going.
43	OR-P-17-0140	15-18 August 2017/ Bacolod Substation	The spares, spare parts and tools for Bacolod S/S of CNP-1 are not yet turned-over to WMD.	Inventory is on-going.
44	OR-P-17-0141	15-18 August 2017/ Bacolod Substation	The close-out of punchlists in the Joint Final Inspection Report No. IR/QSMD-	Remaining correction: Installation of SEIL

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)
			17-081/FFF, dated June 13, 2017 for Bacolod S/S of CNP-1 is still on-going.	
45	OR-P-17-0142	15-18 August 2017/ Bacolod Substation	The proponent still has no designated Pollution Control Officer (PCO) who shall handle the environmental aspects of the project. (Section No. 9 under the General Conditions of the issued ECC).	Utilizing PCO of O&M.
MINDANAO				
1	(MIN-PR-17-14) OR-P-17-0160	12-15 September 2017/ Butuan-Placer 138kV T/L Project	The contractor was not able to complete the Butuan-Placer T/L Project within the approved CTE No. 1 of 253 calendar days or until March 23, 2017.	On-going erection & stringing works.
2	OR-P-17-0161	12-15 September 2017/ Butuan-Placer 138kV T/L Project	The stringing of power conductor for the Butuan-Placer T/L Project has not yet completed.	On-going stringing works. Five (5) out of the 14 stringing sections have been completed.
3	OR-P-17-0162	12-15 September 2017/ Butuan-Placer 138kV T/L Project	The Contract Time was suspended effective December 16, 2016 for the Butuan-Placer T/L Project and no Contract Time Resumption has been issued.	For issuance of Contract Time Resumption.

Annex 3. NGCP Related Petitions to ERC as of 31 October 2017

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUND FOR FILING	STATUS
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.	<ol style="list-style-type: none"> 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. 	Awaiting ERC Order/ Notice of hearing
ERC Case No. 2017-089R/ October 12, 2017	Application for Approval of the FME for Typhoons Karen and Lawin in Luzon	<ol style="list-style-type: none"> 1. Declare Typhoons Karen and Lawin in Luzon as Force Majeure Events; 2. Immediately grant provisional approval to implement FME pass through amounts starting October 2017 billing month to December 2020 or until such time that the amounts incurred are fully recovered; 3. Approve the CAPEX and OPEX incurred by NGCP for the repair, restoration and rehabilitation of the damaged transmission assets and other related facilities; 4. Approve, after due notice and hearing, the proposed FM Pass-Through Amounts to be collected from the Luzon customers starting October 2017 billing month or until such time that the amounts incurred are fully recovered; 5. Approve and allow the recovery of the Net Fixed Asset Value of the transmission assets and other related facilities damaged by Typhoons Karen & Lawin in Luzon; 6. Exclude the proposed Pass-Through Amounts from the side constraint calculation. 	Awaiting ERC Order/ Notice of hearing
ERC Case No. 2017-089R/ October 12, 2017	Application for Approval of the ASPA between NGCP and Cebu Energy Development (CEDC)	<ol style="list-style-type: none"> 1. Immediately issue a provisional authority to implement the subject ASPA; 2. Approve, after notice and hearing, the subject ASPA. 	Awaiting ERC Order/ Notice of hearing
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.	Awaiting ERC Order/ Notice of hearing

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUND FOR FILING	STATUS
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	<ol style="list-style-type: none"> 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. 	Awaiting ERC Order/ Notice of hearing
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	<ol style="list-style-type: none"> 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 Ancillary services effective upon execution of the ASPA 3. APPROVE, after notice and hearing, the subject ASPA. 	Awaiting ERC Order/ Notice of 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	<ol style="list-style-type: none"> 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 	Awaiting ERC Order/ Notice of 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	<ol style="list-style-type: none"> 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 Ancillary services effective upon execution of the ASPA 3. APPROVE, after notice and hearing, the subject ASPA. 	Awaiting ERC Order/ Notice of hearing
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	<ol style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> - 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.

**31st Status Report on EPIRA Implementation
As of October 2017**

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUND FOR FILING	STATUS
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	<ol style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> • 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 conducted on July 7, 2017
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	<ol style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> • 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	<ol style="list-style-type: none"> 1. Immediately ISSUE a provisional authority to Implement the subject ASPA 2. APPROVE, after notice and hearing, the subject ASPA. 	<ul style="list-style-type: none"> • 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	<ol style="list-style-type: none"> 1. Immediately ISSUE a provisional authority to Implement the subject ASPA; 2. APPROVE, after notice and hearing, the subject ASPA. 	<ul style="list-style-type: none"> • 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 2017-009/February 16, 2017	In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines (NGCP) and CIP II Power Corporation (CIP), with Prayer for the Issuance of Provisional Authority	<ol style="list-style-type: none"> 1. Immediately ISSUE a provisional authority to Implement the subject ASPA; 2. APPROVE, after notice and hearing, the subject ASPA. 	<p>Pursuant to ERC order dated March 22, 2017, the jurisdictional and expository was conducted on 8 June 2017 at the ERC Hearing Room, Pacific Center, Pasig City.</p> <p>On July 21, 2017, the ERC posted on its website an Order dated June 6, 2017, wherein co-applicants are granted interim</p>

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUND FOR FILING	STATUS
			relief in the form of an authority to implement the subject ASPA subject to some conditions.
ERC Case 2016-197RC/ December 12, 2016	In the Matter of the Application for the Approval of the Implementation of Capital Expenditure Program for Calendar Years 2017-2020, with Prayer for the Issuance of Provisional Authority	<ol style="list-style-type: none"> 1. Immediately ISSUE a provisional Authority to Implement the proposed CAPEX projects; and 2. APPROVE, after notice and hearing, the proposed CAPEX projects. 	<ul style="list-style-type: none"> • On 16 May 2017 , an Evidentiary Presentation of NGCP was terminated. NGCP to submit within 15 days its Formal Offer of Evidence (FOE). • Provisionally Approved per ERC Order dated 20 June 2017. It provisionally approved to implement the fifty eight (58) capital expenditure projects with their corresponding 2017 disbursements with a total project cost of PhP5,506,096,000.00, subject to the certain conditions.
ERC Case 2016-196-RC/December 12, 2016	In the Matter of the Application for the Approval of Force Majeure Event Regulated FM Pass-Through for Typhoon Nona in Luzon and Visayas and Sabotage Incidents in Mindanao, in Accordance with the Rules for Setting Transmission Wheeling Rates, with Prayer for Provisional Authority	<ol style="list-style-type: none"> 1. DECLARE Typhoon Nona in Luzon and Visayas and sabotage incidents in Mindanao as Force Majeure Events (FMEs); 2. Immediately GRANT Provisional Approval to implement and bill the following FM Pass-Through Amounts starting January 2017 billing month to December 2020 for Luzon and Visayas customers and starting January to December 2017 for Mindanao customers, or until such time that the amount incurred is fully recovered; 3. APPROVE the CAPEX and OPEX amounting to Fifty Nine Million Seven Hundred Ninety Five Thousand Seven Hundred Sixty Five and 82/100 Pesos (PhP59,795,765.82) incurred by NGCP for the repair, restoration and rehabilitation of the damaged transmission assets and other related facilities due to FMEs Typhoon Nona in Luzon and Visayas and sabotage incidents in Mindanao; 4. APPROVE after due notice and hearing, the proposed FM Pass-Through Amount to be collected from the Luzon and Visayas and Mindanao customers starting January billing month until such time that the amount incurred are fully recovered; 5. APPROVE and ALLOW the recovery of the Net Fixed Asset Value of the transmission assets and other related 	On June 7, 2017, all hearings for the said FME Application was cancelled due to NGCP's Motion to Cancel and Reset.

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
		<p>facilities damaged by the FMEs Typhoon Nona in Luzon and Visayas amounting to Php25,765,226.01, 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 said FME; and</p> <p>6. EXCLUDE the proposed Pass-Through Amount from the side constraint calculation</p>	
ERC Case 2016-179RC/ October 10, 2016	In the Matter of the Application of the National Grid Corporation of the Philippines for the Approval of Force Majeure Event Regulated FM Pass-Through for Typhoon Lando in Luzon and Sabotage Incidents in Mindanao, in Accordance with the Rules for Setting Transmission Wheeling Rates, with Prayer for Provisional Authority.	<ol style="list-style-type: none"> 1. DECLARE Typhoon Lando in Luzon and Sabotage incidents in Mindanao as Force Majeure Events (FMEs); 2. Immediately GRANT Provisional Approval to implement and bill the FM Pass-Through Amounts to Luzon and Mindanao customers starting November 2016 billing month to December 2020 billing month or until such time that the amount incurred is fully recovered; 3. APPROVE the CAPEX and OPEX amounting to PhP13,448,010.87 incurred by NGCP for the repair, restoration and rehabilitation of the damaged transmission assets and other related facilities due to FMEs Typhoon Lando and sabotage incidents in Mindanao; 4. APPROVE after due notice and hearing, the proposed FM Pass-Through Amount to be collected from the Luzon and Mindanao customers starting November 2016 billing month to December 2020 billing month or until such time that the amount incurred is fully recovered; 5. APPROVE and ALLOW the recovery of the Net Fixed Asset Value of the transmission assets and other related facilities damaged by the FMEs Typhoon Lando in Luzon amounting to Php2,184,071.30 given that it would have been fully recovered by NGCP if these transmission assets and other related facilities have not been damaged or destroyed by said FME; and 6. EXCLUDE the proposed Pass-Through Amount from the side constraint calculation. 	On June 7, 2017, all hearings for the said FME Application was cancelled due to NGCP's Motion to Cancel and Reset.
ERC Case No. 2016-164RC/ August 24, 2016	In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement (ASPA) Between the National	<ol style="list-style-type: none"> 1. Immediately ISSUE a provisional authority to Implement the subject ASPA; 	Provisionally Approved per ERC Order dated 1 August 2017 subject to certain conditions.

**31st Status Report on EPIRA Implementation
As of October 2017**

DECISION/CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUND FOR FILING	STATUS
	Grid Corporation of the Philippines and SN Aboitiz Power - Magat, Inc., with Prayer for the Issuance of Provisional Authority.	2. APPROVE, after notice and hearing, the subject ASPA.	
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.	Awaiting ERC Order/ Resolution.
ERC Case No. 2016-163RC/ August 22, 2016	In the Matter of the Application of the National Grid Corporation of the Philippines for the Approval of Force Majeure Event Regulated FM Pass Through for Typhoon Ineng in Luzon, in Accordance with the Rules for Setting Transmission Wheeling Rates, with Prayer for Provisional Authority.	1. DECLARE Typhoon Ineng as Force Majeure Events (FME); 2. Immediately GRANT Provisional Approval to implement and bill the FM Pass-Through Amount to Luzon customers starting September 2016 billing month to December 2020 billing month or until such time that the amount incurred is fully recovered; 3. APPROVE the Capital Expenditure (CAPEX) amounting to PhP1,561,298.74 incurred by NGCP for the repair, restoration and rehabilitation of the damaged transmission assets and other related facilities due to Typhoon Ineng as FME; 4. APPROVE after due notice and hearing, the proposed FM Pass- Through Amount to be collected from the Luzon customers starting September 2016 billing month to December 2020 billing month or until such time that the amount incurred is fully recovered; 5. APPROVE and ALLOW the recovery of the Net Fixed Asset Value of the transmission assets and other related facilities damaged by the FME Typhoon Ineng amounting to Php1,578,209.42 given that it would have been fully recovered by NGCP if these transmission assets and other related facilities have not been damaged or destroyed by FME Typhoon Ineng; and 6. EXCLUDE the proposed Pass-Through Amount from the side constraint calculation.	On June 7, 2017, all hearings for the said FME Application was cancelled due to NGCP's submission of "Motion to Cancel and Reset" to the Commission.

Source: Transco

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION/PROJECT COST	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
COAL	3,240.00			
Limay Power Plant Project Phase I/ SMC Consolidated Power Corporation/ Brgy. Lamao, Limay, Bataan Cost: \$622.15M / Php25.508B	150	FEASIBILITY STUDY: Completed ARRANGEMENT FOR SECURING THE REQUIRED LAND: Completed; MARKETING OF GENERATING CAPACITIES: • On-going electric power supply contract negotiation with prospective off-takers (DUs); • For Unit 1 - ISECO-10MW, TARELCO I-10MW, TARELCO II-15MW, PENELCO-10MW, REAL STEEL-7MW, SMC (Various Facilities)-60.3MW; For Unit 2 – PENELCO-10MW, OCEANA GOLD-12.5MW, REAL STEEL-17MW, SMC (Various Facilities)-37.1MW; 188.9 TOTAL PERMITS AND OTHER REGULATORY REQUIREMENTS: • Environmental Impact Assessment completed; • Topographic and Hydrographic completed; • Soil Investigation completed; • GIS/SIS submitted last 12 July 2013, under review of NGCP; • Facility Study already sent to NGCP for review; • EPC was executed in January 2013; awarded; • ECC was issued on 17 September 2013; • SEC issued last 19 August 2011 • Clearance to Undertake GIS from DOE issued on 13 February 2013; • Addendum for the re run of SIS was submitted to NGCP last Jan 30, 2015 for review GROUNDBREAKING SCHEDULES: • Groundbreaking was held September 2014 FINANCING ARRANGEMENTS: • Financial Arrangement Secured (65% Loan / 35% Equity) CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • Construction of the Project has been underway since January 2014; • Construction Activities of Unit 1&2 2 x 150MW Power Plant - 2.30%; • Design and Construction of Pier and Jetty Structure is 99.55%; • Overall Piling Works is 52.29%; • Turbine and Generator Building is 58.47%; • Ash Dump Design and Construction - 100% COMMENCEMENT OF CONSTRUCTION: • March 2014	Unit 2 - 150 MW –May 2017 (Ongoing Testing and Commissioning)	Unit 2 - 150 MW -September 2017
Pagbilao Coal-Fired Thermal Power Plant/ Pagbilao Energy Corporation/ Pagbilao Power Station, Brgy. Ibabang Polo, Pagbilao, Quezon	420	FEASIBILITY STUDY: • Feasibility Study completed; • Estimated Net Capacity: 400MW	August 2017 (Ongoing Testing and Commissioning)	December 2017

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION/PROJECT COST	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
<p>Cost: US\$ 1,000,000,000.00</p>		<p>ARRANGEMENT FOR SECURING THE REQUIRED LAND: Completed</p> <p>MARKETING OF GENERATING CAPACITIES:</p> <ul style="list-style-type: none"> • Contract with off-takers completed, Supply agreement executed; • 50% of the plant's capability will be sold to Therma Luzon Inc. • 50% will be sold to TeaM (Phils.) Energy Corporation <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Environmental Compliance Certificate was issued on 18 June 2013; • Secured endorsement from Sangguniang Barangay of Ibabang Polo, Sangguniang Bayan of Pagbilao, Sangguniang Panlalawigan of Quezon; • ECC issued on 18 June 2013 • In final negotiations with NPC, PSALM, TeaM Energy Corporation and Therma Luzon, Inc. to co-locate the plant in the existing Pagbilao Power Station <p>GROUNDBREAKING SCHEDULES:</p> <ul style="list-style-type: none"> • 23 July 2014 <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> • Financial Arrangement Secured with various lenders on 30 July 2014; On-going draw downs for planned milestones and progress payments; • Estimated Project Cost: US\$ 1,000,000,000.00 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Construction Contracts for Plant & Equipment: Completed and executed; • Notice to Proceed and Commencement • Notice issued to EPC Contractor; Down Payment already released to EPC contractor; • Commencement of EPC and Construction: May 2014; Approximately 71% completed as of February 2016; • 84.32% completion as of 25 July 2016 • 86.49% completion as of 26 August 2016 • 94.76% completion as of February 2017 		
<p>San Buenaventura Power Ltd. Co. (SBPL) Project/ San Buenaventura Power Ltd. Co. (SBPL)/ Barangay Cagsiay 1, Mauban, Quezon</p> <p>Cost: Php37.8B</p>	<p>500</p>	<p>FEASIBILITY STUDY: Completed</p> <ul style="list-style-type: none"> • Completed Selection Study in 2012; Technology selection study completed 2012 • Coal Sourcing Study completed in 2012 • Facility Study to be done in 2014; System Impact Study completed 2007 and revalidated 2013 <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> • Project will be located within the existing site <p>MARKETING OF GENERATING CAPACITIES:</p> <ul style="list-style-type: none"> • 20 years + 5-year extension PSA with MERALCO as offtaker; • Awaiting for the ERC approval of their PSA with MERALCO; • SBPL has signed a PSA with Meralco on 29 May 2014; PSA approved by ERC on March 27, 2015 and released May 19, 2015 	<p>December 2018</p>	<p>December 2019</p>

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION/PROJECT COST	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Clearance to Undertake GIS from DOE issued on 7 March 2013; • System Impact Study completed in 2007 and is being revalidated in 2013; • ECC (Ref.Code 0610-012-4021) issued on 4 June 2007; • ECC extension of validity issued on 31 May 2012 and valid until 4 June 2015; ECC for SBPL issued on 11 November 2014 • Request for Amendment to upgraded technology submitted to EMB on 17 February 2014 • Request to assign the ECC for new project was requested on 2 June 2014; • Additional information requested by EMB on 7 August 2014; QPL is in the process of preparing the documents; • Secured Sanggunian Bayan Resolution No. 2014-269 endorsing the project to expand; • SIS completed in 2007 and is being revalidated; • Municipal LGU endorsement issued April 19, 2005; • Certificate of Non-Overlap was issued by the NCIP to Quezon Power on 5 February 2014; Request to assign the CNO was endorsed by the DOE and submitted to the NCIP on 15 July 2014; Certificate of Non-overlap issued on 29 August 2014 • ERC application was filed on 2 June 2014; Financing arrangements is expected to be secured only after the ERC issues the final approval; BOI Certificate of Registration issued on 15 October 2015 <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> • Financing arrangements is expected to be secured only after the ERC issues the final approval; Financially closed December 1, 2015 <p>GROUND BREAKING SCHEDULES:</p> <ul style="list-style-type: none"> • December 10, 2015 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Owner's Engineer selected; EPIC bids received in November 2013; • EPC Contract signed October 2014. <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> • Award EPC contract estimate September 2013; • End of 2014 • Expect to commence construction only after the ERC issues the final approval • 4 years to fully complete the construction of the plant; 		
<p>Masinloc Expansion Project/AES Masinloc Power Partners Co., Inc./Zambales</p> <p>Project cost: PhP49.45B</p>	<p>300</p>	<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> • Completed February 2011 <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> • No additional land will be acquired as the expansion will be inside the existing Masinloc Power Plant Complex. • NPC/PSALM, however, is still continuing the titling process and land registration for some parcels of land 	<p>Unit 3 – September 2019</p>	<p>December 2019 (Target Testing and Commissioning)</p>

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION/PROJECT COST	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Grid Impact Studies obtained on 7 January 2011 • ECC Amendment was released by DENR on April 23, 2012 • The amended DOE Certificate of Endorsement for BOI was released on May 7, 2012 • Secured CoE for ERC on September 2011 • On-going processing of Certificate of Precondition from NCIP • SAPA amendment is still pending with DENR <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> • Provided bank certification for financial closing status to DOE dated 24 August 2016; <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Selection of EPC Contractor on going <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> • 2nd Qtr 2014 		
<p>2 X 600 MW Dinginin Expansion Project/ GNPowder Dinginin Coal Plant Ltd. Co./ Mariveles, Bataan</p> <p>Cost: \$1B</p>	1,200.00	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • On-going presentation/proposal submissions to potential customers • Clearance to Undertake GIS from DOE issued on 26 June 201; • Obtained LGU endorsements; BOI registration for 600 MW pre-approve • On-going SI; • On-going EIS for ECC application • On-going securing DOE of Endorsement for DENR-ECC Arrangements for securing the required land will be acquired by an affiliate Filipino company of GNPowder; • On-going negotiation with tenders <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> • Provided bank certification which was received by DOE-EPIMB-PPDD on 18 March 2016 • With Financial Closing, agreed by GNPD and banks/financial institutions on 17 December 2015 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • On-going finalization of EPC Contract • EPC Contract was signed on Oct 27, 2015 	<p>Unit I - October 2018</p> <p>Unit II - 2019</p>	<p>Unit I - March 2019</p> <p>Unit II -January 2020</p>
OIL	46.00			
SLPGC Gas Turbine Power Project Unit 3/Southwest Luzon Power Generation Corporation (SLPGC)/ San Rafael, Calaca, Batangas	23	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued with GIS 2/24/2016 (DOE-EPIMB-SIS No. 2016-02-005) 	April 2017	2017
SLPGC Gas Turbine Power Project Unit 4/Southwest Luzon Power Generation Corporation (SLPGC)/ San Rafael, Calaca, Batangas	23	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued with GIS 2/24/2016 (DOE-EPIMB-SIS No. 2016-02-005) 	April 2017	2017

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION/PROJECT COST	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
NATURAL GAS	650.00			
<p>Pagbilao Combined Cycle Gas Fired Power Plant/Proposed 3x200 MW CCGT Power Plant/ Energy World Corporation/ Brgy. Ibabang Polo, Grande Island, Pagbilao, Quezon</p> <p>Cost:\$300M</p>	650	<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> Completed <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> Land is already secured with a long lease entered into since 2007 <p>MARKETING OF GENERATING CAPACITIES:</p> <ul style="list-style-type: none"> No specific off taker yet but already have a discussion with Federation of Philippine Industries, intended to supply power into the Wholesale Electricity Spot Market but is also open to discussing potential off take arrangements as well 100% WESM <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> GIS for 300MW issued by NGCP on 8 August 2013 and revised on 3 July 2013 for 600MW Issued DOE Endorsement for Revised Capacity on 3 July 2013; Revised DOE clearance for GIS submitted to NGCP on January 2014 GIS from NGCP for the 600MW was released on August 2014; Several Resolutions has been issued on May 2014 (Sangguniang Barangay Resolution, Sangguniang Bayan Resolution and Sangguniang Panlalawigan Resolution) interposing no objection for the construction of a 600 MW Liquefied Natural Gas (LNG) Power Plant; On-going processing of ECC for power plant <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> Financial Arrangement Secured Syndicated Loan Signing of loan agreement last 18 Sep 2015 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> Entered into a Sale and Purchase Agreement last October 2012 with Siemens Energy for two 200 MW gas turbines and the first 200MW turbine is expected to arrive by September 2014; LNG Tank is currently at 50% construction completed as of August 2014. <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> December 2013 Completed 	<p>U1 – Mar 2018 U2 - Jun 2018 U3 - Sep 2018</p>	<p>U1 - Mar 2018 U2 – Jun 2018 U3 – Sep 2018 (Target Testing and Commissioning)</p>
HYDROPOWER	7.5			
Tubao/ Tubao Mini-Hydro Electric Corporation/ Tubao, La Union	1.5	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> Issued Confirmation of Commerciality on 19 March 2015 <p>GROUND BREAKING SCHEDULES:</p> <ul style="list-style-type: none"> Ground breaking held on 8 November 2014 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> Pending submission of requirements for construction 	December 2017	December 2017 (On-going Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION/PROJECT COST	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Majayjay/ Majayjay Hydro Power Company, Inc./ Majayjay, Laguna	3	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Submission of lacking requirements e.g. permits in progress CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • On-going pre construction activities	December 2018	December 2018 (On-going Testing and Commissioning)
Labayat River (Upper Cascade)/ Repower Energy Development Corporation/ Real, Quezon	3	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued Confirmation of Commerciality on 8 January 2016 CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • Ongoing pre-construction activities	December 2021	December 2021 (On-going Testing and Commissioning)
SOLAR	104.38			
CW Home Depot Solar Power Project/CW Marketing & Development Corp. (CW) CW Home Depot, Brgy. Pulong, Sta. Rosa City, Laguna	1.675	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Awarded with RE Service Contract (SESC No. 2016-02-228) on 07 Mar 2016 • Certificate of Commerciality No. SCC- 2016-03-054 dated 31 March 2016	September 2016 (On-going Testing and Commissioning)	September 2017
San Rafael Solar Power Plant/ SPARC Solar Powered Agri-Rural Communities Corporation/ San Rafael, Bulacan	3.82	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Awarded with Solar Energy Service Contract (SESC No. 2012-03-012) on 03 May 2012; and • Certificate of Commerciality No. SCC- 2015-10-035 dated 10 November 2015 CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • On-going construction (see FIT Monitoring Board)	June 2016 (On-going Testing and Commissioning)	September 2017
Morong Solar Power Plant/ SPARC Solar Power Agri-Rural Communities/ Morong, Bataan	5.02	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Awarded with Solar Energy Service Contract (SESC No. 2012-03-012) on 03 May 2012; and • Certificate of Commerciality No. SCC- 2015-10-037 dated 10 November 2015 CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • On-going construction (see FIT Monitoring Board)	June 2016 (On-going Testing and Commissioning)	September 2017
Sarrat Solar Power Project/ Bosung Solartec, Inc. (BOSUNG)/ Brgy. 21 San Marcos, Sarrat, Ilocos Norte	1	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Awarded with RE Service Contract (SESC No. 2016-02-276) on 19 Feb 2016 • Certificate of Commerciality No. SCC- 2016-03-052 dated 22 March 2016	May 2017	May 2017 (Testing and Commissioning)
Sta. Rita Solar Power Project - Phase II/ Jobin-Sqm Inc. (JOBIN)/ Mt. Sta. Rita, Morong and Hermosa, Bataan	92.86	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Awarded with RE Service Contract (SESC No. 2013-10-039) on 20 Nov 2013 • Certificate of Commerciality No. SCC- 2015-09-021-A2 dated 11 March 2016	December 2017	December 2017 (On-going Testing and Commissioning)
WIND	-			
GEOTHERMAL	43.00			
Maibarara 2 Geothermal Project/ Maibarara Geothermal Inc./ Batangas	12	FEASIBILITY STUDY: On-going MARKETING OF GENERATING CAPACITIES:	December 2017	December 2017 (On-going Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION/PROJECT COST	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<ul style="list-style-type: none"> The off-taker for generated power is still under negotiation <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> Project is within the existing DOE Service Contract within GRESC # 2010-02-012 LGU endorsement Land Use permits DENR-ECC and water rights obtained Secured Certificate of Non-overlap from NCIP regional Office IV Confirmation of Commerciality obtained from DOE on 21 September 2015; <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> Project cost estimated PhP 1,848.30 Million 		Commissioning)
Bacman 3 (Tanawon) Geothermal Project/ Energy Development Corporation/ Guinlajon, Sorsogon Cost: \$140M-180M	31.00	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> DOE Service Contract within GRESC # 2009-10-003; LGU endorsement Land Use Permits, DENR-ECC Water Rights obtained; Turnkey Contract pending result of feasibility study under negotiation; Submitted Declaration of Commerciality (DOC) on 17 June 2014, evaluation by DOE of the DOC is still on-going; <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> Project to be financed by EDC 	December 2022	December 2022 (Target Testing and Commissioning)
BIOMASS	50.875			
2 MW ACNPC WTE Biomass Power Plant Project/ Asian Carbon Neutral Power Corporation/ Tarlac	2	<p>FINANCING ARRANGEMENTS: Closed</p> <p>CONSTRUCTION:</p> <ul style="list-style-type: none"> On-going construction 	Phase 1 – June 2017 Phase 2 – December 2017	Phase 1 - September 2017 Phase 2 – December 2017
Isabela La Suerte Rice Husk-Fired Power Project/Isabela La Suerte Rice Mill Corporation/Camarines Sur	5	<p>FINANCING ARRANGEMENTS: Closed</p> <p>CONSTRUCTION:</p> <ul style="list-style-type: none"> On-going construction 	June 2017 (On-going Testing and Commissioning)	September 2017
SJCI Power Rice Husk-Fired Biomass Power Plant Project Phase 2/San Jose City I Power Corporation/Brgy. Tulat, San Jose, Nueva Ecija	12	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> BREOC No. 2011-01-013; ECC, LGU, Land Use Permit; Secured Clearance from DOE for the conduct of GIS on 21 July 2011; and Issued Certificate Confirmation of Commerciality on 2 Sept 2013 <p>GROUNDBREAKING SCHEDULES:</p> <ul style="list-style-type: none"> Groundbreaking on 12 Oct 2013 	June 2017 (On-going Testing and Commissioning)	September 2017

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION/PROJECT COST	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Cost: PhP1.234B		<p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • EPC w/ Engcon of Singapore; • Pre-construction (100% completed as of 31 August 2014); • Phase I - Estimated Accomplishment of Construction 98 % completed as of 31 August 2014) • Remaining major equipment in-progress is the installation of travelling gate; • On-going installations of the feed water piping system, chemical dosing pipeline, three control elements of the boiler and other field instruments; • Expected arrival of switchyard is on May 2014; • Interconnection (100% completed as of 31 August 2014); • On-going construction as of 30 September 2014; and • Pre-Construction - 100%; Construction-98%; Interconnection-100%) 		
Central Azucarera Bagasse-Fired Power Plant Project/Central Azucarera Don Pedro, Inc./Batangas	31.875	<p>CONSTRUCTION:</p> <ul style="list-style-type: none"> • On-going construction 	September 2017	December 2017
BATTERY	10			
AES Battery Storage - Masinloc Project/AES Philippines Power Partners Co., LTD./ Masinloc, Zambales	10	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Secured GIS on June 2, 2015; COE issued 16 December 2015 (10MW BESS) <p>GROUNDBREAKING SCHEDULES:</p> <ul style="list-style-type: none"> • Ground breaking ceremony 15 December 2015 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Construction on going <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> • Target Commencement of Construction: June 2016 	December 2017	December 2017 (Target Testing and Commissioning)

Total Committed Rated Capacity: 4,141.8

Source:DOE

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
<p>COAL</p> <p>Limay Power Plant Project Phase II/SMC Consolidated Power Corporation/Brgy. Lamao, Limay, Bataan</p>	<p>8,760.00</p> <p>300</p>	<p>FEASIBILITY STUDY: Completed</p> <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> Acquisition Completed <p>MARKETING OF GENERATING CAPACITIES:</p> <ul style="list-style-type: none"> On-going electric power supply contract negotiation with prospective off-takers (DUs) <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> Final review and drafting of ECC was done last 16 August 2013 and expected to receive by end of August 2013; Submitted System Impact Study last 12 July 2013, review of the report is still on-going; Requirements for BOI will be submitted once ECC is release; Expected submission on 1st week of September 2013; Agreement for the use of the land was entered between SMC Consolidated Power Corp and leasehold rights holder On-going securing of other permits and other regulatory requirements SEC issued last 19 August 2011; Site Development Target: <p>GROUNDBREAKING SCHEDULES:</p> <ul style="list-style-type: none"> 3rd Week of September 2013 <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> Securing project financing 70:30 Debt-equity ratio Project cost is Under Planning and Budget Review <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> Awarded EPC to Formosa Heavy Industries (FHI) Issued NTP on 1 August 2014 Completed and issued construction and supply contracts on EPC's inside batter limit (main equipment) Other main contracts for review and awarding (site development/land preparation, transmission connection, pier and jetty structure, fuel handling facilities and other ancillaries, ash pond construction and water supply) Handover of site for Unit 1 is 31 Oct. 2014; Handover of Site for Unit 2 is 28 February 2015; Target Date for Coal Yard for Phase 2 is 31 August 2015; Transmission Target: New extra high voltage TL and SS should be ready by November 2016. 	<p>Unit 1 - September 2017 Unit II – August 2019</p>	<p>Unit 1 - December 2017 Unit II – December 2019 (Target Testing & Commissioning)</p>

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
SRPGC 2x350MW Coal-Fired Power Plant Project/St. Raphael Power Generation Corporation/Brgy. San Rafael, Calaca, Batangas	700	<p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> • Target commencement of construction- Site development/Land preparation: 2 September 2013 (upon release of ECC); • Start of Piling and Construction: 15 October 2013 <p>FEASIBILITY STUDY: Completed</p> <p>ARRANGEMENT FOR SECURING THE REQUIRED:</p> <ul style="list-style-type: none"> • Finalization of terms of sub-lease on-going <p>MARKETING OF GENERATING CAPACITIES:</p> <ul style="list-style-type: none"> • ERC commenced hearing the PSA application starting November 29, 2016. Proceedings on-going. <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • SEC Registration - September 2013; • DENR ECC - September 2015; (awaiting approval of the ECC amendment); • NGCP Grid Impact Study - February 13, 2017; • Sangguniang Barangay Endorsement - February 24, 2017; • BOI Registration - For Registration. <p>GROUNDBREAKING SCHEDULES:</p> <ul style="list-style-type: none"> • Target Notice to Proceed 1H 2018 <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> • Target financial close 1H 2018 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • EPC Contract Target Signing 2H 2017; <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> • 2H 2018; <p>ISSUES ENCOUNTERED RE: PROJECT DEVELOPMENT</p> <ol style="list-style-type: none"> 1. SRPGC 2x350MW Commercial operations anchored on the completion of NGCP Calaca-Dasmarinas Transmission Line Expansion Project; 2. Connection to the grid is dependent on the completion of the New Calaca Substation; 3. Final project economics dependent on ERC's decision on the PSA which impacts financing 	July 2019	December 2019
Merbau Coal Fired Thermal Power Plant/Merbau Corporation/ Brgy. Pinamukan Ibaba, Batangas City	600	<p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> • Property is currently under Land Lease Agreement (LLA) between Sem-Calaca Power Corporation (SCPC) with PSALM <p>MARKETING OF GENERATING CAPACITIES:</p> <ul style="list-style-type: none"> • On-going negotiations with prospective off-takes (DUs and those currently with PSAs and contestable market under Open Access 	Unit 1 - June 2018 Unit 2 - Dec 2018 Unit 3 - June 2019 Unit 4 - Dec 2019	Unit 1 - June 2018 Unit 2 - Dec 2018 Unit 3 - June 2019 Unit 4 - Dec 2019 (Target Testing & Commissioning Date)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<p>Regime</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Conduct of EIA Study and Preparation of EIS - November 2013 to February 2014 • Draft EIS Submission and Preliminary Review - Middle of 2014 • Public Hearing - 1 month after submission of EIS • EMB Review - 55 days; <p>ECC (from DENR-EMB):</p> <ul style="list-style-type: none"> - RevCom requested redo of Air Dispersion Modeling using Prognostic Meteorological Data, target ETC April. - Awaiting schedule for public hearing, target May 2017. <ul style="list-style-type: none"> • Secured Clearance from DOE for the conduct of GIS on 21 February 2014; • Secured Endorsement from DOE for Certificate of CNO from NCIP on 14 July 2014 <p>SIS and FS (from NGCP)</p> <ul style="list-style-type: none"> - Transmission Line Route Survey completed. - Preliminary design of transmission line still ongoing, ETC April 2017. - Survey report and preliminary design report to be submitted for NGCP comments by 1st week May 2017. - Final Report with NGCP comments is expected to be received May 2017. <p>'SEC</p> <ul style="list-style-type: none"> - GIS being prepared, target filing by April 2017. <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> • On-going negotiations for the financing arrangements and other permits <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Pre-Construction Phase (8 months) • Construction of EIA study and permitting • Design and Engineering • Commissioning of EPC Contractor (Phase 1 and Phase2) • Construction Phase (12 months) Civil Works and plant equipment installation • Operation Phase (design life) • Start-up and unit synchronization • Conduct of public Scoping with Stakeholder representatives 10 October 2013 • Conduct of Technical Scoping with EMB and EIA Rev Com - 6 November 2013 • On-going securing of regulatory requirements 		

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Masinloc Expansion Project/AES Masinloc Power Partners Co., Inc./ Zambales	300	<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> Completed February 2011 <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> No additional land will be acquired as the expansion will be inside the existing Masinloc Power Plant Complex. NPC/PSALM, however, is still continuing the titling process and land registration for some parcels of land <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> Grid Impact Studies obtained on 7 January 2011 ECC Amendment was released by DENR on April 23, 2012 The amended DOE Certificate of Endorsement for BOI was released on May 7, 2012 Secured CoE for ERC on September 2011 On-going processing of Certificate of Precondition from NCIP SAPA amendment is still pending with DENR <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> Undergoing consultation with international / local banks; Project cost is Php49.45B <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> Selection of EPC Contractor on going <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> 2nd Qtr 2014 	Unit 4 - June 2020	December 2020 (Target Testing and Commissioning)
AOE Coal-Fired Power Plant/Meralco PowerGen Corporation (Project Company: Atimonan One Energy)/ Atimonan, Quezon	1200	<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> Completed 21 January 2015 <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> Acquisition of the parcels of the land in the target plant site in Atimonan, Quezon is on-going (expanding) <p>MARKETING OF GENERATING CAPACITIES:</p> <ul style="list-style-type: none"> Energy to be sold to DUs and electric cooperatives Discussion of PSA with potential off-takers on-going <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> On-going securing of ECC SEC already amended Clearance to Undertake GIS from DOE issued on June 2014 GIS on-going Ongoing discussion with LGU and there was no violent reaction from them on this proposed changes. EIS draft submitted to DENR in Nov. 2014 	Unit 1 - June 2021 Unit 2 – To be determined	Unit 1 - June 2021 Unit 2 – To be determined

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<ul style="list-style-type: none"> • Foreshore Lease Application (FLA) submitted to DENR last March 2013 (currently on hold as the DENR does its internal organizational restructuring) • Applied Certificate of Non-Overlap with National Commission on Indigenous Peoples (NCIP) <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> • Financing discussion on-going • Informal discussions have begun with several banks with respect to the financing of the project • On-going negotiations with lenders <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Owner's Engineer has been appointed; EPC pre-qualification process on-going • EPC pre-qualification process on-going • No contracts have been awarded to date re: EPC still on-going • On-site works targeted to start in 2016 <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> • The parties have yet to agree on when construction will commence 		
<p>H & WB PCB Supercritical Coal-Fired Power Plant/ H & WB ASIA PACIFIC (PTE LTD) CORPORATION/ Jose Panganiban, Camarines Norte</p>	<p>700</p>	<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> • Pre-feasibility studies have conducted to determine the viability of the project- Completed in 2014 • Feasibility study is expected to be completed by the end of 2nd Quarter 2016 <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> • Land already secured and it has been re-classified as industrial; being resurveyed for titling (6/12/2015) <p>MARKETING OF GENERATING CAPACITIES:</p> <ul style="list-style-type: none"> • On-going negotiations with MERALCO and Electric Cooperatives will be held on 3rd week of March • H&WB prepares PSA March 25, 2015 • H&WB is reviewing the term sheet provided by MERALCO <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued clearance to undertake GIS on February 12, 2015 • On-going securing of permits and other regulatory requirements • LGU endorsement secured 10 June 2014 • NGCP issued "Offer of Service" for SIS on 31 March 2015- completed on 23 September 2015 • Currently undergoing NGCP's review process • On-going processing of ECC requirements • Environmental Impact Assessment will be submitted in the 1st 	<p>Unit 1 - 4th Quarter 2021 Unit 2 - 4th Quarter 2025</p>	<p>Unit 1 - 4th Quarter 2021 Unit 2 - 4th Quarter 2025</p>

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		Quarter of 2016 FINANCING ARRANGEMENTS: • On-going discussions with major banks and capital companies for debt-financing CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • Ongoing discussion with four potential co-developers and equity partners • Ongoing sourcing of potential EPC Contractors COMMENCEMENT OF CONSTRUCTION: • Construction to commence on the 4th Quarter 2017		
SMC Circulating Fluidized Bed Coal-Fired Power Plant/SMC Global Power/Brgy. Ibabang Polo, Pagbilao, Quezon	600	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 8 June 2016 (DOE-EPIMB-SIS No. 2016-05-006)	To be determined	To be determined
SMC Circulating Fluidized Bed Coal-Fired Power Plant/SMC Global Power Holdings Corp./ Sariaya, Quezon	600	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 14 October 2016 (DOE-EPIMB-SIS No. 2016-08-006)	To be determined	To be determined
Quezon Coal Fired Thermal Plant Project/ Orion Pacific Prime Energy, Inc./ Tagkawayan, Quezon	1,200	FEASIBILITY STUDY: • Completed detailed feasibility ARRANGEMENT FOR SECURING THE REQUIRED LAND: • Ongoing PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with COE on 19 January 2017(COE No. 2016-12-006) • Issued with SIS on 26 April 2017(COE No. 2017-02-007) GROUND BREAKING: • 2021	To be determined	To be determined
Zestpower Corporation/Mariveles, Bataan	660	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with COE on 19 January 2017(COE No. 2017-02-001)	To be determined	To be determined
Lucidum Coal Power Plant/ Lucidum Energy, Inc./ Silanguin Bay, Zambales	300	FEASIBILITY STUDY: Completed • Pacifictech Solutions has completed Feasibility Study as of November 2014 ARRANGEMENT FOR SECURING THE REQUIRED LAND: • Lucidum have decided to purchase the land rather than to lease • Additional land area has been decided upon to be leased as right of way for the conveyor belt from the port PERMITS AND OTHER REGULATORY REQUIREMENTS: • Initial talks between Lucidum and respective DUs, large scale power consumers and cooperatives have been initiated • Several structures are being considered to comply with the PPA or commercial guarantees	To be determined	To be determined

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<ul style="list-style-type: none"> • Several structures are being considered to comply with the PPA or commercial guarantees • Complete corporate documentation for SEC and DOE Endorsement for SEC has been complied • On-going processing of other regulatory requirements • LGU permits, among others • Approval for the grid impact study has been obtained from the DOE to be submitted to NGCP • On-going processing of ECC requirements <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> • Financing arrangements are currently negotiating with two lenders and they're waiting for the completion of the feasibility study for their validation • Initial talks have been geared towards a 60-40 debt-equity ratio • Current talks with a serious private equity, with the intentions of a turn-key relationship with the assistance of Lucidum group • Additional due diligence requirements are being complied for by Lucidum to for the above mentioned new additional parties • Cost is US\$ 600,000,000.00 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Construction Contracts for Plants and Equipment are on hold pending the completion of detailed Engineering Studies • Decided upon the board as per advices by Stanley Consultants, that the incoming EPC contractor shall bear the expenses to allocate land of double size to reassemble the incoming coal turbine <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> • Commencement of Construction will be based upon completion of the Feasibility Study and the Assessments of the financing companies involved 		
2x500 MW KEPCO Pangasinan Coal-Fired Power Plant/ KEPCO Philippines Corporation/ Sual, Pangasinan	1000	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued with SIS 1 August 2017 (DOE-EPIMB-SIS No. 2017-07-004) 	To be determined	To be determined
OIL	450			
Aero Derivative Combined Cycle Power Plant/ Calamba Aero Power Corporation/ Calamba, Laguna Cost: PhP5.67B	150	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • On-going securing of permits and other regulatory requirements; and • Granted clearance by DOE for the conduct of GIS 	To be determined	To be determined
AC Energy Modular Genset (Diesel) Power Plant/ AC Energy DevCo, Inc./ Pililia, Rizal	300	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued with SIS 1 August 2017 (DOE-EPIMB-SIS No. 2017-07-010) 	To be determined	To be determined

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
NATURAL GAS	2,816.00			
500 MW (8 x 50) VIRES LNG-FIRED Power Barge Project/ VIRES Energy Corporation/ Batangas Bay Area, Batangas	500	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with SIS 11/24/2016 (DOE-EPIMB-SIS No. 2016-11-004)	March 2018	March 2018 (Target Testing and Commissioning)
1x450 Sta. Maria Power Plant (Phase II)/ First Gen Ecopower Solutions Inc./ Santa Rita, Batangas	450	FEASIBILITY STUDY: • On-going Feasibility Study ARRANGEMENT FOR SECURING THE REQUIRED LAND: • Parcels of land to be used by the Project shall be purchased from FGHC and FGP Corp. MARKETING OF GENERATING CAPACITIES: • Discussion on targeted off takers on-going PERMITS AND OTHER REGULATORY REQUIREMENTS: • Power Plant options update completed as of 17 June 2015 • City and Barangay endorsements acquired in 2013 • Secured Clearance from DOE for the conduct of GIS on 18 February 2013 • Environmental compliance Certificate application is on-going (targeted to be acquired by July 2015) • Importation permit application is on-going • Accreditation from the BOI (targeted on December 2015) • Importation permit is on-going • BOI Accreditation target is December 2015 • DENR ECC on going; Certificate is expected in September 2015 • Issuance of ECC from DENR expected by October 2015 • BOI targeted January 2016 • On-going coordination with affected barangays FINANCING ARRANGEMENTS: • Discussion with International Financing outfits and local banks on-going CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • EPC and Operation Maintenance contracts targeted to be awarded on December 2015	December 2019	June 2020
Batangas CCGT Plant Unit 1/ Therma Batangas Gas, Inc./ Brgy. Libjo, Batangas City	300	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS 5 July 2016 (DOE-EPIMB-GIS No. 2015-06-012)	To be determined	To be determined
Batangas CCGT Plant Unit 2/Therma Batangas Gas, Inc./ Brgy. Libjo, Batangas City	400	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS 5 July 2016 (DOE-EPIMB-GIS No. 2015-06-012)	To be determined	To be determined
Batangas CCGT Plant Unit 3/Therma	400	PERMITS AND OTHER REGULATORY REQUIREMENTS:	To be determined	To be determined

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Batangas Gas, Inc./ Brgy. Libjo, Batangas City		•Issued with GIS 5 July 2016 (DOE-EPIMB-GIS No. 2015-06-012)		
Sta. Ana CCGT Power Plant/ Phinma Energy Corporation/ Port Irene, Sta. Ana, Cagayan	383	PERMITS AND OTHER REGULATORY REQUIREMENTS: •Issued with GIS 1 August 2017 (DOE-EPIMB-GIS No. 2017-07-009)	To be determined	To be determined
Sual CCGT Floating Power Plant/Phinma Energy Corporation/ Brgy. Baquioen, Sual, Pangasinan	383	PERMITS AND OTHER REGULATORY REQUIREMENTS: •Issued with GIS 24 July 2017 (DOE-EPIMB-GIS No. 2017-06-006)	To be determined	To be determined
GEOTHERMAL	50.00			
Bacman 4 Botong - Rangas Geothermal Project/ Energy Development Corporation/ Bacon District, Sorsogon, Sorsogon City	20	FEASIBILITY STUDY: • On-going Feasibility Study PERMITS AND OTHER REGULATORY REQUIREMENTS: • DOE Service Contract within GRESC # 2009-10-003; • LGU endorsement, Land Use Permits, and DENR-ECC obtained; • Permits for the TCP and Water Rights are on-going; and • Turnkey Contract pending result of feasibility study FINANCING ARRANGEMENTS: • Project cost is subject to the result of the feasibility study. COMMENCEMENT OF CONSTRUCTION: • Target commencement of construction on 1st half of 2015	December 2022	December 2022 (Target Testing and Commissioning)
Kayabon Geothermal Project/ Energy Development Corporation/ Manito, Albay	30	FEASIBILITY STUDY: • On-going Feasibility Study PERMITS AND OTHER REGULATORY REQUIREMENTS: • On-going Feasibility Study and resource assessment; • DOE Service Contract within GRESC # 2009-10-003 • LGU endorsement • DENR-ECC, and Water Rights obtained • On-going application for land-use permits and negotiations with lot owners • On-going application for SLUP and TCP permits • Clearance to Undertake GIS from DOE issued on 7 October 2011 FINANCING ARRANGEMENTS: • Project cost is subject to the result of the feasibility study COMMENCEMENT OF CONSTRUCTION: • Target commencement of construction on 2nd half of 2017	December 2025	December 2025 (Target Testing and Commissioning)
HYDROPOWER	3,140.28			
Ibulao Hydroelectric Power Project/ Hydrocore, Inc./ Lagawe, Ifugao	4.5	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued Confirmation of Commerciality on 26 June 2013; • Already secured LGU Endorsements; • DENR Environmental Compliance Certificate;	June 2018	June 2018 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<ul style="list-style-type: none"> • NCIP Certificate of Precondition; • Land Lease agreement and NWRB Permit; • Submitted Feasibility Study, Detailed Engineering Design and 5-Yr Work Plan and Grid Impact Study; and • Clearance to Undertake GIS from DOE issued on 17 October 2011 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • On-going construction (Pre-construction - 100%, Construction-0%, Interconnection-0%) completed as of 30 September 2014 		
Dupinga Hydroelectric Power Project/ Constellation Energy Corporation/Gabaldon, Nueva Ecija	3	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 26 June 2013; • Already secured LGU Endorsements; • DENR Environmental Compliance Certificate; • NCIP Certificate of Compliance, and NWRB Permit; • Submitted Feasibility Study and 5-Yr Work Plan; • Submission of lacking requirements e.g. permits in progress; • On-track with the schedule with regards to the permitting on-going conduct of pre-construction activities such as permitting; and • Issued confirmation of Commerciality on 26 June 2013 e.g. permits in progress <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Construction Progress (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014 	June 2018	June 2018 (Target Testing and Commissioning)
Tinoc 1/ Philnew Hydro Power Corporation/ Tinoc, Ifugao	4.1	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Pending submission of requirements for construction; and • Issued Confirmation of Commerciality on 9 August 2013 	August 2018	August 2018 (Target Testing and Commissioning)
Tinoc 4/ Philnew Hydro Power Corporation/ Tinoc, Ifugao	5.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 09 August 2013; • Submission of lacking requirements e.g. permits in progress; and • Clearance to Undertake GIS from DOE issued on 11 July 2011 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Construction Progress (On going Pre-construction, Construction-0%, Interconnection-0%) completed as of 30 September 2014 	August 2018	August 2018 (Target Testing and Commissioning)
Pinacanauan/ Sunwest Water & Electric Co., Inc./ Peñablanca, Cagayan	6.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 18 September 2013; • Already secured LGU Endorsement; • DENR ECC, NWRB CWP and NCIP CNO; • Submitted Feasibility Study, Detailed Engineering Design and 5-Yr Work Plan; and • Clearance to Undertake GIS from DOE issued on 25 March 2013 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Construction Progress (Pre-construction - 0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014 	September 2018	September 2018 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Tinoc 2/ Philnew Hydro Power Corporation/ Tinoc, Ifugao	11.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 06 January 2014; • Submission of lacking requirements e.g. permits in progress; and • Clearance to Undertake GIS from DOE issued on 11 July 2011 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Construction Progress (Pre-construction - 0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014 	January 2019	January 2019 (Target Testing and Commissioning)
Tinoc 3/ Quadriver Energy Corp./ Tinoc, Ifugao	8.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 06 January 2014; • Submission of lacking requirements e.g. permits in progress; and • Clearance to Undertake GIS from DOE issued on 11 July 2011 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Construction Progress (Pre-construction - 0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014 	January 2019	January 2019 (Target Testing and Commissioning)
Kapangan/ Cordillera Hydro Electric Power Corporation/ Kapangan & Kibungan, Benguet	60	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 13 February 2014 <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> • On-going civil works of hydro facilities 	February 2019	February 2019 (Target Testing and Commissioning)
Colasi/ Colasi Mini Hydro Electric Power Plant Corporation/ Mercedes, Camarines Norte	1	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Submission of lacking requirements e.g. permits in progress • Clearance to Undertake GIS from DOE issued on 3 December 2012 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • On-going rehabilitation 	February 2019	February 2019 (Target Testing and Commissioning)
Kabayan 1/Hedcor Benguet, Inc.	20	<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> • On-going conduct of Feasibility Study <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Securing of permitting requirements • Newly signed HSC Dec 28, 2015; COR Dec 23, 2015 • With Renewable Energy Service Contract • Still on process in securing other regulatory requirements <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> • To secure contract of lease with the landowners <p>MARKETING OF GENERATING CAPACITIES:</p> <ul style="list-style-type: none"> • FiT or PSA <p>GROUNDBREAKING SCHEDULES:</p> <ul style="list-style-type: none"> • 4th Quarter of 2016 	March 2019	March 2019 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<p>FINANCING ARRANGEMENTS: • Parent company will undertake to provide financial support</p> <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • To be undertaken after acquisition of permits</p> <p>COMMENCEMENT OF CONSTRUCTION: • 4th Quarter of 2016</p>		
Kabayan 3/Hedcor Benguet, Inc./ Kabayan, Benguet	27	<p>FEASIBILITY STUDY: • On going</p> <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND: • To secure contract of lease with the landowners</p> <p>MARKETING OF GENERATING CAPACITIES: • FIT or PSA</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS: • With Renewable Energy Service Contract • With on going application for HSC amendment: Increase in capacity from 14.3 MW to 27 MW • Still on process in securing other regulatory requirements</p> <p>GROUNDBREAKING SCHEDULES: • 4th Quarter of 2016</p> <p>FINANCING ARRANGEMENTS: • Parent company will undertake to provide financial support</p> <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • To be undertaken after acquisition of permits</p> <p>COMMENCEMENT OF CONSTRUCTION: • 4th Quarter of 2016</p>	March 2019	March 2019 (Target Testing and Commissioning)
Bineng 1-2b Combination HEPP/Hedcor, Inc./ La Trinidad, Benguet	19	<p>FEASIBILITY STUDY: • On going</p> <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND: • To secure contract of lease with the landowners</p> <p>MARKETING OF GENERATING CAPACITIES: • FIT or PSA</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS: • With Renewable Energy Service Contract • With on going application for HSC amendment: Increase in</p>	March 2019	March 2019 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<p>capacity from 16.5 MW to 19 MW</p> <ul style="list-style-type: none"> • Still on process in securing other regulatory requirements <p>GROUNDBREAKING SCHEDULES:</p> <ul style="list-style-type: none"> • 4th Quarter of 2016 <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> • Parent company will undertake to provide financial support <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • To be undertaken after acquisition of permits <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> • 4th Quarter of 2016 		
Tignoan HEP/ Aurora All Asia Energy Corp./ Real, Quezon	20.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Currently on-going Preparation of Business Plan; • On-going negotiations of Business Financing Arrangement; and • Clearance to Undertake GIS from DOE issued on December 2014 	July 2019	July 2019 (Target Testing and Commissioning)
Biyao/ AV Garcia Power Systems Corp./ Balbalan, Kalinga	0.8	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 01 August 2014; and • Submission of lacking requirements e.g. permits in progress <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Construction Progress (Pre-construction - 0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014; and • Ongoing construction 	August 2019	August 2019 (Target Testing and Commissioning)
Barit (Irrigation Discharge) Hydroelectric Power Project/ Nascent Technologies/ Buhi, Camarines Sur	0.4	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 12 September 2014; and • Submission of Lacking requirements e.g. permits in progress <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014; and • Pending submission of requirements for construction 	September 2019	September 2019 (Target Testing and Commissioning)
Abdao HEP/ AV Garcia Power Systems Corp./ Tabaan Sur, Tuba, Benguet	1.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 25 September 2014; and • Submission of Lacking requirements e.g. permits in progress <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • On-going pre construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014; and • Pending submission of requirements for construction 	September 2019	September 2019 (Target Testing and Commissioning)
Tumauni (Lower Cascade)/ Quadriver Energy Corp./ Tumauni, Isabela	7.8	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Submission of Lacking requirements e.g. permits in progress 	October 2019	October 2019 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • On-going pre construction activities		
Tumauini (Upper Cascade)/ Quadriver Energy Corp./ Tumauini, Isabela	14.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Submission of Lacking requirements e.g. permits in progress CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • On-going pre construction activities	October 2019	October 2019 (Target Testing and Commissioning)
Tinoc 5/ Philnew Hydro Power Corporation/ Tinoc, Ifugao	6.9	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Submission of Lacking requirements e.g. permits in progress CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • On-going pre construction activities	December 2019	December 2019 (Target Testing and Commissioning)
Tinoc 6/ Philnew Hydro Power Corporation/ Tinoc, Ifugao	8.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Submission of Lacking requirements e.g. permits in progress CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • On-going pre construction activities	December 2019	December 2019
Kabayan 2 (Natalang HEP)/Hedcor Benguet, Inc./ Kabayan, Benguet	52	FEASIBILITY STUDY: • On going ARRANGEMENT FOR SECURING THE REQUIRED LAND: • To secure contract of lease with the landowners MARKETING OF GENERATING CAPACITIES: • FIT or PSA PERMITS AND OTHER REGULATORY REQUIREMENTS: • With Renewable Energy Service Contract • With on going application for HSC amendment: Increase in capacity from 45 MW to 52 MW • Still on process in securing other regulatory requirements GROUNDBREAKING SCHEDULES: • 4th Quarter of 2016 FINANCING ARRANGEMENTS: • Parent company will undertake to provide financial support CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • To be undertaken after acquisition of permits COMMENCEMENT OF CONSTRUCTION: • 4th Quarter of 2016	January 2020	January 2020 (Target Testing and Commissioning)
Ranggas/ Clean and Green Energy Solutions, Inc./ Goa & Tigaon, Camarines Sur	1.5	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Submission of lacking requirements e.g. permits in progress	January 2020	January 2020 (Target Testing and Commissioning)

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NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Alilem/ Philnew Hydro Power Corporation/ Alilem, Ilocos Sur	16.2	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Submission of Lacking requirements e.g. permits in progress <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • On-going pre construction activities 	January 2020	January 2020 (Target Testing and Commissioning)
Ilaguen/ Isabela Power Corporation/ San Mariano & San Guillermo	19.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of commerciality on 18 February 2015; • On-going permitting <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Pending submission of requirements for construction 	February 2020	February 2020 (Target Testing and Commissioning)
Cawayan 2/ Sunwest Water & Electric Co., Inc./ Sorsogon, Sorsogon	1.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of commerciality on 15 April 2015; • On-going permitting <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Pending submission of requirements for construction 	April 2020	April 2020 (Target Testing and Commissioning)
Ilaguen 2/ Isabela Power Corporation/ Dinapigue, Isabela	14.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of commerciality on 22 May 2015; • On-going permitting <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Pending submission of requirements for construction 	May 2020	May 2020 (Target Testing and Commissioning)
Danac/ Philnewriver Power Corp./ Sugpon, Ilocos Sur	13.2	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of commerciality on 29 June 2015; and • On-going permitting <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Pending submission of requirements for construction 	June 2020	June 2020 (Target Testing and Commissioning)
Matuno/ Epower Technologies Corporation/ Bambang, Nueva Ecija	8.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of commerciality on 24 June 2015; <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Pending submission of requirements for construction 	June 2020	June 2020 (Target Testing and Commissioning)
Dibuluan/ Greenpower Resources Corp./ San Agustin, Isabela	5.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of commerciality on 24 June 2015 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Pending submission of requirements for construction 	June 2020	June 2020 (Target Testing and Commissioning)
Man-Asok/ Benguet Electric Cooperative/ Buguias, Benguet	3.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of commerciality on 22 September 2015 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Pending submission of requirements for under development stage 	September 2020	September 2020 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Quirino/ Philnewriver Power Corp./ Quirino, Ilocos Sur	11.5	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued Confirmation of commerciality on 7 September 2015 CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • Pending submission of requirements for under development stage	September 2020	September 2020 (Target Testing and Commissioning)
Ibulao I Hydroelectric Power Project/Kiangan Mini-Hydro Corporation/ Kiangan, Ifugao	6	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 28 December 2015 (DOE-EPIMB-SIS No. 2015-12-003)	September 2020	September 2020 (Target Testing and Commissioning)
Laguio Malaki 1/ Enervantage Suppliers Co., Inc./ Mauban, Quezon	1.6	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued Confirmation of commerciality on 9 October 2015 CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • Pending submission of requirements for under development stage	October 2020	October 2020 (Target Testing and Commissioning)
Davidavilan/ PTC Energy, Inc./ Mauban, Quezon	1.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued Confirmation of commerciality on 9 October 2015 CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • Pending submission of requirements for under development stage	October 2020	October 2020 (Target Testing and Commissioning)
Bansud/ PTC Energy, Inc./ Mauban, Quezon	1.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued Confirmation of commerciality on 2 October 2015 CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • Pending submission of requirements for under development stage	October 2020	October 2020 (Target Testing and Commissioning)
Matuno 1/ Smith Bell Mini Hydro Corporation/ Ambaguio, Nueva Vizcaya	7.4	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued Confirmation of commerciality on 29 December 2015 CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • Pending submission of requirements for under development stage	December 2020	December 2020 (Target Testing and Commissioning)
Matuno 2/ Smith Bell Mini Hydro Corporation/ Bambang, Nueva Ecija	7.9	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued Confirmation of commerciality on 29 December 2015 CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • Pending submission of requirements for under development stage	December 2020	December 2020 (Target Testing and Commissioning)
3.0 MW Lalawinan Mini-Hydro Power Project/ Repower Energy Development/ Real, Quezon	3.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued Confirmation of commerciality on 29 December 2015	December 2020	December 2020 (Target Testing and Commissioning)
2.6 MW Maapon River Mini-Hydro Power Project (MHP)/ Renesons Energy Corporation/ Brgy. Piis, Lucban, Quezon	2.6	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued Confirmation of commerciality on May 2014	December 2020	December 2020 (Target Testing and Commissioning)
Maris Main Canal2 HEP/ SN Aboitiz Power Generation/ Alfonso Lista, Ifugao	1.75	FEASIBILITY STUDY: • Feasibility design completed; and • Technical studies completed PERMITS AND OTHER REGULATORY REQUIREMENTS: • NIA agreement for pre-development activities secured; • LGU endorsement completed;	December 2020	December 2020 (Target Testing and Commissioning)

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NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<ul style="list-style-type: none"> • NCIP field based Investigation completed; awaiting release of CNO; • DENR permitting completed; draft ECC for power plant issued; • CNC for transmission line issued; NGCP studies completed; • Environmental and Social Studies completed; and • Water right and right of way acquisition on-going 		
Disabungan/ Greenpower Resources Corporation/ San Mariano, Isabela	4.8	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: Issued Confirmation of Commerciality on 29 July 2015 .</p> <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: Ongoing pre-construction activities.</p>	December 2020	December 2020 (Target Testing and Commissioning)
Laguio Malaki 2/ Enervantage Suppliers Co., Inc./ Mauban, Quezon	3.1	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued Confirmation of commerciality on 9 October 2015;</p> <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • Pending submission of requirements for under development stage</p>	December 2020	December 2020 (Target Testing and Commissioning)
240 MW Alimit/ SN Aboitiz Power-Ifugao/ Lagawe, Ifugao	240.0	<p>FEASIBILITY STUDY: • Completed Pre-FS</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS: • project capacity of 120 MW; • Preparing Business Plan; • Financing Arrangement in progress; • Application for NCIP FPIC CCA1 Concluded, CCA 2 commencement on 5/15/15; and • DENR permit under process; NGCP studies under process</p>	January 2021	January 2021 (Target Testing and Commissioning)
Olilicon HEPP/ SN Aboitiz Power-Ifugao/ Lagawe, Ifugao	10	<p>FEASIBILITY STUDY: • Completed Pre-FS</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS: • project capacity of 120 MW • Preparing Business Plan • Financing Arrangement in progress • Application for NCIP FPIC CCA1 Concluded, CCA 2 commencement on 5/15/15 • DENR permit under process; NGCP studies under process</p>	January 2021	January 2021 (Target Testing and Commissioning)
Maris Main Canal 1 HEP/ SN Aboitiz Power Generation/ Ramon, Isabela	8.5	<p>FEASIBILITY STUDY: • Feasibility design completed; and • Technical studies completed</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS: • NIA agreement for pre-development activities secured; • LGU endorsement completed; • NCIP field based Investigation completed; awaiting release of CNO; • DENR permitting completed; draft ECC for power plant issued;</p>	January 2021	January 2021 (Target Testing and Commissioning)

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NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<ul style="list-style-type: none"> • CNC for transmission line issued; NGCP studies completed; • Environmental and Social Studies completed; and • Water right and right of way acquisition on-going 		
Didipio 1/AT Dinum Company/Kasibu, Nueva Vizcaya	2.1	PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> • Issued Confirmation of commerciality on 3 March 2016; 	March 2021	March 2021 (Target Testing and Commissioning)
Cervantes-Mankayan-Bakun HEPP/Hedcor, Inc./ Benguet	27	PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> • Issued with GIS on 8 January 2014 (DOE-EPIMB-SIS No. 2013-12-0) 	March 2021	March 2021 (Target Testing and Commissioning)
Didipio 2/AT Dinum Company/Kasibu, Nueva Vizcaya	9.4	PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> • Issued Confirmation of commerciality on 6 April 2016 	April 2021	April 2021 (Target Testing and Commissioning)
Matibuey/Sta. Clara Power Corporation/Matibuey, Ilocos Sur	16.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> • Issued Confirmation of commerciality on 12 April 2016; 	April 2021	April 2021 (Target Testing and Commissioning)
Talubin Hydropower Project/ Mountain Province Electric Cooperative, Inc./ Bontoc, Mountain Province	5.4	PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> • Issued with GIS on 11 December 2015 	May 2021	May 2021 (Target Testing and Commissioning)
Tibag/ Repower Energy Development/ Real, Quezon	4.40	Issued Commerciality on 9 March 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Lower Labayat/ Repower Energy Development/ Real, Quezon	1.40	Issued Commerciality on 9 March 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Piapi/ Repower Energy Development/ Mauban, Quezon	3.30	Issued Commerciality on 9 March 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Besao 2/ BIMAKA Renewable Energy Development Corporation/ Besao, Mountain Province	7.00	Issued Confirmation of Commerciality on 17 May 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Besao 1/ BIMAKA Renewable Energy Development Corporation/ Besao, Mountain Province	1.00	Issued Confirmation of Commerciality on 24 June 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Besao 3/ BIMAKA Renewable Energy Development Corporation/ Besao, Mountain Province	4.50	Issued Confirmation of Commerciality on 24 June 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Besao 1B/ BIMAKA Renewable Energy Development Corporation/ Besao, Mountain Province	1.70	Issued Confirmation of Commerciality on 11 May 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Besao 2A/ BIMAKA Renewable Energy Development Corporation/ Besao, Mountain Province	1.50	Issued Confirmation of Commerciality on 24 June 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Besao 1A/ BIMAKA Renewable Energy Development Corporation/ Besao, Mountain Province	2.30	Issued Confirmation of Commerciality on December 15, 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Ibulao 1/ Kiangnan Mini Hydro Corporaion/ Kiangnan, Ifugao	6.75	Issued Confirmation of Commerciality on 24 June 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Ibulao 2/ Enerhighland Corporation/ Municipalities of Kiangnan, Lamut and Lagawe	7.40	Issued Confirmation of Commerciality on 27 May 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Addalam/ Quirino Power Energy	3.80	Issued Confirmation of Commerciality on 24 June 2016.	December 2021	December 2021

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Corporation/ Aglipay, Quirino		Ongoing pre-construction activities.		(Target Testing and Commissioning)
Asin/ Kiangnan Mini Hydro Corporaion/ Kiangnan, Ifugao	7.04	Issued Confirmation of Commerciality on 24 June 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Ilaguen 3 Hydropower Project/Rio Norte Hydropower Corporation/Echague, Isabela	11.00	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 28 February 2017 (DOE-EPIMB-SIS No. 2017-02-008)	December 2021	December 2021 (Target Testing and Commissioning)
Lamut/ Enerhighland Corporation/ Asipulo & Lamut, Ifugao	6.00	Issued Confirmation of Commercialization on 27 July 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Hungduan/ Kiangnan Mini Hydro Corporaion/ Kiangnan, Ifugao	4.04	Issued Confirmation of Commercialization on 07 September 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Addalam/ Quirino Resources Development Corporation/ Cabarroguis, Quirino	14.20	Issued Confirmation of Commercialization on 26 January 2017. Ongoing pre-construction activities	December 2022	December 2022 (Target Testing and Commissioning)
Chico Hydroelectric Power Project/ San Lorenzo Ruiz Piat & Water/ Tabuk, Kalinga	150.00	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6 October 2016 (DOE-EPIMB-SIS No. 2016-09-005)	December 2023	December 2023 (Target Testing and Commissioning)
Kibungan Pumped-Storage HEPP/ COHECO Badeo Corporation/ Kibungan, Benguet	500.00	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 9 January 2017 (DOE-EPIMB-SIS No. 2017-01-003)	To be determined	To be determined
Ilaguen 4 Hydropower Project/Rio Norte Hydropower Corporation/Echague, Isabela	10	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 28 February 2017 (DOE-EPIMB-SIS No. 2017-02-008)	To be determined	To be determined
Wawa Pumped Storage 1 HEP/ Olympia Violago Water and Power, Inc./ San Mateo, Antipolo, and Rodriguez, Rizal	500.00	FEASIBILITY STUDY: • Completed by SMEC - Oct 2015 • Comprehensive studies with >4km of vertical drilling confirm that 500MW is feasible. Reference design completed in 2016 ARRANGEMENT FOR SECURING THE REQUIRED LAND: • Initial surveys complete, parcellary for 230kV connection ongoing. Resettlement Action Plan/Livelihood Restoration Plan (RAP-LRP) underway since Dec 2016. RAP-LRP process includes stakeholder engagement meetings and a household census & survey of project affected people (PAPs) MARKETING OF GENERATING CAPACITIES: • Market study by Lantau Group ongoing. Discussions with potential off-taker ongoing. PERMITS AND OTHER REGULATORY REQUIREMENTS: • BOI registration, ECC, PAMB Clearance (final copy awaited) and NWRB Conditional Water Permit complete. Awaiting issuance of NCIP Certification Precondition and SAPA MOA. Application for Special Land Use Permit (SLUP) in progress. FINANCING ARRANGEMENTS: • Equity and debt financing negotiations ongoing	To be determined	To be determined

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • EPC tender process ongoing. PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 24 April 2017 (DOE-EPIMB-SIS No. 2017-04-002)		
Wawa Pumped Storage 2 Hydroelectric Power Project/ Olympia Violago Water and Power, Inc./ Olympia Violago Water and Power, Inc./ Rodriguez, Rizal	100.00	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 24 April 2017 (DOE-EPIMB-SIS No. 2017-04-002)	To be determined	To be determined
Wawa Pumped Storage 3 Hydroelectric Power Project/ Olympia Violago Water and Power, Inc./ Olympia Violago Water and Power, Inc./ Rodriguez, Rizal	50.00	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 24 April 2017 (DOE-EPIMB-SIS No. 2017-04-002)	To be determined	To be determined
Tignoan River (Upper Cascade) HEP/ Repower Energy Development Corp./ Real, Quezon	1.5	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 8 May 2017 (DOE-EPIMB-SIS No. 2017-04-004)	To be determined	To be determined
Nabuangan Run-of-River HEP/ Strategic Power Development Corp./ Apayao	10.00	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 25 May 2017 (DOE-EPIMB-SIS No. 2017-01-004)	To be determined	To be determined
Dingalan Pumped Storage HEP/ Strategic Power Development Corp./ Dingalan, Aurora	500.00	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 25 May 2017 (DOE-EPIMB-SIS No. 2017-01-004)	To be determined	To be determined
San Roque Lower East Pumped Storage/ Strategic Power Development Corp./ Pangasinan	400.00	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 25 May 2017 (DOE-EPIMB-SIS No. 2017-01-004)	To be determined	To be determined
SOLAR	1.617.82			
Botolan Solar Power Project/Solar Power Utilities Generator Corporation/ Brgy. San Juan, Botolan, Zambales	39.27	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Awarded with RE Service Contract (SESC No. 2015-05-227) on 21 May 2015 • Certificate of Commerciality No. SCC- 2016-02-043 dated 07 March 2016	December 2017	December 2017 (Target Testing and Commissioning)
Macabud Solar Photovoltaic Power Project/ATN Philippines Solar Energy Group, Inc./ Brgy. Macabud, Rodriguez, Rizal	30	FEASIBILITY STUDY: Completed MARKETING OF GENERATING CAPACITIES: • On-going negotiations PPA with MERALCO in the absence of REPA PERMITS AND OTHER REGULATORY REQUIREMENTS: • Awarded with Solar Energy Service Contract (SESC No. 2011-05-002) on 12 May 2011; • Secured NGCP Review of Third Party SIS, • ECC from DENR • CNO from NCIP • Provincial Resolution of Support	December 2017	December 2017 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<ul style="list-style-type: none"> • Clearances from Land Registration Authority • DAR Certification • Acquired the DOE Certificate of Confirmation of Commerciality on 27 Jun 2013; • Clearance to Undertake GIS from DOE issued on 17 October 2011 • On-going negotiations or connection agreement, project financing and Right of Way <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> • Proofs of negotiations/certifications with financial institutions for project financing • Negotiations for financial closing is on-going • Total project cost is US\$70.0 Million <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Construction Stage as of 30 September 2014 (Pre-Construction - 80% completed, Construction-0% completed, Interconnection - 0% completed) 		
Concepcion Solar Power Project/Enfinity Philippines Renewable Resources, Inc./ Brgy. Sta. Rosa, Concepcion Tarlac	50.55	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Awarded with Solar Energy Service Contract (SESC No.2015-02-101) on 28 January 2015 • Acquired the DOE Certificate of Confirmation of Commerciality on 11 June 2015 <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> • negotiations for financial closing <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • On-going construction (see FIT Monitoring Board) 	December 2017	December 2017 (Target Testing and Commissioning)
Cavite Solar Power Project/Enfinity Philippines Renewable Resources, Inc./ Cavite Economic Zone, Rosario Cavite	3.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Awarded with Solar Energy Service Contract (SESC No. 2011-12-006) on 16 December 2011 • Acquired the DOE Certificate of Confirmation of Commerciality on 23 March 2015 <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> • negotiations for financial closing <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • On-going construction (see FIT Monitoring Board) 	December 2017	December 2017 (Target Testing and Commissioning)
Cordon Solar PV Power Project/ Greenergy Solutions, Inc./ Cordon, Isabela	50.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued with GIS on 4 April 2016 (DOE-EPIMB-SIS No. 2016-04-004) 	February 2019	February 2019 (Target Testing and Commissioning)
Earthenenergy Solar Power Plant/ Earthenenergy Corp./ Balayan, Batangas	30.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued with GIS on 20 September 2016 (DOE-EPIMB-SIS No. 2016-11-007) 	May 2019	May 2019 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
V-Mars Solar Power Project/V-Mars Solar Energy Corporation/San Jose/Lupao, Nueva Ecija	10.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 11 January 2016	December 2019	December 2019 (Target Testing and Commissioning)
SJC Solar Power Project/SJC Solar Power Corporation/San Jose City, Nueva Ecija	10.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 3 February 2016 (DOE-EPIMB-SIS No. 2016-02-003)	December 2019	December 2019 (Target Testing and Commissioning)
RGEC Solar Power Project /Roxas Green Energy Corporation/ Nasugbu and Tuy, Province of Batangas	30.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 10 February 2016 (DOE-EPIMB-SIS No. 2016-02-006)	December 2019	December 2019 (Target Testing and Commissioning)
Calabanga Solar Power Project/Calabanga Renewable Energy Inc./ Calabanga, Camarines Sur	50.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 11 March 2016 (DOE-EPIMB-SIS No. 2016-03-001)	December 2019	December 2019 (Target Testing and Commissioning)
FPI Solar PV Power Project/Firmgreen Phils. Inc./ Tarlac City, Tarlac	50.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6 April 2016 (DOE-EPIMB-SIS No. 2016-04-005)	December 2019	December 2019 (Target Testing and Commissioning)
Nueva Ecija Solar Power Project/Firmgreen Phils. Inc./ Pantabangan, Nueva Ecija	100.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6 April 2016 (DOE-EPIMB-SIS No. 2016-04-005)	December 2019	December 2019 (Target Testing and Commissioning)
Sta. Maria Solar PV Power Project/Greenergy Solutions, Inc./ Sta. Maria, Isabela	125	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 5 May 2016 (DOE-EPIMB-SIS No. 2016-06-006)	December 2019	December 2019 (Target Testing and Commissioning)
Solana Solar Photovoltaic (PV) Plant Phase I/Solana Solar Alpha, Inc./ Hermosa, Bataan	24	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 20 September 2016 (DOE-EPIMB-SIS No. 2016-09-001)	December 2019	December 2019 (Target Testing and Commissioning)
Solana Solar Photovoltaic (PV) Plant Phase II/ Solana Solar Alpha, Inc./ Hermosa, Bataan	14	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 20 September 2016 (DOE-EPIMB-SIS No. 2016-09-001)	December 2019	December 2019 (Target Testing and Commissioning)
Sta. Maria Solar Power Project/East Coast Fas Renewable Energy and Industrial Corporation/Sta. Maria, Isabela	30.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6 April 2016 (DOE-EPIMB-SIS No. 2016-04-001)	February 2020	February 2020 (Target Testing and Commissioning)
Santa Solar Power Project/Satrap Power Corporation/Brgy. Nagpanaoan, Santa, Ilocos Sur	20.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 5 May 2016 (DOE-EPIMB-SIS No. 2016-04-011)	March 2020	March 2020 (Target Testing and Commissioning)
Talugtug Solar PV Power Project/Greenergy Solutions, Inc./ Talugtug, Nueva Ecija	125.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6 April 2016 (DOE-EPIMB-SIS No. 2016-06-006)	May 2020	May 2020 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Capas Solar PV Power Project/Greenergy Solutions, Inc./ Capas, Tarlac	50.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6 April 2016 (DOE-EPIMB-SIS No. 2016-06-006)	May 2020	May 2020 (Target Testing and Commissioning)
Ilagan II Solar PV Power Project/Greenergy Solutions, Inc./ Ilagan City, Isabela	100.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 21 April 2016 (DOE-EPIMB-SIS No. 2016-06-006)	May 2020	May 2020 (Target Testing and Commissioning)
Magsingal Solar Power Plant/ Neoenergy Corporation/ Magsingal, Ilocos Sur	100	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 20 January 2017 (DOE-EPIMB-SIS No. 2016-01-005)	To be determined	To be determined
Cabanatuan Solar Power Plant/ Greentech Solar Energy Inc./ Cabanatuan, Nueva Ecija	6.25	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 9 February 2017 (DOE-EPIMB-SIS No. 2017-01-006)	To be determined	To be determined
Bongabon Solar Power Plant/ Greentech Solar Energy Inc./ Bongabon, Nueva Ecija	18.75	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 9 February 2017 (DOE-EPIMB-SIS No. 2017-01-006)	To be determined	To be determined
Calamba and Tanauan Solar Power Project/ Solar Philippines Tanauan Corporation/ Tanauan, Batangas	100	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with COE on 20 March 2017 (COE No. 2017-02-004)	To be determined	To be determined
Capas Solar PV Power Project/ Sindicatum C-Solar Power Inc./ Capas, Tarlac	22	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with SIS on 08 March 2017 (DOE-EPIMB-SIS No. 2017-03-003)	To be determined	To be determined
San Manuel 1 Solar Power Project/ Pilipinas Newton Energy Corp./ San Manuel, Pangasinan	70	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with SIS on 23 March 2017 (DOE-EPIMB-SIS No. 2017-03-007)	To be determined	To be determined
San Manuel 2 Solar Power Project/ Pilipinas Einstein Energy Corp./ San Manuel, Pangasinan	70	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with SIS on 23 March 2017 (DOE-EPIMB-SIS No. 2017-03-008)	To be determined	To be determined
Iba Palauig Solar Power Project/ Solar Philippines, Inc./ Iba, Zambales	100	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with SIS on 18 May 2017 (DOE-EPIMB-SIS No. 2017-05-005)	To be determined	To be determined
Horus Solar Power Plant Project/ Horus Solar Energy Corporation/ Morong, Bataan	45	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with SIS on 20 June 2017 (DOE-EPIMB-SIS No. 2017-06-003)	To be determined	To be determined

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Tanauan Batangas Solar I Power Project/ Solar Philippines Tanauan Corporation/ Tanauan, Batangas	100	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with SIS on 20 June 2017 (DOE-EPIMB-SIS No. 2017-06-004)	To be determined	To be determined
Bugallon Solar Power Plant/ Phinma Energy Corporation/ Brgy. Salomague North. Bugallon, Pangasinan	45	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with SIS on 26 July 2017 (DOE-EPIMB-SIS No. 2017-07-005)	To be determined	To be determined
WIND	1,267.4			
Phase 1: Pasuquin East Wind Power Project/ Energy Logics Philippines, Inc./ Pasuquin, Ilocos Norte Cost: PhP6.048B	48	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Awarded with Wind Energy Service Contract (WESC No. 2009-09-001) on 14 Sept 2009; • Acquired Forest Land-Use Agreement with DENR; • On-going wind resource assessment; • Acquired various LGU permits and resolutions of support; • ECC secured 15 Jun 2010; • GIS secured Dec 2010; • On-going negotiation with the Dept. of National Defense for the clearance to construct wind farm within the vicinity of Pasuquin Radar Station; • Equity Investors commitment secured; • Selected Preferred EPC Turn-key Tenderer for both the wind energy farm and the connection assets; • Submitted the Declaration of Commerciality (DOC) with incomplete documentary requirements; • The DOE is waiting for the final Work Plan of the project for further evaluation; • On-going negotiations for project financing and acquisition of TL-RROW as per Work plan; and • Acquired DOE Certificate of Confirmation of Commerciality on 02 December 2013 FINANCING ARRANGEMENTS: • Negotiation for financial closing is on-going CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • On-going construction; • Construction Stage as of 30 September 2014(Pre-Construction - 39% completed, Construction-0%, Interconnection-0%); and • On-going negotiation for project financing and acquisition of TL-RROW as per Work Plan	December 2018	December 2018 (Target Testing and Commissioning)
Sembrano Wind Power Project (Formerly: Phase 2: Mabitac Wind Power Project)/ Alternergy Sembrano Wind Corporation/ Mt. Sembrano, Mabitac,	72	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Acquired DOE Certificate of Confirmation of Commerciality on 13 February 2014; • Amended the Contract Area and assigned partially to Alternergy Sembrano Wind; Corporation ASWC-WESC No. 2009-09-018-AP2	February 2019	February 2019 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Laguna Cost: Php7.056B		on 27 February 2014; • Under the same contract area of WESC No. 2009-09-018; • On-going wind resource assessment; • Acquired various LGU permits and resolutions of support; • Interconnection Agreement with MERALCO last 1 March 2012; • Project Finance Term Sheet with Bank last 27 July 2012; Negotiation for financial closing is on-going; and • Final review of GIS by NGCP last 31 July 2012 FINANCING ARRANGEMENTS: • AWOC to finance the implementation of the project with 100% equity; and • Negotiations for financial closing is on-going. CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • EPC and O&M Contract with consortium of Nordex SE and McConnell Donnell last 11 July 2012; • On-going construction; • Construction Stage as of 30 September 2014(Pre-Construction - 22% completed, Construction-0%, Interconnection-0%); and • On-going completion of Pre-construction activities including financial closing Work Plan		
Pagudpud Wind Power Project/ EDC Pagudpud Brgy. Balaoi and Caunayan, Pagudpud, Ilocos Norte Wind Power Corporation	84	FEASIBILITY STUDY: • Completed feasibility study PERMITS AND OTHER REGULATORY REQUIREMENTS: • Awarded with Wind Energy Service Contract (WESC No. 2010-02-040) on 19 Feb 2010; • Conducted detailed wind resource assessment; • Acquired various LGU permits and resolutions of support, DENR Environmental Compliance Certificate; and • Acquired DOE Certificate of Confirmation of Commerciality on 13 June 2014 CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • On-going construction; and • Construction Stage as of 30 September 2014 (Pre-Construction - 20% completed, Construction-0%, Interconnection-0%) COMMENCEMENT OF CONSTRUCTION: • Construction shall commence upon completion of Burgos Project	June 2019	June 2019 (Target Testing and Commissioning)
Burgos 2 Wind Power Project/Energy Development Corporation/ Burgos, Ilocos Norte	183	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6April 2016 (DOE-EPIMB-SIS No. 2016-03-003)	December 2019	December 2019 (Target Testing and Commissioning)
Matnog 1 Wind Power Project/Energy Development Corporation/Matnog,	153	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6April 2016 (DOE-EPIMB-SIS No. 2016-03-	August 2020	August 2020 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Sorsogon		003)		
Matnog 2 Wind Power Project/Energy Development Corporation/Matnog, Sorsogon	206	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6April 2016 (DOE-EPIMB-SIS No. 2016-03-003)	August 2020	August 2020 (Target Testing and Commissioning)
Matnog 3 Wind Power Project/Energy Development Corporation/Matnog, Sorsogon	206	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6April 2016 (DOE-EPIMB-SIS No. 2016-03-003)	August 2020	August 2020 (Target Testing and Commissioning)
Talisay Wind Power Project/ Currimao Solar Energy Corp./ Camarines Norte	50	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 3 March 2017 (DOE-EPIMB-SIS No. 2017-01-005)	To be determined	To be determined
Talim Wind Power Project/ Currimao Solar Energy Corp./ Rizal	140	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 3 March 2017 (DOE-EPIMB-SIS No. 2017-01-005)	To be determined	To be determined
Calatagan Wind Power Project/ Currimao Solar Energy Corp./ Batangas	80	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 3 March 2017 (DOE-EPIMB-SIS No. 2017-01-005)	To be determined	To be determined
BIOMASS	114.2			
Polillo Biomass Power Plant Project/ Renesons Energy Polillo, Inc./ Quezon	1.5	PERMITS AND OTHER REGULATORY REQUIREMENTS: Ongoing applications of requirements COMMENCEMENT OF CONSTRUCTION: For construction	May 2018	May 2018 (Target Testing and Commissioning)
NREDC Biomass Power Plant Project/Natures Renewable Energy Development Corporation/ Cagayan	24	PERMITS AND OTHER REGULATORY REQUIREMENTS: Ongoing applications of requirements COMMENCEMENT OF CONSTRUCTION: For construction.	June 2019	June 2019 (Target Testing and Commissioning)
Santa Biomass Power Project/Satrap Power Corporation/Brgy. Nagpanaoan, Santa, Ilocos Sur	10.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 20 July 2016 (DOE-EPIMB-SIS No. 2016-07-005)	June 2019	June 2019 (Target Testing and Commissioning)
EcoMarket Solutions Coconut Waste-Fired Biomass Power Project/EcoMarket Solutions, Inc./ Aurora	2.5	PERMITS AND OTHER REGULATORY REQUIREMENTS: Ongoing applications of requirements COMMENCEMENT OF CONSTRUCTION: For construction.	December 2019	December 2019 (Target Testing and Commissioning)
CJ Global Waste-to-Energy Power Project/ CJ Global Green Energy Philippines Corp./ Camarines Sur	20.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: Ongoing applications of requirements COMMENCEMENT OF CONSTRUCTION: For construction.	December 2020	December 2020 (Target Testing and Commissioning)
Napier Grass-Fired Biomass Power Plant/Grass Gold Renewable Energy Corp/Nueva Ecija	12	CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • For construction	December 2020	December 2020 (Target Testing and Commissioning)
FQBC Biogas Power Plant Project/First Quezon Biogas Corporation/Quezon	1.2	CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • For construction	December 2020	December 2020 (Target Testing and Commissioning)
HEC Rice Husk-Fired Biomass Power Plant Project/ Hypergreen Energy Corporation/Bulacan	12	CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • For construction	December 2020	December 2020 (Target Testing and Commissioning)
VSGPC Multi-Feedstock Biomass Power Plant Project/ V.S. Gripal Power	6	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Secured GIS on 1 August 2017 (DOE-EPIMB-SIS No. 2017-07-	December 2020	December 2020 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Corporation/ Nueva Ecija		007) CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • For construction		
Bataan 2020 Multi-Feedstock Cogeneration Power Plant/ Bataan 2020, Inc./ Mariveles, Bataan	25	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 20 June 2017 (DOE-EPIMB-SIS No. 2017-06-005)	To be determined	To be determined
BATTERY	230.0			
AES Battery Storage - Laoag Project/AES Philippines Power Partners Co. Ltd./ Laoag, Ilocos Norte	40.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Secured GIS on 18 February 2016 (DOE-EPIMB-SIS No. 2016-02-001)	To be determined	To be determined
AES Battery Storage - Bantay Project/AES Philippines Power Partners Co., LTD./ Bantay, Ilocos Norte	40.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Secured GIS on 18 February 2016 (DOE-EPIMB-SIS No. 2016-02-001)	To be determined	To be determined
AES Battery Storage - Masinloc Project Unit 2/AES Philippines Power Partners Co., LTD./ Masinloc, Zambales	10.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Secured GIS on June 2, 2015	To be determined	To be determined
AES Battery Storage - Masinloc Project Unit 3/AES Philippines Power Partners Co., LTD./ Masinloc, Zambales	10.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Secured GIS on June 2, 2015;	To be determined	To be determined
AES Battery Storage - Masinloc Project Unit 4/AES Philippines Power Partners Co., LTD./ Masinloc, Zambales	10.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Secured GIS on June 2, 2015;	To be determined	To be determined
Enerhiya Central Battery Energy Storage Project/SunAsia Energy Inc./ Concepcion, Tarlac	40.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 8 April 2016 (DOE-EPIMB-SIS No. 2016-04-002)	To be determined	To be determined
Enerhiya Sur I Battery Energy Storage Project/SunAsia Energy Inc./ Lemery and Tuy, Calaca, Batangas	40.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 8 April 2016 (DOE-EPIMB-SIS No. 2016-04-002)	To be determined	To be determined
Enerhiya Sur II Battery Energy Storage Project/SunAsia Energy Inc./ Lumban, Laguna	40.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 8 April 2016 (DOE-EPIMB-SIS No. 2016-04-002)	To be determined	To be determined

Total Indicative Rated Capacity: 18,223.7

Source: DOE

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
COAL	135.00			
Palm Concepcion Coal-Fired Power Plant/ Palm Concepcion Power Corp. (Formerly DMCI Concepcion Power Corp.)/ Brgy. Nipa, Concepcion, Iloilo	135	<p>FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> -Feasibility Study completed - March 2006 -Environmental Impact Statement – June 2006 -Hydrology and Flood Release Analyses and Geotechnical Earthquake Risk Analysis – Jun 2011 -Geotechnical Foundation & Engineering Geological Investigations – Jun 2011 -Geotechnical Foundation and Geohazards Risk Investigations – Aug 2011 -Market Study of the Power Requirements in the Visayas -Final SIS Report from NGCP received on July 17, 2012 -More confirmatory studies done -DAR Conversion Order-Sept 2008; SEC-22 Nov 2010; DENR Final SIS Report-approved by NGCP on 17 July 2012 BOI-amended 02 Oct 2012; Connection Agreement with NGCP-01 Oct 2012; ECC-03 June 2013; NCIP- issued by DOE on 03 June 2014 for Unit 1; Appraisal Report for the PPA/MLA from the DENR Regional Director-Oct 2014; Endorsements from LGUs and local permits secured; Necessary land requirements secured <p>FINANCIAL ARRANGEMENTS:</p> <ul style="list-style-type: none"> -24 July 2013-Financial Closure Secured -Project cost is Php26.356B -6th Drawdown on December 2016 <p>CONSTRUCTION CONTRACTS FOR PLANT AND EQUIPMENT</p> <ul style="list-style-type: none"> -Signed and awarded various contracts 	Unit II - March 2018 (will still be firmed up)	Unit II - December 2018
OIL	8.0			
CENPRI Diesel Power Plant/ Central Negros Power Reliability, Inc./ Brgy. Calumangan, Bago City, Negros Occidental	8	<p>FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> -Feasibility Study-completed -Environmental Impact Assessment Study-Sept 2012 -DOE: w/ MOA and COE - 100% -ERC: Approval of Supply Agreement - Provisional Approval dated 10 Nov 2014 - 100%; COC - 95%; Occular inspection conducted on Feb 3-5, 2016; Authority to develop and own or operate dedicated point-to-point limited transmission facilities - 100%; Approved by ERC on Oct. 29, 2015 -Brgy. Calumangan Endorsement -01 September 2012 -DENR: ECC - 21 Nov 2013; PTO - 100%; Provisional PTO pending conduct of emission test -PEMC: Application for WESM Direct Membership - 29 Jan 2015; required submission of various documents mostly from NGCP and some for ERC - 100% -NGCP issued Certificates of Approval to Connect (40MVA Substation-13 Nov 2015; 100m Line-04 Nov 2015; Unit 2 5MW-22 Jan 2016); Connection, Transmission & Metering Service Agreement - signed and transmitted back to NGCP10 Feb 2016 for signature <p>OFF-TAKERS:</p> <ul style="list-style-type: none"> -70% of dependable capacity contracted to CENECO <p>FINANCIAL ARRANGEMENTS</p> <p>Financially Closed</p> <p>CONTRACTS FOR PLANT AND EQUIPMENT:</p> <ul style="list-style-type: none"> -100 % Secured 	Unit 5 - February 2017	Unit 5 - March 2018

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<p>PROJECT PROGRESS</p> <p>- Dec 2013-Commencement of Construction</p> <p>ISSUES ENCOUNTERED RE: PROJECT DEVELOPMENT:</p> <p>-Adverse climatic conditions, transportation interruption or delays, port congestion, general shortage of materials that affected construction and transport of engines and equipment from port of origin to plant site in Bago City and the perplexing bureaucracy and processes that affected and delayed grid connectivity</p>		
GEOTHERMAL	50.00			
<p>Biliran Geothermal Plant Project/ Biliran Geothermal Incorporated/ Biliran, Biliran</p> <p>Cost: US\$ 208.021 M</p>	50	<p>FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Geothermal Service Contract from DOE-obtained • ECC-secured for the proposed Geothermal Exploration Drilling and Biliran Power Plant Project on December 06, 2012 and August 23, 2013, respectively. • Confirmation of Commerciality-obtained from DOE on 28 December 2014 <p>FINANCIAL ARRANGEMENTS:</p> <ul style="list-style-type: none"> • Memorandum of Understanding by and among Envent Holdings Philippines, Inc. (EHPI) and Philippine Associated Smelting and Refining Corp. (PASAR) signed on May 10, 2013 	September 2018	<p>Unit 1 (5 MW) - September 2018</p> <p>Unit 2 (5 MW) - March 2019</p> <p>Unit 3 (7 MW) - July 2021</p> <p>Unit 4 (11 MW) - November 2022</p> <p>Unit 5 (14 MW) - January 2023</p> <p>Unit 6 (7 MW) - July 2023</p>
HYDROPOWER	31.1			
Igbulo (Bais) Hydroelectric Power Project/ Century Peak Energy Corporation/ Igaras, Iloilo	5.1	<p>FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Confirmation of Commerciality-issued on 26 June 2013 • GIS-issued by DOE on 14 August 2013 • Ongoing submission of other reportorial requirements <p>PROJECT PROGRESS:</p> <ul style="list-style-type: none"> • Ongoing Construction 	June 2018	June 2018 (Target Testing and Commissioning)
Cantakoy/ Quadriver Energy Corp./ Danao, Bohol	8.00	<p>FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • GIS-secured clearance from DOE on 11 July 2011 <p>FINANCIAL ARRANGEMENT:</p> <ul style="list-style-type: none"> • Financial Arrangement Secured <p>PROJECT PROGRESS:</p> <ul style="list-style-type: none"> • Construction on-hold due to conflict with LGU 	June 2018	June 2018 (Target Testing and Commissioning)
Timbaban/ Oriental Energy and Power Generation Corporation/ Madalag, Aklan	18.0	Issued Confirmation of Commerciality on 28 May 2013; Ongoing construction of hydro facilities	December 2018	December 2018 (Target Testing and Commissioning)
SOLAR	5.57			

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Miag-ao Solar Power Project/COSMO Solar Energy, Inc./ Miag-ao, Iloilo	5.67	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS -Covered by Solar Energy Services (SESC No. 2013-09-036) on 31 October 2013 -Declaration of Commerciality- filed on 26 September 2014 -DOE Certificate of Commerciality- acquired on 12 January 2015 PROJECT PRGRESS -Pre-Construction-100% -Construction-100% -Interconnection-100%	June 2016 (Ongoing Testing and Commissioning)	September 2017
WIND	-			
BIOMASS	178.58			
VMC Cogeneration Power Plant Project/Victorias Milling Company, Inc./ Victoria, Negros Occidental	40	Project Progress -Ongoing Construction	October 2017	October 2017 (Target Testing and Commissioning)
HPC Cogeneration Power Plant Project/Hawaiian-Philippine Company/Negros Occidental	20.58	Project Progress -Ongoing Construction	October 2017	October 2017 (Target Testing and Commissioning)
SCBI Multi-Feedstock Biomass Power Plant Project/San Carlos Biopower, Inc./ Negros Occidental	20	Project Progress -Ongoing Construction	December 2017	December 2017 (Target Testing and Commissioning)
BISCOM Cogeneration Power Plant Project/ BISCOM, Inc./ Binalbagan, Negros Occidental	48	Project Progress -Ongoing Construction	December 2018	December 2018 (Target Testing and Commissioning)
Bais Bagasse-Fired Cogeneration Power Plant Project/ Central Azucarera Don Pedro/Calasagan, Bais City, Negros Occidental	25	Project Progress -Ongoing Construction	December 2018	December 2018 (Target Testing and Commissioning)
SNBI Cane trash-Fired Biomass Power Plant Project/South Negros BioPower, Inc./ Negros Occidental	25	Project Progress -Ongoing Construction	December 2019	December 2019 (Target Testing and Commissioning)

Total Committed Rated Capacity: 408.35

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
COAL	900.00			
300 MW Therma Visayas Energy Project/ Therma Visayas Inc./ Brgy. Bato, Toledo City, Cebu	300	<p>FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS</p> <ul style="list-style-type: none"> -GIS-clearance from DOE issued on 16 June 2012 (GIS study-approved) -ECC issued last May 2013 -BOI-registered - July 23, 2014 - SAPA issued for foreshore development works for coal jetty -Site feasibility - completed on May 2015 -Land Acquisition for Completion -Applied CAAP Height Clearance permit -Transmission EPC has been awarded <p>CONTRACTS FOR PLANT AND EQUIPMENT</p> <ul style="list-style-type: none"> -EPC Contract awarded last 30 May 2014 <p>FINANCIAL ARRANGEMENTS</p> <ul style="list-style-type: none"> -Self-funded with on-going negotiations with financing institutions; awaiting closure; March 2016 - 3rd draw down; 4th draw Partial on 2 May 2016; 5th drawdown is scheduled on Aug 2016 -Project cost is Php23B <p>OFF-TAKERS</p> <ul style="list-style-type: none"> -On-going discussions with target off-takers <p>CONTRACTS FOR PLANT AND EQUIPMENT</p> <ul style="list-style-type: none"> -EPC Contract awarded to Hyundai Engineering Co., Ltd. and Galing Power & Energy Co., Inc. last May 30, 2014 <p>PROJECT PROGRESS</p> <ul style="list-style-type: none"> - May 2015-site development works completed - Aug 2015-Piling works for the Coal Unloading Jetty commenced 	September 2017	<p>Unit 1: December 2017</p> <p>Unit 2: March 2018</p>
SPC Expansion Coal Power Plant Project/SPC Power Corporation/Brgy. Colon, Naga City, Cebu	300	<p>FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS</p> <ul style="list-style-type: none"> • SIS-clearance from DOE issued on 09 March 2015 	To be determined	To be determined
Ludo Coal-Fired Thermal Power Plant/ Ludo Power Corporation/ Cebu City	300	<p>FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS</p> <ul style="list-style-type: none"> • SIS-clearance issued by DOE issued on 11 Dec 2015 	To be determined	To be determined
NATURAL GAS	138			
Argao Floating CCGT Power Plant/ PHINMA Energy Corporation/ Brgy. Bulasa, Argao, Cebu	138	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued with SIS 24 July 2017 (DOE-EPIMB-SIS No. 2017-06-007) 	To be determined	To be determined
OIL	87.2			
Datem Energy Northern Samar Diesel Power Plant	10	<p>FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS</p> <ul style="list-style-type: none"> • SIS-clearance issued by DOE on 12 Nov 2015 	To be determined	To be determined

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Project/ Datem Energy Corporation/ Northern Samar				
Marubeni Diesel Genset Facility/Marubeni Corporation/ Isabel, Leyte	70	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 25 May 2016 (DOE-EPIMB-SIS No. 2017-05-007)	To be determined	To be determined
SPC Ubay Diesel Power Plant Project/ Supreme Power Corporation	7.2	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 13 June 2017 (DOE-EPIMB-SIS No. 2017-06-002)	To be determined	To be determined
GEOTHERMAL	40.00			
Dauin Geothermal Project/ Energy Development Corporation/ Dauin, Negros Oriental	40	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS: • Land-use permits for areas on public land-obtained (*site on public land but portions of access road leading to Site sits on private land); • DOE Service Contract Project Project within GRESC # 2009-10-002; • LGU endorsement obtained; • SLUP Obtained (subject for renewal); • TCP Obtained; • RRW Obtained; • Water rights obtained; and • DENR-ECC obtained FINANCIAL ARRANGEMENTS: • Ongoing negotiations on the financing	December 2025	December 2025 (Target Testing and Commissioning)
HYDROPOWER	705.34			
Hilabangan (Lower Cascade)/ Century Peak Energy Corporation/ Kabankalan, Negros Occidental/	3.0	.FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS: • GIS-clearance to undertake issued by DOE on August 2013 • Confirmation of Commerciality-issued on 28 August 2013; and Submission of lacking requirements in progress	August 2018	August 2018 (Target Testing and Commissioning)
Hilabangan (Upper Cascade)/ Century Peak Energy Corporation/ Kabankalan, Negros Occidental	4.8	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS: • GIS-clearance issued by DOE on August 2013; • Confirmation of Commerciality-issued on 28 August 2013; and Submission of lacking requirements in progress	August 2018	August 2018 (Target Testing and Commissioning)
Main Aklan River Hydroelectric Power Project/ Sunwest Water & Electric Company, Inc./ Libacao, Aklan	15	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS: • Confirmation of Commerciality-issued on 19 September 2013; and Submission of lacking requirements in progress	September 2018	September 2018 (Target Testing and Commissioning)
Maninila (Lower Cascade)/ Century Peak Energy Corporation/ San Remigio, Antique	4.5	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS: • GIS-clearance from DOE issued on August 2013; • Confirmation of Commerciality-issued on 02 October 2013; and • Submission of lacking requirements in progress	October 2018	October 2018 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Maninila (Upper Cascade)/ Century Peak Energy Corporation/ San Remigio, Antique	3.1	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> • GIS-clearance from DOE issued on August 2013 • Confirmation of Commerciality-issued on 02 October 2013; and • Submission of lacking requirements in progress 	October 2018	October 2018 (Target Testing and Commissioning)
Sibalom (Upper Cascade)/ Century Peak Energy Corporation/ San Remigio, Antique	4.2	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> • GIS-clearance from DOE issued on August 2013; • Confirmation of Commerciality-issued on 02 October 2013; and • Submission of lacking requirements in progress 	October 2018	October 2018 (Target Testing and Commissioning)
Basak II/ Meadowland Developers, Inc./ Badian, Cebu	0.5	CONFIRMATION OF COMMERCIALITY-ISSUED ON 30 APRIL 2014 <ul style="list-style-type: none"> • Submission of lacking requirements e.g. permits in progress PROJECT PROGRESS: 16 February 2013-Groudbreaking	April 2019	April 2019 (Target Testing and Commissioning)
Amlan (Plant B)/ Natural Power Sources Integration, Inc./ Amlan, Negros Oriental	1.5	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> • Confirmation of Commerciality-issued on 11 July 2014; and • Submission of lacking requirements in progress 	July 2019	July 2019 (Target Testing and Commissioning)
Amlan (Plant A)/ Natural Power Sources Integration, Inc./ Amlan, Negros Oriental	3.2	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> • Confirmation of Commerciality-issued on 25 September 2014; and • Submission of lacking requirements in progress 	September 2019	September 2019 (Target Testing and Commissioning)
Amlan (Plant C)/ Natural Power Sources Integration, Inc./ Amlan, Negros Oriental	0.8	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> • Confirmation of Commerciality-issued on 25 September 2014; and • Pending submission of requirements under development stage 	September 2019	September 2019 (Target Testing and Commissioning)
Malugo/ Vivant-Malogo Hydropower, Inc./ Silay City, Negros	6	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> • Confirmation of Commerciality-issued on 15 October 2014; and • Submission of lacking requirements in progress 	October 2019	October 2019 (Target Testing and Commissioning)
Lower Himogaan/ LGU Sagay/ Sagay, Negros Occidental	4	<ul style="list-style-type: none"> • On-going pre construction activities; and • Submission of lacking requirements e.g. permits in progress 	September 2020	September 2020 (Target Testing and Commissioning)
Caroan/ Antique electric Cooperative/ Sebaste, Antique	0.84	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS <ul style="list-style-type: none"> • Confirmation of Commerciality-issued on 30 September 2015; and • Submission of lacking requirements in progress PROJECT PROGRESS On-going pre construction activities	September 2020	September 2020 (Target Testing and Commissioning)
Ipayo/ Antique electric Cooperative/ Sebaste, Antique	11.6	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS <ul style="list-style-type: none"> • Confirmation of Commerciality-issued on 02 October 2016; and • Submission of lacking requirements in progress 	September 2020	September 2020 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		PROJECT PROGRESS On-going pre construction activities		
Ilaguen 4/ Isabela Power Corporation/ Echague	10	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS Issued Confirmation of Commercialization on October 02, 2015	October 2020	October 2020 (Target Testing and Commissioning)
Bansud/ Sunwest Water & Electric Company, Inc./ Bansud & Gloria, Oriental Mindoro	1.5	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS Issued Confirmation of Commercialization on October 02, 2015	October 2020	October 2020 (Target Testing and Commissioning)
Sibalom (Middle Cascade)/ Century Peak Energy Corporation/ San Remigio, Antique	4.0	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS • GIS-Clearance from DOE issued on August 2013 • Confirmation of Commerciality-issued on 02 October 2013; and • Submission of lacking requirements in progress	December 2020	December 2020 (Target Testing and Commissioning)
Sibalom (Lower Cascade)/ Century Peak Energy Corporation/ San Remigio, Antique	4.0	Feasibility Studies, Permits and Other Regulatory Requirements - GIS-Clearance from DOE issued on August 2013 -Confirmation of Commerciality issued on 02 October 2013	December 2020	December 2020 (Target Testing and Commissioning)
Loboc Hydroelectric Power Project/ Sta. Clara Power Corporation/ Loboc, Bohol	1.2	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS • Confirmation of Commerciality-issued on 3 June 2013; and • Submission of lacking requirements in progress	December 2020	December 2020 (Target Testing and Commissioning)
Aklan Pumped-Storage Hydropower/Strategic Power Development Corp./ Malay, Aklan	300.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 25 July 2016 (DOE-EPIMB-SIS No. 2016-07-007)	February 2024	February 2024 (Target Testing and Commissioning)
Bolusao Pumped Storage/ San Lorenzo Samar and Water, Inc./ Lawaan, Eastern Samar	300	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6 October 2016 (DOE-EPIMB-SIS No. 2016-09-004)	March 2024	March 2024 (Target Testing and Commissioning)
Ilog Hydroelectric Power Plant/PHINMA Energy Corporation/Mabinay, Negros Occidental	21.6	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 22 February 2017 (DOE-EPIMB-SIS No. 2017-02-003)	To be determined	To be determined
SOLAR	539.63			
Grid Tied Solar Farm/ E & P Green Energy, Inc./ Biliran, Biliran	25.0	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS - GIS- secured on April 2015 -Building Permit-21 Aug 2015 -HLURB Certification and NIA for DAR Conversion-21 Aug 2015 and 21 Sept 2016 -NCIP-28 August 2015 -DOE Certificate of Confirmation of Commerciality-28 Aug 2015 -BOI-11 Sept 2016	December 2017	December 2017 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<p>CONTRACTS FOR PLANT AND EQUIPMENT -Ongoing</p> <p>PROJECT PROGRESS Start of Construction -April 2016 (Target) End of Construction -Nov 2016</p>		
Montesol II Solar PV Power Project/ Monte Solar Energy, Inc./ Brgy. Tamisu, Bais City, Negros Occidental	18	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 27 July 2016 (DOE-EPIMB-SIS No. 2016-07-003)</p>	September 2018	September 2018 (Target Testing and Commissioning)
Tigbauan Solar Power Project/ Solexar Energy International, Inc./ Brgy. Cordova Norte and Bantud, Tigbauan, Iloilo	34.3	<p>FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS -Covered by Solar Energy Service Contract (SESC No. 2014-06-082) on 14 July 2014; -RESC NO. 2014-06-082 awarded on 7/14/2014 -COCOC NO. SSC-2015-10-032 issued on 12/09/2015</p>	December 2018	December 2018 (Target Testing and Commissioning)
Victorias Solar Power Project / VictoriaSolar Energy Corp./ Brgy. XII, Victorias City, Negros Occidental	30.63	<p>FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS -RESC NO. 2015-03-118 awarded on 3/25/2015 -COCOC NO. SSC-2016-01-041 issued on 2/16/2016</p>	December 2018	December 2018 (Target Testing and Commissioning)
Ceko Solar PV Project (Daanbantayan Solar PV Power Project)/ CEKO Solar Farm Systems Corp./ Brgy. Tominjao, Daanbantayan, Cebu	100	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 5 November 2015 (DOE-EPIMB-SIS No. 2015-10-010)</p>	April 2019	April 2019 (Target Testing and Commissioning)
Silay Phase II Solar Power Project/Silay Solar Power Inc./ Silay City, Negros Occidental	10	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 25 July 2016 (DOE-EPIMB-SIS No. 2016-07-004)</p>	April 2019	April 2019 (Target Testing and Commissioning)
Mabinay Solar Power Project/ Lohas and Soul Lighting, Inc./ Mabinay, Negros Oriental	90	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 11 May 2016 (DOE-EPIMB-SIS No. 2016-04-001)</p>	December 2019	December 2019 (Target Testing and Commissioning)
Bogo V Solar Power Project/Sun Premier Bogo Philippine Corporation/Bogo , Cebu	16.7	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 30 June 2016 (DOE-EPIMB-SIS No. 2016-06-013)</p>	May 2020	May 2020 (Target Testing and Commissioning)
Bogo 3 Solar Power Plant/ Sun Premier Bogo Philippine Corporation/ Bogo , Cebu	15	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 7 October 2016 (DOE-EPIMB-SIS No. 2016-09-008)</p>	May 2020	May 2020 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Sanpalo Solar Power Plant/Sunpalo Solar Energy, Inc. /San Miguel, Leyte	100	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 14 October 2016 (DOE-EPIMB-SIS No. 2016-10-006)	September 2020	September 2020 (Target Testing and Commissioning)
Medellin Solar Power Plant/Solar Philippines, Inc./ Medellin, Cebu	100	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with SIS on 18 May 2017 (DOE-EPIMB-SIS No. 2017-05-005)	To be determined	To be determined
WIND	1,268.0			
Pulupandan Wind Power Project/First Maxpower International Corporation/Pulupandan, Negros Occidental	50.0	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS Secured the ff: - Feasibility study; Wind Energy Service Contract-01 February 2010; Detailed Wind Resource Assessment; GIS; Various LGU permits and Resolutions of Support; DENR ECC permit; NCIP Certificate on Non-Overlap-07 Jan 2013; Clearances from MARINA, BFAR, Philippine Coast Guard; DPWH Road Right-of-Way for overhead T/L; Third Party System Impact Study; Certificate of Confirmation of Commerciality-acquired from DOE on 17 September 2013; Proof of Consent from different Lot Owner FINANCIAL ARRANGEMENTS -Ongoing -Project cost is \$124,475,000.00 CONSTRUCTION PROGRESS Pending due to ROW and Transmission Line Issues	September 2018	September 2018 (Target Testing and Commissioning)
Bronzeoak Wind Power Project/Bronzeoak Philippines, Inc./ Calatrava, Salvador Benedicto and San Carlos, Negros Occidental	100	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6 June 2016 (DOE-EPIMB-SIS No. 2016-06-001)	February 2020	February 2020 (Target Testing and Commissioning)
Iloilo 1 Wind Power Project/Energy Development Corporation/ Batad & San Dionisio, Iloilo	213	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6 April 2016 (DOE-EPIMB-SIS No. 2016-03-003)	August 2020	August 2020 (Target Testing and Commissioning)
Iloilo 2 Wind Power Project/Energy Development Corporation/ Concepcion, Iloilo	500	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6 April 2016 (DOE-EPIMB-SIS No. 2016-03-003)	August 2020	August 2020 (Target Testing and Commissioning)
Negros Wind Power Project/Energy Development Corporation/ Manapla & Cadiz, Negros Occidental	262	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6 April 2016 (DOE-EPIMB-SIS No. 2016-03-003)	August 2020	August 2020 (Target Testing and Commissioning)
Nabas Wind Power Project Phase II/PetroWind Energy Corporation/ Brgy. Pawa,	14	FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS - Wind Energy Service Contract-14 Sept 2009; - Detailed Wind Resource Assessment-conducted	Phase 2 (14 MW) - September 2021	Phase 2 (14 MW) - September 2021

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Nabas, Aklan		<ul style="list-style-type: none"> - GIS-secured clearance from DOE on 16 September 2011 - ECC-acquired from DENR dated 4 Jun 2012 - Final Feasibility Study-Aug 2012 -SIS Final Report from NGCP- 01 Oct 2012 - CNO-acquired from NCIP - Barangay, Municipal, and Provincial Resolutions of Support-secured - DOE Certificate of Confirmation of Commerciality-acquired the on 31 May 2013 <p>FINANCIAL ARRANGEMENTS: -Financial Arrangement Secured-submitted certification dated 31 August 2012 from Lead Arranger, ensuring the required financing is already available if needed; Total project cost is US\$118.44M</p> <p>CONTRACTS FOR PLANT AND EQUIPMENT: -EPC Contract with EEI Corp. secured 31 Jul 2012</p> <p>OFF-TAKERS: -Heads of Agreement with AKELCO for T/L construction secured 28 Nov 2012</p> <p>PROJECT PROGRESS: -Ongoing Construction</p>		(Target Testing and Commissioning)
Montesol Wind Power Project/Monte Solar Energy, Inc./ Bais City, Manjuyod and Mabinay, Negros Oriental	54	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued with GIS 9 August 2016 (DOE-EPIMB-SIS No. 2016-08-001) ; Amended SIS 2 February 2017 (DOE-EPIMB-SIS No. 2017-01-007) 	June 2022	June 2022 (Target Testing and Commissioning)
Aklan I Wind Power Project Phase 1-3/ Tri-Conti Elements Corporation/ Nabas-Malay, Aklan	75	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued clearance to undertake GIS on 17 July 2017 (DOE-EPIMB-SIS No. 2017-07-001) 	To be determined	To be determined
BIOMASS	14.5			
MCEI Multi-Feedstock Biomass Power Plant Project/Megawatt Clean Energy, Inc./ Negros Occidental	12	COMMENCEMENT OF CONSTRUCTION: For construction	May 2018	May 2018 (Target Testing and Commissioning)
UGEP Rice Husk-Fired Biomass Power Plant Project/UGEP Ormoc Biomass Power/ Leyte	2.5	COMMENCEMENT OF CONSTRUCTION: For construction	December 2020	December 2020 (Target Testing and Commissioning)
BATTERY	130.00			
AES Battery Storage - Kabankalan Project/ AES Philippines Power Partners Co., LTD./ Kabankalan,	40	<p>FEASIBILITY STUDIES, PERMITS AND OTHER REGULATORY REQUIREMENTS</p> <ul style="list-style-type: none"> • GIS-clearance from DOE issued on 31 January 2013; • Option to lease-secured on 18 September 2013; 	June 2018	June 2018 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Negros Occidental		<ul style="list-style-type: none"> • Sangguniang Panlalawigan issued Resolution 98-2077 declaring the lot as industrial; • Agreement for Easement Right of Way on Adjacent private land (for transmission)- executed on 14 January 2014; • DOE COE-issued; • GIS- approved on Aug 2014; • DENR-ECC-approved on 28 Oct 2014; and • Facility Study submitted on 12 Dec 2014 <p>FINANCIAL ARRANGEMENT</p> <ul style="list-style-type: none"> • On-going negotiations with International/Local banks; and • Proponent is planning to equity fund the Project <p>CONTRACTS FOR PLANT AND EQUIPMENT</p> <ul style="list-style-type: none"> • On-going selection of Owner's Engineer for the Construction Contracts for Plants and Equipment 		
Enerhiya Delas Islas I Battery Energy Storage Project/SunAsia Energy Inc./ Amlan, Negros Oriental	15.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued with GIS on 8 April 2016 (DOE-EPIMB-SIS No. 2016-04-002) 	To be determined	To be determined
Enerhiya Delas Islas II Battery Energy Storage Project/SunAsia Energy Inc./ Ormoc, Leyte	15.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued with GIS on 8 April 2016 (DOE-EPIMB-SIS No. 2016-04-002) 	To be determined	To be determined
Enerhiya Delas Islas III Battery Energy Storage Project/SunAsia Energy Inc./ Compostela, Cebu	15.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued with GIS on 8 April 2016 (DOE-EPIMB-SIS No. 2016-04-002) 	To be determined	To be determined
Cadiz Energy Storage Project/EQ Energy Storage Inc./ Cadiz City, Negros Occidental	15.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued with GIS on 24 May 2016 (DOE-EPIMB-SIS No. 2016-05-004) 	To be determined	To be determined
Silay Battery Energy Storage Project/Global Silay Energy Solutions/Silay, Negros Occidental	30.0	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued with GIS on 30 March 2017 (DOE-EPIMB-SIS No. 2017-03-007) 	To be determined	To be determined

Total Indicative Rated Capacity: 3,822.67

Source: DOE

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
COAL	1,090.00			
SMC Davao Power Plant Project Unit 2/San Miguel Consolidated Power Corporation/Brgy. Culaman, Malita, Davao Occidental Project Cost: -\$630M / Php25.8B	150	<p>FEASIBILITY STUDY: -Completed;</p> <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND: -Land acquisition completed;</p> <p>MARKETING OF GENERATING CAPACITIES: -Off-takers: COTELCO PPALMA-10.0MW, ASELCO-10.0MW, DANECO-20.0MW, COTELCO MAIN-10.0MW, SURSECO II-5.0MW, DASURECO-10.0MW, LANECO-5.0MW, MORESCO I-10.0MW, SIARELCO-2.0MW, ZAMCELCO-35.0MW, ZAMSURECO I-8.0MW;</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS: Environmental Impact Assessment completed; Topographic and Hydrographic completed; Soil Investigation completed; Clearance to Undertake GIS from DOE issued on 29 August 2011; GIS/SIS already submitted to NGCP for review; NGCP returned the report to SMC GPHC with comments; Facility Study Status- Final report submitted last 27 Dec. 2013; Results are being used by NGCP for pre-construction works while SMC GPHC for right-of-way; SEC issued last 26 August 2011; ECC issued in June 2013; Water Permit Completed;</p> <p>GROUNDBREAKING SCHEDULES: -Groundbreaking held last 15 July 2013;</p> <p>FINANCING ARRANGEMENTS: -Financial Arrangement Secured from various banks on 12 May 2014;</p> <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: -EPC Contract executed on January 2013 and already awarded; Construction of the Project has been underway since August 2013: Contracts for relative Works (Site Development, Pier and Jetty, Ship Unloader, Coal Conveying System already awarded)</p> <p>COMMENCEMENT OF CONSTRUCTION: -On-going civil works construction/installation; -Target Completion Date of Transmission Connection on March 2016;</p>	February 2017	September 2017
FDC-Misamis Circulating Fluidized Bed (CFB) Coal-Fired Power Plant Project	135	<p>FEASIBILITY STUDY: -Project information Memorandum Completed</p>	September 2016 (Ongoing Testing and	September 2017

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
<p>Unit 3/ FDC Utilities, Inc./ Phividec Industrial Estate, Villanueva, Misamis Oriental</p> <p>Project Cost: -PhP 30.019B;</p>		<p>ARRANGEMENT FOR SECURING THE REQUIRED LAND: -Land acquisition completed (Leased Contract with PHIVIDEC Industrial Authority)</p> <p>MARKETING OF GENERATING CAPACITIES: -Contracted approximately 88% of the total net output of the 3 units of the project; Assumed Total Rated Output less Station-Use at 11% and Outage Allowance: 320MW; -Ongoing electric power purchase agreement negotiation with offtakers for the remaining capacity for the 3rd unit; MORESCO II - 25MW, MOELCI II-25MW, FIBECO-35MW; SOCOTECO I - 10MW;DASURECO-12MW, MORESCO I - 22MW, ANECO - 12MW, LANECO - 10MW, MOELCI I - 16MW, CAMELCO-4MW, SURNECO - 13MW, DORECO-6MW, SURSECO II - 10MW, DANECO - 15MW, BUSECO - 8MW, SOCOTECO II - 45MW, MCCI - 10 MW, COTELCO - 5 MW (TOTAL CONTRACTED CAPACITY -283MW)</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS: -Secured Clearance from DOE for the conduct of GIS on 12 September 2011; -Grid Impact Study (GIS) Review by NGCP completed; -ECC for power plant issued on May 2013; -ECC for transmission line was issued on August 2013; -NWRB water permit for Tagoloan issued on September 2013; -NWRB conditional water permit for cooling water at Macajalar Bay was issued; -NCIP Certificate of Non-Overlap issued on February 2014; -LGU endorsements from concerned provincial, municipality and barangays;Registered with the Board of Investments on August 2013; -Secured Locational Clearance from Villanueva;Negotiation for Foreshore Lease was completed;Right of Entry Permit was secured from Phividec; -Right-of-Way clearance and acquisition are for issuance;</p> <p>GROUNDBREAKING SCHEDULES: -Groundbreaking ceremony was held in November 2013</p> <p>FINANCING ARRANGEMENTS: -Financial Arrangement Secured on 27 December 2013 with various Banks for phase I (Units 1 and 2) and phase II (Unit 3) of the project;</p> <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: -Contract for Engineering, Procurement and Construction (EPC) was awarded in September 2013;Tendering process of the first and most of second batch auxiliary equipment has been completed;</p> <p>COMMENCEMENT OF CONSTRUCTION: -Ongoing construction works; -Structural works and electro-mechanical equipment installation ongoing; -Finished construction of Transmission Line; Energized the Transmission Line</p>	<p>Commissioning)</p>	
<p>3x55 MW Balingasag</p>	<p>165</p>	<p>FEASIBILITY STUDY:</p>	<p>Unit 1: April 2017</p>	<p>Unit 1: September</p>

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
<p>Thermal Circulating Fluidized Bed Combustion (CFBC) Coal-Fired Power Plant/ Minergy Coal Corporation/ Brgy. Mandangoa, Balingasag, Misamis Oriental</p> <p>Project Cost: PhP23.9B</p>		<p>-Conducted Feasibility study from February to September 2013;</p> <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND: -Land acquisition completed at Brgy. Mandangoa Balingasag, Misamis Oriental; -Processing land titling on the acquired lots</p> <p>MARKETING OF GENERATING CAPACITIES: -Provisional Approval was issued on September 2013 for PSA between the Owner and CEPALCO (embedded via double ckt 138 kV line)-100MW Final, 50 MW Pending;</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS: -SEC Registered on February 2013;Certificate of Endorsement (No. 2013-07-007) issued on 1 August 2013; -Issued the following regulatory: Business Permit/Mayor's permit - 16 January 2013; -SEC Certificate of Incorporation-18 February 2013; -DOE Certificate of Endorsement for ERC (No. 2013-07-007)-1 August 2013; -DPWH Excavation Permit-3 September 2013; -Balingasag SB Endorsement-7 October 2013; -Building permit (Access Road)-13 November 2013; -Permit to cut coconut trees-17 November 2013;DENR-ECC- 17 November 2013; -Zoning certification-25 November 2013; -BOI Registration-4 December 2013; -Barangay Clearance-15 January 2014; -Mayor's Permit-16 January 2014; -BOC COR & Certification of Accreditation - 6 February 2014; -Building Permit (Power Plant)-19 June 2014; -Locational Clearance - 1 July 2014; -PPA Permit to construct private port facility-16 September 2014; -Plumbing permit/Sanitary permit (power plant)-2014; -ECC issued on 17 November 2013;</p> <p>FINANCING ARRANGEMENTS: -Financial arrangement Secured from various banks (2x55MW secured on 22 January 2014, Additional 1x55MW secured on 26 May 2014);</p> <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: -EPC contract was signed on September 2013 for 2x55MW (Supplemental Agreement to EPC Contract signed on 10 March 2014 for 1x55MW (NTP for 2x55MW on 30 Jan 2014,NTP for 1x55MW on 29 May 2014); -Site Evaluation completed on 14 August 2013; -Main EPC Contractor: Mitsubishi Corporation; -Main Sub-contractor: Toshiba Plants Systemes * Services Corp. (TPSC);</p> <p>COMMENCEMENT OF CONSTRUCTION: -On-going construction;</p>	<p>Unit 2: April 2017 Unit 3: May 2017</p>	<p>2017 Unit 2: September 2017 Unit 3: September 2017</p>

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		- 98% construction as of Dec 2016		
<p>GNPower Kauswagan Clean Coal-Fired Power Plant/ GN Power Kauswagan Ltd. Co./ Kauswagan, Lanao del Norte</p> <p>Project Cost: -US\$740 Million</p>	540	<p>FEASIBILITY STUDY: Completed;</p> <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND: -GNPK and the land owners of the Project site are in the final stages of satisfying their respective obligations under the land purchase agreements;</p> <p>MARKETING OF GENERATING CAPACITIES: -Provisional Authority dated 28 April 2014 was issued for the approval of the Power Purchase and Sale Agreement among GN Power, AMRECO PSAG Corp. and 20 participating ECs; -330MW sold to ECs arranged by AMRECO PSAG; -ANEKO-25.0MW, ASELCO-17.7MW, BUSECO-18.2MW, CAMELCO-2.7MW, DORECO-7.0MW, DASURECO-34.3MW, FIBECO-21.6MW, LANECO-5.0MW, MOELCI I-6.8MW, MORESCO I-34.1MW, COTELCO-5.0MW, SIARELCO-2.0MW, SOCOTECO I-25.6MW, SUKELCO-14.3MW, SURNECO-23.8MW, SURSECO I-8.4MW, SURSECO II-13.0MW, ZANECO-25.0MW, ZAMSURECO I-24.2MW, ZAMSURECO II-16.3MW; -GNPK is currently negotiating with other ECs as well as non-DU customers for sale of additional capacity; -Received provisional authority from the ERC for all 20 participating ECs;</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS: -ECC issued on 14 March 2014; A multipartite monitoring team is being established pursuant to the ECC; -Clearance to Undertake GIS from DOE issued on 28 June 2013; -NGCP has completed the System Impact Study for 4x150MW (gross capacity); -Facility study to be performed next; Granted LGU Endorsement; -Permits and Other Regulatory Requirements: All permits obtained under the name of GNPower Ltd. Co (Permits assigned from GNPower Ltd.Co. to GNPower Kauswagan Ltd.Co., DENR Environmental Compliance Certificate, CAAP Height Clearance, DOE Clearance to undertake SIS for 3x125MW, DOE Certificate of Endorsement for NCIP Application for Certificate of Non-Overlap, Mindanao Development Authority Endorsement, LGU Endorsements); -Other permits obtained for the project: Clearance to Develop Port Facility; Permit to Drill) were transferred and assigned to the Project Company, GN Power Kauswagan Ltd. Co. by virtue of a Project Assignment/Agreement;</p> <p>FINANCING ARRANGEMENTS: -Financial Arrangement Secured on 28 May 2014; -Commitments from several lenders have been obtained and signed 23 December 2014; -Documents for additional funding signed on Dec 17, 2015;</p> <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: -EPC contract was signed on 15 May 2014; -Construction Contracts for Plant and Equipment: Significant pre-Notice to proceed activities are</p>	December 2017	March 2018

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		being done by the EPC contractor at the site in China; COMMENCEMENT OF CONSTRUCTION: -NTP issued to the EPC contractor on November 2014; -On-going construction; Construction of temporary facilities, housing facilities and foundation design validation activities are on-going.		
Southern Mindanao Coal Fired Power Station/ Sarangani Energy Corporation/ Brgy. Kamanga, Maasim, Sarangani Project Cost: \$450M;	100	FEASIBILITY STUDY: Completed; ARRANGEMENT FOR SECURING THE REQUIRED LAND: -On-going processing of the land conversion from agricultural lands where the plant is located to industrial use as declared by the Municipality of Maasim: -Out of 28 hectares occupied by the power plant, 19 hectares were already converted and the balance of 9 hectares (for coal conveying system and ash ponds) is undergoing the process of conversion with DAR and other government entities; MARKETING OF GENERATING CAPACITIES: -Power Sales Agreement for 105MW between Sarangani Energy Corporation and South Cotabato II is 70MW (SOCOTECO II), Davao del Norte is 15MW (DANECO), Agusan del Norte is 10MW (ANECO), and Agusan del Sur is 10MW (ASELCO) was executed 2011-2012; -Please note that except for SOCOTECO1, all these offtakers will be supplied by Phase 1 of the SEC project in Maasim, Sarangani. Hence, Phase 1 is already fully contracted. SOCOTECO II Power Sales Agreement already has ERC final approval while those of ASELCO and ANECO have provisional approvals. Still working on DANECO; -SOCOTECO1 on the other hand will be supplied by Phase 2 of SEC; -Updated PSA as of July 19, 2016 - ANECO-1.0MW, ASELCO-10.0MW, BUSECO-2.0MW, CEPALCO-20.0MW, COTELCO MAIN-10.0MW, COTELCO PPALMA-4.0MW, CLPC-5.0MW, DANECO-15.0MW, DASURECO-10.0MW, DLPC-100.0MW, DORECO-5.0MW, MOELCI 1-3.0MW, MORESCO I-5.0MW, SOCOTECO I-2.0MW, SOCOTECO II-5.0MW, SUKELCO-10.0MW, SURNECO-5.0MW, SURSECO 1-3.0MW, SURSECO 2-5.0MW, ZANECO-5.0MW, ZAMSURECO I-12.0MW, ZAMSURECO 2-10.0MW, ZAMCELCO-1.0MW, PILMICO-1.0MW, PHILSINTER-4.0MW PERMITS AND OTHER REGULATORY REQUIREMENTS: -ECC issued on April 2009; FINANCING ARRANGEMENTS: -Financial Arrangement Secured on 12 December 2012; CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: -EPC Contract between Owner and Daelim Philippines, Inc. executed on 30 March 2011; -Notice to Proceed to EPC Contractor issued on 28 December 2012; SEC has complete and full support of its subsidiary companies, Conal Holdings Corporaion (CHC) and Alsons Consolidated Resources(ACR);	Phase II - December 2018	Phase II - January 2019

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		COMMENCEMENT OF CONSTRUCTION: -On-going Civil Works		
OIL	29.54			
Peakpower Soccsargen, Inc. Bunker Fired Power Plant (PSI Expansion Project)/ Peakpower Soccsargen, Inc./ General Santos City, South Cotabato	13.94	FEASIBILITY STUDY: -Completed FINANCING ARRANGEMENTS: -Financial arrangement Secured with bank certification MARKETING OF GENERATING CAPACITIES: - Power Purchase and Transfer Agreement (PPTA) for the Additional Generating Units was entered into by PSI and South Cotabato II Electric Cooperative, Inc. (SOCOTECO II) on 06 February 2015 -off-taker: SOCOTECO II (13.9MW) PERMITS AND OTHER REGULATORY REQUIREMENTS: • Clearance to Undertake a Grid Impact Study (GIS) from DOE was issued on 11 August 2015; • Amended ECC was issued on 28 August 2015; • Building Permit from the Local Government was secured on 06 May 2016 COMMENCEMENT OF CONSTRUCTION: • Power Plant Equipment Supply Contract between PSI and Wärtsilä Finland Oy was executed on 23 October 2015 • EPC Contract between PSI and PMM Works, Inc. was executed on 25 January 2016 • On-going construction is at 55.78% as of Aug 2016	September 2017	September 2017 (Target Testing and Commissioning)
Peakpower San Francisco, Inc. Bunker Fired Power Plant (PSI Expansion Project)/ Peakpower San Francisco, Inc./ San Francisco, Agusan del Sur	5.2	FEASIBILITY STUDY: -Completed FINANCING ARRANGEMENTS: -Financial arrangement Secured with bank certification PERMITS AND OTHER REGULATORY REQUIREMENTS: • Clearance to Undertake a Grid Impact Study (GIS) from DOE was issued on 07 August 2015 • Amended ECC was issued on 26 November 2015 • Building Permit from the Local Government was secured on 08 March 2016 MARKETING OF GENERATING CAPACITIES: • Power Purchase and Transfer Agreement (PPTA) for the Additional Generating Unit was entered into by PSFI and Agusan del Sur Electric Cooperative, Inc. (ASELCO) on 17 March 2015 -off-taker: ASELCO (5.2MW) COMMENCEMENT OF CONSTRUCTION: • Power Plant Equipment Supply Contract between PSFI and Wärtsilä Finland Oy was executed on 29 October 2015	September 2017	September 2017 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<ul style="list-style-type: none"> EPC Contract between PSFI and PMM Works, Inc. was executed on 25 January 2016 On-going construction is at 41.76% 		
2x5.2 MW Peakpower Budiknon, Inc. Bunker Fired Power Plant/ Peakpower Bukidnon, Inc./ Manolo Fortich, Bukidnon	10.4	<p>FEASIBILITY STUDY: -Completed</p> <p>FINANCING ARRANGEMENTS: -Financial arrangement Secured with bank certification</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> Clearance to Undertake a Grid Impact Study (GIS) from DOE was issued on 07 May 2015 ECC was issued on 21 September 2015 On going application for Building Permit from the Local Government </p> <p>MARKETING OF GENERATING CAPACITIES: <ul style="list-style-type: none"> Power Purchase and Transfer Agreement (PPTA) was entered into by PBI and Bukidnon II Electric Cooperative, Inc. (BUSECO) on 22 August 2014 -off-taker: ASELCO (10.4MW) </p> <p>COMMENCEMENT OF CONSTRUCTION: <ul style="list-style-type: none"> Power Plant Equipment Supply Contract between PBI and Wärtsilä Finland Oy was executed on 29 October 2015 EPC Contract between PBI and PMM Works, Inc. was executed on 25 January 2016 On-going construction is at 10.69% </p>	September 2017	September 2017 (Target Testing and Commissioning)
HYDROPOWER	157.2			
New Bataan/Euro Hydro Power (Asia) Holdings, Inc./ New Bataan, Compostela Valley	2.4	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> Issued Confirmation of Commerciality on 24 April 2014; Submission of lacking requirements e.g. permits in progress; </p> <p>COMMENCEMENT OF CONSTRUCTION: <ul style="list-style-type: none"> On-going Pre-construction activities </p>	September 2017	September 2017 (Target Testing and Commissioning)
Manolo Fortich I/ Hedcor Bukidnon, Inc./ Santiago, Bukidnon	43.40	<p>FEASIBILITY STUDY: -Completed</p> <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND: <ul style="list-style-type: none"> HSC No. 2013-11-326; 332 out of 341 indentified ROW were already secured (with lease of contracts with landowners) </p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> On-going Pre-construction activities; Submission of lacking requirements e.g. permits in progress; Secured DOE Endorsement to DAR to facilitate the processing of application for Land Use Conversion; Secured the following requirements: Renewable Energy Service Contract, Certificate of Commerciality, Environmental Compliance Certificate, Conditional Water Permit, SIS, </p>	September 2017	October 2017

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<p>Registered with the BOI, With ER 1-94 MOA between HBI and DOE, Done with the FPIC process, with IP and LGU Endorsements, with SLUP issued by DENR, with tree cutting permit, with Locational Clearance and Building permit; -On-going DAR Conversion still on process in securing other regulatory requirements</p> <p>Groundbreaking SCHEDULES: -Groundbreaking held on 22 April 2015;</p> <p>FINANCING ARRANGEMENTS: -Financial Arrangement Secured;</p> <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: -Done with negotiation on Civil works and Electro Mechanical; -On-going negotiation on electrical works</p> <p>COMMENCEMENT OF CONSTRUCTION: -On-going construction is 52% as of June 2016</p>		
Manolo Fortich 2/ Hedcor Bukidnon, Inc./ Santiago, Bukidnon	25.40	<p>FEASIBILITY STUDY: -Completed</p> <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND: -HSC No. 2013-11-327; 332 out of 341 indentified ROW were already secured (with lease of contracts with landowners)</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS: -On-going Pre-construction activities; Submission of lacking requirements e.g. permits in progress; Secured DOE Endorsement to DAR to facilitate the processing of application for Land Use Conversion; Secured the following requirements: Renewable Energy Service Contract, Certificate of Commerciality, Environmental Compliance Certificate, Conditional Water Permit, SIS, Registered with the BOI, With ER 1-94 MOA between HBI and DOE, Done with the FPIC process, with IP and LGU Endorsements, with SLUP issued by DENR, with tree cutting permit, with Locational Clearance and Building permit; -On-going DAR Conversion still on process in securing other regulatory requirements</p> <p>Groundbreaking SCHEDULES: Groundbreaking held on 22 April 2015</p> <p>FINANCING ARRANGEMENTS: -Financial Arrangement Secured</p> <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: -Done with negotiation on Civil works and Electro Mechanical; -On-going negotiation on electrical works</p>	September 2017	November 2017

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		COMMENCEMENT OF CONSTRUCTION: -On-going construction is 37% as of June 2016		
Lake Mainit/ Agusan Power Corporation/ Jabonga, Agusan del Norte	25.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> • Clearance to Undertake GIS from DOE issued on 7 October 2012; and • Submission of lacking requirements e.g. permits in progress. FINANCING ARRANGEMENTS: <ul style="list-style-type: none"> • Financial Arrangement Secured COMMENCEMENT OF CONSTRUCTION: <ul style="list-style-type: none"> • On-going construction 	December 2017	December 2017
Puyo Hydroelectric Power Project/ First Gen Mindanao Hydropower Corp./ Jabonga, Agusan del Norte	30	FEASIBILITY STUDY: <ul style="list-style-type: none"> • Also submitted Feasibility Study and 5-Yr Work Plan ARRANGEMENT FOR SECURING THE REQUIRED LAND: <ul style="list-style-type: none"> • HSC NO. 2009-10-005 PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 12 July 2013; and • Already secured LGU Endorsements, DENR Certificate of Non-Coverage, NCIP Certificate and NWRB Permit GROUNDBREAKING SCHEDULES: <ul style="list-style-type: none"> • Ground breaking held on 17 April 2013 FINANCING ARRANGEMENTS: <ul style="list-style-type: none"> • Financial Arrangement Secured CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: <ul style="list-style-type: none"> • EPC for main facilities for tender COMMENCEMENT OF CONSTRUCTION: <ul style="list-style-type: none"> • Construction on hold as of April 2015 due to security threat in the area; and • Project implementation on hold due to security threat in the area 	July 2018	July 2018 (Target Testing and Commissioning)
Asiga/ Asiga Green Energy Corp./ Santiago, Agusan del Norte	8.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 1 August 2014; • Submission of lacking requirements e.g. permits in progress; and • Secured DOE Endorsement to DAR to facilitate the processing of application for Land Use Conversion GROUNDBREAKING SCHEDULES: <ul style="list-style-type: none"> • Groundbreaking held on 22 April 2015 	August 2019	August 2019 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> Financial Arrangement Secured <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> On-going construction is 25% as of November 2015 		
Bubunawan Hydroelectric Power Project/ First Gen Mindanao Hydropower Corp./ Baungon and Libona, Bukidnon	23	<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> Submitted Feasibility Study and 5-Yr Work Plan; <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> Issued Confirmation of Commerciality on 02 July 2013; Already secured LGU Endorsements, DENR Environment Compliance Certificate , NCIP Certificate and NWRB Permit; Clearance to Undertake GIS from DOE issued on 28 September 2012; Bids and tendering for the EPC started on April 2014; <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> On-going Pre-construction activities; 	December 2019	December 2019 (Target Testing and Commissioning)
SOLAR	-			
BIOMASS	12.0			
PTCI Rice Husk-Fired Biomass Cogeneration Facility/Philippine Trade Center, Inc./ Sultan Kudarat, Maguindanao	3	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> Secured Clearance from DOE for the conduct of GIS on 13 March 2014; <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> Financial Arrangement Secured; <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> Operating for Own-Use; 	June 2017	December 2017 (Target Testing and Commissioning)
GEEC Biomass Cogeneration System/Green Earth Enersource Corporation/Maguindanao	3.5	<p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> Financial Arrangement Secured; <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> Operating for Own-Use 	June 2017	September 2017 (Target Testing and Commissioning)
LPC Rice Husk-Fired Biomass Power Plant Project /Lamsan Power Corporation/Sultan Kudarat, Maguindanao	5.5	<p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> Financial Arrangement Secured; <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> On-going construction; 	December 2017	December 2017 (Target Testing and Commissioning)

Total Committed Rated Capacity: 1,288.74

Source: DOE

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
COAL	1,243.00			
SMC Davao Power Plant Project Phase II/ San Miguel Consolidated Power Corporation/ Brgy. Culaman, Malita, Davao Occidental	300	<p>FEASIBILITY STUDY: -Completed;</p> <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND: -Land acquisition completed;</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS: -On-going processing of ECC requirements; -On-going securing of permits and other regulatory requirements;</p> <p>FINANCING ARRANGEMENTS: -On-going negotiations for financing arrangements</p>	December 2018	December 2018 (Target Testing and Commissioning)
<p>Ozamis Coal Fired Power Plant Phase 1 - 1 x 150 MW Phase 2 - 1 x 150 MW/ Ozamiz Power Generation, Inc. (wholly owned subsidiary of Avesco Marketing Corporation/ Brgy. Pulot, Ozamiz City, Misamis Occidental</p> <p>Project Cost: Php37.07 Billion</p>	300	<p>FEASIBILITY STUDY: Final revised copy of Feasibility Study submitted on 15 July 2015;</p> <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND: -Land acquisition is 95% complete; 5% of which are in the final process of negotiation; Conversion of land from Agricultural to Industrial is on-going (as of 29 March 2016);</p> <p>MARKETING OF GENERATING CAPACITIES: -As of March 2016, still preparing all the necessary documents that can be required for purposes of complying with the directive of ERC and the DOE on CSP; -Still in the process of marketing the electricity to the different cooperatives and were able to secure commitments with the various DUs (List of DUs with commitments: MAGELCO - 6MW; COTELCO-4MW; MOELCI 1 - 12MW, MOELCI 2- 11MW, SUKELCO - 5MW, BUSECO - 7MW, LANECO - 5MW, ZANECO- 6MW, ZAMSURECO 1 - 8MW, ZAMSURECO 2 - 5MW, MORESCO 1 - 8MW, MORESCO 2 - 8MW, ANECO - 7MW, CAMELCO - 5MW, ZAMCELCO - 6MW, TOTAL : 103MW); -Projections is to secure a minimum of 30MW of Contracts every 3 months starting October 2016.</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS: -Certificate of Endorsement (CoE) released on June 4, 2015; -Environmental Clearance Certificate released on 15 October 2015 (ECC-CO-1502-0002); -Approved Grid/System Impact Study released on 7 January 2016; -Awaiting DOE issuance for Land-Use- Conversion Certificate of Urgency for DAR; -Awaiting release of Certificate of Non-Coverage from NCIP, expected release on May 2016 -NWRB Water Permit Application on-going, expected completion on May 2016 -Certificate of Edorsement to BOI released on 5 February 2016; -CAAP Certificate of Height Clearance released on 10 March 2015;</p>	<p>Phase 1 - 1 x 150MW - Dec 2019 Phase 2 - 1 x 150MW - Jun 2020 Note: Still under study</p>	<p>Phase 1 - 1 x 150 MW - June 2020 Phase 2 - 1 x 150 MW- June 2020</p>

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<p>-Facilities Study for Transmission Service Agreement for the Open Access Rules on-going;</p> <p>-Applications for BOI, Bureau of Customs, Foreshore Lease Agreement, Tree Cutting Permit, PPA Clearance to Develop Private Port Facility, LGU Permits (Business, Fencing and Zoning Permits) all on-going;</p> <p>GROUND BREAKING SCHEDULES:</p> <p>-Target date of groundbreaking for finalization, but site clearing and preparation works on-going;</p> <p>FINANCING ARRANGEMENTS:</p> <p>-Finalizing financing arrangements with different local and foreign banks;</p> <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <p>-Completed Terms of Reference for Preliminary Design and Technical Provision for Detailed Design; Detailed Site Development Plans and Detailed Engineering plans completed;</p> <p>COMMENCEMENT OF CONSTRUCTION:</p> <p>-Simultaneous construction of Unit No. 1 and 2 will commence upon financial closure with 34 months construction contract</p>		
Bislig 1 Oxyfuel-Gas Fired Power Plant Project/CENERTEC Philippines, Inc./ Brgy. Kahayag, Bislig City Surigao del Sur	1	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <p>-Clearance to Undertake GIS (2015-09-005) from DOE released on 4 February 2016</p>	To be determined	To be determined
Bislig 2 Oxyfuel-Gas Fired Power Plant Project/CENERTEC Philippines, Inc./ Brgy. Kahayag, Bislig City Surigao del Sur/	4	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <p>-Clearance to Undertake GIS (2015-09-006) from DOE released on 4 February 2016</p>	To be determined	To be determined
Sibuguey Power Plant Project/Philippine National Oil Company (PNOC-EC)/ Sibugay, Zamboanga	100	<p>FEASIBILITY STUDY:</p> <p>-Technical and economic feasibility study was completed in July 2011;</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <p>-Eligible bidder for Transaction Advisor on 8 August 2012;</p> <p>-On-going bid processing for the EIS consultancy leading to ECC application and other permits;</p> <p>-Processing of ECC requirements;</p> <p>-Clearance to Undertake GIS from DOE issued on 14 October 2011;</p> <p>FINANCING ARRANGEMENTS:</p> <p>-On-going negotiations for financing arrangements</p>	To be determined	To be determined
ZAM 100 MW Circulating Fluidized Bed (CFB) Coal-Fired Power Station/San	100	<p>FEASIBILITY STUDY: On-going Feasibility Study</p>	To be determined	To be determined

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Ramon Power Inc./ Sitio San Ramon, Brgy. Talisayan, Zamboanga City Project Cost: \$292 Million		ARRANGEMENT FOR SECURING THE REQUIRED LAND: Land Lease Agreement with ZamboEcozone signed on 28 January 2013; MARKETING OF GENERATING CAPACITIES: On-going negotiations with ZAMCELCO for baseload supply; Power Sales Agreement for ZAMCELCO is 85MW, and ZAMSURECO 1 is 10MW; Awaiting for the ERC approval of PSAL with ZAMCELCO PERMITS AND OTHER REGULATORY REQUIREMENTS: Environmental Clearance Certificate released on 20 March 2012 (ECC-CO-1112-0021); On-going securing permits GROUNDBREAKING SCHEDULES: Ground breaking held on 27 January 2013 FINANCING ARRANGEMENTS: On-going sourcing of financing the project CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: EPC Contract between Owner and Daelim Philippines, Inc. executed on 27 December 2012		
SMC Global Power (4 x 82 MW)/ SMC Global Power/ Brgy. Darong, Santa Cruz, Davao del Sur	328	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 8 June 2016 (DOE-EPIMB-SIS No. 2016-05-006)	To be determined	To be determined
Balingasag Coal-Fired Power Plant/Minergy Coal Corporation/ Brgy. Mandangoa, Balingasag, Misamis Oriental	110	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued COE - 23 November 2016	To be determined	To be determined
OIL-BASED	45.216			
TPI Diesel Power Plant/Total Power Incorporated/ Mati, Davao Oriental	5.883	FEASIBILITY STUDY: -Completed; ARRANGEMENT FOR SECURING THE REQUIRED LAND: -On-going; MARKETING OF GENERATING CAPACITIES: -On-going negotiations; PERMITS AND OTHER REGULATORY REQUIREMENTS: -On-going	December 2017	March 2018
Nickel Asia Diesel Power Project/ Nickel Asia Corporation/Surigao City, Surigao del Norte	10.9	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 30 May 2016 (DOE-EPIMB-SIS No. 2016-05-005)	To be determined	To be determined
Panasia Malita Diesel Power Plant/Panasia Energy, Inc./ Malita, Davao	20.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 21 September 2016 (DOE-EPIMB-SIS No. 2016-09-006)	To be determined	To be determined
MOPP 4 Diesel Power Plant/King Energy Generation Inc./ Brgy. San Isidro,	8.433	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with SIS on 6 January 2017 (DOE-EPIMB-SIS No. 2016-10-008)	To be determined	To be determined

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Jimenez, Misamis Oriental		• Issued with COE on 1 March 2017 (COE No. 2017-01-001)		
GEOTHERMAL	30.00			
Mindanao 3 Geothermal Power Project/ Energy Development Corporation/ Kidapawan, North Cotabato	30.0	<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> On-going Feasibility Study; Resource assessment and studies in optimal power plant capacity <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> The project is within the DOE Service Contract -GRES# 009-10-004 <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> DENR ECC obtained; Land use permits obtained; LGU Endorsement on-going; Water right secured; On-going preparation of DENR requirements for TL FLAG; Water rights secured; Turnkey Contracts pending result of feasibility study; Clearance to Undertake GIS from DOE issued on 7 June 2012 <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> On-going sourcing of financing the project <p>PROJECT COST:</p> <ul style="list-style-type: none"> Project cost is subject to the result of the feasibility study 	December 2022	December 2022 (Target Testing and Commissioning)
HYDROPOWER	750.19			
Limbatangon Hydroelectric Power Project/ Turbines Resource & Development Corp./ Cagayan de Oro City, Misamis Oriental	9	<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> Submitted Feasibility Study, Detailed Engineering Design, and 5-Yr Work Plan <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> Issued Confirmation of Commerciality on 12 July 2013; and Already secured LGU Endorsements, DENR ECC, and NCIP Certificate <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> Financial Arrangement Secured <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> On-going construction; and Construction of Access Road completed 	January 2018 (Target Testing and Commissioning)	January 2018 (Target Testing and Commissioning)
Tagoloan/ First Gen Mindanao Hydropower Corp./ Impasugong & Sumilao, Bukidnon	39	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> Issued Confirmation of Commerciality on 02 July 2013 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> Pending submission of requirements for construction 	June 2018	June 2018 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Culaman Hydroelectric Power Project/ Oriental Energy and Power Generation Corporation/ Manolo Fortich, Bukidnon	10	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 03 June 2013; • Clearance to Undertake GIS from DOE issued on 5 October 2012; and • Submission of lacking requirements e.g. permits in progress <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> • On-going Pre-construction activities 	June 2018	June 2018 (Target Testing and Commissioning)
Tumalaong Hydroelectric Power Project/ First Gen Mindanao Hydropower Corp./ Baungon, Bukidnon	9	<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> • Submitted Feasibility Study and 5-Yr Work Plan <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 2 July 2013; • Already secured LGU Endorsements DENR Certificate of Non-Coverage, and Conditional Water Permit <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> • On-going Pre-construction activities 	July 2018	July 2018 (Target Testing and Commissioning)
Pasonanca/ Philcarbon, Inc./ Zamboanga City	0.50	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 09 January 2014; and • Submission of lacking requirements e.g. permits in progress <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> • On-going Pre-construction activities 	January 2019	January 2019 (Target Testing and Commissioning)
Kitaotao 1/Hedcor Bukidnon, Inc./ Bukidnon	70	<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> -On going <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> -Covered by Solar Energy Services (HSC No. 2015-05-569) -On-going study to determine the final scheme for development and final capacity of the project <p>FINANCING ARRANGEMENT:</p> <ul style="list-style-type: none"> -Parent Company will undertake to provide financial support; <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> -Permits on process for Project Site and on-going IEC; -With renewable energy service contract -With on-going application for HSC amendment: Increase capacity from 35 MW to 70 MW. <p>MARKETING OF CAPACITIES:</p> <ul style="list-style-type: none"> -To be determined 	March 2019	March 2019 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		CONSTRUCTION OF FACILITY: -To be undertaken after acquisition of permits		
10 MW Cabulig-2 Hydroelectric Power Plant Project/ Mindanao Energy Systems, Inc./ Jasaan, Misamis Oriental	10	PERMITS AND OTHER REGULATORY REQUIREMENTS: -On-going permits and other regulatory requirements completion	December 2018	March 2019
Clarin/Philnew Hydro Power Corporation/ Clarin, Misamis Occidental	5	PERMITS AND OTHER REGULATORY REQUIREMENTS: -Issued Confirmation of Commerciality on 09 April 2014; -Submission of lacking requirements e.g. permits in progress COMMENCEMENT OF CONSTRUCTION: -On-going Pre-construction activities	April 2019	April 2019 (Target Testing and Commissioning)
Mat-i-1/ Philnew Hydro Power Corporation/Claveria, Cagayan de Oro	2	PERMITS AND OTHER REGULATORY REQUIREMENTS: -Issued Confirmation of Commerciality on 09 April 2014; -Submission of lacking requirements e.g. permits in progress COMMENCEMENT OF CONSTRUCTION: -On-going Pre-construction activities	April 2019	April 2019 (Target Testing and Commissioning)
Mangima Hydroelectric Power Project/ Philnew Hydro Power Corporation/ Manolo Fortich, Bukidnon	10	PERMITS AND OTHER REGULATORY REQUIREMENTS: -Issued Confirmation of Commerciality on 3 September 2014 -Pending submission of requirements for construction	September 2019	September 2019 (Target Testing and Commissioning)
Mat-i-2/Philnew Hydro Power Corporation/Cagayan de Oro, Misamis Oriental	1.6	PERMITS AND OTHER REGULATORY REQUIREMENTS: -Issued Confirmation of Commerciality on 3 September 2014; Submission of lacking requirements e.g. permits in progress	September 2019	September 2019 (Target Testing and Commissioning)
Mat-i-3/ Philnew Hydro Power Corporation/ Cagayan de Oro, Misamis Oriental	3.25	PERMITS AND OTHER REGULATORY REQUIREMENTS: -Issued Confirmation of Commerciality on 3 September 2014 -Submission of lacking requirements e.g. permits in progress COMMENCEMENT OF CONSTRUCTION: -On-going Pre-construction activities	September 2019	September 2019 (Target Testing and Commissioning)
Puyo Hydroelectric Power Project/ First Gen Mindanao Hydropower Corp./ Jabonga, Agusan del Norte	30	FEASIBILITY STUDY: -Also submitted Feasibility Study and 5-Yr Work Plan ARRANGEMENT FOR SECURING THE REQUIRED LAND: -HSC NO. 2009-10-005 PERMITS AND OTHER REGULATORY REQUIREMENTS: -Issued Confirmation of Commerciality on 12 July 2013 -Already secured LGU Endorsements, DENR Certificate of Non-Coverage, NCIP Certificate and NWRB Permit	December 2019	December 2019 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		<p>GROUNDBREAKING SCHEDULES: -Ground breaking held on 17 April 2013;</p> <p>FINANCING ARRANGEMENTS: -Financial Arrangement Secured</p> <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: -EPC for main facilities for tender</p> <p>COMMENCEMENT OF CONSTRUCTION: -Construction on hold as of April 2015 due to security threat in the area -Project implementation on hold due to security threat in the area</p>		
Lanon (Lam-alu) Euro Hydro Power (Asia) Holdings, Inc./ Lake Sebu, South Cotabato	9.5	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: -Issued Confirmation of Commerciality on 14 April 2015; -On going permitting</p> <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: -Pending submission of requirements for construction</p>	May 2020	May 2020 (Target Testing and Commissioning)
Silo-o/ Philnewriver Power Corp./ Malitbog, Bukidnon	3.29	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: -Issued Confirmation of Commerciality on 5 June 2015 -On going permitting</p>	June 2020	June 2020 (Target Testing and Commissioning)
Agus III/ Maranao Energy Corporation/ Pantar & Balo-I, Lanao del Sur & Lanao del Norte	225	<p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: -Pending submission of requirements for construction;</p>	July 2020	July 2020 (Target Testing and Commissioning)
Malitbog/ Philnewriver Power Corp./ Malitbog, Bukidnon	17.85	<p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: Pending submission of requirements for construction</p>	September 2020	September 2020 (Target Testing and Commissioning)
Maramag/ Maramag Mini-Hydro Corp./ Maramag, Bukidnon	1.40	<p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: Pending submission of requirements for construction</p>	September 2020	September 2020 (Target Testing and Commissioning)
Manupali/ Matic Hydropower Corp./ Valencia, Bukidnon	9.00	<p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: Pending submission of requirements for construction</p>	September 2020	September 2020 (Target Testing and Commissioning)
Pulanai/ Repower Energy Development/ Valencia, Bukidnon	10.6	<p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: Pending submission of requirements for construction</p>	December 2020	December 2020 (Target Testing and Commissioning)
Cabadbaran Hydroelectric Power Project/	9.75	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p>	December 2020	December 2020

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
First Gen Mindanao Hydropower Corp./ Impasugong & Sumilao, Bukidnon		<ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 02 July 2013; and • Already secured LGU Endorsements, DENR Environment Compliance Certificate, NCIP Certificate of Non-Coverage, NCIP Certificate and NWRB Permit '-Submission of lacking requirements e.g. permits in progress <p>COMMENCEMENT OF CONSTRUCTION: On-going Pre-construction activities</p>		(Target Testing and Commissioning)
Sawaga River Mini Hydro Power Project/Repower Energy Development/Malaybalay, Bukidnon	4.5	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: -Issued with System Impact Study on 7 November 2016 (DOE-EPIMB-SIS No. 2016-10-005);</p>	February 2021	February 2021 (Target Testing and Commissioning)
Katipunan River Mini Hydro Power Project/Repower Energy Development/ Cabanglasan, Bukidnon	6.2	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: -Issued with System Impact Study on 7 November 2016 (DOE-EPIMB-SIS No. 2016-10-005)</p>	February 2021	February 2021 (Target Testing and Commissioning)
Upper Manupali/Bukidnon II Electric Cooperative, Inc./ Valencia City, Bukidnon	4.4	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: -Issued Confirmation of commerciality on 16 February 2016</p>	February 2021	February 2021 (Target Testing and Commissioning)
Lower Maladugao River Mini-Hydropower Project/Bukidnon Maladugao Hydro Power Corporation/Kalilangan and Wao, Bukidnon	15.7	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 30 May 2016 (DOE-EPIMB-SIS No. 2016-08-002)</p>	March 2021	March 2021 (Target Testing and Commissioning)
Maladugao (Upper Cascade) Hydroelectric Power Project/UHPC Bukidnon Hydro Power I Corporation/Kalilangan, Bukidnon	8.4	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 30 May 2016 (DOE-EPIMB-SIS No. 2016-08-003)</p>	March 2021	March 2021 (Target Testing and Commissioning)
Langaran/ Kaltimex Langaran Hydro, Inc./ Calamba, Misamis Occidental	36	Issued Confirmation of Commerciality on 9 March 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Alamada/ Euro Hydro Power (Asia) Holdings, Inc./ Alamada, North Cotabato	2.84	Issued Confirmation of Commercialization on 11 August 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Polandoc/ Euro Hydro Power (Asia) Holdings, Inc./ Leon Postigo, Zamboanga del Norte	5.70	Issued Confirmation of Commercialization on 03 October 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Titunod/ Euro Hydro Power (Asia) Holdings, Inc./ Kolambogan, Lanao del Norte	3.60	Issued Confirmation of Commercialization on 03 October 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Bayug/ Euro Hydro Power (Asia) Holdings, Inc./ Iligan, Lanao del Norte	17.81	Issued Confirmation of Commercialization on 03 October 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Sawaga River Mini Hydro Power Project/Repower Energy Development/Malaybalay, Bukidnon	4.5	PERMITS AND OTHER REGULATORY REQUIREMENTS: -Issued with System Impact Study on 7 November 2016 (DOE-EPIMB-SIS No. 2016-10-005);	December 2021	December 2021 (Target Testing and Commissioning)
Tagum/ Sta. Clara Power Corp./ Maco, Compostela Valley/	2.60	Issued Confirmation of Commercialization on 01 December 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Kalaong 1/ Alsons Energy Development Corp./ Maitum, Sarangani	7.40	Issued Confirmation of Commercialization on 01 December 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Kalaong 2/ Alsons Energy Development Corp./ Maitum, Sarangani	4.80	Issued Confirmation of Commercialization on 15 December 2016. Ongoing pre-construction activities.	December 2021	December 2021 (Target Testing and Commissioning)
Davao Hydroelectric Power Project/San Lorenzo Ruiz Olympia/ Davao City	140	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 6 October 2016 (DOE-EPIMB-SIS No. 2016-09-003)	December 2023	December 2023 (Target Testing and Commissioning)
SOLAR	410.00			
Sumilao Solar Power Project/Sunasia Energy, Inc./ San Vicente, Sumilao, Bukidnon	2	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 7 June 2016 (DOE-EPIMB-SIS No. 2016-05-008)	July 2018	July 2018 (Target Testing and Commissioning)
GenSan Solar Power Project Phase I/ Del Sol Energy CGS, Inc./ General Santos City, South Cotabato	48.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Awarded with RE Service Contract (SESC No. 2015-02-106) on 28 Jan 2015 • Certificate of Commerciality No. SCC- 2015-09-024 dated 22 Sep 2015	December 2018	December 2018 (Target Testing and Commissioning)
GenSan Solar Power Project Phase II/ Del Sol Energy CGS, Inc./ General Santos City, South Cotabato	48.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Awarded with RE Service Contract (SESC No. 2015-02-106) on 28 Jan 2015 • Certificate of Commerciality No. SCC- 2015-09-024 dated 22 Sep 2015	December 2018	December 2018 (Target Testing and Commissioning)
60 MW General Santos City Solar Power Project/Astroenergy Gensan Inc./ General Santos City, South Cotabato	60.0	Feasibility Studies, Permits and Other Regulatory Requirements -Issued with GIS on 23 Nov 2015, GIS #2015-11-001	December 2018	December 2018 (Target Testing and Commissioning)
San Francisco Solar Power Project/Gpower Inc./ San Francisco,	10	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 4 April 2016 (DOE-EPIMB-SIS No. 2016-04-006)	December 2018	December 2018 (Target Testing

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Agusan del Sur				and Commissioning)
Jasaan Solar Power Project/Lohas and Soul Lighting, Inc./ Jasaan, Misamis Oriental	60.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 11 May 2016 (DOE-EPIMB-SIS No. 2016-04-001)	December 2019	December 2019 (Target Testing and Commissioning)
Lal-lo Solar PV Power Plant/ Natures Renewable Energy & Development (NAREDCO) Corp./ Maasim, Sarangani	100	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with SIS on 09 January 2017 (DOE-EPIMB-SIS No. 2017-01-001)	To be determined	To be determined
Solar Power Plant/ Ecoglobal, Inc./ Zamboanga City Special Economic Zone	30	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with SIS on 21 April 2017 (DOE-EPIMB-SIS No. 2017-03-002)	To be determined	To be determined
Hayes Solar Power Project/ Hayes Solar Energy Corporation/ Villanueva, Misamis Oriental	27	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with SIS on 10 May 2017 (DOE-EPIMB-SIS No. 2017-05-004)	To be determined	To be determined
Opol Solar Power Project/ Electra Ecoenergy Corporation/ Brgy. Patag, Opol, Misamis Orient	25	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with SIS on 1 August 2017 (DOE-EPIMB-SIS No. 2017-06-001)	To be determined	To be determined
BIOMASS	89.4			
12 MW Napier Grass-Fired Biomass Power Plant Project/Manolo Fortich Biomass Energy Corporation/ Bukidnon	12	FINANCING ARRANGEMENTS: -Financial Arrangement Secured COMMENCEMENT OF CONSTRUCTION: -For construction;	June 2018	June 2018 (Target Testing and Commissioning) (Target Testing and Commissioning)
10MW Malay-balay Bio-Energy Corporation Multi Feedstock Generating Facility/ MalaybalBukidnonay Bio-Energy Corporation/	10	PERMITS AND OTHER REGULATORY REQUIREMENTS: -Secured Clearance from DOE for the conduct of GIS on 28 February 2014;	December 2020	December 2020 (Target Testing and Commissioning)
23.5 MW Woody Biomass Power Plant Projec/ CARAGA Renewable Energy Corporation/ Agusan del Norte	23.5	FINANCING ARRANGEMENTS: -Financial Arrangement Secured; COMMENCEMENT OF CONSTRUCTION: -For construction	December 2020	December 2020 (Target Testing and Commissioning)
NAREDCO Biogas Power Plant/Natures Renewable Energy Development Corporation/ Lal-lo, Cagayan	24.0	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 25 November 2016 (DOE-EPIMB-SIS No. 2016-10-003)	To be determined	To determined
Napier Grass-Fired Biomass Power Plant Project/ Pilipinas Joule Energy Corporation/ Bukidnon	5	COMMENCEMENT OF CONSTRUCTION: -For construction	December 2020	December 2020 (Target Testing and Commissioning)
Bagasse-Fired Co-generation PoMaramag, Bukidnonwer Plant/ Crystal	14.9	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Issued with GIS on 13 October 2016 (DOE-EPIMB-SIS No. 2016-10-003)	To be determined	To determined

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

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Sugar, Inc./				

Total Indicative Rated Capacity: 2,567.81

Source: DOE

Annex 10. ERC Approved Capital Expenditure Projects as of May 2017 to September 2017

APPLICANT/ ERC Case No.	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
Siargao Electric Cooperative, Inc. (SIARELCO) ERC Case No. 2011-169RC	Replacement of Inefficient Transformer	To maintain efficient, reliable, and safety delivery of power to SIALRELCO's existing and future consumers, and will redound to the benefits of the consuming public.	6,950,810.00	09 December 2011/ 13 September 2017
	Replacement/Upgrading of Kwh Meters		6,396,000.00	
	Replacement of Rotten Poles		736,591.00	
	Logistics		1,932,838.75	
Ilocos Norte Electric Cooperative, Inc. (INEC) ERC Case No. 2013-079RC	Replacement of the 10 MYA Power Transformer of Laoag Substation	To achieve sufficient and reliable power supply.	11,478,988.30	18 March 2013/ 01 August 2017
Nueva Ecija II-Area 1 Electric Cooperative, Inc. (NEECO II – Area 1) ERC Case No. 2010-139RC	Load Transfer from Quezon Substation to Talavera Substation - Installation of Disconnect/Transfer Switches	<ul style="list-style-type: none"> To address capacity problem of Quezon Substation Transferring of load approximately 1 MVA from Quezon Substation to Talavera Substation 	129,424.00	19 August 2010/ 01 August 2017
	Reconductoring, Installation of Capacitor, and Feeder Splitting - Reconductoring of Feeder II Backbone line from 2/0 AWG ACSR to 336.4 AWG ACSR and Installation of capacitor - Installation of 3x150 kVar capacitor to Feeder 13 - Installation of 3x150 kVar capacitor to Feeder 31 - Installation of 3x25 kVar to Feeder 32 - Installation of 3x150 kVar capacitor to Feeder 51 - Installation of 3x300 kVar and 3x150 kVar capacitor and Splitting of Feeder 22 by load transfer to Lupao S/S	To address power quality problems such as undervoltage and voltage unbalance of feeders 11,13,31,32,43,51 and 22.	338,288.16	
	Rehab/Revamp of overextended and undersized secondary lines	To reduce system loss	28,394,996.00	
	Upgrading of Industrial consumer's kWh Meter - Upgrading of 380 units of kWh Meter from mechanical to electronic	To provide accurate measurement of energy consumed by each member-consumer	2,287,369.54	
	Acquisition of Distribution Transformer - Procurement of 485 units of Silicon Core Distribution Transformer with various capacities	Procurement of distribution network transformers for the projected new customers of NEECO II-A1.	35,575,678.62	
	Extension of Primary and Secondary Lines - Extension of 12.25 km Primary and Secondary Lines	To cope with the increasing demand due to increasing customers	2,411,126.23	
	Acquisition of #6 AWG ACSR Service Drop - Installation of standard connection facilities	To accommodate new customers of NEECO II-A1.	13,401,044.20	
Acquisition of Single Phase kWh Meters - Procurement of 23,902 kWh meters for new customers	To accommodate new customers of NEECO II-A1.	29,410,265.55		

APPLICANT/ ERC Case No.	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
	Replacement of Rotten Wood Pole - Replacement of dilapidated poles including pole accessories.	To ensure the reliability of the supporting structures of distribution lines in the entire NEECO II-A1 franchise area.	28,182,487.08	
	Acquisition of 69kV Subtransmission Assets - Expenditure for the acquisition of Transco's subtransmission assets such as subtransmission lines and Substation switch bays	To comply with Transco's STAs divestment as provided in the EPIRA.	57,303,310.82	
	Rehab/Upgrading of Substation Protection - Replacement of Existing protections of Talavera, Munoz and Quezon substations from fue/reclosers to circuit breakers	To comply with the Philippine Distribution Code (PDC) requirements.	26,836,405.00	
	Installation of Power Quality Monitoring Equipment - Installation of Power Monitoring Equipment at Aliaga, Guimba, Quezon and Talavera Substation.	<ul style="list-style-type: none"> To ensure that any power quality problems must be corrected at the grid connection point or at any substation and at any connection point of the electric cooperative's user during normal operating condition. To address the ECs problem on lack of monitoring equipment. 	949,533.72	
	Acquisition of Logistics	<ul style="list-style-type: none"> To improve service efficiency 	8,698,836.40	
	Acquisition of Engineering Software - Acquisition of Engineering Software (Synergee Electric)	<ul style="list-style-type: none"> To provide the planners a more accurate and updated distribution system data. Cost adjusted based on the actual expense incurred for the year 2010 and 2013 	1,859,250.00	
	Construction of Proposed Administrative Buidling - Construction of the New Administrative Buidling at Talavera, Nueva Ecija.	To provide more spacious and more convenient facility to its personnel and member-consumers. To improve service efficiency.	25,640,000.00	
	ICT Communication Improvement Project - Voice over IP (Structuring Voice over IP Phone Ssystem) - Video Conferencing and District Monitoring System Ex82dxi – ip extreme ip network color Day/infrared night motion detection camera (For surveillance & Video Conferencing) - Website Development (Interactive and Dynamic Website Hosting & Domain Subscription)	<p>Information Communication Technology (ICT) infrastructure development like the Wide Area network (wan) that would interconnect and integrate ICT facilities from each district office and this infrastructure will facilitate and ease up transaction processes and data exchange. Closed-circuit television (CCTV) may use surveillance cameras to monitor the public.</p> <p>Cost adjusted based on the actual cost incurred for the years 2010-2014 which is lower than the proposal.</p>	1,133,787.00	
	ICT Hardware Requirement - Procurement of computers, laptop, printer, router, portable hard drive, LCD Monitor, Projector, biometric device, UPS, M3SKY Reading Device Copier, Switch/Hub, CPU, Laptop Battery, and DDR Memory.	To increase service efficiency	3,984,750.05	
	Acquisition of Engineering Software (AM/FM/GIS)	<ul style="list-style-type: none"> To provide the planners a more accurate and updated distribution system data. Cost adjusted based on the actual incurred for the year 2013 	5,322,417.77	
	Construction of DX Line (Government Subsidy)	<ul style="list-style-type: none"> To cope with the increasing demand due to increasing customers Cost for the rural electrification project was funded by government subsidized, thus, is not charged to the reinvestment fund. 	104,348,623.33	

APPLICANT/ ERC Case No.	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED																
		<ul style="list-style-type: none"> Cost was adjusted based on the actual expense incurred for the years 2010-2014. 																		
Negros Oriental II Electric Cooperative, Inc. (NORECO II) ERC Case No. 2011-002RC	Construction of additional 30 MVA power transformer at Bagacay Substation <ul style="list-style-type: none"> Construction and installation of the additional 30/37.5 MVA power transformer, its accessories and protection equipment at the Bagacay Substation in Dumaguete City. The two (2) feeders, Feeder BAGFDR7 and Feeder BAGFDR8, of the 20/25 MVA Bagacay Substation will be transferred to the 30/37.5 MVA power transformer.	To address capacity problem of the Bagacay Substation	27,794,392.50	16 December 2010/ 25 July 2017																
	Procurement of duplex service drop wires <ul style="list-style-type: none"> Replacement of the under-size and dilapidated service drop wires, and provisions for the new residential consumers as embodied in the Magna Carta for Residential Consumers. 	The EC is mandated to provide its customers the distribution services and connections in its distribution system consistent with the distribution code.	1,722,000.00																	
	Procurement of KWh meters <ul style="list-style-type: none"> Replacement of defective single-phase electromechanical kilowatt-hour meters covered by the following substations: <table border="1"> <thead> <tr> <th>Substation</th> <th>QTY. (unit)</th> </tr> </thead> <tbody> <tr> <td>Tanjay</td> <td>900</td> </tr> <tr> <td>Siaton</td> <td>900</td> </tr> <tr> <td>Bayawan</td> <td>900</td> </tr> <tr> <td>Pulantubig 1</td> <td>700</td> </tr> <tr> <td>Pulantubig 2</td> <td>700</td> </tr> <tr> <td>Banaba</td> <td>200</td> </tr> <tr> <td>Bagacay</td> <td>700</td> </tr> </tbody> </table>	Substation	QTY. (unit)		Tanjay	900	Siaton	900	Bayawan	900	Pulantubig 1	700	Pulantubig 2	700	Banaba	200	Bagacay	700	The project shall improve the EC's system efficiency.	2,905,072.00
	Substation	QTY. (unit)																		
	Tanjay	900																		
	Siaton	900																		
Bayawan	900																			
Pulantubig 1	700																			
Pulantubig 2	700																			
Banaba	200																			
Bagacay	700																			
Procurement of distribution poles for the replacement of dilapidated poles	The project is intended to ensure a safe and reliable distribution system.	21,497,500.00																		
Procurement of distribution transformers with various capacities is shown below: <table border="1"> <thead> <tr> <th>Qty.</th> <th>DT Capacity</th> </tr> </thead> <tbody> <tr> <td>45</td> <td>167 KVA, Conventional Type</td> </tr> <tr> <td>45</td> <td>100 KVA, Conventional Type</td> </tr> <tr> <td>74</td> <td>75 KVA, Conventional Type</td> </tr> <tr> <td>112</td> <td>50 KVA, Conventional Type</td> </tr> <tr> <td>212</td> <td>37.5 KVA, Conventional Type</td> </tr> <tr> <td>289</td> <td>25 KVA KVA, Conventional Type</td> </tr> <tr> <td>202</td> <td>5 KVA, Conventional Type</td> </tr> </tbody> </table>	Qty.	DT Capacity	45	167 KVA, Conventional Type	45	100 KVA, Conventional Type	74	75 KVA, Conventional Type	112	50 KVA, Conventional Type	212	37.5 KVA, Conventional Type	289	25 KVA KVA, Conventional Type	202	5 KVA, Conventional Type	The project is intended to ensure a safe and reliable distribution system.	2,583,000.00		
Qty.	DT Capacity																			
45	167 KVA, Conventional Type																			
45	100 KVA, Conventional Type																			
74	75 KVA, Conventional Type																			
112	50 KVA, Conventional Type																			
212	37.5 KVA, Conventional Type																			
289	25 KVA KVA, Conventional Type																			
202	5 KVA, Conventional Type																			
Northern Samar Electric Cooperative, Inc.	Restoration and rehabilitation of distribution lines and line accessories and replacement of kilowatt-hour meters damaged by Typhoon Glenda	To restore power and maintain safe, reliable, secure, and efficient operation of the power system.	52,503,211.17	07 July 2015/ 20 June 2017																

APPLICANT/ ERC Case No.	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (Php)	DATE FILED/ APPROVED
(NORSAMELCO) ERC Case No. 2015-127RC				
First Laguna Electric Cooperative, Inc. (FLECO) ERC Case No. 2014-151RC	Repair and restoration of the distribution lines and other related facilities damaged by Typhoon Glenda on 15 July 2014	<ul style="list-style-type: none"> o lessen the impact of the typhoon and the resultant absence of electric service on the residential consumers in the affected area, as well as on the business establishments inconvenienced; and o improve the system's reliability. 	5,011,838.35	03 October 2014/15 June 2017
Biliran Electric Cooperative, Inc. (BILECO) ERC Case No. 2011-157RC	Construction of New Substation 3.15 MVA at Brgy. Caraycaray, Naval	To correct the power quality issues of the entire franchise	14,075,983.17	November 17, 2011/ June 6, 2017
	Construction of 16.5km, 69kV Subtransmission Line (Biliran to Caraycaray, Naval)	The line shall serve as a connection point that will energize the proposed 3.15 MVA Naval Substation.	36,259,603.33	
	Installation of Additional Line Protection Feeder No. 1	To provide backup protection to main feeders and lateral lines in order to maintain a safe distribution system	1,800,000.00	
	Installation of Additional Line Protection Feeder No. 2		2,400,000.00	
	Construction of 2.8km, Double Circuit Line (Caraycaray to Atipolo, Naval)	These are supplementary projects for the proposed new 3.15 MVA Naval Substation intended to correct the power quality issues of the entire system as well as to improve the entire system's efficiency performance.	2,591,580.85	
	Construction of 5km, Double Circuit Line (Caraycaray to Naval Poblacion)		5,312,990.43	
	Upgrading of 20.8km, Distribution Line from Existing 1-Phase to 3-Phase (Bliss Calumpang to Brgy Cabibihan, Calibiran)		6,814,533.33	
	New Connection	Provides new service drop wires and metering facilities to the forecasted additional customers which are expected to apply for new connections	2,009,775.00	
	Distribution Transformer Requirement	Resolve the capacity issues at the secondary network brought about by overloaded distribution transformers	921,891.60	
Institutional Services Department	Improve the efficient of the DU in terms of customer's service by increasing and replacing the outdated logistics for operation and customer service	1,328,800.00		
Technical Services Department		1,309,110.85		
Clark Electric Distribution Corporation (CEDC) ERC Case No. 2016-013RC	Development of Roxas 50 MVA, 69kV-13.8 kV Substation	The project is intended to restore the electric service in the Civil Aviation Complex to its normal state. The new transformer will provide back up for Kalaw Banks 1 and 2. The installation of the new equipment would also ensure the reliability of the new substation. Further, as to the proposed new site for the substation along M.A Roxas Highway, this will address the expected load growth in the area and pending implementation of the expansion of the CIAC which will inevitably displace the current location of the substation which will result in massive interruption.	1,488,583.50	February 18, 2016/ June 6, 2017
Negros Occidental Electric Cooperative, Inc. (NOCECO) ERC Case No. 2013-198RC	Replacement of defective recloser's control of CF1	To provide a safe and reliable distribution system	750,680.00	August 22, 2013/ June 6, 2017
	Replacement of defective 3 units AVR Control of NF3 at Bilaren, Kabankalan	To provide a safe and reliable distribution system	437,724.00	
	Replacement of old/ageing distribution capacitors	To provide a safe and reliable distribution system	248,400.00	
	Rehabilitation of 12.8 km 13.2 kV lines below the Binalbagan-La Castellana 69 kV lines	To maintain a safe and reliable distribution network	4,002,978.35	
	Replacement of old/corroded/ageing conductors, rotten poles, and line assemblies	To maintain a safe and reliable distribution network	15,454,545.79	

APPLICANT/ ERC Case No.	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
	Installation of 1-10 MVA Substation at Overflow, Kabankalan and construction of three (3) feeder lines	To address the capacity problem of NOCECO's Naga Substation and to enable the DU to distribute power from the newly constructed substation to the existing distribution network.	51,134,816.90	
	Distribution transformers	To address the increasing demand of NOCECO and for the replacement of old/ageing/defective distribution transformers.	11,991,000.00	
	Replacement of defective kWh meters	To provide accurate measurement of energy consumed by each member-consumers	795,844.48	
	Standard connection facilities	To accommodate the new customers of NOCECO	12,551,242.76	
	Extension of secondary lines	To accommodate the new customers of NOCECO	640,992.13	
	Communication equipment	To improve service efficiency	349,500.00	
	Land and buildings	To provide a more convenient and spacious facility to its personnel and member-consumers of NOCECO	23,261,650.26	
	Office furniture and equipment	The project is intended to augment the existing office furniture and equipments of NOCECO to facilitate business transaction with its customers to improve efficiency.	4,923,998.00	
	Structures and improvements	The project is intended to improve the building facilities of NOCECO to provide a more convenient and safe working condition to its personnel to improve efficiency.	1,551,191.02	
	Tools and equipment	The project is intended to maximize the performance and safety of NOCECO's personnel in maintaining its distribution system including the proper monitoring of its equipment to avoid unwanted failures or system interruption.	4,601,265.00	
	Transportation equipment	To improve service efficiency	5,775,639.00	
Olongapo Electricity Distribution Corp. (OEDC) ERC Case No. 2014-040RC	Non-technical loss reduction project, including meter change-out		122,434,717.00	February 24, 2014/ May 30, 2017
	Acquisition and installation of Feeder Meters	At present, OEDC has no demand/revenue meters that have the capabilities to store data such as real and reactive power, real and .reactive energy, phase voltage and phase current in their medium voltage feeders. With this scenario, the utility proposed the acquisition and installation of 3-phase electronic demand/revenue meters at the following substation feeders: <ol style="list-style-type: none"> 1. BMUFeeder 1(Charlie Fi); 2. CBMUFeeder 2 (Charlie F2); 3. CBMUFeeder 3 (Charlie F3); 4. KALEFeeder 1(Kilo Fi); 5. KALEFeeder 2 (Kilo F2); 6. MERCURIO Feeder 2 (Macro F2); 7. MERCURIO Feeder 3 (Macro F3); 8. MERCURIO Feeder S (Macro FS); and 9. MERCURIO Feeder 6 (Macro F6). 	419,900.00	
	Replacement of the 5 MVA, 69/4.16 kV Power Transformer to 15/20 MVA, 69/13.8 kV Power Transformer of CBMU Substation	OEDC is currently maintaining two different primary distribution voltages - the 13.8 kV and 4.16 kV. Currently there were three (3) 13.8 kV Substations consisting of four (4) power transformers. The 13.8 kV Substations were Mercurio Substation with two (2) 10/12 MVA, 69/13.8 kV power transformers, CBMU Substation with one (1) 5 MVA, 69/13.8 kV power transformer, and Kale Substation with one (1) 10 MVA,69/13.8 kV power transformer. The 5 MVA,69/4.16 kV of CBMU substation is the sole power transformer that supplies power for the 4.16 kV primary distribution of OEDC.	49,630,656.00	

APPLICANT/ ERC Case No.	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
	Conversion of CBMU 4.16 kV feeder to 13.8 kV system	Replacing the 5 MVA 69 kV/4.16 kV transformer with a 15/20 MVA, 69 kV/13.8 kV transformer would also mean that the existing 4.16 kV feeder presently served by the 5 MVA69 kV/4.16 kV transformer shall be converted to 13.8 kV system before the said feeder can be supplied by the replacement of the said transformer.	41,500,088.00	
	Line Rehabilitation and Reconducting of OEDC's Medium Voltage Distribution Lines	<p>The main purpose of rehabilitation and reconducting project is to improve service reliability and reduce the technical losses wasted along the lines as they carry electric currents of the loads being served. The distribution facilities turned over by previous owner- PUD have several defects on poles and line hardware. In addition, the existing primary wires are undersized and already unreliable due to many joints and splicing.</p> <p>EDC intends to standardize the 13.8kV as the standard primary voltage, hence, increasing the voltage is not an option. The feasible option left, to reduce lines losses will be the reconducting of the backbone lines or increasing the capacity of the wires to 336.4 MCM.</p> <p>Expected benefit(s) of the project:</p> <ol style="list-style-type: none"> 1. Increased service reliability by avoiding unnecessary power interruptions due to structural defect - collapse of poles and other part of structures; 2. Reduction of technical line losses; 3. Improvement in system reliability by providing spare capacity of the lines to carry additional loads from adjacent feeders during emergency cases; Improvement in power quality through improvement in voltage regulation performance of the MV lines; and 4. Improvement in safety by ensuring that the primary distribution lines do not become overloaded. Overloading is one of the causes of a line breakage if overloading is too severe. Once broken, a live line can certainly become a threat to the safe of any person and to properties. 	21,859,968	
	Load Centering with DT Optimization	<ul style="list-style-type: none"> ✓ At present, many Distribution Transformers (DTs) connected along the 13.8 kV distribution system are customer-owned. It can be seen in some distribution poles that a combination of two single phase or a combination of three- phase and a single phase DTs are attached to one pole. A customer owning a DT is not charged energy loss due to voltage transformation - since they are metered at the secondary side of the transformer. From utilities viewpoint, customer-owned DTs are not fully utilized to its rated capacity, thus, it contributes more technical losses when loaded lightly. ✓ Expected benefit(s) of the project: <ul style="list-style-type: none"> • Support OEDC's efforts in reducing technical losses (targeted to 2%) and improving system efficiency; • Improvement in power quality through the improvement in voltage regulation performance of the low voltage lines through re-configuration of secondary lines; • Improvement of aesthetics for pole installed DTs including its 	52,758,228	

APPLICANT/ ERC Case No.	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
		<p>secondary lines and service drops;</p> <ul style="list-style-type: none"> Improvement of safety to line personnel; and Orderliness and ease in monitoring customer's connectivity. <p>If the project is not implemented:</p> <ul style="list-style-type: none"> A targeted 2% reduction of technical losses due to DTs operation & substandard secondary lines will not be realized; OEDC will experience more voltage violation complaints by customers; OEDC violates the Philippine Electrical Code (PEC) standards for secondary line sizing, service drop wires and safety; Customers continue to share the cost of energy loss due to customer-owned DTs inefficiency; and Safety of line personnel will remain questionable. 		
	Data Gathering Procedures and Database Build-Up on the Existing Distribution Assets of OEDC and their Electrical Relationship and Location	At present, OEDC has no updated tabular data of the installed facilities/assets in its franchise area, much more the location of each asset. Excel files for these data do exist but are not compiled and complete. Different personnel have different lists according to their assets. There is no standard data repository. Documentation of new installations and maintenance of facilities need to be addressed. Manual procedures and construction standards have to be instituted.	6,582,285.00	
Ticao Electric Cooperative Inc. (TISELCO) ERC Case No. 2015-202RC	Conversion of 10.48 circuit km. Single-Phase Line to three-Phase Line	<ul style="list-style-type: none"> To comply with the Philippine Distribution Code, Item 3.2.5 regarding the allowable voltage unbalance; To give provision for future three-phase loads; and To upgrade the quality of existing substandard poles of Feeder 1 for safety purposes. 	6,429,481.28	December 2, 2015/ May 30, 2017
	Reconductoring of Loaded Secondary Lines from No. 2 ACSR to 1/0 ACSR and Installation of Distribution Transformers and Load Splitting	<p>There are under-voltages at some dead-ends. In some cases, equipment with inductive and capacitive parts will not function if the said problem continually occurs.</p> <p>Reconductoring of secondary lines will effectively help reduce voltage drop especially at municipal centers where most of the transformers are loaded.</p> <p>To avoid busted and damaged distribution transformers due to overloading and to improve the system power quality through balanced loading and increased system efficiency.</p> <p>The project will not just only enhance power quality but will prevent and minimize hazards and dangers of transformer explosion which may cause death, damage to properties and accidents.</p>	3,813,433.09	
	Replacement and Installation of Grounding System for every 400 m span of primary line and every 300 m span of three phase secondary line	To improve safety	988,980.00	
	Replacement of Old, Ageing, Inappropriate, Inaccurate and Dilapidated Electro-Mechanical Meters with Electronic Meters	To provide accurate measurement of energy consumed by the member-consumers.	6,260,000.00	
	Installation of two 3-phase Vacuum Circuit Reclosers	To improve system reliability	1,623,155.27	

APPLICANT/ ERC Case No.	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
	Replacement of Rotten Poles, damaged Crossarms and Deteriorating Guys in Three-Phase Lines	There are many identified rotten poles, damaged cross-arms and deteriorating guys connected in three-phase line: Replacement must be implemented within the project duration to avoid accidents, deaths and property damages if the identified distribution line materials will collapse. This is also in compliance with the proper and good maintenance procedures as required in 5.2.14 of Philippine Distribution Code	1,988,685.50	
	Acquisition of Buffer stocks for 10% of Whole Distribution System Materials	Reliability level improvement and to avoid delay of repair and construction services during typhoons, other natural disasters and emergency corrective maintenance. Provisions for unexpected replacement of damage distribution materials.	3,360,376.00	
	Rural Electrification projects (GAA SEP/BLEP Subsidy)	TISELCO has the obligation and mandate to serve all in its franchise area. Cost for the rural electrification project was funded by government subsidies, thus, is not charged to the reinvestment fund.	100,814,408.00	
	Distribution Transformers	Procurement of distribution network transformers for the projected new customers of TISELCO.	2,840,001.85	
	Low Voltage Distribution Lines	To accommodate new customers of TISELCO	1,898,675.82	
	Standard Connection Facilities	To accommodate new customers of TISELCO	3,035,676.00	
	Acquisition of Onsite Accuracy Meter Test Equipment	To comply with the ERC Resolution No. 12, Series of 2009 entitled, "A Resolution Adopting the Rules and Procedures for the Test and Maintenance of Electric Meters of Distribution Utilities". The acquisition of portable onsite accuracy meter test equipment is necessary especially for distant areas in conducting inspection for in-service meters.	400,000.00	
	Expansion of Main Office Building	To create a good working ambiance and to improve the working efficiency and mindset of employee, and satisfaction and comfort of member-consumers during payment of bills to TISELCO.	3,000,000.00	
	Acquisition of Linemen Tools and Equipment	The proposed capital project is intended to maximize the performance and safety of TISELCO's personnel in maintaining its distribution system including the proper monitoring of its equipment to avoid unwanted failures or system interruption.	603,250.00	
	Acquisition of vehicle for Technical Operations	The said vehicle is necessary in supporting and facilitating distribution operations and line maintenance works. It will also improve employees' mobility and response time in power restoration and completion of routine maintenance works. The recommended cost is based on the submitted quotation of TISELCO which is lower compared to the previous approval of the Commission.	1,207,500.00	
	Uprating of Capoocan Substation (5 to 15 MVA)	Augment the existing 5 MYA Capoocan Substation	18,475, 660.00	
Samar I Electric Cooperative, Inc. (SAMELCO I) ERC Case No. 2011-161RC	Acquisition of ACSR Wires for Rehabilitation/Renewal Project (Primary)	Resolve the capacity issues at the secondary network brought about by overloaded distribution transformers	1,159,866.22	11 November 2011/ 16 May 2017
	Acquisition of Distribution Transformer (Replacement of Old/Aged PCB Type Distribution Transformers)	Resolve the capacity issues at the secondary network brought about by overloaded distribution transformers	2,032,771.79	
	Acquisition of ACSR Wires for Rehabilitation/Renewal Project (Secondary)	Resolve the capacity issues at the secondary network brought about by overloaded distribution transformers.	1,379,854.85	
	Metering Equipment (kWh Meter) for New Connection	Provides new service drop wires and metering facilities to the forecasted additional customers which are expected to apply for new connections.	22,377,423.82	
	Secondary Service Drop for New Connection	Provides new service drop wires and metering facilities to the forecasted additional customers which are expected to apply for new connections.	6,265,120.40	

APPLICANT/ ERC Case No.	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (Php)	DATE FILED/ APPROVED
	Massive Replacement of Rotten Pole (Backbone)	Replacement of old kWh Meters and dilapidated poles	4,268,074.36	
	Massive Replacement of Defective Meters	Replacement of old kWh Meters and dilapidated poles	4,500,000.00	
	DSAS Package (Web-based)	Enhance customer services by providing updated engineering software program to the DU's personnel in order for them to perform their duties and responsibilities efficiently and reliably.	420,000.00	

Source: ERC

Annex 10. 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	0.00	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
January-15	-	-	-	2,880,825.99	52,985,437.72	55,866,263.71
February-15	-	-	-	2,528,586.80	53,081,511.45	55,610,098.25
March-15	-	-	-	1,823,548.22	49,670,485.01	51,494,033.23
April-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
June-15	-	-	-	3,299,287.92	51,187,883.72	54,487,171.64
July-15	-	-	-	3,430,054.53	44,687,161.80	48,117,216.33
August-15	-	-	-	2,846,599.09	42,265,605.65	45,112,204.74
September-15	-	-	-	2,363,991.24	45,952,136.29	48,316,127.53
October-15	-	-	-	1,524,909.43	48,465,110.3	49,990,019.73
November-15	-	-	-	1,379,202.45	42,598,493.39	43,977,695.84
December-15	-	-	-	1,459,777.97	42,930,723.67	44,390,501.64
January-16	-	2,056,346.937	2,056,346.937	-	1,945,101.98	4,001,448.92
February-16	-	1,973,871.25	1,973,871.25	-	2,049,961.38	4,023,832.63
March-16	-	1,953,078.74	1,953,078.74	-	1,951,000.98	3,904,079.72
April-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
June-16	-	2,550,094.69	2,550,094.69	-	1,915,226.84	4,465,321.53
July-16	-	2,342,599.9	2,342,599.9	-	1,909,263.97	4,251,863.87
August-16	-	2,233,285.35	2,233,285.35	-	2,030,002.55	4,263,287.90
September-16	-	1,868,144.41	1,868,144.41	-	1,918,386.45	3,786,530.86
October-16	-	1,776,621.46	1,776,621.46	-	1,887,756.18	3,664,377.64
November-16	-	1,766,697.11	1,766,697.11	-	2,065,945.32	3,832,642.43
December-16	-	1,60,5691.64	1,60,5691.64	-	2,058,219.66	3,663,911.30
January-17	-	1,534,254.42	1,534,254.42	-	622,036.78	2,156,291.20
February-17	-	1,642,699.66	1,642,699.66	-	654,200.86	2,296,900.52

Billing Month	MERALCO	REST OF LUZON	TOTAL LUZON	VISAYAS	MINDANAO	TOTAL
March-17	-	1,310,503.17	1,310,503.17	-	566,101.61	1,876,604.78
April-17	-	1,570,572.8	1,570,572.8	-	640,900.58	2,211,473.38
May-17	-	1,740,776.78	1,740,776.78	-	684,994.52	2,425,771.30
June-17	-	708,940.16	708,940.16	-	726,868.89	1,435,809.05
July-17	-	460,706.83	460,706.83	-	-	460,706.83
August-17	-	708,390.94	708,390.94	-	-	708,390.94
September-17	-	178,506.74	178,506.74	-	-	178,506.74
October-17	-	9,554.59	9,554.59	-	-	9,554.59
November-17	-	-	-	-	-	-
December-17	-	-	-	-	-	-
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