27th Electric Power Industry Reform Act (EPIRA) Implementation Status Report

(For the Report Period October 2015)

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. INTRODUCTION

The 27th Status Report on EPIRA implementation covers the period May 2015 to October 2015 with development highlights as follows:

- Continuing privatization of the government's remaining assets and adoption of new timelines in light of directives to defer privatization of some assets specifically in Mindanao to address the supply shortage until the commercial operation of new power plants are realized;
- Declaration of full contestability timelines and other relevant policies for the retail market and increasing participation of Contestable Customers (CC);
- Continuing improvement in the WESM processes and operations arising from recommendations on audits, evaluation and incorporation of relevant policies to include among others, renewable energy and ancillary services;
- Compliance of generators to market share limitations provided under the EPIRA;
- Supply and demand monitoring to ensure supply security and reliability including continuing assistance for the development of generation, transmission and distribution projects
- Continuing efforts to intensify rural electrification with the renewed targets for household electrification.

I. PRIVATIZATION

For the report period, PSALM completed the privatization and turn-over of PBs 101, 102, and 103 thru negotiated sale. With regard to the privatization of the remaining plants and NPC-IPP contracts, PSALM revised accordingly the schedules in line with the directives set by the DOE. Following are the latest status:

A. Privatization of Generating Assets

Power Barges (PBs) 101, 102, 103 and 104

The negotiated sale of PBs 101, 102 and 103 was completed with Trans-Asia Oil and Energy Development Corporation's (Trans-Asia) payment of the PhP420 million purchase price on 07 July 2015. On 08 July 2015, PBs 101-103 were turned over to Trans-Asia. Following the turn-over, Trans-Asia formally expressed their intention to negotiate with PSALM for the acquisition of PB 104 on an "as is, where is" basis. In this regard, PSALM secured the opinion of the Office of the Government Corporate Counsel (OGCC) specifically concerning the "as is, where is" condition by Trans-Asia, given that the previous round of bidding for PB 104 carried with it an obligation for the buyer to operate the asset in Mindanao for a specified period. As per OGCC, PSALM may open a negotiated sale of PB 104 to Trans-Asia and SPC Island Power Corporation (SIPC) which can be justified due to the failure of three (3) rounds of public biddings and based on applicable laws and regulations (i.e. the EPIRA, COA Circulars, and the Government Auditing and Accounting Manual). With the receipt of the OGCC opinion, PSALM Management will secure Board approval for the commencement of negotiated sale of PB104 and the proposed revisions on the Board-approved Asset Purchase Agreement for the third round of bidding which is set on the 1st semester of 2016.

Sucat Thermal Power Plant (STPP)

The second round of bidding for STPP was approved by the PSALM Board last 15 September 2015. With this, the bid activities were conducted as follows:

- On 15 October 2015, the PSALM Privatization, Bids and Awards Committee (PBAC) approved the Bidding Procedures;
- The Agency Appraisal Report (AAR) was submitted to the Commission on Audit (COA) on 22 October 2015;
- The publication of the ITB in newspapers of nationwide circulation is scheduled on 11 to 13 November 2015;
- The Invitation to Bid (ITB) was published in newspapers of nationwide circulation on 11 to 13 November 2015 while the due diligence was held on 16 November 2015;
- The pre-bid conference was conducted on 27 November 2015 and was participated by ten (10) prospective bidders.

The bid submission date is scheduled on 17 February 2016.

Indicative Privatization Schedule

As to PSALM's latest privatization targets for its remaining plants, the indicative schedules are shown in Table No. 1.

Table 1. Schedule of Privatization for Generating Assets as of 31 October 2015

Asset Type/ Plant Name	Rated Capacity (MW)	Bid Date	Turnover Date
Owned Generating Plants			
Malaya Thermal	650.00	1st Semester 2018	2nd Semester 2018
PB 104 (Diesel/Bunker)	32.00	1st Semester 2016	1st Semester 2016
Agus 1 & 2 Hydro	260.00	2017 Subject to consultation with Congress as provided under the EPIRA	
Agus 4 & 5 Hydro	213.10		
Agus 6 & 7 Hydro	254.00		
Pulangui Hydro	255.00		
Decommissioned Plants			
Sucat Thermal	850.00	1st Semester 2016	1st Semester 2016
Bataan Thermal	175.00	Sale/disposal is subject to resolution of court cases involving the asset	
Bataan Gas Turbines	120.00		

Source: PSALM

B. Transfer of NPC Contracted Energy Outputs to Independent Administrators

Unified Leyte Geothermal Power Plant (ULGPP) - Bulk Energy

The bidding for ULGPP Bulk Energy on 02 September 2015 was declared a failure after only one (1) bidder, Unified Leyte Geothermal Energy, Inc. (ULGEI), submitted a bid within the bid submission deadline. Upon the declaration of the said failure of bidding, ULGEI manifested its willingness to enter into a direct negotiation with PSALM, which they confirmed in their letter dated 04 September 2015.

On 15 September 2015, the PSALM Board approved to proceed with the negotiated sale with ULGEI. On 20 October 2015, the PBAC discussed and approved the Negotiation Procedures for the Selection and Appointment of the IPPA for the ULGPP Bulk Energy.

Mindanao Coal-Fired Thermal Power Plant (MCFTPP)

PSALM conducted the pre-bid conference for the privatization of MCFTPP last 06 May 2015 and was attended by interested bidders namely:

1. FDC Davao del Norte Power Corporation;
2. FGen Northern Power Corp.;
3. GDF SUEZ Energy Philippines, Inc.;
4. La Filipina Electrika, Inc. (Formerly Therma Southern Mindanao, Inc.);
5. Vivant Power Corporation; and
6. SMC Global Power Holdings Corporation.

All bidders submitted documentary deliverables on 31 July 2015.

While PSALM continued on necessary preparations for the bid, the House Committee of Appropriations during the deliberations for the 2016 Budget Hearings, has directed the deferment of the privatization of Mindanao Coal-Fired Thermal Power Plant (MCFTPP) and Agus-Pulangui Hydro Electric Power Plants until such time that the power supply in Mindanao stabilizes. The call for deferment was subsequently supported by the DOE until it deems that the power supply situation in Mindanao Grid is within comfortable levels. In consideration of the expected commercial operations of new power plants in Mindanao by the 1st half of 2016, the DOE is amenable with the proposed bidding schedule after said period.

Termination of Independent Power Producer Administrator (IPPA) Administration Agreement (AA) for the Ilijan Combined-Cycle Power Plant

On 04 September 2015, PSALM has decided to terminate the contract for the IPPA in the 1,200-megawatt Ilijan Combined Cycle Power Plant pursuant to the Administration Agreement (AA) with Ilijan plant IPPA South Premiere Power Corporation (SPPC). From the turn-over in June 2010, SPPC was unable to pay PSALM a total amount of PhP11.06 billion as generation payment. With the termination, and in accordance with the Ilijan IPPA AA, PSALM has also drawn on same date the USD60-million Performance Bond of SPPC.

As a counter action, SPPC secured a 72-hour temporary restraining order from the Regional Trial Court of Mandaluyong City, Branch 209 on 08 September 2015 which prevented PSALM from:

- Exercising its rights as Administrator of the IPP Contract;
- Disposing the payment received from ANZ under the performance Bond until instructed otherwise by the Court
- Treating SPPC as Administrator in Default;
- Continue collecting of the supposed unpaid generation payments, VAT on generation payments for Meralco nominations under the Meralco-NPC PSCs to service Sunpower and Ecozone requirements, and any interest imposed by PSALM on such amounts including forfeiture of the said performance bond, termination of the Ilijan IPPA, issuance of a cessation notice and those conditions stated in Sections 20.5.1 and 20.6.1 of the Ilijan IPPA;
- Carrying out any other acts that would change the status quo ante between the parties.

The TRO was extended on 11 September 2015 to another 17 days.

PSALM filed an Opposition to the Issuance of a Temporary Restraining Order (TRO) with a Very Urgent Motion to Lift 72-Hour TRO. It asserted its position that the grant of the 72-hour temporary restraining order (TRO) should not be under the jurisdiction of the Mandaluyong Regional Trial Court (RTC). PSALM argued that only the Supreme Court has jurisdiction to grant a TRO or any other injunctive relief to complainant SPPC. PSALM further argued that the the TRO is not pursuant to the provisions of the EPIRA specifically under their mandate to "manage the orderly sale, disposition, and privatization of NPC (National Power Corporation) generation assets, real estate and other disposable assets, and IPP contracts with the objective of liquidating all NPC financial obligations and stranded contract costs in an optimal manner";

PSALM assured the DOE that the termination will not affect the operations of the Ilijan plant, as the plant is being operated by the Korea Electric Power Corporation (KEPCO), through KEPCO Ilijan Corporation under a build-operate-transfer contract that will expire in 2022. Further, PSALM will continue to supply MERALCO's requirements to ensure that the power consumers against price volatilities in the WESM since the power output of the Ilijan plant is under a power supply agreement (PSA) between SPPC and MERALCO at a rate approved by the ERC.

Meanwhile, Table 2 shows the indicative schedule for the remaining IPP contracts for transfer to IPPAs:

Table 2. Indicative Privatization Schedule for the Appointment of IPPAs as of 31 October 2015

Grid	Plant Name	Contracted Capacity (MW)	Bid Date	Turnover Date
Luzon Grid	Casecnan Multi-Purpose Hydro	140.00	Privatization is under DOF review	
	Benguet Mini Hydro**	30.75	IPP contract to expire in 2018	
	Caliraya-Botocan-Kalayaan Hydro	728.00	1st Semester 2017	2nd Semester 2017
	Sub-total Luzon	**898.75**		
Visayas Grid	Unified Leyte - Bulk Energy	160.00*	2nd Semester 2015	1st Semester 2016
	- Security Strip	40.00	1st Semester 2016	2nd Semester 2016
	Sub-total Visayas	**160.00**		
	WMPC Diesel**	100.00	IPP contract will expire in 2015	
	SPPC Diesel**	50.00	IPP contract will expire in 2016	
	Mindanao Coal-Fired	200.00	2016 – Subject to DOE's policy direction	
	Sub-total Mindanao	**350.00**		
	GRAND TOTAL	**1,448.75**		

** 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.*
** * IPP contracts not subject to privatization/asset sale*
Source: PSALM

C. Privatization Proceeds

As of 3rd quarter 2015, PSALM, through the privatization of generation assets, the transmission business, and the IPP contracted capacities, has generated a total of US$19.9 billion. As of the 3rd Quarter of 2015, actual collection amounted to US$9.991 billion, which is solely intended for the liquidation of PSALM's financial obligations, as provided under EPIRA.

Table 3. Privatization Proceeds as of 3rd Quarter 2015, (in US$ Billion)

Privatization Assets	Generated	Collected	Balance
Generating Assets	3.543	3.543	0.000
Decommissioned Plants	0.004	0.004	0.000
Transmission Asset (TransCo)	6.383	3.880	2.503
Appointment of IPPAs	9.957	2.564	7.393
TOTAL	**19.887**	**9.991**	**9.896**

Source: PSALM

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

Table 4. Privatization Proceeds Utilization as of 3rd Quarter 2015

Particulars	In US$ Billion
Debt Prepayment	1.298
Regular Debt Service	5.183
Lease Obligations	2.629
Others	0.104
TRANSCO Opex	0.001
TOTAL	**9.215**

USD:PhP = 46.926 (BSP Guiding Rate dated 30 September 2015)
Source: PSALM

Out of the US$9.215 billion privatization proceeds utilized, US$9.111 billion was used for the liquidation of financial obligations. The difference between the total amount collected and total utilization in the amount of US$776 million is placed in temporary investments while awaiting utilization. Below is the summary of the privatization proceeds utilization as of 3rd quarter 2015:

D. Concession of the National Transmission Network

Pursuant to the Concession Agreement (CA) between the Government and the National Grid Corporation of the Philippines (NGCP), Republic Act No. 9511 or the Franchise Law and the Construction Management Agreement (CMA), the National Transmission

Company (TransCo) continues to monitor the performance and compliance of NGCP to these Agreements.

For the report period, the checklists and reports on the conducted inspection of books and records are being routed for signature of the Technical Working Group (TWG) members, for subsequent consolidation. Said TWG was created for the inspection of NGCP's books and records of transmission assets for CY 2013 (Year 3) pursuant to the Joint PSALM-TransCo Office Order No. 2014-284 dated 27 October 2014.

Copy of all the submitted documents (checklists and reports on the conducted inspection) will be transmitted to the Concessionaire by means of a joint letter signed by both heads of PSALM and Transco for response by NGCP on the TWG's observations.

On 28 August 2015, PSALM transmitted to TransCo a Memorandum Order creating the Joint TRFLAT with the following tasks:

1. Conduct review and assessment of NGCP's compliance with the provisions of the CA, and provide comments and recommendations relative thereto, as may be warranted;
2. Jointly discuss and finalize the result of the review/assessment made; and
3. The result of the compliance assessment shall be reported in December 2015 to both PSALM and TransCo Management Committees for information and further direction.

On 30 September 2015, PSALM and TransCo, in a joint letter to NGCP transmitted the TRFLAT Report on NGCP's compliance with the provisions of the CA for CY 2012. The Joint TRFLAT particularly reviewed and assessed eighty seven (87) provisions of the CA that covered technical, financial, regulatory, and legal aspects. The Joint TRFLAT identified four (4) items which must be given immediate attention by NGCP for its compliance, as follows:

CA Provision	Deliverables	Findings/Remarks
Section 10.04	"Related Business. The Concessionaire shall maintain separate audited accounts for each Related Business as a separate company, so that such accounts separately idenfity the revenues, expenses, assets, liabilities and reserves reasonably attributable to each Related Business in the books of the Concessionaire."	NGCP to provide proof of compliance. While the audited FS mentions miscellaneous income, there was neither any breakdown nor specific mention of other related business by NGCP. NGCP is required to submit documents identifying said Related Business and that these are maintained under separate books or accounts. Should there be such Related Business undertaken by NGCP, it should submit Certification to that effect.
Section 3.03 b) (iii) c) and 4.09	NPCP's obligation to defend, indemnify and hold PSALM and TransCo free and harmless against any and all liabilities, losses or claims that may be incurred relating to the concession during Concession Period unless due to the PSALM or TransCo's fault.	NGCP's act of impleading TransCo as a defendant in Civil Case No. CEB-38817 for "Declaratory Relief" relative to the Real Property Tax Assessment and Collection by the Province of Cebu against NGCP is a clear violation of such provision of the CA.
Section 5.01	Title. Notwithstanding anything in this Agreement, TransCo shall retain title to…, (iii) all easements, rights of way or other real estate interests, including Documented Property Rights acquired by the Concessionaire in accordance with Section 5.06	Transfer Certificate of Titles (TCTs) were found to be registered in the name of NGCP, therefore runs counter to the CA which prescribes that all acquired lands and easement rights obtained by NGCP should be in the name of TransCo.
Section 10.05	Regulatory Filings. Without the necessity of a request from PSALM and TransCo, the Concerssionaire shall promptly provide PSALM and TransCo with a copy of all notices it receives	NGCP does not furnish TransCo and PSALM at same time such documents are filed with or their receipt from the ERC. NGCP complies by way of consolidating documents and submitting them to TransCo in bulk.

CA Provision	Deliverables	Findings/Remarks
	from the ERC and shall also furnish them with a copy of all written applications, pleadings, reports and other documents that the Concessionaire files from time to time with the ERC at the same time as they are filed.	

In addition, the results of the TRFLAT assessment were summarized in the table below:

Assessment Findings	Number of Findings
Complied	50
Not Complied	9
Partial Compliance	10
Continuing Compliance	2
No Basis to Assess Compliance	14
Not Applicable	2
Total	**87**

To undertake the assessment of NGCP's compliance with the CA for CY 2013 and 2014, the members of Joint TRFLAT will be reconstituted.

Meanwhile, Transco continues on the conduct of inspection of the assets condition and 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 PUCs 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 one hundred thirty one (131) sale contracts and one hundred seven (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 2014 signed three (3) sale contracts with distribution utilities amounting to about PhP45.6 Million.

As of 31 October 2015, TransCo has signed one hundred thirteen (113) sale contracts with eighty (80) DUs/ECs/consortia amounting to PhP5.9 billion. These sales cover an aggregate length of 4,040 ckt-kms of sub-transmission lines and 36,300 sub-transmission structures and 870 MVA of substation capacity. Of the one hundred thirteen (113) sale contracts, sixty six (66) contracts with total sale price of PhP 3.52[1] billion have been approved, approved with modification and disapproved. Included in the 66 contracts are ten contracts amounting to PhP230.2 million disapproved as of October 31, 2015 posting in the ERC website. The rest of the sale contracts are for filing with the ERC and for ERC's evaluation and approval.

[1] *The total ERC approved amount of PhP2.9 billion is lower compared to the total contract amount of PhP3.3 billion due to the following reasons:*
a) Exclusion of some assets from the ERC approval due to reclassification from sub-transmission to transmission assets
b) The lower amount of valuation was used as basis of the ERC approval
c) Exclusion of some assets from the ERC approval since said assets are not yet connected to the sold assets
d) Exclusion of some assets from the ERC approval due to decommissioning
e) DU withdrawal from the ERC Joint Application of the sale contract
f) The STA in the sale contract should be sold to a consortium instead of a single DU because the STA is in a super loop configuration.

Following the EPIRA provision to extend concessional financing to ECs, TransCo implemented lease purchase arrangements with a term of twenty (20) years. Of the one hundred thorteen (113) sale contracts already signed, seventy one (71) are under lease purchase agreements with sixty (60) ECs/consortia, valued at PhP3.9 billion. The remaining forty two (42) involved sales to private DUs/consortia.

TransCo is looking forward to the sale of 15 ckt-km of sub-transmission lines and 15 MVA of substation equipment to three (3) interested DUs/consortia.

Table 5 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 2015

	DUs	Sale Amount in PhP (Original Contract)	CKM
North Luzon	36	1,661,418,522.27	1,275
South Luzon	19	1,114,191,983.37	467
Visayas	26	1,187,052,962.44	685
Mindanao	32	1,950,166,164.63	1,609
TOTAL	**113**	**5,912,829,632.71**	**4,036**

Source: Transco

III. ELECTRICITY RATES

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

A. Average Electricity Rates

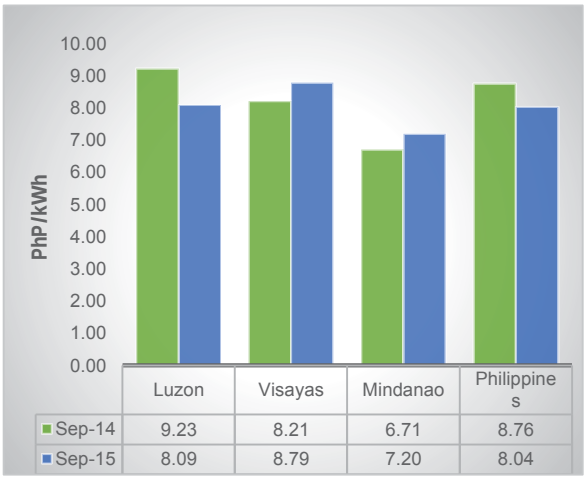
The country's average electricity rates as of September 2015 is PhP8.04/kWh, 72-centavos lower compared with the September 2014 national average systems rate. Significant reduction in rate was posted in Luzon Grid from PhP9.23/kWh in September 2014 to PhP8.09/kWh in September 2015 or a reduction of Php1.13/kWh. Mindanao grid posted an average increase of 49-centavos along with Visayas grid which posted an increase of Php0.58/kWh from Php8.21 in September 2014 to Php8.79 in September 2015.

Meanwhile, the ECs' average systems rate for September 2015 is at PhP8.60/kWh, Php0.34/kWh higher compared to September 2014 rate. Among the three grids, only Luzon experienced a reduction of Php0.76/kWh from Php9.44/kWh in September 2014 to Php8.68/kWh in September 2015. Visayas and Mindanao grids posted a slight increase of Php0.20/kWh and Php0.08/kWh respectively.

The national average systems rates of private DUs also posted a reduction of PhP1.25/kWh from PhP8.73/kWh in September 2014 to PhP7.48/kWh in September 2015. However, the Visayas and Mindanao grids had an average increase of Php0.93/kWh while the Luzon grid enjoyed a reduction of Php1.51/kWh

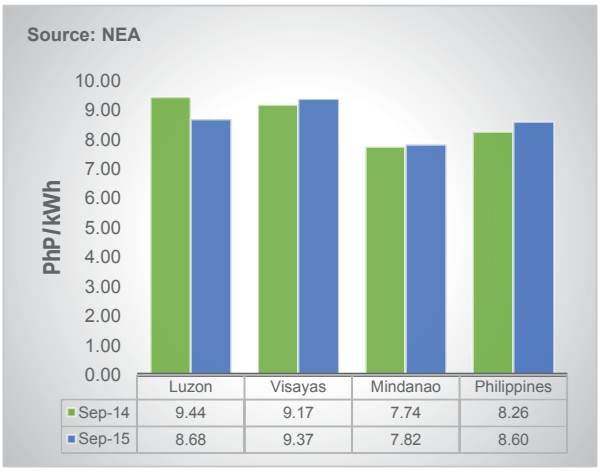
The ECs' national average unbundled residential electricity rate for September 2015 was PhP 9.59/kWh. Generation costs comprised forty nine percent (49%) of ECs' national average effective electricity rates followed by distribution costs' share of eighteen percent (18%). Among the three grids, Mindanao remained to enjoy the lowest generation costs at PhP4.02/kWh considering that this remains highly regulated NPC generation

Figure 1. National Average Systems Rate



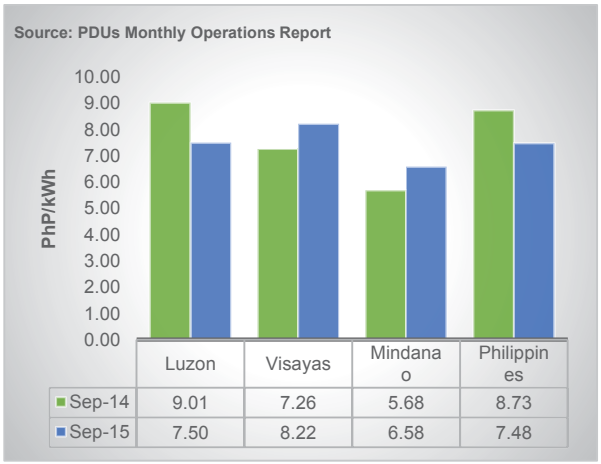
	Luzon	Visayas	Mindanao	Philippines
Sep-14	9.23	8.21	6.71	8.76
Sep-15	8.09	8.79	7.20	8.04

Figure 2. ECs Average Systems Rate



	Luzon	Visayas	Mindanao	Philippines
Sep-14	9.44	9.17	7.74	8.26
Sep-15	8.68	9.37	7.82	8.60

Figure 3. Private Distribution Utilities' Average Systems Rate



	Luzon	Visayas	Mindanao	Philippines
Sep-14	9.01	7.26	5.68	8.73
Sep-15	7.50	8.22	6.58	7.48

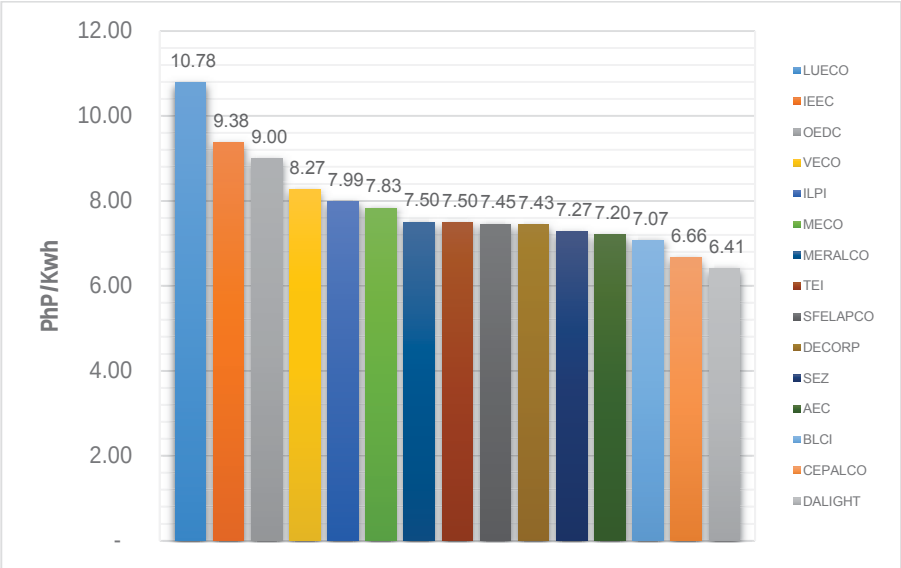
rate and electricity are produced mostly from hydroelectric power plants. Visayas grid has the highest average effective residential electricity rates at PhP10.42/kWh of which generation costs comprise fifty three percent (53%). Among the grids, distribution costs is the next largest component of electricity cost followed by transmission costs.

Table 6. EC's Unbundled Average Effective Residential Electricity Rates, September 2015

Bill Subgroup	LUZON		VISAYAS		MINDANAO		NATIONAL	
	PhP/kWh	% share	PhP/kWh	% share	PhP/kWh	% share	PhP/kWh	% share
Generation	4.5460	47.94	5.4912	52.71	4.0259	45.36	4.6877	48.87
Transmission	1.0079	10.63	0.8454	8.12	0.9123	10.28	0.9218	9.61
System Loss	0.7966	8.40	0.8657	8.31	0.6889	7.76	0.7837	8.17
DSM[1]	1.7073	18.00	1.8190	17.46	1.6805	18.93	1.7356	18.10
RFSC[2]	0.3536	3.73	0.3558	3.41	0.5180	5.84	0.4091	4.27
Other Charges[3]	(0.0526)	-0.55	(0.0180)	(0.17)	(0.0763)	(0.86)	(0.0489)	(0.51)
Subsidy Charges[4]	0.0441	0.46	0.0403	0.40	0.0645	0.73	0.0496	0.52
Universal Charges[5]	0.3918	4.13	0.3873	3.72	0.3826	4.31	0.3872	4.04
Other Taxes[6]	0.0546	0.58	0.0742	0.71	0.0838	0.94	0.0708	0.74
VAT	0.6334	6.67	0.5564	5.34	0.5952	6.71	0.5950	6.20
Total	9.4827	100.00	10.4173	100.00	8.8754	100.00	9.5915	100.00

[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

Figure 4. Private Distribution Utilities Average Rates as of September 2015



Among the PDUs, La Union Electric Company (LUECO) has the highest average effective rate at PhP10.78/kWh for the billing period September 2015. On the other hand, Davao Light and Power Company (DLPC) has the lowest average effective residential rates at PhP6.41/kWh for the same billing period. The variation on the distribution utilities average rates may be attributed to their type of supply and supply mix.

Meanwhile, for the October 2015 billing of MERALCO, its effective residential rates for the different residential customer classes ranged from PhP8.42/kWh to PhP9.63/kWh of which the highest component was generation costs at PhP4.00/kWh. MERALCO distribution charges for its different residential customer classes comprised twenty three to thirty one percent (23-31%) of the total effective residential rates equivalent to PhP1.95/kWh and PhP3.02/kWh, respectively. Systems loss charges on the other hand was 42-centavos/kWh.

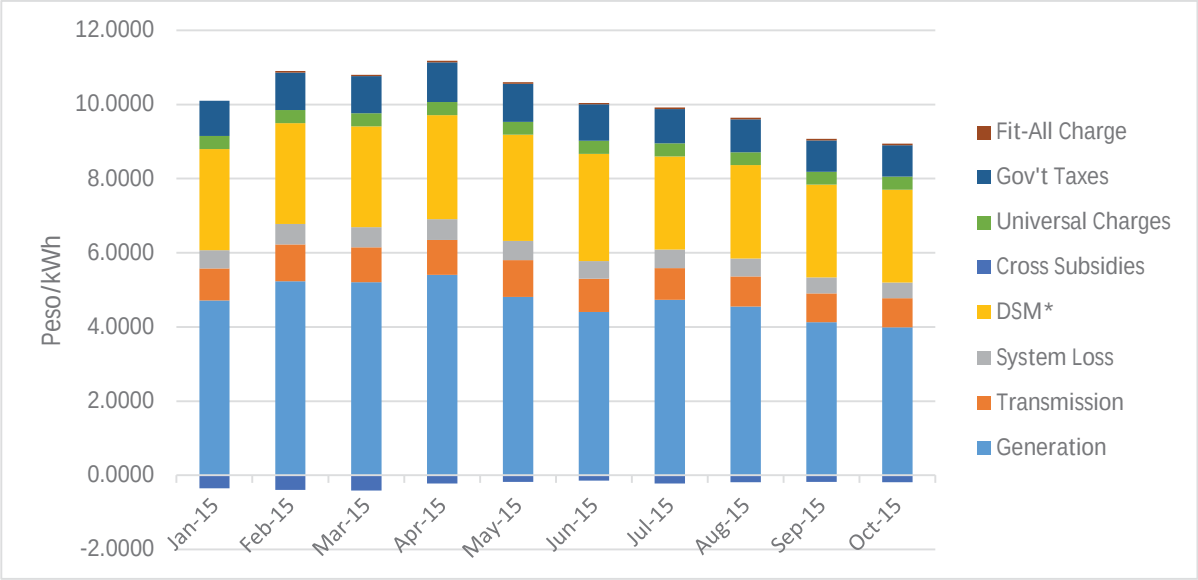
Table 7. Summary of MERALCO Residential Unbundled Power Rates, October 2015 (PhP/kWh)

BILL SUBGROUP	0 to 200 kWh	% Share	201 to 300 kWh	% Share	301 to 400 kWh	% Share	Over 400 kWh	% Share
Generation	3.9955	47%	3.9955	46%	3.9955	44%	3.9955	41%
Transmission	0.7865	9%	0.7865	9%	0.7865	9%	0.7865	8%
System Loss	0.4255	5%	0.4255	5%	0.4255	5%	0.4255	4%
Distribution	1.9561	23%	2.2370	26%	2.5180	28%	3.0284	31%
Subsidies*	0.0804	1%	0.0804	1%	0.0804	1%	0.0804	1%
Universal Charge	0.3524	4%	0.3524	4%	0.3524	4%	0.3524	4%
Fit-All Renewable	0.0406	0%	0.0406	0%	0.0406	0%	0.0406	0%
Government Taxes	0.7879	9%	0.8231	9%	0.8584	9%	0.9226	10%
TOTAL	**8.4249**	**100%**	**8.7410**	**100%**	**9.0573**	**100%**	**9.6319**	**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

As shown below, it can be noted that from January to October 2015, MERALCO's highest effective residential rates occurred on April 2015. However, since the same period onwards, the rate significantly reduced in the succeeding months. The lowering of rates were attributed to successive reductions in the generation charge starting May 2015, coupled with a reduction in the distribution charge of MERALCO in July as discussed below.

Figure 5. MERALCO Effective Unbundled Residential Rates (January 2015 to October 2015)



Meanwhile, on 10 July 2015, the ERC granted the Manila Electric Company's (MERALCO) prayer for provisional authority to implement lower distribution, supply and metering charges in the amount of PhP1.3810, 11.3% or 17.52 centavos/kWh lower than the current average distribution rate of Meralco at PhP1.5562/kWh. The details in of the approved distribution charges are indicated in the following table.

In its application for approval of the interim average rate of Php1.3939/kWh, Meralco proposed to reduce its current rate by removing the component representing its under-recoveries in the distribution charge for the Second Regulatory Period (July 2007 to June 2011). It was further reduced by1.29 centavos to remove the allowance for net efficiency which ERC feels that MERALCO embedded in its rates for the Third Regulatory Period (July 2011 to June 2015) wherein the ERC provisionally allowed the implementation of the interim average rate of PhP1.3810/kWh, subject to the latter's final decision.

Distribution Charge	1.0114/kWh
Supply Charge	0.2251/kWh
Metering Charge	0.1444/kWh
Total	**PhP1.3810/kWh**

B. Transmission Rates Regulatory Updates

During the report period, on the ERC's rendered its decision on transmission charges and adjustments filed by NGCP as follows:

1. ERC Case 2014-183 RC approved on June 8, 2015 for the recovery of costs of the Balo-i - Kauswagan - Aurora 230 KV Transmission Line Project (Phase I). In its decision, ERC provided that the recovery of costs shall be subject to optimization based on its actual use and/or implementation during the reset process for the next Regulatory Period following the procedures pursuant to the RTWR.
2. ERC Case 2014-057 RC approved on June 1, 2015 for the recovery of costs of the Bataan-Cavite/Metro manila T/L Project (Phase 1). ERC provided that the recovery of costs shall be subject to optimization based on its actual use and/or implementation during the reset process for the next Regulatory Period following the procedures pursuant to the RTWR.
3. NGCP's Motion for Partial Reconsideration on ERC Decision on ERC Case 2014-024 RC (filed on March 20, 2014) was granted with modification last June 22, 2015 concerning the approval of the Eastern Panay Transmission Line Project, with Prayer for Provisional Authority.

C. Feed-in Tariff

On March 27, 2015 ERC issued Resolution No. 06 Series of 2015, adopting the new solar feed-in tariff (FIT) rate in the amount of PhP8.69/kWh due to the revision on the installation target for solar generation under the FIT system from 50 MW to 500 MW. This was also decided under ERC Case No. 2014-004 RM, "In the matter of the adoption of the amendments to Resolution No. 10 Series of 2012, a Resolution Approving the Feed-In Tariff (FIT) Rates, as necessitated by the new installation target for solar energy generation set by the Department of Energy". The ERC deemed it necessary to set a new Solar FIT, taking into consideration the following modified key assumptions:

Parameters	Original Parameters for PhP9.68/kWh	Parameters for the New Solar FIT
Total Project Cost (US$Mn/KW)	US$2,406/kW	US$1,958/kW
EPC Cost, Transportation to the Project and Balance of Plant	US$1,954/kW	US$1,586/kW
Net Capacity Factor	22.0%	18.5%
Switchyard and Transformers	$907,020	$762,070
Transmission Interconnection Cost	$23,256/km	$30,444/km
Equity IRR	16.44%	13.87%
Local Inflation Rate	4.0%	3.28%
Base Peso to US$ Exchange Rate	PhP47.8125:US$1	PhP44.40:US$1
Forward Peso to US$ Exchange Rate	PhP43.00:US$1	PhP44.00:US$1
Base Local CPI	160.00	138.91

a. On July 1, 2015, the ERC issued an Order on its Case No. 2015-002 RM, the adoption of the amendments to Resolution No. 10, series of 2012, entitled "A Resolution approving the Feed-in Tariff (FIT) Rates" (FIT Rules), particularly for wind fit rates, as necessitated by the review and re-adjustment of the wind fit since the installation target for wind technology has been achieved.

   Under the said Resolution, the Commission approved a wind fit rate of PhP8.53/kwh. Based on the latest information, the total capacity of the Wind Power Plants built and commissioned within the year, exceeds and achieve the installation target of 200 MW. Thus, ERC made a review and re-adjustment of the Wind FIT pursuant to Section 7 of the FIT Rules which provides that a review and re-adjustment of the FITs can be done on the following conditions:

   a) When the installation target per technology is achieved;
   b) When the installation target per technology is not achieved within the period targeted;
   c) When there are significant changes to the costs; and
   d) Other analogous circumstances.

   The National Renewable Energy Board (NREB), on two successive dates proposed a Wind FIT rate at PhP8.49/kwh for wind projects beyond the original 200MW installation target (NREB letter to ERC dated 06 May 2015) and another submission on a revised recommended Wind FIT of PhP7.93/kWh for the second batch of Wind Power Plants Projects that have been commissioned or are to be commissioned within the year 2015.

D. Administration of Universal Charge (UC)

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

Total UC remittances to PSALM as of 31 October 2015 amounted to PhP80.870 billion while interest earnings from deposits and placements of UC funds amounted to PhP144 million. Of this amount, PhP49.117 billion was disbursed by PSALM to NPC-SPUG for missionary electrification and environmental charge in accordance with the provisions of the EPIRA. Meanwhile, PhP29.918 billion was transferred from the UC-Stranded Contract Cost (UC-SCC) Special Trust Fund (STF) account to PSALM's UC-SCC Special Fund Account (SFA) in accordance with the PSALM Board-approved Guidelines and Procedures on Disbursement and Utilization of UC-SCC of NPC.

Pursuant to the ERC orders, cash incentive totalling to PhP119 million was paid to Romblon Electric Cooperative, Inc. (ROMELCO) to RE Developer of 900 kW Cantingas Mini Hydro Power Plant Corporation (CHPC) in Romblon; Sunwest Water & Electric Co. (SUWECO) to RE Developer of Hitoma 1 & 2.1 MW Solong Hydroelectric Power Plants; and Oriental Mindoro Electric Cooperative, Inc. (ORMECO) for RE Developer of 2.1 MW Linao Cawayan Mini-Hydro Power Plant (LCMHPP)-Lower Cascade, chargeable against the UC-ME for Renewable Energy Developer Cash Incentive (REDCI), following the Rules to Govern the Availment and Disbursement of Cash Incentive to Renewable Energy (RE) Developers Operating in Missionary Areas.

Accounting for the inflows and outflows of the UC fund leaves it with a balance of about PhP330 million as of 31 October 2015.

Table 8. UC Collections for May 2015- October 2015 (in Billion PHP)

Month	UC – ME (NPC-SPUG)	UC-ME (REDCI)	UC – EC	UC-SCC	Total / Month
May 2015	0.768	0.008	0.013	0.960	1.749
June 2015	0.846	0.009	0.015	1.056	1.926
July 2015	0.897	0.011	0.015	1.127	2.050
August 2015	0.927*	0.010	0.015	1.157	2.109
September 2015	0.853*	0.012	0.014	0.070	1.949
October 2015	0.0875	0.015	0.015	1.128	2.028
Total	**4.3785**	**0.065**	**0.087**	**5.498**	**11.811**

For the period May 2015 to October 2015, PSALM received a total of Php11.811 billion in UC remittances from collecting entities, and disbursed to NPC-SPUG the total amount of Php4.3785 billion for missionary electrification. The monthly breakdown of the collections and disbursements are provided in Tables 8 and 9.

Table 9. UC Disbursements for May 2015 – October 2015 (in Billion PhP)

Month	UC – ME	ORMECO's Claim	UC-ME (REDCI)	UC-SCC	UC – EC	Total / Month
May 2015	0.769	0.004*	0.012	0.956	-	1.741
June 2015	0.843	0.003	0.001	1.061	-	1.908
July 2015	0.888	0.004*	0.021	1.100	-	2.013
August 2015	0.937*	0.003	0.002*	1.191	-	2.133
September 2015	0.813	0.003	0.013	1.022	-	1.851
October 2015	0.906	0.003	0.001	1.172	-	2.082
Total	**5.156**	**0.020**	**0.050**	**6.502**	**-**	**11.728**

** Difference of .001 with previous reports was due to rounding off*
Source: PSALM

For the period May – October 2015, PSALM disbursed PhP5.156 billion to NPC-SPUG to fund the missionary electrification functions, chargeable to the UC-ME fund. This is pursuant to the following ERC Decisions/Orders:

Date	Particulars	ERC Case No.
12 August 2013	ERC Decision on CY 2011 True-up Adjustment (PhP4.651 B)	2012-085 RC
10 October 2013	ERC Decision on CY 2010 True-up Adjustments (PhP2.566 B)	2012-046 RC
03 November 2013	ERC Order on CY 2015 UC-ME Subsidy (PhP927.994 M)	2012-135 RC
20 April 2015	ERC Order on CY 2014 UC-ME Subsidy (PhP2.763 B)	2012-085 RC

Meanwhile, the table below shows the updates on PSALM's petition for ERC approval of the UC-SCC and UC-Stranded Debts (SD):

Table 10. PSALM Petition for Recovery of UC-SCC and UC-SD

Particulars/ERC Case No.	Date Applied	Period Covered	Amount (PhP B)	Proposed Rate (PhP/kWh)	Proposed Recovery Period
UC-SCC (Motion for Reconsideration) ERC Case no. 2011-091 RC	06 March 2013	CYs 2007-2010	8.55	0.0308	4 years
	Status to date: • PSALM's compliance/submission was submitted to ERC on 24 July 2015. • PSALM reported an under recovery of PhP34.37 billion as of 31 December 2014 as certified by COA in its Independent Auditors Report dated 13 July 2015 issued on the Variance Analysis Report (VAR) for CYs 2007-2010 UC-SCC • Awaiting ERC decision				
UC-SCC (True-up Adjustments) ERC Case No. 2013-160 RC	31 July 2013	CYs 2011- 2012	17.69	0.1274	2 years
	Status to date: • Hearings conducted in 2013 and 2014				

Particulars/ERC Case No.	Date Applied	Period Covered	Amount (PhP B)	Proposed Rate (PhP/kWh)	Proposed Recovery Period
	• Public hearing was concluded on 11 August 2015 with the cross examination of PSALM's witness by the intervenors for the case • PSALM submitted its Formal Offer of Evidence (FOE) on 26 August 2015 to formally close the records of the case				
UC-SCC (True-Up Adjustment)/ ERC Case No. 2014-111 RC	30 July 2014	CY 2013	4.08	0.0531	1 year
	Status to date: • Public hearing was concluded on 07 August 2015 with the cross examination of PSALM's witness by the intervenors for the case • PSALM submitted its FOE on 27 August 2015 to formally close the records of the case				
UC-SCC/ ERC Case No. 2015-139 RC	24 July 2015	CY 2014	7.35	0.0907	1 year
	Status to date: Awaiting ERC notice of hearing				
UC-SD (True-Up Adjustment)/ ERC Case No. 2013-195 RC	Status to date: Awaiting ERC decision				
UC-SD (True-Up Adjustment)/ ERC Case No. 2015-144 RC	30 July 2015	CY 2014	1.36	0.0013	10.5 years
	• Jurisdictional Hearing was held on 05 October 2015 • PSALM did an Expository Presenation before the ERC and intervenor-Meralco and clarified queries and concerns raised by the intervenor • Pre-trial Conference and Evidentiary Hearing were conducted on 12 October 2015 with PSALM presenting its 1st witness for the cross examination; continuation of the Evidentiary Hearing was held on 20 October 2015 • PSALM submitted its compliance with the ERC's directive on 30 October 2015				

E. PSALM Liability Management

From the beginning balance in 2001 of PhP830.7 billion, PSALM's financial obligations peaked at PhP1.2 trillion in 2003, broken down into PhP483.4 billion debts and PhP757.2 billion BOT lease obligations. The increase was brought about by the following:

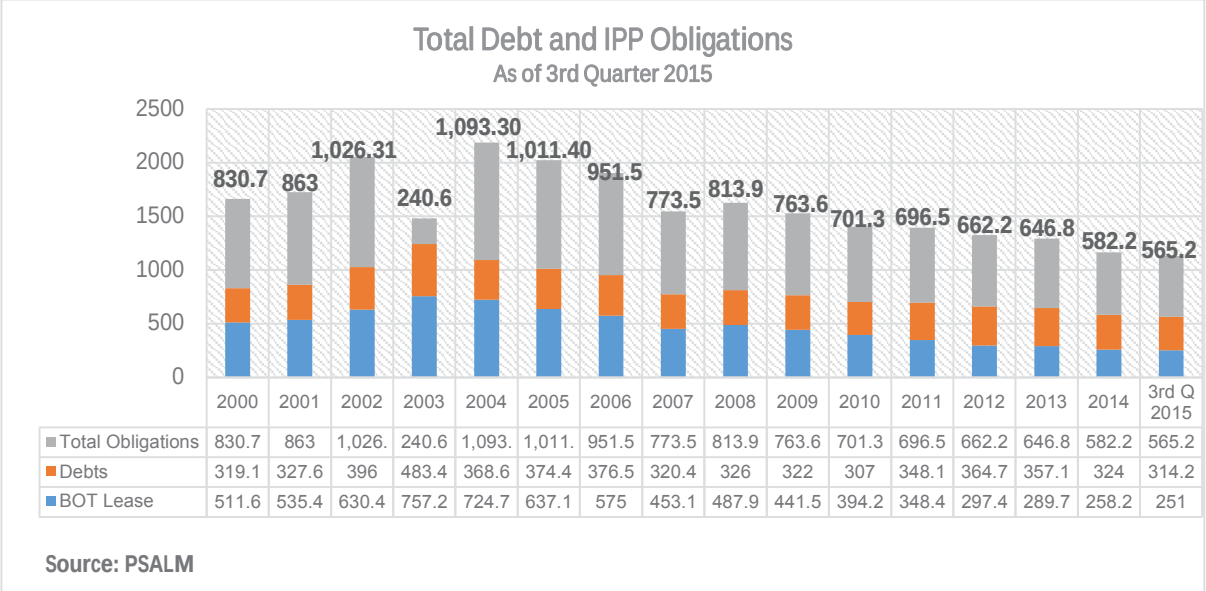
- New capacities were commissioned after 2001 (Bakun, Ilijan Natural Gas, San Roque Multi Purpose and Kalayaan 3 and 4);
- Further Peso devaluation by 8% from 2001 level (PhP55.569=1USD); and
- New debts were incurred since Internal Cash Generated was able to fund only 10% of maturing obligations.

Figure 7 shows the movement of the financial obligations of PSALM from 2000 to 3rd quarter 2015.

Through the efforts of PSALM in continuously implementing its liability management program and strategies, PSALM's financial obligations has been reduced to PhP565.2 billion (or US$12.04 billion) as of 3rd quarter 2015. The decrease in the amount of PhP675.4 billion from the 2003 level is attributable to the lower BOT lease obligations and debt balance. From the 2003 balance, the BOT lease obligations decreased by PhP506.6 billion, while debts also decreased by PhP169.2 billion.

In terms of currency, more than half (52.03%) of PSALM's debt is denominated in dollars, amounting to PhP163.5 billion. Peso-denominated debt accounts for 38.77%, equivalent to PhP121.8 billion. The remaining debts are in Japanese Yen (9.20%) and Euro (0%).

Figure 6. Total Debt and IPP Obligations as of 3rd Quarter 2015 (PhP Billion)



Meanwhile, the Department of Finance (DOF), in its letter dated 10 July 2015, gave its concurrence to PSALM's prepayment of loans from Asian Development Bank, Nordic Development Fund (NDF) and Instituto de Credito (ICO) amounting to US$39.8 million or PhP1.8 billion.

On 18 September 2015, PSALM repurchased its Global bonds worth US$2.53 million due 2019. On 30 September 2015, PSALM prepaid the loans to NDF and ICO of the Kingdom of Spain amounting to US$3.66 million and PhP450.42 million, respectively.
On 30 September 2015, PSALM prepaid the loans to NDF and ICO of the Kingdom of Spain amounting to USD3.66 million and PhP450.42 million, respectively.

On 15 October 2015, PSALM prepaid the ADB 1984 Philippine loan amounting USD24.8 million.

PSALM paid a total of PhP19.75 billion for the lease payments to the IPPs from 1st quarter to 3rd quarter 2015.

For debt servicing, PSALM paid a total of PhP32.8 billion from 1st quarter to 3rd quarter 2015, consisting of PhP19.5 billion principal and PhP13.3 billion interest.

Table 11. Debt Profile By Currency as of 3rd Quarter 2015

Currency	Amount in PhP equivalent (in Millions)	Amount in USD equivalent (In Millions)	Percent to Total
JPY	28,913.5	616.1	9.20%
PHP	121,803.9	2,595.7	38.77%
US$	163,469.5	3,483.6	52.03%
Total	**314,186.9**	**6,695.4**	**100.00%**

Exchange Rates Used: BSP Guiding Rate dated 30 September 2015
USD : PhP 1.00 = 46.9260
JPY : PhP 1.00 = 0.3918
EUR : PhP 1.00 = 52.8011
KRW : PhP 1.00 = 0.0393
Source: PSALM

Fund Management Activities

During the report period, PSALM has collected PhP15.3 billion from the Department of Public Works and Highways (DPWH), Department of Environment and Natural Resources (DENR) and National Irrigation Administration

Agency	Previous Years	2015	Total (In PhP)
DPWH	160,370,000		160,370,000
DENR	3,556,000,000	215,000,000 1,027,000,000 89,000,000	4,887,000,000
NIA	10,218,000,000	3,789,000,000	14,007,000,000
Total			**19,054,370,000**

(NIA) for the reimbursement of advances of PSALM/NPC for the San Roque Multi-Purpose Project (SRMPP advances), with the following breakdown:

On 13 August 2015, PSALM was able to collect from the DENR the amount of PhP89 million as partial payment to the advances made by PSALM to the Japan Bank for International Cooperation (JBIC) loan for the non-power component of the San Roque Multi Purpose Project. On 25 August 2015, the amount was deposited to PSALM's Investment Fund under the Fund Management Agreement executed by PSALM and the Bureau of Treasury (BTr).

A Special Allotment Release Order (SARO) was issued in favor of PSALM in the amount of PhP3.8 billion to cover the payment of NIA's share in the SRMPP advances.

On 20 August 2015, the amount was credited by BTr to PSALM's Investment Fund under the Fund Management Agreement executed by PSALM and BTr.

F. Lifeline Rate Subsidy Program

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 10150 on June 2011.

For the period January to October 2015, the average monthly total amount of subsidy provided to lifeline consumers was PhP390 Million wherein PhP317 Million went to lifeliners in the MERALCO franchise area. On the average, a total monthly subsidy of PhP90.27 was provided to each lifeline customer in the country. In terms of pesos per kilowatt-hour, the amount of subsidy paid for by the non-lifeline customers of MERALCO is almost double than the amount paid for by non-lifeliners in the EC franchise areas. On a per customer basis, MERALCO lifeliners enjoyed PhP140/customers which is significantly higher compared to ECs' customers at PhP25/customer. Meanwhile, Table 13 shows the January 2015 to October 2015 status of lifeline rate subsidy implementation, as provided by the ERC.

Table 12. Summary of Lifeline Subsidy Implementation, January 2015-October 2015

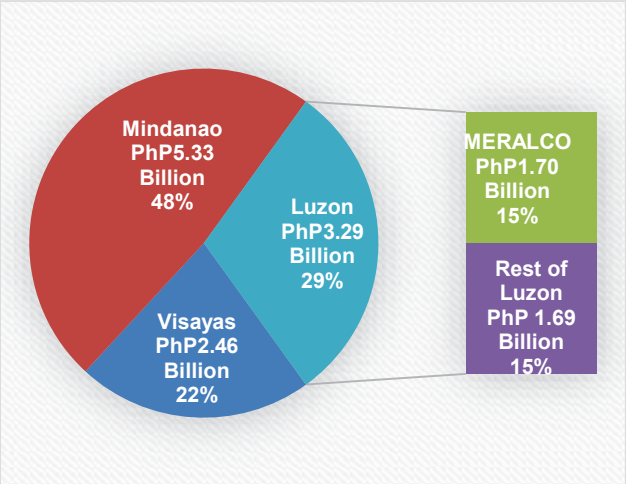
Particulars	MERALCO	Other PDUs	ECs	Total
Monthly Average Total Amount of Subsidy Provided by Non-Lifeline Customers (in Php)	317,658,428.58	29,573,132	43,191,411	390,422,971.85
Average Monthly Total Consumption of Lifeline Customers (kWh)	112,274,362.60	16,021,382	21,947,316	150,243,060.97
Average Monthly Total Consumption of Non-Lifeline Customers (kWh)	2,913,876,043.49	436,500,671	737,802,757	4,088,179,471.54
Monthly Average Number of Lifeline Customers	2,255,529	376,839	1,692,595.50	4,324,963.00
Monthly Average Number of Non-Lifeline Customers	3,415,253	718,369	6,531,965	10,665,587.40
Average Amount of Subsidy Provided to Lifeline Customers (In PhP/kWh)	**2.83**	**1.85**	**1.97**	**2.60**
Average Amount of Subsidy Provided by Non-Lifeline Customers (In PhP/kWh)	**0.11**	**0.07**	**0.06**	**0.10**
Average Amount of Subsidy Provided to Lifeline Customers (In PhP/Customer)	140.84	78.48	25.52	90.27

Source: ERC Investigation & Enforcement Division

G. Mandatory Rate Reduction (MRR)

Pursuant to *Section 72 of the EPIRA*, NPC is continuously granting to residential customers the mandatory discount of 30-centavos/kWh. For the period January to October 2015, total discounts granted by NPC have amounted to PhP515.09 million, of which 95% were availed by residential customers in Mindanao and 5% in the Visayas. With the expiration of NPC's Transition Supply Contracts in Luzon due to continuing privatization, no MRR was incurred by NPC for Luzon from June 2013 onwards. Since the MRR was granted in 2001, NPC has incurred a total of PhP31.3 billion of which 48% was availed by Mindanao residential customers while 22% and 29% went to Luzon and Visayas, respectively. Data for MRR is summarized under Annex 11.

Figure 7. Mandatory Rate Reduction Total Amount 2001 - October 2015



IV. 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), implementation of the Reserve Market, and monitoring of compliance to *Section 45 of the EPIRA.*

A. Wholesale Electricity Spot Market (WESM) Operational Highlights

As of 25 October 2015, the integrated WESM (Luzon and Visayas) has a total of two hundred forty eight (248) registered participants comprised of seventy six (76) generating companies and one hundred seventy two (172) customers comprised of fifteen (15) Private Distribution Utilities, seventy one (71) ECs, seventy nine (79) Bulk users, and seven (7) Wholesale Aggregators.

Table 13. Registration Update as of 25 October 2015 (Luzon and Visayas)

CATEGORY		EXPECTED (Luz& Vis)	REGISTERED					
			DIRECT			INDIRECT		
			LUZ	VIS	LUZ/VIS	LUZ	VIS	LUZ/VIS
Generation Companies		**76**	48	24	**4**	0	0	0
Customer Trading Participants	Private DUs & LGUs	15	8	3	0	4	0	0
	ECs	71	28	28	0	15	0	0
	Bulk Users	79	7	7	1	50	12	2
	Wholesale aggregators	7	0	0	7	0	0	0
Total Customer Trading Participant		**172**	**43**	**38**	**8**	**68**	**12**	**2**
TOTAL PARTICIPANTS/ APPLICANTS		**248**	**91**	**60**	**12**	**68**	**12**	**2**

Source: PEMC

High average system-wide demand manifested during the billing month of May 2015 which was recorded at 8,377MW attributable to continued warmer weather conditions during the

summer season. It persisted to increase up to 8,421MW in June 2015 which was assumed to be influenced by the decline in the country's inflation rate from 1.4% of the previous month to 1.2%. This was said to be a result of economic expansion due to decrease in the level of prices of goods and services that leads to increases of business and household consumption including electricity consumption. However, the average system-wide demand started to decline in July at 7,952MW. It increased slightly in August at 8,030MW but continued to be low in September and October to 8,106MW and 8,058 MW, respectively which were assumed to be influenced by colder weather conditions. System peak demand registered all-time high at 10,342MW during the trading interval 1400H on 21 May 2015 which was mainly caused by the new all-time high peak demand in the Luzon Grid at 8,842MW.

In terms of supply, the total WESM registered capacity slightly increased from 15,794MW in April 2015 to 15,896MW in May 2015. This was mainly due to the entry of 13MW non-scheduled biomass-fueled generating unit of Bataan 2020, Inc. and 82MW scheduled coal-fired generating unit of Anda Power Corporation which were still both on testing and commissioning. In addition to this were the change in registered capacity of units 1, 2, 3, and 4 of Binga which increased from 33MW each to 35MW each. The total WESM registered capacity decreased to 15,801MW and 15,666MW in June and July billing months due to forced and maintenance outages of plants, respectively. While in August 2015 billing period, the total WESM registered capacity increased to 15,958.2MW influenced by the entry of five (5) generating units such as the 97MW natural gas unit of Prime Meridian PowerGen Corp., 1.22MW non-scheduled generating unit of Solar Philippines Commercial Rooftop Projects, Inc., 5.1MW non-scheduled generating unit of Montalban Methane Power Corp., 54MW non-scheduled generating unit of Alternergy Wind One Corporation, and 135MW coal-fired generating unit of South Luzon Thermal Energy Corporation. However, all these new generating units were yet to commence commercial operations and only SLTEC 2 had started its conduct of commissioning tests. The total registered capacity remained increasing in September 2015 at 16,081MW due to the entry of the 18MW non-scheduled biomass-fueled generating unit of Isabela Biomass Energy Corporation. A 0.80MW additional capacity of non-scheduled biomass-fueled generating unit of Pangea Green Energy came in October 2015.

The highest capacity offered in the market occurred in September 2015 at 10,342MW which accounted for 65% of the total registered capacity. During this period, it can be noted that the outage capacity was at its lowest of 7% while capacity not offered was also comparably low at 14%. On the hand, the July 2015 period manifested the lowest capacity offered at 60% due to higher incidence of outage capacity of 13.3% and 15% of capacities were not offered.

Table 14. Unavailable Capacities in the Market

Month	Particulars	Outage Capacity	Capacity Not Offered	Ancillary Services
May 2015	**MW**	1,310MW	3,007MW	860MW
	% of Registered Capacity	8%	19%	5%
June 2015	**MW**	1,991MW	2,528MW	887MW
	% of Registered Capacity	12.6%	16%	6%
July 2015	**MW**	2,083MW	2,285MW	967.63MW
	% of Registered Capacity	13.3%	15%	6.2%
August 2015	**MW**	1,879MW	2,221MW	919MW
	% of Registered Capacity	12%	14%	6%
September 2015	**MW**	1,129MW	2,313MW	938MW
	% of Registered Capacity	7%	14%	6%
October 2015	**MW**	1,771MW	2,248MW	1,011MW
	% of Registered Capacity	11%	13%	6%

In May 2015 billing period, lower outage capacity manifested in Luzon as it decreased by 21.3% from its previous month to 1,184MW. This was attributable to the significant decline of natural gas plants capacity outages by 91.5 % from 492MW in April to 42MW in May. In contrast, the average capacity outage in Visayas increased by 16% from last month's 109MW to 126MW. This was primarily caused by the increase in outage capacity of coal plants by 32 % which was dominantly contributed by the forced outage of CEDC 1 due to its boiler tube leak. Further, higher outage capacity manifested in Luzon in June 2015 as it increased by 51% to 1,783 MW as natural gas plants capacity outages posted the highest increase in the average outage capacity at 410.4%. Likewise, increase in average outage capacity was recorded from hydro plants due to prolonged El Niño which was coupled by maintenance outages of major hydro plants. The outage capacity in Visayas also increased by 68.7%, averaging at 208MW during the billing period.

Outage capacity persisted to increase in July 2015 by 16.6% to 1,995MW in Luzon as 618 MW of natural gas plants went on outage following the Malampaya gas restrictions since the previous month. On the contrary, the average capacity outage in Visayas decreased by 34% to 123MW as some generating units were able to go online during the billing period. In August 2015 billing period, outage capacity in Luzon decreased to 12.8% as more capacities became available from natural gas plants such as Ilijan and Sta. Rita. The average outage capacity in Visayas increased by 13.8% which was primarily caused by forced outages of Geothermal Plants such as Upper Mahiao, Leyte 1, PGPP1 unit 1 and PGPP2 unit 4 on top of the maintenance outages of PGPP2 unit 3, Upper Mahiao 4 and PGPP1 unit 1 and planned outage of PGPP1 unit 3.

Table 15. Major Plant Outages

Month	Luzon		Visayas
May 2015	GN Power 1, 2 Pagbilao 1 SLTEC 1 Makban 3, 4, 6, 9 Tiwi 2, 3 Binga 1, 2, 3, 4 Magat 1, 2, 3, 4 Pantabangan 2	San Roque 1, 3 Ilijan A2 San Lorenzo 1 Sta. Rita 1, 3, 4 Limay 1, 2, 3, 6 Malaya 1 LPower	Cebu TPP1 CEDC 1 Kepco Salcon 2 PEDC 1 PEDC 2 Leyte 2 Cebu Diesel 5 Bohol 1, 2 PDPP3 D
June 2015	APEC Calaca 2 Pagbilao 1 QPPL SLTEC 1 Makban 2 Angat M1, M2, M3, M4 Caliraya 2 Kalayaan 1, 2, 3, 4 Magat 2, 3, 4	Pantabangan 1, 2 San Roque 1, 2, 3 Ilijan A1, A2, A3 Ilijan B1, B2, B3 San Lorenzo 1, 2 Sta. Rita 1, 4 Lafarge 1 Limay 1, 2, 3 MGTPP LPower	CEDC 1, 2 Kepco Salcon 1, 2 PEDC 2 TPC Sangi Leyte 2 PGPP2 Unit 4 Upper Manilao 1 Bohol 3 Cebu Diesel 5
July 2015	GN Power 2 Masinloc 2 Calaca 1, 2 Pagbilao 1, 2 QPPL SLPGC 1 SLTEC 1 Bacman 1 Makban 3, 4, 5, 6 Tiwi 2, 3	Angat M1, M2, M3, M4 Magat 1 Pantabangan 1, 2 Kalayaan 2 Ilijan A1, A2, A3, B1 Sta. Rita 1, 2, 3, 4 Limay 2, 3, 5 MGTPP Malaya 1 Lpower	CEDC 1, 3 PEDC 1 Upper Mahlao 3, 4 Leyte 1, 2, 3 Nasulo PGPP1 Unit 3, 4 Cebu Diesel 2, 4, 5 PDPP3 F San Carlos
August 2015	GNPower 1 Sual 1 Calaca 2 Pagbilao 2 SLPGC 1 SLTEC 1 and 2	Maknban 2, 3, 5, and 6 Angat M1, M2, M3, M4 Magat 1, 2, 3, and 4 Kalayaan 1 and 2 Ilijan A1 Sta. Rita 2 and 4	CEDC 1 and 2 PEDC 1 and 2 Upper Mahilao 1 and 4 Leyte 1 and 2 PGPP1 Unit 1, 2, and 3 PGPP2 Unit 3 and 4

	Bacman 1 and 2 Limay 2, 3, 6, and 7 Mlaya 1	San Lorenzo 1 Burgos 1 Capris 1	PDPP3 E and H San Carlos
September 2015	Calaca 1 GN Power 2 SLPGC 1, 2 SLTEC 1, 2 Sual 1, 2 Makban 3, 5, 6, 9 Tiwi 2, 3 Capris 1	Angat M1, M4 Sabangan San Roque 1 Ilijan B1, B2, B3 Limay 5 Burgos 1 N Wind	CEDC 1, 2, and 3 TPC Sangi PEDC 1 and 2 Malitbog BC PGPP1 Unt 3 and 4 Upper Mahiao 1 Bohol 3 PDPP3 D and H URC
October 2015	GNPower 1 and 2 Masinloc 1 and 2 Sual 1 and 2 SLPGC 1 and 2 STLEC 1 and 2 Bacman 1 and 3 Makban 3, 5, 6, and 9 Tiwi 1, 2, 3, and 5 Angat M1, M2, M3 and M4	Casecnan 1 and 2 Magat 1, 2, 3, and 4 San Roque 1, 2 and 3 Kalayaan 4 Sta. Rita 1, 3, and 4 Limay 6 Burgos 1 Capris 1 N Wind N Wind 2	URC CEDC 1, 2, and 3 Malitbog 3 Upper Mahiao 2 and 4 Leyte 2 and 3 Nasulo PGPP1 Unit 2 and 3 PGPP2 Unit 3 and 4 PDPP3 C, E, F, G, and H San Carlos San Carlos 2

The system outage capacity largely declined from 12% to 7% in September 2015 due to the 37.2% decline in outage capacity in Luzon. Outage capacities of almost all resource types of generation decreased. Similarly, outage capacity in Visayas declined by 71% which was driven by the decline of outage capacity of coal and geothermal plants. In October 2015, outage capacity increased by 11% which was largely influenced by the sudden outages of large coal plants in Luzon like GN Power Masinloc, Sual 1, SLPGC and STLEC while Sual 2 persisted to be unavailable during the whole billing month.

With the higher rate of increase in demand than supply, narrow average supply margin manifested at 1,209MW in May 2015 billing period. It was also observed that Visayas have exported power to Luzon by as much as 350MW during off-peak hours summing up to six hundred (600) trading intervals and imported power from Luzon by as much as 131MW for one hundred twenty (120) trading intervals. Average supply margin became narrower in June 2015 as it manifested at 843MW. In July and August 2015, wider average supply-demand margin manifested at 1,209MW due to decrease in demand and 1,450MW due to increase in supply, respectively. Better supply conditions manifested during September 2015 apart from the latter part due to the unavailability of coal plant Sual 2. The supply margin during the said billing month posted at 1,807 MW, which was significantly higher by 24.7 % than the previous month. Supply margin was again narrower in October 2015 by 13 % resulting in 1,574MW supply margin due to higher rate of decline in supply than demand.

Due to tight supply condition, the average system-wide load-weighted average price (LWAP) posted a large increase by 59.8% at PhP4,512/MWh and 41.8% at PhP6,398/MWh during the billing month of May and June 2015, respectively. In particular, LWAP in the Visayas region posted at PhP4,839/MWh and PhP6,864/MWh was higher than Luzon which recorded at PhP4,457/MWh and PhP6,322/MWh during the said billing months, respectively. LWAP in July 2015 billing period posted a large decrease by 44% to PhP4,470/MWh due to wider average supply margin. Specifically, the average LWAP in Luzon posted at PhP4,518MWh which was higher than that of the Visayas region by 7.9%, which averaged at PhP4,186/MWh. Similarly, average LWAP in August 2015 decreased further at PhP3,729/MWh due to wider supply margin. Luzon and Visayas average spot price both declined to PhP3,691/MWh and PhP3,953/MWh, respectively. Still with wide supply margin in September 2015 billing period, the system-wide market prices experienced a 40.2% decline from the previous month to PhP2,228/MWh. The average

price during the said billing month in Visayas was 2.8% higher at PhP2,284/MWh compared to the average price in Luzon at PhP2,220/MWh. In October 2015, LWAP slightly increased by 14% with PhP2,539/MWh even with a lower supply margin condition. The average spot price registered at PhP2,454/MWh in Luzon and PhP2,999/MWh in Visayas during the said billing month.

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 adopted the Monthly Market Assessment Report for the period March 2015 to August 2015 and the Annual Market Assessment Report which were submitted by the Market Assessment Group (MAG);
- Submitted Requests for Investigation (RFI) for possible non-compliances for the billing months of March, April, May, June, July, and August 2015:

Frequencies of Possible Non-Compliances with Requests for Investigation

Billing Month	Must-Offer Rule			Real-Time Dispatch Deviation		
	No. of Generating Plants	No. of Trading Participants	No. of Trading Intervals	No. of Generating Plants	No. of Trading Participants	No. of Trading Intervals
March 2015	56	39	34,939	53	39	9,797
April 2015	56	40	42,571	52	39	10,911
May 2015	58	41	41,520	52	39	10,427
June 2015	55	42	42,002	51	40	11,604
July 2015	56	43	42,059	55	42	10,389
August 2015	59	42	43,003	55	42	9,885

- Reviewed the Monthly Monitoring Reports on Compliances for the period April to September 2015 with summary indicated in the following tables:

Frequencies of Capacity Gap due to MOR

Billing Month	Luzon		Visayas	
	No. of Intervals	No. of Generating Plants	No. of Intervals	No. of Generating Plants
March 2015				
April 2015	32,269	29	10,302	12
May 2015	31,780	29	9,740	13
June 2015	32,269	29	10,302	12
July 2015	32,936	30	9,123	12
August 2015	33,152	31	9,851	13
September 2015	28,452	26	9,377	11

- Reviewed the Report on the Over-riding Constraints covering the period March to August 2015;
- Presented its review of fourteen (14) ECO-consolidated investigation reports on possible non-compliances with the MOR and RTD Schedules which covers the January to March 2014 billing period to the PEM Board where the MSC recommendation on imposition of penalties to Trading Participants that committed breaches was approved;
- Deliberated seven (7) PEMC-ECO consolidated investigation reports involving twenty two (25) cases of possible non-compliances with the Must-Offer Rule and

Real-Time Dispatch (RTD) Schedule covering the billing periods from December 2013 to March 2014;

- Reviewed and provided inputs on proposed amendments to the WESM Rules on the Billing and Settlement provisions; Management on Must-Run and Must-Stop Units Manual; and Administered Price Determination Methodology Manual
- Reviewed, approved and adopted various reports:

Frequencies of RTD Deviation

Billing Month	Luzon		Visayas	
	No. of Intervals	No. of Generating Plants	No. of Intervals	No. of Generating Plants
March 2015				
April 2015	9,515	29	1,396	11
May 2015	9,097	29	1,330	11
June 2015	9,515	29	1,396	11
July 2015	9,176	30	1,211	12
August 2015	12,184	31	1,812	12
September 2015	7,893	29	739	9

  - Retail Market Monitoring Report covering the billing period 25 July 2013 - 26 December 2014;
  - Market intervention reports submitted by the Market Operator and System Operator to the MSC from January to April 2015
  - Retail Electricity Market Assessment Report (MAG-RMAR-02) covering the period January 2015 to June 2015
  - Revised Monthly Market Assessment Report for October 2014 to May 2015

- Reviewed the Market Surveillance, Compliance and Enforcement Market Manual (MSCEMM) to incorporate in the Manual the recently approved retail monitoring indices and the proposed changes in the MSC's responsibility to review the Significant Variations Report (SVR);
- Started monitoring of Non-Scheduled Generating Units for June to September 2015; and

2. Technical Committee (TC)

- Finalized the result of its study on the impact of N-1 contingency imposed on transmission lines and substation transformers to the delivery of power;
- Finalized its proposed amendments to Appendix B.1 of the Dispatch Protocol Manual regarding the implementation of Market Intervention, Suspension and Restoration;
- Submitted a report on the conduct of Pmin Performance Test of KEPCO Ilijan CCGT Plant to Pres. Melinda L. Ocampo;
- Discussed the minimum stable load of combined cycle gas turbine plants and the framework of the participation of Battery Energy Storage Systems (BESS) in the electricity market together with the Limited Energy Storage Resources (LESR) in New York ISO as TC's reference for the study and agreed to also check out the treatment of Battery Energy Storage System (BESS) in other jurisdictions;
- Initiated the review of the PEMC's Proposed Dispatch Protocol Manual Issue 12; and
- Reviewed the following technical matters on the WESM Rules, Grid Code, and Distribution Code:
    a. RCC's proposed amendments to the WESM Rules on Must Dispatch and Priority Dispatch;

b. TC's proposed amendments to the WESM Rules and Dispatch Protocol Manual on the implementation of Market Intervention, Suspension and Restoration;
c. Draft report on the study on Dispatch Tolerance Limit; and
d. The Pmin of combined Cycle Gas Turbine (CCGT) plants; and
e. TC Market Manual pursuant to Section 1.3 Review and Updates of the said Manual

3. Dispute Resolution Administration (DRA)

- Finalize the proposed amendments to the Dispute Resolution Market Manual (DRMM) regarding the addition of provisions on the process and procedures for calling upon an emergency arbitrator
- Published the flowcharts and fillable forms for WESM negotiation, mediation and arbitration in the market website for the use and reference of WESM Participants
- Developed an awareness initiative to promote WESM Dispute Resolution in the manner of publishing "Frequently Asked Questions" in the Market Information Website; and
- Continued refining the proposed amendments to the WESM Rules and the DRMM

4. Rules Change Committee (RCC)

The RCC continued its deliberations on the proposed amendments to the WESM Rules and Market Manuals. Most of the amendments are in compliance to various audit findings which calls for the alignment of the WESM Rules and Market Manuals to policy and regulatory issuances. Summarized below are the proposals approved and/or under review by the Committee:

- Proposed Amendments to the WESM Rules on Wholesale Disconnection;
- Proposed Amendment to the WESM Rules on Submission of Standing Offers;
- Proposed Amendments to the WESM Rules and Applicable Market Manuals regarding the Verification of MRU Data as directed by the PEM Board;
- Proposed Amendments to the WESM Rules on Preferential Dispatch and Fit-All Collection Implementation;
- Proposed Amendments to the MRU-MSU Manual regarding the Settlement of MSUs and Displaced Generators
- Proposed Amendments to the Retail Rules on Retail Disconnection;
- Proposed Amendments to the MRU-MSU Manual relative to EAQ of Generators vis-à-vis their Station Use
- Updates on the Status of Proposed Amendments from the Generators on Administered Price Determination Methodology;
- Study of Market Operator and System Operator on Dispatch Tolerance;
- Proposed Amendments to the WESM Rules and Billing and Settlement Manual from Aboitiz Power Corporation;
- Proposed Amendments to the WESM Rules and Market manuals on the Management of Must-Run Units and Must-Stop Units (MRU-MSU) and the Administered Price Determination Methodology;
- Issue on the Implementation of the WESM Merit Order Table (WMOT);
- Petron Corporation's Proposed Amendment to the WESM Rules on Co-generation;
- Proposed Amendment to the Manual on System Security and Reliability Guidelines;
- Proposed Amendment to the Chapter 6 of the WESM Rules on Intervention and Market Suspension;

- Proposed Amendment to the Manual on Emergency Procedures;
- WESM TC's Proposed Amendment to the WESM Rules and TC Manual Issue 1

5. PEM Audit Committee (PAC)

- Conduct of 2nd Metering Arrangements Review
- 5th Independent Operational Audit of the Systems and Procedures on Market Operations officially concluded on 8 September 2015;
- Deliberated the next steps and the timelines for the conduct of the 6th MO Audit; and
- Discussed the proposed revisions to the PEM Audit Manual particularly on the selection process of the External Auditor in relation to the alignment of the Committee's processes to PEMC's over-all procurement procedure

C. Reserve Market Implementation

As part of the trial operations of the Reserve Market, the DOE promulgated DOE Department Circular No. DC2014-12-0022, entitled "Promulgating the Protocol for the Central Scheduling and Dispatch of Energy and Contracted Reserves in Preparation for the Commercial Operations of the Wholesale Electricity Spot Market (WESM) Reserve Market," last 02 December 2014. The said protocol was formulated jointly by the PEMC and NGCP in consultation with WESM Trading Participants. With the protocol, the DOE would be able to monitor all available generation capacity in both energy and reserve, while on the other hand, it would provide more preparations to the participants for the eventual operation of the WESM Reserve Market. Relative to this, PEMC filed to the ERC its manifestation on 9 February 2015. As instructed by the DOE, the manifestation intends to inform the ERC regarding the conduct of Central Scheduling and Dispatch of Energy and Contracted Reserves by PEMC in preparation for the commercial operation of the reserve market.

D. Retail Competition and Open Access (RCOA)

The implementation of RCOA is pursuant to Section 31 of R.A 9136 otherwise known as EPIRA where CCs will be allowed to source their supply of electricity from a Retail Electricity Suppliers (RES) by allowing the use of transmission and distribution systems and associated facilities, subject to the payment of transmission and distribution wheeling charges duly approved by the Energy Regulatory Commission (ERC). This report highlights the accomplishments for the second year of implementation of RCOA which include registration, switching of suppliers, market operations status, supply-demand situation and issues that RCOA participants encountered during its implementation.

During the report period covering April to October 2015, switching of customers were noted while there were also delisting from RCOA membership due to stopped operations or transfer of location. Despite being voluntary in nature of participation, an increase in the CRB registration was recorded while compliance to processes and improvements in operations were realized.

1. RCOA Participation and Registration

- As of October 2015, out of 1,172 prospective RCOA participants, the Central Registration Body (CRB) registered a total of 434 participants while 30 applicants for registration are in process. From the 275 registered participants June 2013, the number of participants increased by 58 percent in September 2015

- Out of the estimated 1,065 ERC certified Contestable Customers (CCs), 377 or 35 percent were successfully registered with the CRB while 15 applications still in process.
- RES registration remained unchanged at 16 participants. This could be attributed to the moratorium due to ERC issuance of Resolution No. 22 series of 2013 where RES licenses issuance by the ERC was put on hold. Four RES applicants are still undergoing evaluation and completion of documentary requirements in order to be registered by the CRB.
- Out of 23 DUs that have signified and allowed by the ERC to engage in retail supply as Local RES, 12 have been registered with the CRB as of September 2015 while 24 DUs already registered as Retail Metering Service Providers (RMSP).
- Twenty Four (24) DUs were registered as Retail Metering Service Providers (RMSP) while 5 applicants are still being evaluated by the CRB. As regard to SOLRs, there are 5 registered while 4 applications are being evaluated.

Table 16. Summary of RCOA Registration

Participants	Prospective Based on ERC Data	Registered as of June 2013	Registered as of June2015	Percent Change	Applicants as of October 2015
Retail Electricity Supplier (RES)	18	15	16	7%	4
Local Retail Electricity Supplier (LRES)	23	3	12	300%	2
Retail Metering Service Provider (RMSP)	39	18	24	33%	5
Contestable Customer (CC)	1065	239	377	58%	15
Supplier of Last Resort (SOLR)	27	0	5	100%	4
Total	**1,172**	**275**	**434**	**58%**	**30**

Source: PEMC and ERC

2. Contestable Customers Market Transaction Highlights

- Out of the total 1,065 ERC-Certified CCs, 935 or 88 percent are located in Luzon while 130 CCs or 12 percent are in the Visayas. In terms of demand, CCs in Luzon have and aggregated demand of 2,639 MW and 419MW in the Visayas to a total of 3,058 MW.

Table 17. Number, Demand and Energy Consumption of Contestable Customers

Grid	Contestable Customers				Power Demand				Consumption of CCs Registered in the CRB (May to October 2015)	
	Indicative Number	% Share	No. of CCs Registered with the CRB	% Share	Indicative MW	% share	Demand of CCs Registered with the CRB (MW)	% share	MWh	% share
LUZON	**935**	**87.8**	**374**	**99.2**	**2,638.92**	**86.3**	**1,231.50**	**97.1**	**4,147,508**	**97.1**
MERALCO	756	71.0	360	95.4	1,987.49	65.0	1,151.25	90.8	3,898,342	91.3
Other PDUs	41	3.8	5	1.4	74.08	2.4	13.8	1.1	53,185	1.2
ECs	50	4.7	2	0.5	68.94	2.2	13.19	1.0	17,165	0.4
NGCP	42	3.9	5	1.4	405.46	13.3	42.86	3.4	140,518	3.3
Ecozones	46	4.3	2	0.5	102.94	3.4	10.4	0.8	38,298	0.9
VISAYAS	**130**	**12.2**	**3**	**0.8**	**419.274**	**13.7**	**36.87**	**2.9**	**123,307**	**2.9**
VECO	59	5.5	1	0.3	131.736	4.3	9.64	0.8	26,068	0.6
Other PDUs	16	1.5	-	-	33.759	1.1				0.0
ECs	28	2.6	-	-	64.25	2.1				0.0
NGCP	15	1.4	2	0.5	152.38	5.0	27.23	2.2	97,239	2.3
Ecozones	12	1.1	-	-	37.149	1.2				0.0
TOTAL	**1,065**	**100.0**	**377**	**100.0**	**3,058.19**	**100.0**	**1,268.37**	**100.0**	**4,270,814**	**100.0**

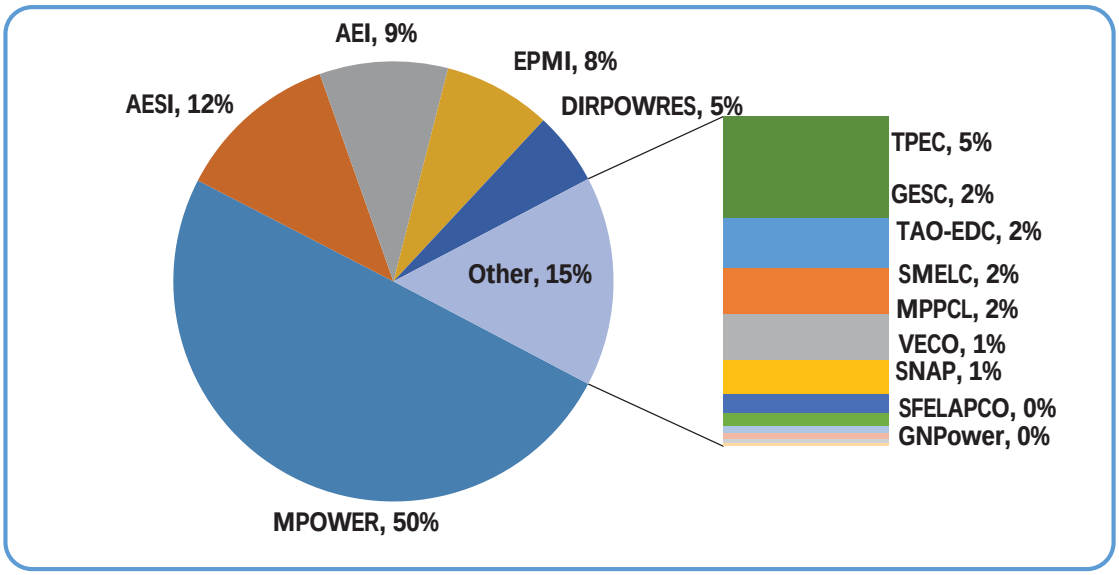
Source: Submission from PEMC

- MERALCO Franchise area has the biggest concentration of Contestable Customers with 756 CCs or equivalent to 71 percent of the total end-users in Luzon and Visayas who are eligible to become contestable customers. Other private DUs, ECs, Ecozones and NGCP share for the remaining 309 customers MW in Luzon and Visayas or 21 percent of the total CCs.
- MERALCO customers has approximate demand of 1,987 MW, while the 42 Directly Connected Customers (DCC) of the National Grid Corporation of the Philippines (NGCP) has 405 MW. Economic zones in Luzon have a total of 46 CCs with approximate demand of 102 MW.
- In the Visayas, VECO has the largest share of CCs at 59 with approximate total demand of 131 MW. NGCP with only 15 potential CCs/Directly Connected Customers which has 152 MW total demand while other private DUs, ECs and Ecozones share for the remaining total demand of 135 MW.
- Seven DCCs with about 70 MW demand have already registered with the CRB. Three of these DCCs registered as direct participants while 4 opted to get the services of Retail Electricity Suppliers (RES) as Indirect WESM Members.

3. RES Transactions and Market Share

For the report period covering May to October 2015, MPower still has the highest number of customers with 212 CCs with energy sales of about 2,065 GWh or equivalent to 50 percent of the total sales of all RES in Luzon and Visayas. AESI placed second with 51 CCs having shared in energy sales 12 percent or 496 GWh. AEI has 9 percent share of the sales in sales or a total of 390 GWh. Other top selling RES' are EPMI with 8 percent share and DPSI who has 5 percent with 328 GWh and 222 GWh respectively.

Figure 7. RES Market Share Based on MWh Sales (May to October 2015)



Source: PEMC-CRB

4. Policies and Regulations

As continuing process in the development and improvement of RCOA implementation, the DOE and the ERC promulgated relevant issuances as follows:

- **Department Circular No. DC2015-06-0010** entitled, *"Providing the Policies to Facilitate the Full Implementation of Retail Competition and Open Access (RCOA) in the Philippine Electric Power Industry".* The Circular provided for the timeline for the full contestability of electricity end-users with average demand of 750 kW and up as follows:

  - June 26, 2016 – at least 1 MW and above average load demand;
  - June 26, 2016 – at least 750 to 999 kW average load demand;
  - June 26, 2018 – at least 501 kW to 749 kW average load demand; and
  - Voluntary contestability of End-users with 500 kW and below - subject to ERC evaluation

  The Circular further provided that retail aggregation shall be allowed in 26 June 2016 and Aggregators can then compete with RES. The CCs are now allowed to directly contract with generation companies and prospective generation companies which are now deemed eligible to become RES subject to compliance to licensing requirements by the ERC. Also in the said Circular, the DOE prohibited the DUs to engage in Supply business beyond its Captive Market. Existing contracts in its function as Local RES with CCs in its franchise area shall be deemed effective until the expiration of the RSC.

  Relative to the expected migration of CCs to the contestable market, the Circular recognized that there will be displaced capacity that may arise. In this regard, the Circular allowed recovery of the Displaced Contracted Capacity/Energy (DCC/E) through any of the combination of the following and any modalities chosen shall be revenue neutral to the DU:

  - Through renegotiation with the contracted generation company;
  - Be auctioned to other DUs, RES or Aggregators though a Competitive Selection Process; and
  - Be declared in the WESM as quantity for sell only in cases where the DU is not a Local RES.

  The Circular reiterated its requirements to the CCs and its counterparty RES, Generation Company or Prospective Generation Company to submit to the DOE and the ERC a copy of signed RSC for assessment, monitoring, policy and rule-making purposes particularly on the timelines and effectivity date of the RSC.

  To complement the DOE policies, the ERC have subjected to public consultations its *Draft Revised Rules on the Issuance of Licenses to Retail Electricity Suppliers* and *Draft Revised Rules for Contestability.* These rules are intended to provide the detailed guidelines for the implementation of RCOA in line with the provisions of the EPIRA and the policies promulgated by the DOE.

E. Market Share Monitoring

Based on the previous report covering November 2014 to April 2015, the ERC resolved that no generation company nor any other entity has violated the market share limitations provided under Section 45 of the EPIRA. This is based on ERC Resolution No. 3, Series of 2015 which sets the 2015 installed generating capacity per Gird and National Grid and market share limitations per Grid and National Grid as shown in the following table:

For the report period covering May to October 2015, the DOE used power generation data to estimate the market share of each company including their affiliates and subsidiaries for the year 2014, San Miguel Energy Corp. (SMEC) topped the list of power generation

companies with the highest power generated at 18,507 GWh covering 33% of the total Luzon power generation. First Gen followed with 10,978 GWh or equivalent to 20 percent of total power generated in Luzon. Aboitiz Power Corporation (APC) which has a portfolio of geothermal, hydro and oil-based power plants came-in third with a total of 9,736 GWh of energy generated in Luzon.

Table 18. ERC Approved Installed Generating Capacity Limits, 2015

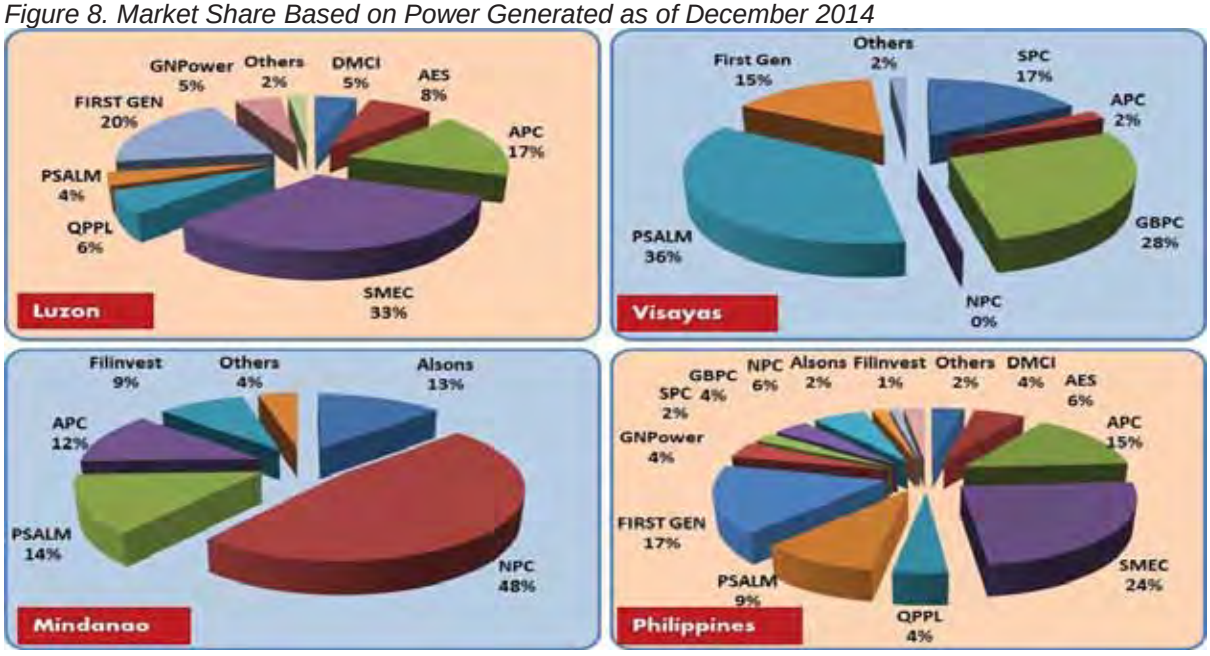
Grid	Installed Generating Capacity (kW) as of March 2015	% MSL per RA 9136	Installed Generating Capacity Limit (kW) as of March 2015
Luzon	13,057,758.00	30%	3,917,327.40
Visayas	2,363,690.70	30%	709,107.21
Mindanao	2,163,718.16	30%	649,115.44
Philippines	17,585,166.86	25%	4,396,291.71

Source: ERC

In the Visayas, PSALM still dominate power generation coming from its IPPs. It generated a total of 3,970 GWh or 36% of the total power generation in the Visayas mainly from the Leyte A & B Geothermal Power Plants. Global Business Power Corp., (GBPC) which generated 3,052 GWh was second with 28 percent share while First Gen is in third with 15 percent or a total of 1,657 GWh electricity produced. GBPC generated most of its power from its coal power plants located in Panay and Cebu while First Gen generated most of its energy from its geothermal power plants in Leyte and Negros.

In Mindanao, the government still dominate power generation sector thru NPC's Agus Pulangui Hydro Power Complex and PSALM's IPP contract with Mindanao Coal Power Plant. NPC has the highest generated electricity with 4,458 GWh followed by PSALM with 1,258 GWh covering 48% and 14% of the Mindanao Grid respectively. Alcantara Group which owns oil-based power plants came in third with 1,238 GWh or 13% of the Mindanao Grid while APC follows with 1,140 GWh which covers 12% of the grid.

Figure 8. Market Share Based on Power Generated as of December 2014



Source: DOE Power Statistics

Overall, SMEC has 24% of power generation for the national grid followed by First Gen with 17%. APC has 15% while the government thru PSALM and NPC has 15%. Figure No. 8 provides further details of other players market share in the generation sector.

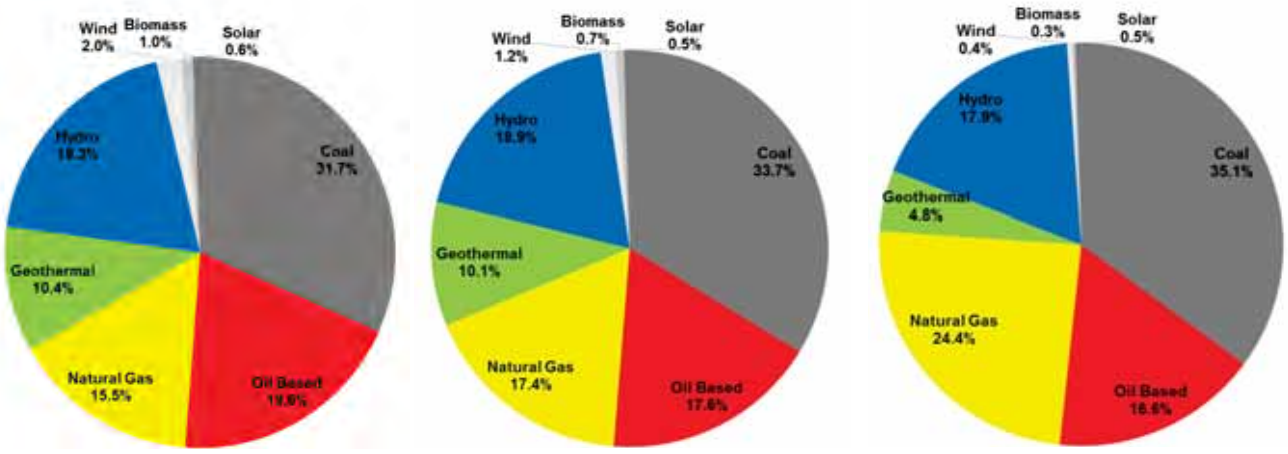
V. POWER SUPPLY SECURITY AND RELIABILITY

In line with its mandate to ensure security and reliability of the supply of electric power, the DOE continuously monitor developments and provide necessary policy directions and remedial measures to ensure no disruptions in the flow of electricity to end-consumers. As for this EPIRA Status Report, the on the power situation covers preliminary information as of 30 June 2015.

A. Installed And Dependable Capacity

Total installed and dependable capacity in the country as of 30 June 2015 slightly increased to 18,453 MW and 15,878 MW, respectively. In terms of available capacity, the aggregated non-coincidental available capacity for Luzon, Visayas and Mindanao grids is 12,580 MW. Figure 9 shows the percentage share of each technology for the country based on installed, dependable and available capacity.

Figure 9. Installed, Dependable and Available Capacity Mix as of June 2015

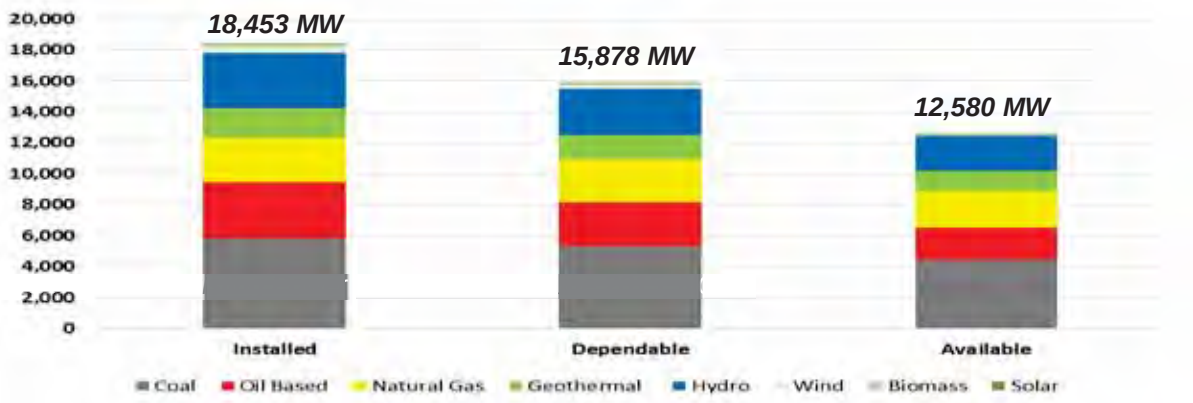


Total Installed Capacity = 18,453 MW

Total Dependable Capacity = 15,878 MW

Total Available Capacity = 12,580 MW

Figure 10. Total Capacity in terms of Installed, Dependable and Available Capacity as of 30 June 2015



Please note that the Installed capacity is the nameplate capacity of the generator units of the power plant. Dependable capacity is the maximum capacity a unit/ plant can attain over ambient condition and usually used for medium to long term planning from monthly

and annually. Available capacity is the current available capacity of an electric power plant and usually used for short term planning covering period from hourly to daily.

The country's installed capacity as of June 2015 increased to 18,453 MW from the December 2014 level of 17,944 MW due to increase in coal plants of 135 MW, oil-based plants of 132 MW and the variable RE of 142 MW. The total dependable capacity on the other hand increased by 258 to 15,878 MW. It can be noted though that despite the significant change in the installed and dependable capacity, the total available capacity increased only by 28 MW considering the decline of available capacities from natural gas.

Table 19. Comparison of Installed, Dependable and Available Capacity, Philippines

Plant Type	Installed Capacity (MW)			Dependable Capacity (MW)			Available Capacity (MW)		
	Jun-2015	Dec-2014	Change	Jun-2015	Dec-2014	Change	Jun-2015	Dec-2014	Change
Coal	5,843	5,708	135	5,354	5,378	(24)	4,417	4,847	(430)
Oil Based	3,608	3,476	132	2,790	2,692	97	2,089	1,885	204
Natural Gas	2,862	2,862	0	2,760	2,760	0	2,363	2,458	(95)
Geothermal	1,918	1,918	0	1,607	1,607	0	1,310	1,311	(1)
Hydro	3,556	3,543	13	2,993	2,982	12	2,243	2,042	201
Wind	373	283	90	189	103	86	92	0	92
Biomass	183	131	52	110	81	29	32	8	24
Solar	110	23	87	75	17	58	35	0	35
TOTAL	**18,453**	**17,944**	**509**	**15,878**	**15,620**	**258**	**12,580**	**12,552**	**28**

Source: DOE List of Existing Power Plants as of 30 June 2015, NGCP DOR

In Luzon as shown in Table 21, new plants were commissioned in the 1st half of 2015 such as 135 MW South Luzon Thermal Energy Corporation (SLTEC) Unit 1 in Batangas, 13.2 MW Sabangan Hydro power plant in Mt. Province and 6 MW Sinoma Waste Heat recovery System in Rizal. There were also Solar Photovoltaic farm such at 41.3 MW Majestic Solar in Cavite, 10 MW Raslag Solar in Pampanga, 4 MW Burgos Solar in Ilocos Norte and 1.5 MW Rooftop-installed solar panels in SM North by Solar Philippines were added in the capacity of Luzon. In addition, the 100 MW Gas Turbine power plant were rehabilitated by Millenium Energy Inc. (MEI) in late May 2015 and embedded to MERALCO.

The installed and dependable capacities in Visayas as of 30 June 2015 are 2,692 MW and 2,110 MW respectively. Additional capacities that went online between December 2014 and June 2015 were the 40 MW URC and 12 MW HPCo bagasse-fired cogeneration plants, 30 MW SOLEQ solar farm, and the 36 MW Nabas Wind Phase 1 and 54 MW TAREC wind farms.

Table 20. Comparison of Installed, Dependable and Available Capacity, Luzon

PLANT TYPE	Installed Capacity (MW)			Dependable Capacity (MW)			Available Capacity (MW)		
	Jun-2015	Dec-2014	Change	Jun-2015	Dec-2014	Change	Jun-2015	Dec-2014	Change
Coal	4,806	4,671	135	4,514	4,391	123	3,704	4,043	(339)
Oil Based	2,139	2,033	106	1,592	1,507	85	1,263	1,207	56
Natural Gas	2,861	2,861	0	2,759	2,759	0	2,362	2,457	(95)
Geothermal	844	844	0	692	692	0	507	447	60
Hydro	2,484	2,471	13	2,145	2,131	14	1,674	1,287	387
Wind	283	283	0	103	103	0	50	0	0
Biomass	50	50	0	29	39	(10)	13	8	5
Solar	57	0	57	34	0	34	17	0	17
TOTAL	**13,524**	**13,213**	**311**	**11,868**	**11,622**	**247**	**9,590**	**9,449**	**91**

Source: DOE List of Existing Power Plants as of 30 June 2015, NGCP DOR

Dependable capacity decreased from December 2014 to June 2015 due to the decommissioning of CTPP coal plant, decrease in output of TPC-Sangi coal plant due to transmission line issues, and the shutdown of Power Barges 101, 102, and 103.

Table 21. Comparison of Installed, Dependable and Available Capacity, Visayas

PLANT TYPE	Installed Capacity (MW)			Dependable Capacity (MW)			Available Capacity (MW)		
	Jun-2015	Dec-2014	Change	Jun-2015	Dec-2014	Change	Jun-2015	Dec-2014	Change
Coal	806	806	0	630	777	(147)	532	597	(65)
Oil Based	670	670	0	493	505	(12)	308	211	96
Natural Gas	1	1	0	1	1	0	1	1	0
Geothermal	965	965	0	817	817	0	705	760	(55)
Hydro	11	11	0	11	11	0	5	4	0
Wind	90	0	90	86	0	86	42	0	42
Biomass	96	44	52	71	32	39	18	0	18
Solar	52	22	30	41	17	24	18	0	18
TOTAL	**2,692**	**2,520**	**172**	**2,150**	**2,160**	**(10)**	**1,627**	**1,574**	**53**

Source: DOE List of Existing Power Plants as of 30 June 2015, NGCP DOR

In Mindanao, 26 MW and 25 MW were added to the installed and dependable capacity of oil-based power plants. The grid additional capacity of 20.9 MW came from Peak Power Soccsargen, Inc. and 5.2 MW from Peak Power San Francisco. Mindanao has an installed capacity of 2,237 MW with dependable capacity of 1,860 MW and available capacity of 1,363 MW as of 30 June 2015.

Table 22. Comparison of Installed, Dependable and Available Capacity, Mindanao

PLANT TYPE	Installed Capacity (MW)			Dependable Capacity (MW)			Available Capacity (MW)		
	Jun-2015	Dec-2014	Change	Jun-2015	Dec-2014	Change	Jun-2015	Dec-2014	Change
Coal	232	232	0	210	210	0	181	207	(26)
Oil Based	799	773	26	705	680	25	518	467	51
Natural Gas	0	0	0	0	0	0	0	0	0
Geothermal	108	108	0	98	98	0	99	104	(6)
Hydro	1,061	1,061	0	837	840	(2)	564	751	(186)
Wind	0	0	0	0	0	0	0	0	0
Biomass	36	36	0	10	10	0	1	0	1
Solar	1	1	0	0	0	0	0	0	0
TOTAL	**2,237**	**2,211**	**26**	**1,860**	**1,838**	**22**	**1,363**	**1,529**	**(166)**

Source: DOE List of Existing Power Plants as of 30 June 2015, NGCP DOR

B. Power Generation

Power generation of the entire country was recorded at 38,306 GWh in the first half of 2015 based on preliminary data of the NGCP Daily Operations Report (DOR) and submitted Monthly Operations Report (MOR) of the generation facilities operators. This covers generation of the grid-connected plants from the three main grids, generation of embedded generators and as well as off-grid generators.

Coal-fired power plants remained the major contributor to the country's total generation in followed by natural gas, geothermal, hydro and oil-based plants. Meanwhile, renewable energy-based plants such as wind, solar and biomass have meager share totaling to 1.0% or 401 GWh of the total generation.

Power generation in Luzon was at 28,044 GWh or 73.2% of the total generation of the country for the first half of 2015. Coal plants still dominate the generation mix with a share of 51.9% or 14,547 GWh. On the other hand, Natural Gas plants contributed 32.5% or 9,101 GWh.

For Visayas, the region remains primarily dependent on the energy generated by geothermal power plants having 52.3 percent share in the Visayas' generation mix. Coal-fired power plants and oil-based plants follow having 38.7 and 6.5 percent share respectively.

Table 23. 1st Semester 2015 Gross Generation, Philippines

FUEL TYPE	Philippines		Luzon		Visayas		Mindanao	
	GWh	% Share	GWh	% Share	GWh	% Share	GWh	% Share
Coal	17,438	45.5	14,547	51.9	2,074	38.7	816	16.7
Oil-based	2,553	6.7	608	2.2	346	6.5	1,599	32.6
Natural Gas	9,101	23.8	9,101	32.5	0	0.0	0	0.0
Geothermal	5,276	13.8	2,047	7.3	2,803	52.3	427	8.7
Hydro	3,537	9.2	1,477	5.3	17	0.3	2,043	41.7
Wind	252	0.7	190	0.7	62	1.2	0	0.0
Biomass	108	0.3	54	0.2	40	0.7	15	0.3
Solar	41	0.1	21	0.1	19	0.4	1	0.0
TOTAL	**38,306**	**100.0**	**28,044**	**100.0**	**5,362**	**100.0**	**4,901**	**100.0**

Source: DOE Power Statistics 2014, NGCP DOR

It can also be noticed that there is a significant increase in the generation of new renewable energy (RE) plants such as wind, solar, and biomass compared with 2014. Various RE plants went online during the first half of 2015 and this is still expected to increase since most of the power projects that are expected to be online in the coming months are RE plants.

Power generation in Mindanao for the first half of 2015 is at 4,901 GWH which is equivalent to 12.8% of the total generation of the country. Majority of this is credited to the operation of hydroelectric power plants which contributed 2,043 GWh or 41.7% of the total generation in Mindanao. Next to hydro plants are the oil-based plants that responded to the tight supply condition of the grid in lieu of the baseload plants. Oil-based generation posted at 1,599 GWh or 32.6% of the generation mix. Included in the generation of oil based plants are the embedded diesel plants installed within the distribution utilities in Mindanao. Coal generation is at 816 GWh or 16.7% which is composed of the two units of STEAG Mindanao Coal-fired plant in Misamis Oriental.

C. System Peak Demand

The system peak demand for Luzon grid for 2015 was recorded at 8,928 MW which occurred on 21 May 2015. This was 2.4 % or 211 MW higher than the recorded demand of 8,717 MW which happened in the same month last year. This was attributed to the high electricity consumption mainly from the air conditioning and other cooling equipment of the residential and commercial sector during the summer season.

Table 24. 2015 Breakdown of Peak Demand for Visayas

Visayas Sub-grid	2015 Peak Demand (MW)	% Share
Cebu	795.83	49.24
Negros	285.64	17.67
Panay	295.18	18.26
Leyte-Samar	175.48	10.86
Bohol	64.26	3.98
Total	**1,616.39**	**100.00**

The highest recorded coincident peak demand in Visayas for the first half of 2015 occurred on 21 May 2015 at 1616.39 MW. This 2015 coincident peak demand is still expected to increase within the latter part of year. The highest demand for Visayas came from Cebu sub-grid with 49.24 percent share followed by Panay and Negros with 18.26 and 17.67 percent share respectively while the remaining 14.83 percent came from the Leyte-Samar and Bohol sub-grids.

Table 26. Comparative Peak Demand , 2014 vs. 2015

GRID	Peak Demand (MW)				Deviation	
	2015	Date	2014	Date	MW	%
LUZON	8,928	May-2015	8,717	May-2014	211	2.4
VISAYAS	1,616	May-2015	1,636	May-2014	(20)	(1.2)
MINDANAO	1,435	May-2015	1,469	Nov-2014	(31)	(2.1)

Source: NGCP Daily Operation Report (DOR)

In Mindanao, the recorded highest demand including embedded loads was at 1,435 MW which occurred on 8 June 2015. It is lower by 2.1% from 1,469 MW in 2014 but like

Visayas, Mindanao is expected to occur during the latter part of the year where the supply increase due to high hydro capacity causing the demand to level with the increasing supply.

D. Electricity Sales

The Philippine Electricity Sales and Consumption of Distribution Utilities is off to a rousing start in the year of Green Wooden Sheep as Electricity Sales and Consumption grew by 5.07 percent in the first semester of 2015 compared to an upwardly growth of 1.21 percent last year largely due to the normal operations of power plants during the period and less incidences as well as shorter duration of power plant outages.

The growth of the country's Gross Domestic Product (GDP) for the first semester of 2015 grew by 5.3 percent, which is below the Government's growth target of 7.0 to 8.0 percent for 2015. However, the year-to-date GDP slowed down from a 6.2 percent in the first semester of 2014. The weaker than expected growth was due mainly to the lower-than-programmed pace of public spending and slower export growth on the expenditure side, as well as the deceleration in manufacturing on the production side. Nonetheless, firm household consumption and resilient service sector growth continued to support the economy during the review period. Moreover, trends in higher-frequency demand indicators were generally positive. Business expectations remained optimistic while consumer confidence weakened as the favourable macroeconomic conditions of the country were tempered by concerns on possible increases in commodity prices. [2]

Table 27. Comparative Electricity Sales of Distribution Utilities, Philippines

Sector	PHILIPPINES					
	1st Semester 2015		1st Semester 2014		Change	
	GWh	% Share	GWh	% Share	GWh	% Change
Residential	10,975	33.14%	10,347	32.8	628	6.07%
Commercial	9,513	28.73%	9,171	29.1	342	3.73%
Industrial	8,680	26.21%	8,350	26.5	330	3.95%
Others	928	2.80%	839	2.7	89	10.64%
Total Sales	**30,097**	**90.88%**	**28,707**	**91.1**	**1,390**	**4.84%**
Own-Use	60	0.18%	56	0.2	5	8.09%
System Loss	2,960	8.94%	2,757	8.7	203	7.38%
Total Consumption	**33,117**	**100%**	**31,519**	**100%**	**1,598**	**5.07%**

Preliminary Report as of July 2015
Source: Department of Energy

Amidst the lingering uncertainties in the Asian economies particularly the sluggish recovery of Japan including the real estate sector's downturn in China and in spite of the usual slowdown in the trading activities and restraints on consumer demand after Christmas season, scheduled Malampaya facility shutdown turnaround, notwithstanding the occurrence of calamities such typhoons and floods in the first semester of 2015 (name typhoons in 2015), concerns over the delays in deliveries caused by the port congestion problem and the implications of Mamasapano incident on the peace process in Mindanao, the total electricity sales and consumption of the Distribution Utilities all over the country for the first semester of 2015 still posted a notable figure of 33,117 GWh in 2015 from 31,519 GWh in 2014. Out of these total sales and consumption, 27,003 GWh or 72.99 percent was contributed by Private Investor Owned Utilities (PIOU's), while 9,358 GWh or 27.01 percent was from the Electric Cooperatives. Total sales accounted to 30,097 GWh, corresponding to 90.88 percent share to total consumption. "Own-use" of distribution utilities increased significantly by 5 GWh (8.09 percent) from 56 GWh in the previous year to 60 GWh in 2015. Losses from distribution accounted for 2,960 GWh or 8.94 percent.

[2] *Inflation Report Second Quarter 2015, www.bsp.gov.ph/monetary/inflation.asp*

On the other hand, the sustained accelerated growth in the Mindanao electricity sales resulted to 8.15 percent in 2015, relatively higher than the year-ago rate of 2.26 percent. The remarkable performance of Mindanao during the first half of 2015 in terms of electricity sales and consumption was mainly due to the recorded positive growth of all its sectors, recuperating from the experienced slowdown of the Mindanao grid attributed to the Market Intervention that has been issued by the National Grid Corporation of the Philippines due to insufficient supply brought about by the grid-wide Mindanao black-out that damaged STEAG Unit I & Unit II on 30 May 2014 and 8 May 2014, respectively.

Meanwhile, electricity sales and consumption in the Luzon grid likewise revved up moderately, boosting the 2015 first semester growth to 3.85 percent from 1.56 percent in the first half of 2014. The normal operations of power plants in the grid during the period and less incidences as well as shorter duration of power plant outages were the major factors that contributed to the positive growth in Luzon's electricity sales and consumption in 2015.

Table 28. 2014 Electricity Sales & Consumption of Distribution Utilities, by Grid

TYPE OF DISTRIBUTION UTILITIES	LUZON	VISAYAS	MINDANAO	PHILIPPINES
Electric Cooperatives (EC'S)*				
Residential	2,164	982	1,069	4,215
Commercial	874	415	411	1,700
Industrial	581	296	634	1,511
Others	274	216	212	703
Total Sales	**3,894**	**1,909**	**2,326**	**8,129**
Own-Use	9	7	6	22
System Loss	579	254	375	1,208
Total	**4,481**	**2,171**	**2,707**	**9,358**
Private Investors Owned Utilities (PIOU's)				
Residential	5,738	516	505	9,119
Commercial	7,281	280	252	8,303
Industrial	5,478	931	760	6,010
Others	89	34	103	1,780
Total Sales	**18,587**	**1,760**	**1,621**	**25,213**
Own-Use	29	3	6	38
System Loss	1,437	147	168	1,752
Total	**20,052**	**1,910**	**1,796**	**27,003**
Total Electricity Sales & Consumption	**24,533**	**4,081**	**4,502**	**33,117**

**Includes Off-Grid Sales*
Source: Department of Energy

On the other hand, the sustained accelerated growth in the Mindanao electricity sales resulted to 8.15 percent in 2015, relatively higher than the year-ago rate of 2.26 percent.The remarkable performance of Mindanao during the first half of 2015 in terms of electricity sales and consumption was mainly due to the recorded positive growth of all its sectors, recuperating from the experienced slowdown of the Mindanao grid attributed to the Market Intervention that has been issued by the National Grid Corporation of the Philippines due to insufficient supply brought about by the grid-wide Mindanao black-out that damaged STEAG Unit I & Unit II on 30 May 2014 and 8 May 2014, respectively.

Meanwhile, electricity sales and consumption in the Luzon grid likewise revved up moderately, boosting the 2015 first semester growth to 3.85 percent from 1.56 percent in the first half of 2014. The normal operations of power plants in the grid during the period and less incidences as well as shorter duration of power plant outages were the major

factors that contributed to the positive growth in Luzon's electricity sales and consumption in 2015.

Table 29. 1st Semester 2015 Electricity Sales & Consumption of Distribution Utilities, by Grid

Luzon	Total (GWh)	% Share to Total Sales	% Share to Total Consumption
Residential	*7,902*	*35.15%*	*32.21%*
Commercial	*8,156*	*36.28%*	*33.24%*
Industrial	*6,059*	*26.95%*	*24.70%*
Others	*363*	*1.62%*	*1.48%*
Total Sales	*22,480*	***100.00%***	***91.63%***
Own-Use	*38*		*0.15%*
System Loss	*2,015*		*8.22%*
Total Consumption	***24,533***		*100.00%*
Visayas	**Total (GWh)**	**% Share to Total Sales**	**% Share to Total Consumption**
Residential	*1,499*	*40.84%*	*36.72%*
Commercial	*695*	*18.93%*	*17.02%*
Industrial	*1,226*	*33.42%*	*30.05%*
Others	*250*	*6.81%*	*6.13%*
Total Sales	***3,669***	***100.00%***	***89.91%***
Own-Use	*11*		*0.26%*
System Loss	*401*		*9.83%*
Total Consumption	***4,081***		***100.00%***
Mindanao	**Total (GWh)**	**% Share to Total Sales**	**% Share to Total Consumption**
Residential	*1,574*	*39.88%*	*34.96%*
Commercial	*663*	*16.80%*	*14.73%*
Industrial	*1,395*	*35.33%*	*30.97%*
Others	*315*	*7.99%*	*7.00%*
Total Sales	***3,947***	***100.00%***	***87.67%***
Own-Use	*12*		*0.27%*
System Loss	*543*		*12.07%*
Total Consumption	***4,502***		***100.00%***
Philippines	**Total (GWh)**	**% Share to Total Sales**	**% Share to Total Consumption**
Residential	*10,975*	*36.47%*	*33.14%*
Commercial	*9,513*	*31.61%*	*28.73%*
Industrial	*8,680*	*28.84%*	*26.21%*
Others	*928*	*3.08%*	*2.80%*
Total Sales	***30,097***	***100.00%***	***90.88%***
Own-Use	*60*		*0.18%*
System Loss	*2,960*		*8.94%*
Total Consumption	***33,117***		***100.00%***

❖ Industrial Sector

The electricity sales of Distribution Utilities for the industrial customers comprised 8,680 GWh or 28.84% of total electricity sales in the first half of 2015, implying an increase of 3.95% from 8,350 GWh in 2014.

The first semester growth was driven by the impressive performance of the Visayas industrial customers, posting a significant increase of 6.11% in 2015. Having slowly recovered from the effects of the natural disasters in the latter part of 2013 such as Bohol earthquake and super typhoon Yolanda, the improved power supply coupled with additional infrastructure drew in more regional economic developments which coincide with the rapid expansion of the industry sector in the Visayas.

Since the industry sector remains as the grid's engine of economic growth, the upsurge performance in the revenue of industries benefitted from the Government efforts to fast-track the rehabilitation and reconstruction of typhoon-damaged electric towers and power lines in the Grid. The robust growth was boosted by the strong performance of manufacturing industry in the Visayas grid. The growth in industry sector was likewise driven by the increase in nickel mining and stone quarrying activities in Central Visayas.

Meanwhile, the electricity sales of the industry sector in Luzon improved slowly by 4.46% in 2015 from 4.13% growth in the previous year despite of the devastation brought about by the series of natural disasters that hit the country in the last quarter of 2014.

Similarly, the electricity sales of the industry sector in Mindanao continued to grow, albeit at a slower pace compared to the other grids due to weather-related disruptions brought by the consecutive typhoons and torrential rains including the tenacious peace and order problem in Mindanao over the last decades, of which the recent Mamasapano tradegy is just the latest manifestation and the uncertainties in Bangsamoro peace process. The industry sector electricity sales, which grew by a relatively feeble 0.08% in 2015 from 1,393 GWh in 2014 to 1,395 GWh in 2015, was driven primarily by the increased production of food and beverage, electrical machinery, automotive, and consumer electronics.

❖ Residential Sector

The countrywide electricity sales of Distribution Utilities in residential sector expanded drastically posting a remarkable turnaround growth of 6.07% in 2015 from a decline of 0.78% in 2014. The increase in the electricity sales from the residential customers can be traced to the substantial utilization of cooling system due to higher temperatures.

The significant growth in the residential electricity sales can also be partly attributed to base effects, as year –ago levels reflected lower-than-normal consumption among the residential customers specifically in the Visayas grid due to the huge numbers of destroyed and damaged residential houses after the onslaught of Bohol Earthquake and typhoon Yolanda in the southern areas of the Visayas grid in the latter part of 2013. For instance, according to the National Statistical Coordination Board, Tacloban's population in 2010 was 221,174. The figure was believed to have been drastically reduced after the typhoon, but it was still expected to go up because of the influx of people from nearby towns and cities who would seek employment, put up businesses and study.[3]

After being hit by Super Typhoon Yolanda and Bohol Earthquake in 2013, the Visayas grid bounced back in terms of sales from the residential sector led by the continued steadfast efforts of the Government and private sector support to reconstruct the areas affected by the disasters in the grid. Visayas residential customers posted a robust performance, with a recorded double-digit growth at faster pace by 12.40% in 2015 from a 5.56 decline in overall residential sales for Visayas in 2014 brought still by the adverse effects of natural calamities occurred in 2013.
Similarly, Mindanao has maintained its growth momentum, posting a brisk increase in the residential electricity sales rate by 11.65% in 2015 from 0.65% in 2014 or an equivalent of 1,574 GWh from the year-ago level of 1,410 GWh.

[3] http://newsinfo.inquirer.net/674316/tacloban-in-2015-rising-from-the-rubble

In the same way, sales of electricity in the Luzon grid posted a positive growth, though flabbier than of the other two grids. Luzon residential customers posted a moderate growth, albeit at a slower pace of 3.92% in 2015 from a 0.16% decline in overall residential sales for Visayas in 2014. The moderate increase in Luzon grid's sales for the residential sector affected the whole country and was immensely fuelled by the higher temperature during the summer months which led to increased usage of air cooling appliances. In addition, the expansion was also driven largely by the firm household consumption that significantly pushed the consumption growth on the household utilization of electronic appliances for food preparation and recreation. At the same time, the favorable business, positive consumer sentiments and robust household spending provided further boost to the residential electricity sales in the country, supported by stable inflation and stable stream of overseas Filipinos' (OFs) remittances.

❖ Commercial Sector

Commercial consumption increased at markedly lower rate from the resilient growth performance of 3.73% in 2015 to a modest growth of 1.19% in 2014. Similar to the previous year, sales in the commercial sector was propelled by Services sector with the positive growth exhibited underpinned by increased new business and rising employment led by the brisk performance of the real estate activities, renting and business activities engaged in transport, storage and communication, trade and repair of motor vehicles, personal and household goods and the recovery of the trading, activities towards the end of the year. Further, the resilient continued demand for services sector such as laundry services, medical and health services, educational services, hotels and restaurants, spas and beauty parlors, remained the main driver of growth of electricity sales to the commercial sector.

Likewise, improved commercial energy sales in Luzon in 2015 were mainly associated with the growth in private services and real estate services sub-sector parallel to the increase in cooling load due to the striving domestic investment, supported by the growth pace of business process outsourcing, hotels and restaurants, wholesale and small-scale trade and retail establishments, and import and export trading.

Meanwhile, commercial sector in Visayas grid which account for 18.93 percent of total Visayas electricity sales, rebounded to 9.94% in 2015 from a sharp fall in 2014 by 5.56 percent caused by the adverse effects of super typhoon Yolanda that hit the country in 2013 which further reduced market optimism. The sharp debility in 2014 was explicable, considering that many tourist destinations were damaged during the typhoon in which hotels, motels, inns and pension houses were destroyed. Banking facilities were likewise interrupted after the storm surge. Moreover, transportation and communication facilities all over the grid were also affected, as well as supplies of water and power. Thus, immediately after the storm's onslaught, the number of tourist arrivals in the Visayas grid, specifically in Tacloban dropped.

Tourist arrivals, however, bounced when Pope Francis came on 17 January 2015, and stayed for six hours. Thousands of pilgrims from nearby provinces converged in Tacloban to see him. Hundreds of volunteers from nongovernment organizations, foundations, institutions and private groups not only gave aid and relief assistance to survivors but also helped the hotel industry stay afloat.[4]

[4] *http://newsinfo.inquirer.net/674316/tacloban-in-2015-rising-from-the-rubble*

As expected, this 2015, the Visayas grid investments improved due to the opening of new businesses and expansion. Its recovery is arduously approaching into reality, as the Government needs to be considerate with the business community to attract investors.

On the other hand, commercial sector in Mindanao grid rebounded by 2.66% in 2015 from a 2.31% contraction in the previous year. Mindanao contributes only about 14 percent of the nation's Gross Domestic Product, considered to be as the second largest contributor which supports the growth of Philippine economy aside from the Luzon grid.

Nevertheless, the potential for growth in Mindanao specifically in commercial and industrial sector is enormous.

The increase in the sector was driven by the expansion in all sub-sectors, led by real estate, renting, trade and other commercial activities such as beverage and basic non-mineral business in the grid, reversing the subtle contraction recorded in 2014. Mindanao's economy continue to grow due to the unrelenting coordination and collaboration of the Government investment promotion agencies, which provides support for the active involvement of Mindanao investors, prospective entrepreneurs, and stakeholders through involvements in the organization of trade fairs and exhibits, investment forums, summits, and conferences.

Likewise, the escalation can also be attributed to the interpretation of the RSEC interpretation of the RSEC-WR which prescribed new customer segmentation into just three segments, i.e. residential, low voltage, high-voltage. This was promulgated based on the ERC Resolution No. 20, Series of 2009, entitled, "A Resolution Adopting the Rules for Setting the Electric Cooperative's Wheeling Rates" and the promulgation of ERC Resolution No. 08, Series of 2011, entitled "A Resolution Adopting the Rules Governing the Tariff Glide Path Pursuant to Article VII of the Rules for Setting the Electric Cooperative's Wheeling Rates".

❖ Others

"Others" refer to public buildings, street lights, irrigation, agriculture and "others not elsewhere classified". This group continued to post double-digit growth at faster pace by 10.64% from 839 GWh in 2015 to 928 GWh in 2014.

The brisk increase in the performance of the "other" sector was fuelled by the substantial improvements in government spending together with the remarkable performance in infrastructure in 2015 such as public buildings and street lights due to the sustained government capital expenditure. The rebound of agriculture, hunting, forestry and fishing sector due to the healthy growth of the economy in the first semester of 2015 also contributed to the performance of "Other" sector.

❖ Own-Use and System Loss

Total system loss of the Distribution Utilities accounted to 2,960 GWh, corresponding to 8.94% share to total consumption, consistent with the call of the governments to lower the national level of Distribution Utilities' systems loss by means of increasing the network efficiency and improved pilferage management by way of adopting appropriate standards and technology, and enhancing management reforms such as reducing electricity use through activities that promotes electric energy efficiency relative to demand side management.

The Distribution Utilities Losses posted a 7.38% upturned throughout the first semester of 2015.The bulk of the systems losses of Distribution Utilities come from technical losses which are natural in their operation as electric utilities. The Distribution Utilities' transformers and distribution lines contribute to the losses. The non-technical losses, caused mainly by electricity pilferages are extensive in many Distribution Utilities, mostly from Electric Cooperatives.

Meanwhile, utilities' own-use for office and station use of the power plants revved up to 8.09% from 56 GWh in 2014 to 60 GWh in 2014.

E. Significant Outages[5]

LUZON

- Pagbilao Unit 1 (382 MW) – on extended planned outage from 30 May to 6 July 2015
- Masinloc Unit 2 (315 MW) – on extended planned outage from 1 January to 4 March 2015
- GNPower Mariveles Unit 1 (302 MW) – on forced outage from 26 October 2014 to 15 March 2015 due to Actuation of generator fault protection
- GNPower Mariveles Unit 1 (302 MW) – on unplanned outage from Oct to Mar 2015
- SLTEC Unit 1 (135 MW) – on forced outage from 11-21 May 2015 due to Steam leak touble at the Turbine side
- Ilijan GT 1-12 (200 MW) – on forced outage from 23 December 2014 to 26 February 2015 due to actuation of overspeed trip relay.
- Ilijan B (600 MW) – on planned outage from 14 March to 16 April 2015; on forced outage from 17-22 June 2015 due to Malampaya Gas Restriction
- Ilijan B (600 MW) –on forced outage from 26 and 27 June 2015 due to Malampaya Gas Restriction
- Angat Main Units 1 and 2 (2 x 50 MW) - on planned outage from 20 May to 9 June 2015
- Binga Units 1-4 (4 x 33 MW) - on forced outage from 24 – 26 April 2015 due to tail race spur dikes repair
- Magat U1 (90 MW) – on planned outage from 6 April to 13 May 2015
- Magat U2 (90 MW) – on planned outage from 6 April to 15 May 2015
- Magat U3 (90 MW) – on planned outage from 5 January to 13 February 2015, 26 February to 28 March 2015 and 30 April to 7 May; on common system upgrading from 14 May to 3 June 2015
- Magat U4 (90 MW) – on planned outage from 20 February to 9 April 2015 and 30 April to 7 May; on common system upgrading from 14-30 May 2015
- Pantabangan Units 1 and 2 (2 x 60 MW) –on forced outage from 25 May to 1 July 2015 due to Cooling system repair
- San Roque Units 1-3 (3x137 MW) – on planned outage from 26 May to 1 June 2015

VISAYAS

- UMPP Unit 3 (27.1 MW) - on forced outage from 09 January to 19 February 2015 due to rectification of generator ground detection system

[5] *Based on submitted Grid Operating Program (GOP) Revision 4 of National Grid Corporation of the Philippines (NGCP)as of 31 December 2014*

- PEDC Unit 1 (82 MW) - on forced outage from 10 February to 05 March 2015 due to boiler tube leak and from 20 to 26 April 2015 due to auto-tripping
- PEDC Unit 2 (82 MW) - On forced outage from 20 to 22 January 2015 due to boiler tube leak and from 24 to 28 May 2015 due to boiler problem
- CEDC Unit 1 (82 MW) - on maintenance from 21 February to 07 March 2015; on forced outage from 17 to 21 May 2015 due to boiler tube leak
- CEDC Unit 2 (82 MW) - on forced outage from 26 May to 06 June 2015
- CEDC Unit 3 (82 MW) -on maintenance from 14 to 28 January 2015; on forced outage from 28 February to 08 March 2015 due to boiler tube leak and from 13 to 20 May 2015 due to boiler problem
- KSPC Unit 1 (103 MW) - on forced outage from 31 May to 03 June 2015 due to coal conveyor affected by fire
- KSPC Unit 2 (103 MW) - on unplanned outage from 31 May to 14 June 2015

MINDANAO

- STEAG Mindanao Coal-fired Power plant Unit 1 (105 MW) – on planned maintenance from 21 February 2015 to 12 March 2015;
- STEAG Mindanao Coal-fired Power plant Unit 1 (105 MW) – on unplanned outage from 6 May to 14 May 2015
- STEAG Mindanao Coal-fired Power plant Unit 2 (105 MW) – on planned ouage from 19 February 2015 to 2 March 2015;
- Pulangi 4 HEPP Unit 1 (75 MW) – on forced outage due to thrust bearing oil leak from 22 March to 22 May 2015;
- Pulangi 4 HEPP Unit 2 (75 MW) – on planned outage 15 June until 14 July 2015;
- Pulangi 4 HEPP Unit 3 (75 MW) – on forced outage due to earth fault indication from 15 January 2015 to 27 March 2015;
- Pulangi 4 HEPP Unit 3 (75 MW) – on forced outage due to high turbine guide bearing oil level from 19 April 2015 to 29 April 2015;
- TMI 2 Unit 1 (50 MW) – on planned outage from 24 January to 27 January 2015;
- TMI 2 Unit 1 (50 MW) – on planned outage from 6 June to 14 June 2015;
- TMI 2 Unit 2 (50 MW) – on unplanned outage from 16 June to 14 June 2015;
- TMI 1 Unit 2 (50 MW) – on planned outage from 21 March to 24 March 2015;
- Agus 1 Unit 1 (40 MW) – on planned outage from 17 March to 30 March 2015;
- Agus 2 Unit 1 (60 MW) – on planned outage from 7 April to 15 April 2015;
- Agus 2 Unit 2 (60 MW) – on planned outage from 27 Feb to 9 March 2015;
- Agus 2 Unit 3 (40 MW) – on planned outage from 31 January to 23 February 2015;
- Agus 4 Unit 1 (50 MW) – on planned outage from 23 January 2015 to 20 February 2015;
- Agus 4 Unit 3 (50 MW) – on planned outage from 22 April 2015 to 5 May 2015;
- Agus 5 Unit 1 (27.5 MW) – on unplanned outage from 25 January 2015 to 28 January 2015;
- Agus 5 Unit 2 (27.5 MW) – on unplanned outage from 13 April to 21 April 2015;
- Agus 6 Unit 1 (25 MW) – on planned outage from 8 April to 20 April 2015;
- Agus 6 Unit 2 (25 MW) – on deactivated shutdown due to generator problems from 23 October 2014 until present;
- Agus 6 Unit 3 (50 MW) – on planned outage from 18 May to 30 June 2015;
- Agus 6 Unit 4 (50 MW) – on planned outage from 8 May to 17 July 2015;
- Agus 7 Unit 1 (27 MW) – on unplanned outage from 18 March to 2 April 2015;
- Agus 7 Unit 2 (27 MW) – on forced outage from 17 January to 20 February, 22 February to 25 February, 3 March to 5 March, 5 April to 8 April, and 17 April to 23 April 2015;

F. 1st Half 2015 Significant Incidents in the Power System

- **15 March to 13 April 2015 – 2015 Malampaya Turnaround and the Projected Power Shortage**

  In the fear of the projected power shortage in the Luzon grid in summer 2015, Shell Philippines Exploration B.V. conducted their 30-day maintenance of the Malamapaya turnaround to give way for the coupling of the newly-built Malampaya Phase 3 platform aims to the existing platform in order to increase the capability to retrieve the indigenous gas supply in SC 38. With this maintenance, gas supply for the natural gas is cut out. Contingency plan during this event is the operation of 1, 500 MW Sta. Rita and San Lorenzo Natural gas-fired power plant in Batangas using condensate, which is more expensive compared to the natural gas from Malampaya. For the 1,200 MW Ilijan plant as well as in Batangas, Its Block A (600 MW) was operated using biodiesel at a limited capacity of 420 MW while Block B was scheduled for maintenance.

  The feared power shortage in Luzon during summer did not occur due to the following reasons:

  - Cooler temperature that was extended in March 2015 where temperature was expected to be high. This lead to a lower actual demand in March compared to the projection
  - High hydro capacity during the period of Malampaya turnaround due to the series of coordination meetings among hydro power plant operators to conduct water management.
  - Additional capacity from the operation of expected commmited power projects such as 135 MW SLTEC Coal-fired power plant in Batangas, 41.3 MW Majestic Solar Rooftop project in Cavite and 10 MW Raslag Solar project in Pampanga.
  - Lower actual Forced outage in the summer of 2015 from power plants compared to the actual 2014 Forced outage where there were frequent outage of large power plants in the summer of 2014.

- **5 April 2015 – Mindanao Blackout**

  At 0101H of 5 April 2015, Mindanao grid experienced a system blackout. A fault occurred on Line 2 of Agus 7 138 KV. This was caused by the failure of the insulator of Agus 7 138 kV double circuit line 2 Phase A due to severe corrosion of the suspension insulator shank. The sequence of events led to the tripping of the transmission lines and power plants which also led to the splitting of the Mindanao grid into two sub-grids, the Northern and Southern part and ultimately resulted in total system collapse. The system collapse was due to the lack of supply during that time to support the demand.

  All Area Control Centers (ACC) sub-grids were interconnected and all NGCP substations were fully energized at 0752H of 5 April 2015.

- **Bombed and Toppled Towers in Mindanao for first half of 2015**

  For the first half of 2015, there were series of bombing of transmission towers in Mindanao causing interruption to the delivery of power supply from the power plants. Ongoing investigation in the Congress, under House Committee on Energy,

was being held to seek resolutions on this issue as well as to resolve any peace and security concerns to prevent future bombings of power industry assets such as transmission towers, substation and others. Following are the towers bombed in the first half of 2015:

- Tower No. 26 Kabacan-Sultan Kudarat 138KV Line – 13 January 2015
- Tower No. 41 Kabacan-Sultan Kudarat 138KV Line – 18 January 2015
- Tower No. 155 Kabacan – Tacurong 138 KVLine – 26 January 2015

G. Status of Government Generating Assets

1. Agus VI HEPP Uprating Project

The Project consists of engineering investigation, design, manufacturing and installation of new hydropower turbines and blades for the uprating of Units 1 and 2 from 25 MW to 34.5 MW per unit. The Project was awarded to the joint venture of Guangxi Hydroelectric Construction Bureau and ITP Construction Inc. in December 2013 and is targeted for completion by May 2016.

As of 31 October 2015, the Project's overall accomplishment is 93.25% with the following activities:

Table 30. Project Over-All Accomplishments as of 31 October 2015

Item	Activity	% Weight	% Accomplishment as 30 April 2015	% of Cumulative Weight
1.0	Mobilization	5.0	100%	5.0
2.0	Engineering Design	15.0	100%	15.0
3.0	Turbine Model and Manufacture of Equipment	38.0	100%	38.0
4.0	Equipment Delivery			
	Unit 2	7.0	100%	7.0
	Unit 1	7.0	80%	5.6
	Common Plant Equipment	8.0	100%	8.0
5.0	Purchase of Major Equipment Components and Materials for Fabrication and Construction	5.5	100%	5.5
5.0	Construction of Temporary Facilities	4.5	100%	4.5
6.0	Installation			
	Unit 2	3.0	35%	1.05
	Unit 1	3.0	-	-
	Civil and Architectural Construction	4.0	90%	3.6
	Total	**100.0**		**93.25**

The following are the specific activities during the month of October 2015:

a. Assembly of Unit 2 rotor and stator;
b. Drilling of cable holes at the Control Room floor;
c. Dismantling of two (2) small rooms in the Battery Room;
d. Installation of Unit 2 stator gas cooler;
e. Drilling of foundation holes for low voltage chamber panels;
f. Installation of oil and water pipelines;
g. Drilling of holes for cable trays; and
h. Installation of main transformer accessories.

2. Total Replacement of Agus VI Unit 4 Generator Unit and Excitation System Project

On 16 June 2015, the PSALM Board has instructed to nullify the contract with the Joint Venture of Guangxi Hydroelectric Construction Bureau and ITP Construction, Inc. consistent with the decision of the PSALM Board regarding good governance, as supported by the findings of the Governance Commission for GOCCs (GCG) and COA Audit Observation Memorandum (AOM) dated 25 March 2015.

The nullification of the contract was mainly due to the following irregularities:

i. the procurement of the Project was not in accordance with the Revised Implementing Rules and Regulations of Republic Act No. 9184 under Emergency Cases: and
ii. the procurement of the Project through negotiated contract under Emergency Cases was not authorized by the PSALM Board.

On 15 July 2015, PSALM has notified the Joint Venture that its contract with PSALM is null and void and the amount of PhP65.70 million paid by PSALM as advance payment shall be returned in full and without any deductions.

3. Malaya Thermal Power Plant (MTPP)

The following are details on the developments on the scheduled rehabilitation of MTPP:

- ***Operation and Maintenance Service Contract (OMSC)***

  On 30 June 2015, the PSALM BAC has published the Invitation to Bid for the procurement of OMSC on 30 June 2015. The said OMSC will be effective from 25 October 2015 to 25 October 2016.

  Four (4) firms signified interest in the procurement of OMSC, namely Kepco KPS Philippines, OGAS Solutions (Thailand) Ltd., SPC Malaya Power Corporation and STX Marine Services Co., Ltd.

  On 03 August 2015, PSALM conducted the bidding for the Malaya OMSC where two (2) bidders submitted bids, namely SPC and STX. STX offered PhP297,337,600.00 while SPC submitted a bid of PhP348,999,888.00. The PSALM BAC declared STX Marine Services Co., Ltd., as the Lowest Bidder as Read, subject to detailed evaluation and post-qualification of its bid.

  On 10 August 2015, the PSALM BAC issued the Notice of Post-Qualification to STX, the bidder with the Lowest Calculated Bid. The post-qualification of the documents submitted by STX is ongoing.

  On 09 September 2015, the PSALM BAC declared STX Marine Service Co., Ltd. as the bidder with the Lowest Calculated Responsive Bid. On 29 September 2015, the BAC recommended to the PSALM Board, through the BRC, the issuance of the Notice of Award (NOA) to STX. However, the BRC deferred its action, pending submission of additional documents from the BAC.

  The existing OMSC was extended by PSALM from 25 October 2015 to 25 January 2016, pending the PSALM Board's decision on the award of the new contract.

The PSALM Board, in its meeting dated 10 November 2015, deferred its decision for the award of the new OMSC and directed PSALM to seek the opinion of the OGCC.

- ***Overhauling of Malaya Thermal Power Plant (MTPP) Unit 1***

On 01 July 2015, the 2nd attempt to synchronize to the grid again failed due to a detached Linear Variable Differential Transformer (LVDT) holder for the High Pressure Control Valve (HPCV) No. 1.

STX attempted to synchronize Unit 1 to the grid on 06, 09 and 27 July 2015, but the synchronization failed due to the following:

i. 3rd Attempt (06 July 2015) - Damaged seal steam pipe;
ii. 4th Attempt (09 July 2015) - Fuel Oil Heater Tube leaks, damaged Main
iii. Oil Pump (MOP) bearings and differential temperature rise between upper and lower casing of IP Turbine; and
iv. 5th Attempt (27 July 2015) - Damaged valve stem causing steam leak at High Pressure Control Valve (HPCV) No. 1.

On 12 August 2015, the sixth (6th) attempt of testing and commissioning was done but failed due to High Pressure in the Gland Steam Seal. Upon repair and modification of the Gland Steam Seal system, STX attempted to synchronize the Unit to the Grid on 24 August 2015. Unit 1 was successfully synchronized to the Grid at 260 MW for twenty-four (24) hours from 25-26 August 2015.

H. Status of Transmission Projects

1. Luzon

The Luzon Power Circuit Breaker Replacement (PCB) Project includes 9 x 230 kV and 9 x 115 kV PCBs as replacement for the old units in San Jose, Labo, Malaya, and Gumaca to improve the system reliability. The 115 kV PCBs included in this project are all classified as transmission assets. This project is 71.58% complete as of 30 September 2015 and is scheduled to be completed on 31 March 2016.

Figure 6. San Jose-Quezon 230kV Line 3 T/L Project

The San Jose-Quezon (Balintawak) Line 3 Transmission Line project involves the construction of the third circuit at San Jose-Quezon 230 kV transmission corridor. This will increase the transfer capacity of the line to address the projected overloading problem during an outage of one of the San Jose-Quezon circuits at peak load condition. Without this project, the dispatch of the power plants delivering power to the 500 kV system will have to be limited to maintain the N-1 contingency for the line, which may also require load dropping within Metro Manila. This project shall also complement the capacity addition (from 4-600 MVA to 4-750 MVA) at San Jose EHV Substation with the completion of the transformer replacement project thereat, thus improving the overall reliability and security of the grid. Currently, as of 30 September 2015, the substation and transmission components of this project are 87.5% and 28.9% complete,

respectively, with target date of completion for substation portion on 18 February 2016 and for transmission portion on 31 December 2017.

Figure 82. Binga-San Manuel 230 T/L Project

The Ambuklao-Binga Transmission Project involves the upgrading of 11km, 230 kV Transmission Line together with 6-230 kV PCB and associated equipment in Ambuklao Substation to maintain N-1 contingency taking into consideration the repowering of Ambuklao Hydro Electric Power Plant (HEPP) to a new capacity of 105 MW and also the proposed expansion of Magat HEPP (180 MW additional capacity). Thus, during maximum generation of both power plants, this project will prevent the overloading under N-1 contingency condition, i.e., outage of one 230 kV circuit. The substation component of this project is 71.3% complete as of 30 September 2015 and has a target date of completion on 30 September 2016.

Figure 13. Lumban-Bay 230kV T/L Project (a)

Figure 14. Lumban-Bay 230kV T/L Project (b)

The Lumban (Kalayaan)-Bay (Makban) 230 kV Transmission Line Project aims to maintain the N-1 contingency for the existing Lumban-Bay transmission corridor that could allow all possible generation dispatch scenarios for the power plants in Southern Luzon. The Lumban-Bay 230 kV Line is an important transmission corridor in providing operational flexibility, particularly during maintenance of other 230 kV transmission lines. It also complements the upgraded (through the 230 kV Line 4) Biñan-Muntinlupa 230 kV transmission lines by increasing the transfer capacity of this alternate corridor for the generated power from the Sta. Rita/San Lorenzo NGPP and Makban GPP. It helps supply Taytay Substation and also supplies Kalayaan Pumped Storage Hydro during its operation as a pump during off-peak hours. The upgrading is also expected to reduce system loss during pumping of Kalayaan units as the Kalayaan-Bay transmission corridor provides the shortest route from generation sources. This project also involves the full development of Lumban Substation as a bulk power delivery point where all the transmission lines in the area will be terminated. The resulting configuration is such that both the existing Kalayaan and Calauan Substations will become radial end substations from Lumban Substation. The status of transmission and substation components of this project are 99.4% and 96.2% complete respectively, as of 30 September 2015. Also, Lumban-Kalayaan Line 1 transmission sub-component was energized on 31 January 2015 and Lumban-Bay Line 1 and Line 2 were energized on 30 March 2015 and 3 March 2015, respectively. Meanwhile, Lumban-Malaya Line 1 was energized on 14 May 2015. Other transmission sub-components are expected to be energized in various months of 2016.

The Binga-San Manuel Transmission Line project involves the construction of a new 40 km double circuit Binga-San Manuel 230 kV transmission line using new right–of-way, including the installation of switching facilities at Binga and San Manuel Substations. The project aims to provide N-1 contingency during maximum dispatch of the generating plants, particularly HEPPs, in north Luzon. The existing line, as well as the power circuit breakers at Binga Substation, which were constructed/installed in 1956 have already surpassed their economic lives. Moreover, there are developments in the power plants affecting the power flow at Binga-San Manuel 230 kV line. These include the repowering of Ambuklao HEPP to a new capacity of 105 MW (previously at 75 MW capacity) and the completion of Binga HEPP expansion to an additional capacity of 25 MW. The substation component of this project was divided into two (2) stages; Stage 1 for Binga Substation with a status of 86.2% complete; and Stage 2 for San Manuel Substation with the status of 79.7% complete, as of 30 September 2015. The target date of completion for Binga and San Manuel Substations will be on 28 February 2017 and 30 September 2016, respectively. On the other hand, the transmission component of this project is in the process of implementation.

Figure 9. San Esteban-Laoag 230kV T/L Project

The second stage of San Esteban-Laoag 230kV Transmission Line project involves the construction of a double-circuit line from San Esteban to Laoag Substation and the construction of Laoag 230 kV Substation. Currently, there is only one 115 kV circuit supplying Bantay (from San Esteban), Currimao (from Bantay) and Laoag (from Currimao). Therefore, any outage of line between these stations would result in interruption of power at the receiving stations. The project will strengthen the existing 115 kV transmission system as Ilocos Norte has been identified as one of the areas with high generation potential from wind farms. Also, having single 115 kV circuit only from San Esteban to Laoag, this project will comply with the N-1 contingency provision as stated in Grid Code. As of 30 September 2015, the status of the first schedule for transmission line component of this project is 97.5% complete while the second schedule is 100% completed already. The first schedule is expected to be completed on 15 December 2015. Meanwhile, San Esteban S/S component is for testing and commissioning already and is expected to be completed on 30 November 2015.

Figure 10. Santiago-Tuguegarao 230kV T/L Project

The Santiago-Tuguegarao 230kV Transmission Line project involves the installation of a second circuit from Santiago to Tuguegarao Substations bypassing Gamu Substation. This new line will provide reliability as tripping of the existing Santiago-Gamu and Gamu- Tuguegarao 230 kV lines will no longer result in the isolation of the customers in the provinces of Isabela and Cagayan. The project will benefit the northeastern part of the Luzon Grid by providing reliable power supply. This shall also serve as the first step in strengthening this part of the grid as Cagayan is also among the areas identified to be rich in RE potentials, particularly wind. As of 30 September 2015, the transmission and substation components of the project are 97.5% and 90.5% complete,

respectively. The target date of completion for transmission component is on 31 January 2016 while the substation component is expected to be completed on 30 September 2016.

Luzon Substation Reliability Project 1 involves the provision of N-1 contingency at Botolan, Labo, and San Esteban Substations with only one transformer installed. This will ensure reliable supply of power for the connected customers even during transformer outage or maintenance shutdown. This project is 93.9% complete as of 30 September 2015 with target date of completion on 31 January 2016.

Luzon Substation Expansion II includes the installation of the third 300 MVA transformer unit for Mexico Substation and additional 100 MVA capacity dedicated for the group of steel plants. The 2-75 MVA and 50 MVA existing transformers at La Trinidad Substation, on the other hand, will be replaced with 2-300 MVA to increase the capacity and provide N-1 contingency. The replaced 50 MVA unit will then be transferred to Ambuklao Substation to serve the loads connected at Ambuklao-Beckel 69 kV Line and also as station service. For Concepcion Substation, the installation of additional transformer (the third 100 MVA unit) could maintain the provision for N-1 contingency. All the components of this project have been energized in various months of 2014 except for one of the two transformers in Mexico S/S which was energized on 25 June 2015.

Luzon Substation Expansion III project involves the installation of transformers at Batangas, Calaca and Bay Substations to maintain the provision for N-1 contingency due to high and increasing load. Two units will be installed (2-300 MVA) in Batangas Substation for capacity upgrade to meet the growing demand in the area and for provision of N-1 contingency. For Bay Substation, which is presently with 1-100 MVA transformer only will be provided with the second 100 MVA transformer unit. In Calaca Substation, on the other hand, the additional new 100 MVA transformer will be re-packaged under Calaca Substation Expansion and Calaca-Dasmariñas Line Projects, which are associated with the generation capacity expansion in the area. The two transformers in Batangas S/S were already energized while the status of Bay S/S, as of 30 September 2015, is 98.2% complete.

Dasmariñas EHV Substation Expansion project involves the installation of additional capacity both in the 500 kV and 230 kV substations in Dasmariñas, Cavite. The 600 MVA capacity expansion at the EHV substation is required in order to maintain N-1 contingency during maximum dispatch of Ilijan NGPP, Quezon Power Philippines Ltd. (QPPL) and Pagbilao CFPPs. Similarly, the third 300 MVA 230/115 kV transformer in Dasmariñas will be required in order to maintain N-1 contingency as the loads being served by the substation continue to grow. This project also involves the replacement of the 230 kV circuit breakers at Dasmariñas Substation as the resulting fault level will already exceed the interrupting capabilities of the existing circuit breakers. The 300MVA transformer was energized and in commercial operation already on 27 October 2014 yet there are still minor works to be done, 99.0% complete as of 30 September 2015.

Figure 11. Las Piñas S/S Project

The Las Piñas (Zapote) Substation Expansion project is intended to meet the ever increasing demand in Metro Manila and to comply with the N-1 provision as stated in Grid Code. The substation is loaded more that 85 % already under normal

condition and any outage of one transformer would result in overloading of the remaining transformer in service. Thus, it has no more provision for single-outage or N-1 contingency which is a reliability standard of the PGC. The present situation is very detrimental for the reliability of power supply to Metro Manila. In March-April 2012, when one transformer at Las Piñas Substation was damaged, sub-sectorization of the 115 kV distribution network of Meralco was implemented to avoid load shedding. This resulted in both reliability and low voltage issues as the 115 kV lines connected to Las Piñas Substation were put on radial configuration. Las Piñas Substation is critical to the successful operation of the WESM, hence without N-1 contingency, pricing error notices were declared for some trading intervals in the market due to constraint violations. The project scope will also include the expansion of the GIS switchyard not only to provide termination for the 4th bank but also for the termination of the proposed 230 kV transmission lines going to a new substation in Pasay City. As of 30 September 2015, its status is 8.59% complete and expected to be completed on 30 September 2016.

2. Visayas

The Calung-Calung-Colon 138 kV T/L project shall increase the transfer capacity for the existing 3-82 MW Cebu Energy Development Corporation (CEDC) Coal-Fired Power Plant (CFPP), and accommodate the entry of the 82 MW Toledo Power Company (TPC) CFPP. The new 138 kV line will also provide N-1 contingency along the Calung-calung-Colon corridor. In addition, Toledo Substation will have two alternative routes to receive power from CEDC via Calung-calung-Toledo 138 kV Line or Calung-calung-Colon-Toledo 138 kV Line. This project, as of 30 September 2015, has a 96% and 97.8% completion for its transmission and substation components, respectively. Transmission component is expected to be completed on 31 March 2016 while substation component is scheduled for completion on 30 April 2016.

Figure 12. Calung-Calung-Colon 138kV T/L Project

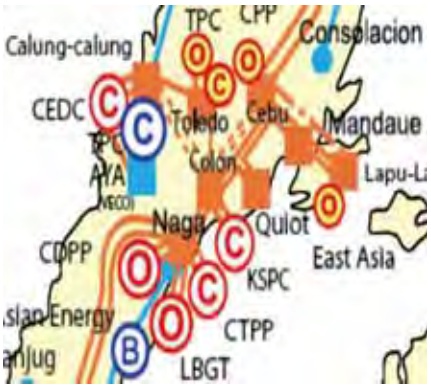


Figure 13. Southern Panay Backbone 138 kV Transmission Project

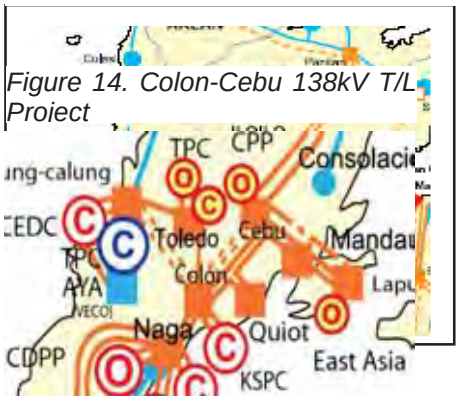


Figure 14. Colon-Cebu 138kV T/L Project

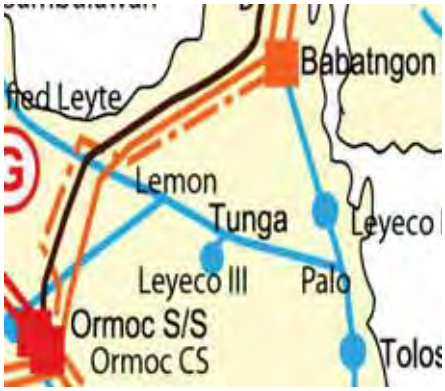
The Southern Panay Backbone 138 kV Transmission Project is part of the Panay Power Transmission backbone which involves the installation/construction of a total of 97 kilometers of 138 kV and 69 kV overhead transmission lines which is aimed to accommodate the load growth and address the low voltage problem in Southern Panay. As of 30 September 2015, the transmission component of the project is already completed. On the other hand, the project's substation component is 95.8% complete with target date of completion on 28 February 2016.

The Colon (New Naga)-Cebu (Banilad) 138 kV Transmission Line project involves the construction of 25 km, 138 kV double circuit transmission line that utilizes two bundles of 795 MCM ACSR conductor per circuit from Colon directly to Cebu. It also includes PCB and associated equipment at Colon S/S (4-138kV PCB) and Cebu S/S (2-138kV

PCB). The transmission and substation component of this project, as of 30 September 2015, were 96.1% and 99.02% complete, respectively.

The Ormoc-Babatngon Transmission Line project involves the construction of 138 kV steel tower overhead transmission line utilizing 1-795 MCM ACSR conductor as second line/circuit of the existing Ormoc-Babatngon 138 kV line to comply with N-1 contingency provision of the Grid Code. It also involves the expansion of Ormoc and BabatngonSubstations.The structures will be designed for a double circuit line but will be single circuit strung initially. As of 30 September 2015, the transmission and substation components of this project are 90.7% and 95.6% complete respectively with the target date of completion on 30 June 2016 for transmission component and on 31 December 2015 for substation component

Figure 20. Ormoc-Babatngon T/L 138kV Project



The Ormoc-Maasin 138kV Transmission Line Project involves the 2nd circuit stringing of existing single circuit Ormoc-Maasin 138kV line to comply with N-1 co ntingency provision of Grid Code in order to prevent power outage in Bohol as well as in Southern Leyte. It will also benefit the eco-tourism activities in Bohol since the island relies heavily on the power supply from Leyte. The status of this project, as of 30 September 2015, is 94.6% and 94.1% complete for transmission and substation components, respectively.

Figure 21. Ormoc-Maasin 138kV T/L Project

The Sta. Rita-Quinapondan 69 kV Transmission Line project is intended primarily to make Quinapundan Substation closer to its power source and thus, provide a more reliable power delivery system. At present, the Quinapundan Substation draws its power from NGCP's 138 kV Paranas Substation via a long stretch of 69 kV woodpole line, i.e., Paranas-Taft-Borongan- Quinapundan, which is approximately 191 kilometers long. This very long 69 kV line is prone to frequent tripping as it traverses some mountainous terrain in a predominantly rural area. Therefore, this project aims to form a 69 kV line loop from the existing Sta. Rita Substation to Quinapundan. The line shall provide an alternate supply route to the Eastern Samar load-end substations. Currently, as of 30 September 2015, the project is 88.6% complete and scheduled for completion on 30 April 2016

Figure 22. Sta. Rita-Quinapondan 69 kV T/L Project

The Visayas Substation Reliability Project I entails the installation of 500 MVA substation capacity to address the projected overloading of Ormoc, Amlan, Bacolod, Cadiz, Babatngon, Maasin, and Samboan S/S during N-1 occurrence. The installation of these transformers will improve the security and reliability of the Visayas Grid. The loss of a single transformer at any of these seven substations which four have only

one transformer, namely: Cadiz, Babatngon, Maasin and Samboan, will interrupt the supply of power to consumers. Therefore, the addition of a second transformer at these substations will provide N-1 capability. The status of Ormoc and Babatngon substation component is 95.6% complete as of 30 September 2015 with target date completion on 31 December 2015 while Amlan, Bacolod, Cadiz, Maasin and Samboan substation component is 76.9% complete as of 30 September 2015 with target date completion on 30 September 2016.

The Culasi-San Jose 69kV Transmission Line Project will provide alternate power source from either Culasi, Aklan in the north or Sibalom, Antique in the south. The formation of a 69 kV line loop will improve the reliability of supply towards the province of Antique in the western side of Panay Island. As of 30 September 2015, the statuses of Schedule 1A&2A of this project are 98.1% and 66.5% complete for offshore and onshore portion, respectively while the statuses of Schedule 1B&2B are 97.9% and 89.6% complete for offshore and onshore portion, respectively

Figure 23. Culasi-San Jose 69kV T/L Project

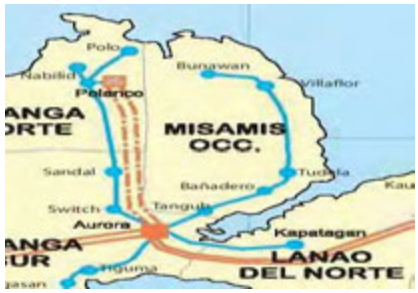
3. Mindanao

In the Mindanao Grid, the Balo-I (Abaga)-Villanueva (Kirahon) 230kV Transmission Project will provide additional transmission corridor to the Agus Hydro complex. This project will also serve as an initial step in developing a higher capacity transmission highway from north to south of the grid to meet the increasing demand in Davao area. Likewise, the Villanueva (Kirahon)-Maramag 230 kV Transmission Project will complete the 230kV Transmission Backbone linking Northern and Southern Mindanao. Both projects are designed at 230kV but will initially be energized at 138kV. All components of this project were energized on 11 January 2015.

Figure 24. Balo-I (Abaga)-Villanueva (Kirahon) 230kV T/L

The Aurora-Polanco 138 kV T/L Project, scheduled for completion by September 2014, is intended to serve the growing power demand of Dipolog City and surrounding load centers. This will ensure a continuous and reliable power supply in the area. Currently, Dipolog City including neighboring cities and municipalities draw their power requirements from the Aurora Substation a very long 69 kV single circuit transmission line. The contractor of the project, China National Electric Engineering Company Limited has backed out and stopped all its activities on 22 March 2013 at 30.5% complete for transmission portion and on 27 April 2013 (Polanco) at 28% for substation portion, thus, the NGCP will need to re-bid the remaining work components of the project. As of 30 September 2015, evaluation of bids is already ongoing.

Figure 25. Aurora-Polanco 138kV T/L Project



The Matanao-Gen. Santos 138 kV Transmission project is part of the Reliability Compliance Project I - Mindanao, which involves the provision of N-1 contingency to the existing Matanao-Gen. Santos 138 kV transmission corridor. Without the project, an outage of the existing Matanao-Gen. Santos line, the Tacurong-Gen. Santos line will not be able to accommodate the load of Gen. Santos Substation starting 2015. As of 30 September 2015, the transmission and substation components are 96.3% and 81.6% complete, respectively. The target date of completion for transmission portion is on 31 May 2016 while the substation portion is expected to be completed on 30 June 2016.

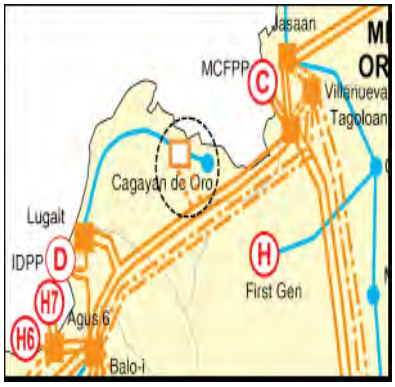
Figure 26. Matanao-Gen. Santos 138kV T/L Project

The Mindanao Substation Expansion II involves the installation of 100MVA new transformer unit at Gen. Santos Substation and deployment of its existing 50MVA unit to Kidapawan Substation. This will enable the said substations to meet demand growth and improve system reliability. The status of this project, as of 30 September 2015, is 81.6% complete and is scheduled for completion on 30 June 2016.

The Mindanao Substation Reliability Project I involves the installation of four (4) transformers with a total 325 MVA substation capacity to provide N-1 capability to various substations in Mindanao. Aurora substation was energized on 17 February 2014 while the status of Jasaan and Lugait substations is 88.5% complete as of 30 September 2015 and its expected target completion is on 31 December 2015.

The new Opol Substation will be strategically located to serve the load centers of CEPALCO and MORESCO I, with both areas showing significant increase in demand. The new substation, which will initially be via-"cut-in" connection scheme along the Lugait-Tagoloan 138 kV transmission line, will avoid the overloading of the Lugai-Carmen 69kV line. The status of transmission and substation components of this project is 71.2% and 80.6% complete respectively, as of 30 September 2015. Target date completion of transmission portion is on 30 November 2015 while substation portion is expected to be completed on 30 June 2016.

Figure 157. Opol S/S Project



I. Distribution Infrastructure Projects

1. ERC-Approved Capital Expenditure (CAPEX) Projects

For this period, the ERC granted approval to the Capital Expenditure (CAPEX) Projects applications filed by ten (10) distribution utilities namely: Davao Light and Power Company, Inc. (DLPC), Cabanatuan Electric Corporation (CELCOR), Bohol I Electric Cooperative, Inc. (BOHECO I), Leyte II Electric Cooperative, Inc. (LEYECO II), Quirino Electric Cooperative, Inc. (QUIRELCO), Southern Leyte Electric Cooperative, Inc. (SOLECO), Sorsogon I Electric Cooperative, Inc. (SORECO I), Cagayan I Electric Cooperative, Inc. (CAGELCO I), Iloilo I Electric Cooperative, Inc. (ILECO I), and Bukidnon Second Electric Cooperative, Inc. (BUSECO). Details of these projects are shown in Annex 10.

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

From April to October 2015, there are twenty nine (29) accounts from twenty four (24) ECs booked under the Electric Cooperative Partial Credit Guarantee (ECPCG) Program with total loan availment of PHP2.74 billion (Table 36). BUSECO's 3rd loan in the amount of P25.88 million was the Program's latest in the category account with loan releases. On the other hand, there was no new account booked under the committed accounts. Mindanao has nine (9) ECs participating in the Program while Luzon and Visayas have seven (7) and eight (8) ECs, respectively.

DOE oversees the implementation of the Program, which provides partial guarantee coverage of up to 80% of the outstanding loans of ECs from commercial banks for the financing of their power distribution system upgrades. The Program's guarantee facility was funded by the Global Environmental Facility through the World Bank.

Table 25. 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
A. Booked Accounts with loan releases					
1	MORESCO I	115.00	92.00	Security Bank	July 20, 2010
2	PANELCO I	113.00	90.40	BPI	September 15, 2010
3	SOCOTECO I	102.42	81.94	BPI	October 05, 2010
4	SURNECO	85.00	68.00	UCPB	March 03, 2011
5	FIBECO	143.00	114.40	PNB*	May 16, 2011
6	BUSECO	135.90	108.72	BPI	February 11, 2011
7	BOHECO I	106.46	85.17	DBP	June 13, 2011
8	DANECO	172.37	137.90	UCPB	October 04, 2011
9	MORESCO II	135.49	108.39	BPI	December 16, 2011
10	CANORECO	133.25	106.60	BPI	July 15, 2011
11	LUELCO	173.12	138.50	PNB*	December 07, 2012
12	MOELCI I	137.25	109.80	UCPB	July 06, 2012
13	CAMELCO	140.00	112.00	BPI	November 09, 2011
14	NEECO I	94.80	75.84	PNB*	June 06, 2012
15	BENECO	163.50	130.80	BPI	December 28, 2012
16	BUSECO (2nd loan)	43.49	34.79	PNB	December 13, 2012
17	FICELCO	106.10	84.88	Security Bank	July 26, 2013
18	LEYECO V	185.86	148.69	Security Bank	December 03, 2013
19	PALECO	167.00	133.60	PNB	December 19, 2012
20	BOHECO II	184.18	147.34	Security Bank	June 27, 2013
21	BOHECO I (Additional)	81.07	64.86	DBP	May 13, 2014
22	BUSECO (3rd loan)	25.88	20.70	Security Bank	May 08, 2015
Sub-Total		**2,744.14**	**2,195.31**		
B. Committed Accounts (Booked Accounts with no loan releases yet)					
2	AKELCO	181.72	145.38	UCPB	August 16, 2013
3	CENECO	191.68	153.34	Security Bank	July 08, 2014
4	COTELCO	180.03	144.02	UCPB	March 18, 2014
5	CAGELCO I	36.87	29.49	PNB	December 19, 2014
6	SORECO I	103.74	82.99	Security Bank	January 29, 2015
8	SOCOTECO I (2nd loan)	91.92	73.54	DBP	February 11, 2015
9	MORESCO II (2nd loan)	40.00	32.00	Security Bank	March 11, 2015
Sub-Total		**825.96**	**660.76**		
Grand Total		**3,570**	**2,856.08**		

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

VI. 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 forty one thousand nine hundred seventy four (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

As of June 30, 2015, the household electrification level of the country is estimated at 88 percent. This corresponds to 18.996 million energized HHs out of the estimated total HH population of 21.575 million HHs (see Table 32).

The Household Electrification Development Plan (HEDP) 2015-2017

DOE's HEDP 2015-2017 outlines the Government's strategies and activities for achieving 90 percent household (HH) electrification by 2017. Figure 30 shows the target annual HH electrification level under the plan for the next three years. Clearly, HEDP also carries the specific target of the revised Philippine Development Plan 2011-2016 in achieving 86.3% HH electrification level by 2016. Said targets are based on the individual DDP submissions of the DUs, taking into consideration of 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.

Table 26. Household Electrification Level as of June 2015

Distribution Utility	Household		
	Total Household Population (2015)	Served	%
Electric Cooperatives	13,081,400	10,901,416	83.3%
MERALCO	6,383,307	6,207,371	97.2%
Other PIOUs/LGU Owned Utilities	2,110,783	1,887,841	89.4%
Total	**21,575,491**	**18,996,628**	**88.0%**

The HEDP has adopted both grid and off-grid electrification approaches as the main strategy in providing basic electricity services. Grid electrification is achieved through extension of distribution lines of the DUs and ECs. It remains as the main strategy for electrification due to its unlimited potential contribution in promoting economic development and improvement of the quality of life of Filipino households. For off-grid and far-flung areas, the Government promotes the scaled-up utilization of decentralized, renewable energy systems and technologies such as solar home system (SHS), micro-hydro, biomass and wind systems. Said off-grid solutions enable the DUs and ECs in fulfilling their universal service obligation while contributing to the system loss reduction and reliability of the of the distribution system. It also helps rationalizing the Lifeline Policy of EPIRA by reducing the number of marginal end-users.

Figure 16. HH Electrification Forecasts 2015-2017

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 Electrifrication***

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 original target are of thirty two thousand four hundred forty one (32,441) unelectrified sitios in 2011, SEP has energized a total twenty six thousand eighty one (26,081) sitios as of 15 August 2015. Table 33 shows the status of NEA-SEP accomplishments and targets. In 2015 alone, NEA through its electric cooperatives energized a total of five thousand five hundred sixty eight (5,568) sitios.

Table 27. Status of NEA-SEP Program as of August 2015

YEAR	TARGETS	Actual Accomplishment	Evaluated Project Cost (PhPM)	Cumulative Total	Remaining Balance (Unenergized Sitios)	% Level
BASELINE TARGET UNENERGIZED SITIOS (JUNE 2011): 32,441 Sitios						
2011	1,410	1,520	754.8	1,520	30,921	4.7%
2012	6,007	6,163	4,137	7,683	24,758	23.7%
2013	5,831	5,263	3,058	12,946	19,495	39.9%
2014	7,073	7,567	4,437	20,513	11,928	63.2%
2015	12,120	5,668*	3,802	26,081	6,360	80.4%

**As of August 2015 Accomplishment*

2. NEA's Barangay Line Enhancement Program

This aims to rehabilitate those barangays previously energized by off-grid solutions but deemed unsustainable. To enhance the program, it shall only cover those off-grid barangays that are already economically feasible for distribution line extension. NEA shall assist in recovering the existing off-grid electrification facilities still owned by the

Government for reconfiguration and transfer to other far-flung areas that can be best served by off-grid solutions. Status of BLEP activities are shown in Table 34 below.

Table 28. Status of NEA-BLEP Program as of August 2015

YEAR	TARGETS	Actual Accomplishment	Evaluated Project Cost (PHPM)	Cumulative Total	Remaining Balance	% Level
BASELINE NO. OF BARANGAYS FOR ENHANCEMENT: 1030 Barangays						
2011/2012	227	227	478.2	227	803	22.0%
2013	118	118	342.9	345	685	33.5%
2014	238	181	368.6	526	504	51.1%
2015	267	93	354.9	619	411	60.1%
2016	111					

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.

In August 2015, the DOE conducted a four (4) focus group discussion activity with the concern distribution utilities, Local Government Unit of Host Municipalities of Oriental Mindoro, Cotabato, Iloilo, and Pampanga and the concern generation companies. Table 35 shows the initially identified target beneficiaries' of electrification project that will contribute in the total electrification of the host communities.

Table 29. Target Beneficiaries under NEA-BLEP Program as of August 2015

Concern DU	Province	Host City/Municipality	Potential HH Beneficiary	Target Timeline
ORMECO	Oriental Mindoro	Pinamalayan	3,897 HH	2nd Qtr of 2016
COTELCO	North Cotabato	Kidapawan	1,205 HH	1st Qtr of 2016
ILECO II	Iloilo	Dingle	82 HH 724 HH	2nd Qtr of 2016 1st Qtr of 2017
PELCO II	Pampanga	Mabalacat	270 HH	2nd to 4th Qtr of 2016

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.

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.

In August 11, 2015, the Department conducted the Electrification Planning and Project Development Workshop together the participating distribution utilities, listed in table below, that will implement the household connections for 2015.

Table 30. Pilot Implementation of NIHE Grant Assistance Program FY 2015

Distribution Utility	Target HH Beneficiaries	Distribution Utility	Target HH Beneficiaries
BANELCO	2,000	PANELCO III	589
BISELCO	100	SAMELCO II	789
BOHECO II	2,000	SUKELCO	2,000
COTELCO Main	2,000	SULECO	309
DORELCO	500	VECO	160
ESAMELCO	400	ZAMSURECO II	1,089
ISELCO	500	DANECO	1,000
LEYECO II	6,273	ROMELCO	504
LEYECO III	1,000	LEYECO V	500
LEYECO IV	4,000	BILECO	500
QUEZELCO II	2,000	**TOTAL**	**28,213 HHs**

Source: DOE-EPIMB

- ***Off-Grid Electrification***

1. *Solar PV Mainstreaming Program*

The Program was first introduced to the Electric Cooperatives in July 2014 during the Information and Education Campaign on the Household Electrification Development Plan (HEDP). The IEC generated interest among twenty one (21) Electric Cooperatives to adopt the Program for the unenergized households in their franchise areas where grid extension is not technically and financially feasible.

Table 31. ECs Expression of Interest on PV Mainstreaming

EC	PROVINCE	NO. OF HH	TARGET COMPLETION
BISELCO	Palawan	150	2015
MARELCO	Marinduque	23	2015
CEBECO II	Cebu	550	2015
NONECO (VRESCO)	Negros Occidental	1140	2015
PANELCO I	Pangasinan	460	
AKELCO	Aklan	688	2015
LEYECO V	Leyte		
BANELCO		800	2015
NORECO II	Negros Oriental		
MOELCI I	Misamis Occidental	125	2015
ZAMSURECO I	Zamboanga del Sur	12640	2015-2017
ZANECO	Zamboanga del Norte	2300	215-2016
SOCOTECO -1	South Cotabato	300	2015
SOCOTECO -2	Sarangani	12024	2016
COTELCO (Main)	North Cotabato	2000	2015
SULECO	Sulu	480	2015
		180	2017
TAWELCO	Tawi-tawi	18455	2014-2015
SIASELCO	Sulu	483	2015
		877	2016
SUKELCO	Maguindanao	1,200	2015
		5,220	2016
		6,270	2017
		200	2015
		2500	2016
		800	2017
SURNECO	Surigao del Norte	320	
SURSECO II	Surigao del Sur	140	2015
		420	2017
QUEZELCO 1	Quezon	345	2017
QUEZELCO II	Quezon	453	2015
TOTAL HOUSEHOLDS		**71,543**	

Source: DOE

As a follow through activities, the DOE conducted a Business Development Planning Workshop in November 2014 which was attended by fourteen (14) Electric Cooperatives which expressed interest to implement the Program in the unenergized households within their franchise areas where grid extension is not feasible. Subsequently, the DOE presented the Program before the respective Board of Directors of the various ECs. To date, six (6) Board Resolutions adopting the Program were received by DOE and still awaiting submissions from other ECs. Meanwhile, the ECs currently undertake households' survey to determine the firm number of households to be provided with solar PV electrification services, including households' capacity to pay and energy requirements.

It is expected that more ECs will enrol under the Program as they firm up their household electrification plan in the light of their commitment to total electrification as mandated under the strengthen NEA Reform Act of 2013.

Relatedly, the Energy Regulatory Commission has still to issue the rules governing regulated solar PV electrification by the Electric Cooperatives. The Philippine Rural Electrification Cooperative Association (PhilRECA), filed the rule-making petition in April 2014. Series of public hearings were concluded in October 2014.

2. Initiatives by NGOs and other Partners

Team Energy Foundation, Inc. (TEFI) will continue its successful SHS electrification project in Polilio Group of Islands, Quezon to fully attain 100% HH electrification. To enhance the project, TEFI will coordinate with QUEZELCO II (the local EC) for handoff arrangement and takeover of the EC once TEFI completes its mission in the area.
In 2015, TEFI have completed the implementation of 267 SHS Electrification Project in Mun. of Infanta, Pangasinan in the franchise area of Pangasinan I Electric Cooperative, Inc. (PANELCO I) funded under the accrued electrification fund of Sual CFTPP.

3. 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.

The DOE through the assistance of the EU-Switch Programme, undertook two studies namely, "Accelerating Private Sector Participation in Offgrid Areas" and "Facilitating the Entry of Renewable Energy Developers in Offgrid Electrification." These studies aimed to (i) review the existing laws/rules and policies on PSP in offgrid areas, (ii) streamline the participation and guidelines for QTP applications, and (iii) harmonize the QTP process with the Renewable Energy policies and guidelines. As an output, the draft Circular amending the QTP Qualification and Participation Guidelines issued in 2004 and 2005, respectively, was subjected to public consultations in the three (3) major island groups in the country. It is expected that the Amended Circular will be issued and published by September 2015.

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) has been operating for ten (10) years in QTP in Barangay Rio Tuba. For the reporting period, the average monthly net electricity generation reached 260,949.50 kWh while the average monthly electricity sales is 235,056 kWh, both of which indicated an increase of about 15.78% & 18.76% respectively as compared with the last year's report (for 6 months period from September 2014 to February 2015) electricity generation and sales.

As of 30 August 2015, the potential households is 4,275 while 1,745 are connected to the mini grid system. In line with the Government's Program of 90% household electrification by Year 2017, PSPI has programmed line extensions to the sitios to reach the unelectrified households. The average system loss is 9.95%.

The Biomass Renewable Energy Operating Contract (BREOC) for the 70kW Gasifier was signed on 02 February 2015. The new gas engine arrived on site and was installed last 20 May 2015. However, PSPI is still awaiting for the completion of gasifier modification. PSPI intends to apply for the COC once the gas engine will be commissioned and operational which is targeted in October 2015.

In order to provide efficient and reliable service and serve more customers, PSPI is undertaking the following activities, namely: 1) Transmission Line Phase 1 rehabilitation along Macafam – Tagdalungon; 2) relocation of secondary lines post along Macadam road due to the concreting road of pavement; 3) Tuka-Angri transmission line extension; and 4) Upgrading of generating units to ensure 24/7 operations.

On 21 April 2015, the PALECO Board in its Board Resolution no. 112 s2015 has extended the Waiver Agreement for an additional ten (10) years.

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 gebneration was 132,135.34 kWh per month and the average electricity sales was 123,387.33 kWh. There was a significant increase of aabout 40.16% in generation and 39.56% in sales which can be attributed to the extensive growth of business establishments and tourism in the island being the summer months.

For the reporting period, 1157 households were electrified, a 20.36% increase in the past six (6) months. Based on the barangay records, there are 1,208 households in the island of which 928 are connected to the mini grid system, 77% electrification level. The remaining 280 households are targeted to the connected to the grid within the next 2-3 years. The average system loss is 6.76%.

PSPI continues to implement the Provisional Authority to operate and applicable rates approved last March 2014. In March 2015, the ERC issued an Order extending the Provisional Authority granted until revoked or made permanent by the Commission.

c. Liminangcong in Taytay and Candawaga/Culasian in Rizal both in Palawan

The mini-grid systems in these barangays were funded by the Provincial Government of Palawan (PGP) and operated by a Barangay Power Association from 1995-2012. In February 2013, a Master Agreement was signed between PGP and PSPI for PSPI to take-over the management and operations in nine (9) areas including Liminangcong

and Candawaga/Culasian. Consequently, an Alliance with Palawan Electric Cooperative, Inc. (PALECO) was signed in November 2013 forthe electrification of remote and unviable areas through the QTP Program of which these areas were also included. DOE has already endorsed this QTP Project to NPC-SPUG for negotiation of its QTP Service and Subsidy Contract (QSSC). Once this is signed and together with all other project documents, DOE wil endorse the Project to ERC for the final approval and authorization of the QTP firm to provide electricity service in the subject barangays. For the meantime, the Waiver Agreements for these two (2) areas were recently signed.

d. Brgy. Cabayugan , Puerto Princesa City

In 23 April 2015, the DOE issued Certificate of Endorsement to the Energy Regulation Commission (ERC) for the Hybrid Solar PV/Diesel PowerPlant and Mini-power Grid located at Brgy. Cabayugan, Puerto Princesa City with Sabang Renewable Energy Company (SREC) as the QTP to provide electricity service in the area. Thereafter, SREC filed its Application to the Energy Regulatory Commission (ERC) on 1st June 2015. ERC shall issue the Authority to Operate and determines the rates and subsidy requirements to be charged against the UCME for the said project.

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

e. Balut Island in Sarangani, Davao Occidental

This area was waived and declared open for private sector investment in 2014. One firm submitted its offer and was subjected to a Swiss Challenge. However, no firms submitted counter proposal. Hence, the DOE evaluated the proposal and found the same in order and compliant with the DOE's eligibility criteria and requirements. This Project was endorsed to NPC-SPUG to commence negotiation for its QTP Subsidy and Service Contract. The QTP Subsidy and Service Contract refers to the agreement between NPC and the QTP defining the latter's responsibilities in providing the electric service in the declared unviable area. It sets the conditions by which the QTP shall provide the service such as the applicable performance and service standards, electric service charges and the proposed tariff vis-a-vis the full-cost recovery rate (FCRR) for the QTP operation. Meanwhile, no proposal was received for Sarangani Island. This will now be included in the MEDP for programming.

f. Calayan Island, Cagayan

Similarly, this island comprising five (5) barangays were waived and declared open for QTPs in November 2014. One (1) firm submitted an Expression of Interest (EOI) however, based on documents submitted, it was found that the firm is not compliant with the QTP qualification criteria. Similarly, this area will now be included in the MEDP for programming.

g. Semirara Project in Caluya, Antique

DMCI Holdings established its subsidiary, Seminara Energy Utilities (SEU) to serve as the QTP in Semirara Island. This QTP Project is still subject to negotiation between SEU and NPC-SPUG for its QTP-SSC upon submission of its final technical and financial proposal.

4. Philippine Rural Electrification Service (PRES) Project

The financing for the PRES Phase II was secured by the AFD Manila for the rehabilitation of the systems installed under the PRES project. This phase will also provide for the sustainable operations of the project as the appropriate institutional arrangement will be identified and implemented. It is expected that Phase II will commence implementation by early 2015.

VII. 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. Fifty percent of one centavo per kilowatt-hour (P0.005/kWh) is for electrification projects, twenty five percent (P0.0025/kWh) for development and livelihood projects and the remaining twenty five percent (P0.0025/kWh) for reforestation, watershed management, health and/or environment enhancement projects.

DOE as fund administrator, has already established a total of eight hundred twenty (820) 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 October 2015 has accrued to PhP 9.95 Billion from which Php 6.49 Billion was obligated for the implementation of projects. This leaves an available fund at around 3.46 Billion.

Table 32. Summary of Financial Benefits from inception to October 2015 (In PhP Billion)

Particulars	EF	DLF	RWMHEEF	Total
Accrued Financial Benefit	4.20	2.71	3.04	9.95
Approved	3.29	1.57	1.63	6.49
Available/Collectible Balance	0.91	1.14	1.41	3.46

Source: DOE

- Project Approval

The initial process in availing a project is the submission of project proposal with its relevant documents. 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 to the project implementer.

In a given reporting period, the DOE has approved a total amount of Php 33.71 Million for the implementation of electrification projects in various barangays in the Province of Pangasinan while 103.61 Million for non-electrification projects. Php 58.94 Million worth of sixty one (61) development and livehoold projects will be implemented in the Provinces of Batangas, Quezon, Oriental Mindoro, Misamis Oriental, Compostella Valley, Saranggani, Bukidnon, Lanao del Sur and Lanao del Norte. While, Php 44.67 Million was approved for 46 reforestations, watershed management, health and/or environment enhancement projects for implementation in the Provinces Benguet, Batangas, Quezon, Oriental Mindoro, Lanao del Sur, Lanao del Norte, and Davao City.

Table 33. Project Approval (In PhP Million) May 2015 – October 2015

Fund Source	No. of Approved Projects	Amount (PhP in Million)
Electrification Fund	49 brgys/sitios	33.71
Development and Livelihood Fund	61	58.94
Reforestation, Watershed Management, Health and/or Environment Enhancement Fund	46	44.67

- Fund Releases

To commence with the preparation and processing of fund release, the concerned LGU has to submit a complete bidding documents in accordance to RA 9184 and bank

certificate as proof of account separately and exclusively opened for ER 1-94 projects. The scheme being applied for fund transfer is through a bank transaction.

Several releases were executed for the concerned DU's and Host LGU's for the implementation of their respective projects. Accordingly, the DOE was able to release a sum of Php 145.84 Million from which Php 65.50 Million was sourced out for electrification projects, Php 41.63 Million for the implementation of thirty five (35) various development projects and the remaining amount of Php 38.88 Million was intended for 41 reforestation, health and environment enhancement projects.

Table 37. Fund Release (In PhP Million) May 2015 – October 2015

Fund Source	No. of Projects	Amount (PhP in Million)
Electrification Fund	58 sitios	65.50
Development and Livelihood Fund	35	41.63
Reforestation, Watershed Management, Health and/or Environment Enhancement Fund	41	38.88

Source: DOE-Treasury

- Financial And Technical Audit

Consistent with the auditing rules and procedures under ER 1-94 program, the DOE-Internal Audit conducts a post-audit for the liquidation of project funds. In a given reporting period, the Department has audited and validated Php68.72 Million for ten (10) electrification projects implemented by BENECO, BISELCO, CEBECO I, LEYECO V, DASURECO, and TAWELCO. Whereas, forty five (45) DL/RWMHEE projects located in the Provinces of Ifugao, Laguna, Batangas, Quezon, Albay, Leyte, Lanao del Sur and Metro Manila were validated amounting to Php136.92 Million.

Table 38. Financial Audit (In PhP Million) May 2015 – October 2015

Fund Source	No. of Projects	Amount (PhP in Million)
Electrification Fund	10	68.72
Development and Livelihood Fund	27	91.72
Reforestation, Watershed Management, Health and/or Environment Enhancement Fund	18	45.20

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 covering one hundred seventy (170) barangays/sitios under the franchise area of PANELCO I, CEBECO I, TAWELCO, BISELCO, NORECO II, ORMECO, and SIASELCO.

Moreover, thirty five (35) non-electrification projects were inspected in the Provinces of Benguet, Batangas, Quezon, Leyte, Misamis Oriental, Compostela Valley, and Lanao del Sur.

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.

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 of the selected projects implemented during the given reporting period.

Figure 28. DL and RWMHEE Projects in the Provinces of Misamis Oriental, Leyte, Pangasinan, Compostella Valley, Batangas, and Quezon

VII. CONSUMER EDUCATION

Section 76 of the EPIRA provides that end-users shall be educated about the implementation of retail access and its impact on end-users and on the proper use of electric power. Such education shall include, but not limited to, the existence of competitive electricity suppliers, choice of competitive electricity services, regulated transmission and distribution services, systems reliability, aggregation, market, itemized billing, stranded cost, uniform disclosure requirements, low-income bill payment, energy conservation and safety measures.

In line with the mandate, the DOE has been conducting such information, education and communication (IEC) program on the electric power industry, led by the Electric Power Industry Management Bureau (EPIMB) to various consumer sectors and power stakeholders since the enactment of the law. For 2015, the DOE shifted from consumer sector based information campaign to school based information campaign targeting students from various private and state colleges and universities in the country as participants.

With the IEC 2015 targeting students, the following are the objectives which are expected to be attained during the process:

- Inform the academe sector's role in a competitive power sector environment;
- Provide the necessary knowledge and information to increase the academe sector's readiness and familiarity with the rules, regulations, procedures and systems and processes in the power sector reforms; and
- Enlist the active participation of the academe sector in contributing to the successful implementation of EPIRA and other electric power industry policies.

The DOE targeted students from Engineering particularly Electrical Engineering, Economics, Statistics, Commerce and other Colleges who may have interest in the topics. To date, the DOE has done eleven (11) out of the targeted sixteen (16) for the year as follows:

Table 39. Schedule of Conducted School Based IEC on EPIRA Implementation

	School	Area	Date
1.	Polytechnic University of the Philippines (PUP)	Metro Manila	June 23, 2015
2.	Pamantasan ng Lungsod ng Maynila (PLM)	Metro Manila	July 02, 2015
3.	Palawan State University (PSU)	Region IV-B	July 16, 2015
4.	MAPUA Institute of Technology	Metro Manila	August 10, 2015
5.	Bicol University (BU)	Region V	August 20, 2015
6.	University of the Philippines – Visayas (UPV)	Region VI	August 25, 2015
7.	Technological University of the Philippines (TUP)	Metro Manila	September 2, 2015
8.	Silliman University (SU)	Region VII	September 10, 2015
9.	Eastern Visayas State University (EVSU)	Region VIII	September 17
10.	Xavier University (XU)	Region X	October 1, 2015
11.	University of the Philippines Mindanao (UPM)	Region XI	October 8. 2015

The following are the coverage of the topics being presented by representatives from different groups from the EPIMB and the DOE's Consumer Welfare Protection Office (CWPO):

- Understanding Republic Act No. 9136 otherwise known as "EPIRA"
- Power Systems 101 and Power Supply and Demand Outlook
- Wholesale Electricity Spot Market (WESM)
- Retail Competition and Open Access
- Total Electrification and Benefits to Host Community
- Magna Carta for Residential Electricity Consumers
- Energy Efficiency and Conservation Tips

The conduct of the said IECs to academe provided the DOE with insight on how the students need such information on the power sector which did not only serve them as tool in preparation for their quest in finding jobs but also, the students are helpful medium in information dissemination as they have capability to absorb more information and capable of giving feedback to their parents and other family members and even other acquaintances. In the DOE's conduct of the said IECs, the DOE gathered important queries that are also helpful in the Department's formulation of future policies for the power sector.

ANNEXES

Annex 1. TransCo Inspection Report Based on Concession Agreement as of 31 October 2015

No.	Inspection Report No.	Location	Name of Project/ Transmission Facilities	Inspection Date
LUZON				
1	SLR-MTDB-15-21	South Luzon	Naga, Labo, Daraga SS, TGPP Switchyard	May 19-21, 2015
2	SLR-D1-15-22	South Luzon	Dasmariñas, Biñan, Muntinlupa, Las Piñas, Batangas, Ternate, Calaca & Rosario Substations, Bolbok, Cuenca & Taal Load End Substation	May 18-22, 2015
3	NLR-RS-15-23	North Luzon	Northwestern Luzon (Palauig, Dasol Repeater Stations)	May 18-22, 2015
4	NLR-PR-15-04	North Luzon	San Jose - Quezon 69kV T/L Project	May 20-22, 2015
5	NLR-D7-15-24	North Luzon	San Jose, Doña Imelda (Araneta), Tay-Tay (Dolores), Malaya, Quezon (Balintawak)	June 1-5, 2015
6	NLR-D6-15-25	North Luzon	Mexico, Concepcion, Cabanatuan, Pantabangan, Cruz na Daan	June 1-5, 2015
7	NLR-D4-15-27	North Luzon	Santiago, Gamu, Tuguegarao, Bayombong, Cauayan, Ilagan, Lagawe	June 15-19, 2015
8	NLR-D3-15-36	DISTRICT 3 North Luzon	San Manuel, Bolo,Labrador, Kadampat, Nagsaag, Mangaldan, Cuyapo	August 10-14, 2015
9	NLR-PR-15-07	North Luzon	Santiago – Tuguegarao 23 kV T/L Project	August 10-14, 2015
10	SLR-D3-15-38	DISTRICT 3 South Luzon	Naga City, Labo, Daraga, Tiwi	August 24-28, 2015
11	SLR-D2-15-40	DISTRICT 2 South Luzon	Tayabas, Gumaca, Makban, Kalayaan, Caliraya	September 7-11, 2015
12	NLR-D2-15-42	DISTRICT 2 North Luzon	La Trinidad & Binga Substation, Ambuklao Switchyard, Beckel Switching Station and Itogon Load End Station	September 28 – October 2, 2015
13	NLR-RS-15-46	North Luzon	Ampucao, Tuba, Angat & San Mateo Repeater Stations	October 12-17, 2015
VISAYAS				
1	VIS-RS-15-19	Visayas	Ivisan and Tangalan (Jawili) Repeater Stations	May 4-8, 2015
2	VIS-D1-15-20	Visayas	Ormoc, Tabango, Maasin, Paranas, Babatngon, Sta. Rita, Isabel & Calbayog Substations, Guadalupe & Tabango Cable Terminal Stations, Tolosa Capacitor Bank & Switching Station, Albuera Electrode Station, Hilongos PCB Station, Baybay Load End Substation and Ormoc HVDC Converter Station	May 4-8, 2015
3	VIS-PR-15-05	Visayas	Culasi-San Jose 69kV T/L Project	June 8-11, 2015
4	VIS-D3-15-26	Visayas	Bacolod, Cadiz, Kabankalan, Mabinay, Amlan	June 15-19, 2015
5	VIS-PR-15-08	Visayas	Visayas Substation Reliability Project 1	September 9-11, 2015
6	VIS-D4-15-43	Visayas District 4	Santa Barbara, Barotac Viejo, Dingle, Panit-an and Nabas Substations, and Barotac Viego Cable Terminal Station	September 28 – October 2, 2015
7	VIS-D1-15-47	Visayas District 1	Ormoc, Tabango, Maasin, Paranas, Babatngon, Sta. Rita, Isabel & Calbayog Substations, Guadalupe & Tabango Cable Terminal Stations, Tolosa Capacitor Bank & Switching Station, Albuera Electrode Station, Hilongos PCB Station, Baybay Load End Substation and Ormoc HVDC Converter Station	October 26-30, 2015
MINDANAO				
1	MIN-AC-15-34	Mindanao	General Santos Area Control Center, Calumpang, Tupi & Malalag Repeater Stations	August 10-14, 2015
2	MIN-D2-15-35	District 2 Mindanao	Lugait, Iligan(Overton), Balo-i(Abaga), Mindanao RCC, Metering Facilities and Microwave Station	August 10-14, 2015
3	MIN-RS-15-37	Southern Mindanao	Davao ACC & Repeater Stations	August 24-28, 2015
4	MIN-AC-15-39	Mindanao	Zamboanga ACC, Tumaga (Lunzuran), Sangali and Mercedes Repeater Station	September 7-11, 2015
5	MIN-RS-15-41	Mindanao	Salvacion and Mainit Repeater Stations	September 28 – October 2, 2015
6	MIN-MA-15-44	Mindanao	Mindanao MTD-A, Ditucalan, Iligan City	October 5-9, 2015
7	MIN-D5-15-45	Mindanao District 5	Davao, Kidapawan, Matanao, Bunawan, Nabunturan, Maco	October 12-16, 2015
8	MIN-PR-15-09	Mindanao	Mindanao S/S Expansion Project 2 (Gen.Santos & Kidapawan S/S)	October 14-16, 2015
9	MIN-RS-15-48	Mindanao	Talacogon (Lugait), Gingoog, and Camiguin Repeater Stations	October 26-30, 2015

Annex 2. TransCo Summary of Inspection Report for Projects Under Construction (PUC) as of 31 October 2015

No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
LUZON				
1	(NLR-PR-15-04) OR-P-15-50	May 20-22, 2015	Based on the approved Implementation Schedule, the San Jose - Quezon - Angat Project (S/S Portion), under contract no. Sp12.SJQTLP.Lt-0104, is already delayed by more than a year.	NARI was instructed to submit a "Catch-Up Plan" to meet the target completion (revised) for the entire project (December 2015). Ref.: Minutes of Meeting dated June 23, 2015
2	OR-P-15-51	May 20-22, 2015	The Contract (Sp12.SJQTLP. Lt-0104) already expired and no approved Contract Time Extension (CTE) has been issued.	NARI's request for CTE was not acceptable to Site Management Group-SLPD, thus, denied the request. Ref.: Site Management Analysis of CTE.
3	OR-P-15-52	May 20-22, 2015	Installation of three (3) sets of 230 kV PCBs for Bay 86 of the San Jose 230 Switchyard under the San Jose-Quezon Project (SJQP) has not yet started.	Work preparation is now coordinated with NARI / K-Energy. Ref.: 1. MOM dated June 23, 2015; & 2. Caution Tag Request for June 27 to July 25, 2015.
4	OR-P-15-53	May 20-22, 2015	Installation of six (6) sets of 230 kV DSs for Bay 86 of the San Jose 230 Switchyard (SJQP) has not yet started.	Activities at Bay 86 will continue in July 2015. Target Completion - September 2015. Ref.: 1) OM dated June 23, 2015; & 2) Caution Tag Request for June 27 to July 25, 2015.
5	OR-P-15-54	May 20-22, 2015	Installation of twelve (12) units of 230 kV CTs at Bay 86 of the San Jose 230 Switchyard (SJQP) has not yet started.	Activities at Bay 86 will continue in July 2015. Target Completion - September 2015.
6	OR-P-15-55	May 20-22, 2015	For installation of two (2) remaining units of 230 kV VTs at Bay 86 of the San Jose 230 Switchyard (SJQP).	Activities at Bay 86 will continue in July 2015. Target Completion - September 2015.
7	OR-P-15-56	May 20-22, 2015	Dismantling of three (3) sets of 230 kV PCBs at Bay 87 of the San Jose 230 kV Switchyard (SJQP) has not yet started.	Activities at Bay 86 will commence in July 2015. Target Completion - September 2015.
8	OR-P-15-57	May 20-22, 2015	For dismantling of three (3) remaining sets of 230 kV DS at Bay 87 of the San Jose 230 kV Switchyard (SJQP).	Activities at Bay 86 will continue in July 2015. Target Completion - September 2015. Ref.: 1) OM dated June 23, 2015; & 2) Caution Tag Request for June 27 to July 25, 2015.
9	OR-P-15-58	May 20-22, 2015	For dismantling of one (1) remaining set of 230 kV Line Trap (LT) at Bay 86 of the San Jose 230 kV Switchyard (SJQP).	No item in Contract for the dismantling of Line Trap at San Jose Bay 86. No existing LT for dismantling at Bay 86. The dismantled Line Traps (actually 2 sets for San Jose substation) were previously installed at Bay 87 not Bay 86.
10	OR-P-15-59	May 20-22, 2015	Activities at Quezon S/S (SJQP) has not yet started.	Activities to start upon delivery of Gantry Materials scheduled for July 2015. Ref.: MOM June 23, 2015.
11	OR-P-15-60	May 20-22, 2015	The aerial conductor at Bay 62 of the San Jose 115 kV Switchyard (SJAP) is not yet installed.	Installation will coincide with the shutdown, scheduled tentatively for August 2015 upon arrival of Gantry Materials (string insulators, turn buckle and arching horn from China).
12	OR-P-15-61	May 20-22, 2015	The drainage at Bay 62 of the San Jose 115 kV Switchyard (SJAP) was not yet completed.	NARI / K-Energy works on drainage is currently on-going at Bay 62 of San Jose 115 kV S/S. Target completion - July 31, 2015.
13	OR-P-15-62	May 20-22, 2015	The cable trench at Bay 62 of the San Jose 115 kV Switchyard (SJAP) was already completed but has no cover yet.	Installation of Cable Trench covers awaits the completion of the remaining cabling and termination works required by MTD-B during the commissioning and energization work, considering the project activities are on-going.

Annex 2. TransCo Summary of Inspection Report for Projects Under Construction (PUC) as of 31 October 2015

No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
14	OR-P-15-63	May 20-22, 2015	The Substation components/ activity for both San Jose and Quezon are not specifically mentioned in the ECC presented (ECC-NCR-1302-0068).	Upgrading Works for substation is exempted from ECC according to Environmental Division as mentioned by DENR. Only T/L portion requires ECC. Ref.: Email from EMD.
15	(NLR-PR-15-07) OR-P-15-96	August 10-14, 2015	The completion (contract expiry) of the Santiago-Tuguegarao 230 kV T/L Project was not attained due to ROW problems.	On-going erection and stringing works.
16	OR-P-15-97	August 10-14, 2015	The contract for the Santiago-Tuguegarao T/L Project has been expired since October 24, 2014 and no Contract Time Extension (CTE) was issued.	The CTE will be prepared by the contractor upon the resolution of the ROW issues.
17	OR-P-15-98	August 10-14, 2015	Seventeen (17) steel towers for the Santiago-Tuguegarao T/L Project remain for erection.	On-going erection works.
18	OR-P-15-99	August 10-14, 2015	35.71% of the Santiago-Tuguegarao T/L Project remain for stringing.	On-going stringing.
19	OR-P-15-100	August 10-14, 2015	The expansion works at Santiago & Tuguegarao S/S Project were not completed within the original contract period of 450 calendar days (i.e., contract expiry of December 3, 2014) due to delayed delivery of equipment & shutdown schedule problem.	Contractor to expedite the delivery of equipment.
20	OR-P-15-101	August 10-14, 2015	The contract for the Santiago & Tuguegarao S/S Project has expired since December 3, 2014 and no Contract Time Extension (CTE) was issued.	The CTE will be prepared by the contractor upon the complete delivery of supplies.
21	OR-P-15-102	August 10-14, 2015	One (1) set of 230 kV Disconnect Switch (DS) with earthing at Bay 01 in Tuguegarao S/S (under STL2) was not yet completely installed.	For installation.
22	OR-P-15-103	August 10-14, 2015	Six (6) out of the 12 units of 230 kV Current Transformer (CT) at Tuguegarao S/S (STL2) remain for installation.	For installation.
23	OR-P-15-104	August 10-14, 2015	The Microwave Radio Communi-cation System at Tuguegarao S/S (STL2) is not yet completely delivered.	For delivery.
24	OR-P-15-105	August 10-14, 2015	The 1-100 MVA Auto-Transformer not yet delivered at Tuguegarao S/S (LSEP4).	Auto-Transformer was already delivered in Manila Port. For delivery at site.
25	OR-P-15-106	August 10-14, 2015	One (1) set of 230 kV Power Circuit Breaker (PCB) is not yet installed at Tuguegarao S/S (LSEP4).	For installation.
26	OR-P-15-107	August 10-14, 2015	Four (4) sets of 230 kV DS are not yet installed at Tuguegarao S/S (LSEP4).	For installation.
27	OR-P-15-108	August 10-14, 2015	Three (3) units of 230 kV CT are not yet installed at Tuguegarao S/S (LSEP4).	For installation.
28	OR-P-15-109	August 10-14, 2015	Four (4) sets of 69 kV PCB at Tuguegarao S/S (LSEP4) are not yet installed.	For installation.
29	OR-P-15-110	August 10-14, 2015	Sixteen (16) sets of 69 kV DS are not yet installed at Tuguegarao S/S (LSEP4).	For installation.
30	OR-P-15-111	August 10-14, 2015	Nine (9) units of 69 kV CT are not yet installed at Tuguegarao S/S (LSEP4).	For installation.
31	OR-P-15-112	August 10-14, 2015	Twelve (12) units of 69 kV CT are not yet installed at Tuguegarao S/S (LSEP4).	For installation.
32	OR-P-15-113	August 10-14, 2015	Six (6) units of 69 kV SA are not yet installed at Tuguegarao S/S (LSEP4).	For installation.
33	OR-P-15-114	August 10-14, 2015	Five (5) out of 7 sets of Switchyard Marshalling Kiosk are yet to be installed at Tuguegarao S/S (LSEP4).	For installation.
34	OR-P-15-115	August 10-14, 2015	Two (2) self-supporting Steel Poles are not yet erected at Tuguegarao S/S (LSEP4).	For installation.
35	OR-P-15-116	August 10-14, 2015	One (1) unit of Concrete Firewall is not yet completed at Tuguegarao S/S (LSEP4).	For installation.
36	OR-P-15-117	August 10-14, 2015	Renovation and rehabilitation of existing Control Building at Tuguegarao S/S (LSEP4) was not yet completed.	Renovation and rehabilitation on-going.
37	OR-P-15-118	August 10-14, 2015	Minimal activities have been conducted at Gamu S/S.	The remaining works will commence upon delivery of 50 MVA transformer from Santiago SS.
38	OR-P-15-119	August 10-14, 2015	Nine (9) units of 230 VT are not yet installed at Santiago S/S (STL2).	For installation.

Annex 2. TransCo Summary of Inspection Report for Projects Under Construction (PUC) as of 31 October 2015

No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
39	OR-P-15-120	August 10-14, 2015	Two (2) sets of 100 MVA Auto-Transformers are not yet delivered at Santiago S/S (LSEP4).	Auto-Transformers were already delivered in Manila Port. For delivery at site.
40	OR-P-15-121	August 10-14, 2015	Six (6) units of 230 kV VT are not yet installed at Santiago S/S (LSEP4).	For installation.
41	OR-P-15-122	August 10-14, 2015	Three (3) sets of 69 kV PCB are not yet installed at Santiago S/S (LSEP4).	For installation.
42	OR-P-15-123	August 10-14, 2015	Eight (8) sets of 69 kV DS are not yet installed at Santiago S/S (LSEP4).	For installation.
43	OR-P-15-124	August 10-14, 2015	Six (6) units of 69 kV CT are not yet installed at Santiago S/S (LSEP4).	For installation.
44	OR-P-15-125	August 10-14, 2015	Nine (9) units of 69 kV VT are not yet installed at Santiago S/S (LSEP4).	For installation.
45	OR-P-15-126	August 10-14, 2015	Three (3) units of 69 kV SA are not yet installed at Santiago S/S (LSEP4).	For installation.
46	OR-P-15-127	August 10-14, 2015	One (1) set of 40 MVA Auto-Transformer, including its accessories & all appurtenances is yet to be decommissioned/ dismantled at Santiago S/S (LSEP4).	
47	OR-P-15-128	August 10-14, 2015	Relocation within the S/S of the following equipment is yet to be completed at Santiago S/S (LSEP4): 1 set – 72.5 kV dead-tank PCB 2 units – 72.5 kV VT 3 units – 72.5 kV CT	For relocation of equipment after the energization of Transformer No. 2 (T2).
VISAYAS				
1	(VIS-PR-15-05) OR-P-15-64	June 8-11, 2015	The delivery of supplies for the Culasi-San Jose 69 kV T/L Project (Fujian Electric Power Engineering Co. or FEPEC and Zheijang Electric Transmission & Transformation Eng'g. Corp. or ZETT) were already delayed based on the approved/agreed Implementation Schedule.	The remaining undelivered supplies based on the original supply contract replacement for OPGW and its accessories will be delivered 30 October 2015.
2	OR-P-15-65	June 8-11, 2015	The supply contracts (FEPEC & ZETT) for the Culasi-San Jose 69 kV T/L Project were already expired and no approved Contract Time Extensions (CTE) have been issued.	The Contract Time Extensions (CTE) for FEPEC and ZETT are now with the office of PCBMD for review & processing.
3	OR-P-15-66	June 8-11, 2015	No revised Implementation Schedules have been approved for the expired supply contracts of the Culasi-San Jose 69 kV T/L Project.	Revised Implementation Schedule for the expired supply contracts are for submission by the respective contractor suppliers once CTE is approved.
4	OR-P-15-67	June 8-11, 2015	Due to change of structure types to suit the actual field condition, the supplied Steel Poles (SP) were not sufficient for the Culasi-San Jose 69 kV T/L Project.	Steel Pole (SP) requirements for CSJTLP were already completed. SPs were borrowed from other projects to augment the lacking SPs and to be replaced thru Variation Order. Respective contractors were advised to submit their price proposal for the Variation Orders.
5	OR-P-15-68	June 8-11, 2015	No Optical Ground Wire (OPGW) & accessories were delivered for the Culasi-San Jose 69 kV T/L Project.	OPGW and its accessories is no longer needed and to be replaced with OHGW per Memo EEDD-2013-TL-625 dated 13 December 2013.
6	OR-P-15-69	June 8-11, 2015	The contractors for the construction / erection of Culasi-San Jose 69 kV T/L Project (Maxipro Development Corp. or MDC and S. L. Development Construction Corp. or SLDDC) were not able to complete the project on the agreed date of December 26, 2014.	Closely coordinated with concerned Functional Groups for the immediate resolution of ROW and permit issues as well as with the contractors for the resolution of technical issues. Target completion is in December 2015.
7	OR-P-15-70	June 8-11, 2015	The Construction / Erection Contracts were already expired on and no approved Contract Time Extensions (CTE) have been issued.	CTE for the Construction/Erection contracts are with the Office of PCBMD for review/processing.
8	OR-P-15-71	June 8-11, 2015	No revised Implementation Schedules have been approved for the expired Construction/ Erection Contracts of the Culasi-San Jose 69 kV T/L Project.	MDC and SLDDC contractors were instructed to submit Revised Implementation Schedule for review/approval. Please see attached Memos Ref. No. CSJTLP/MDC-2015-5-

Annex 2. TransCo Summary of Inspection Report for Projects Under Construction (PUC) as of 31 October 2015

No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
				02 and Ref. No. CSJTLP/SLDDC-2015-5-02 dated May 31, 2015.
9	OR-P-15-72	June 8-11, 2015	146 out of the 716 Steel Structures for the Culasi-San Jose 69 kV T/L Project are still not erected.	As of July 27, 2015, only 123 out of the 716 structures are still not erected. Target completion is on the 1st week of December 2015.
10	OR-P-15-73	June 8-11, 2015	The Right-of-Way (ROW) for the Culasi-San Jose 69 kV T/L Project is not yet 100% cleared.	As of July 28, 2015, workable structure sites (pole & tower) and in-between are 93.44% and 77.34%, respectively. The remaining unworkables are targeted to be completed in December 2015.
11	OR-P-15-74	June 8-11, 2015	The remaining 25% of Culasi-San Jose 69 kV T/L Project is still for stringing.	Stringing is on-going. Target completion for the remaining 25% is in December 2015.
12	OR-P-15-75	June 8-11, 2015	Delivery of Spares, Spare Parts and Tools for the Culasi-San Jose 69 kV T/L Project was included in the Construction/ Erection Contracts and not in the Supply Contracts.	Delivery of Spares, Spare Parts and Tools included in the Construction/Erection Contracts are for deletion.
13	OR-P-15-76	June 8-11, 2015	No approved Permit to cut trees from DENR	DENR issued the Clearance to Cut Planted Trees, dated July 19, 2015
14	OR-P-15-77	June 8-11, 2015	Pending completion of tree planting of at least 2,000 fruit and forest tree species in the surrounding areas in S/S sites and T/L route.	Be closely coordinated with CENRO-San Jose and CENRO-Culasi. CENRO-San Jose is now drafting the Memorandum of Agreement (MOA) for the tree planting activity.
15	(VIS-PR-15-08) OR-P-15-129	September 9-11, 2015	The Bacolod and Cadiz Substations, components of the Visayas Substation Reliability Project 1, were not completed within the original contract period of 450 calendar days due to late mobilization of the contractor at site & change of design issue.	The completion of Bacolod S/S is targeted in June 2016 due to the change of design. While, Cadiz S/S is targeted in December 2015.
16	OR-P-15-130	September 9-11, 2015	The Visayas Substation Reliability Project 1 contract, Sp12.VSRP1&2.Vt-0099R, has expired on November 29, 2014 and no Contract Time Extension (CTE) was issued.	The contractor has already submitted its proposed CTE and evaluation is ongoing.
17	OR-P-15-131	September 9-11, 2015	No approved Revised Implementation Schedule (IS) for Visayas Substation Reliability Project 1 to monitor the activities.	Waiting for the approval of the proposed CTE. The revised IS will be based on the duration of the approved CTE.
18	OR-P-15-132	September 9-11, 2015	Additional works have been implemented and yet no Variation Order (V. O.) has been issued.	Awaiting for the approval of the proposed V. O.
19	OR-P-15-133	September 9-11, 2015	No test reports of equipment have been issued.	On-going testing of equipment at Bacolod and Cadiz S/S High Voltage (HV) equipment.
20	OR-P-15-134	September 9-11, 2015	The assembly of the 100 MVA Transformer is still not yet completed at Bacolod S/S.	On-going assembly.
21	OR-P-15-135	September 9-11, 2015	One (1) out of the 2 sets of 138 kV Power Circuit Breaker (PCB) is not yet installed at Bacolod S/S.	Steel supports already completed. The uninstalled PCB is ready for installation.
22	OR-P-15-136	September 9-11, 2015	Three (3) out of the 12 units of 138 kV Current Transformer (CT) are not yet installed at Bacolod S/S.	Steel supports already completed. The uninstalled CTs are ready for installation.
23	OR-P-15-137	September 9-11, 2015	The 3-120 kV Surge Arresters (SA) are not yet installed at Bacolod S/S.	Foundation already completed. For construction of steel supports and installation of the SA.
24	OR-P-15-138	September 9-11, 2015	The 69 kV equipment/materials intended for Bay 5-03 were not installed at Bacolod S/S due to O&M's unplanned installation of the 69 kV feeder for Central Negros Electric Cooperative (CENECO).	The original plan of using Bay 5-03 by Planning & Eng'g. (P&E) shall be modified. Additional Bay shall be constructed to accommodate the swinging of the 69 kV Talisay Line & the present position will be used by the new 100MVA secondary terminal breakers and will have 69 kV spare feeder. A Design Change Notice has been approved already.
25	OR-P-15-139	September 9-11, 2015	Two (2) sets of 15 kV Metalclad Switchgear and 2-sets of 500 kVA Station Service Transformers are not yet installed at Bacolod S/S.	To be installed upon the completion of the Auxiliary Building.

Annex 2. TransCo Summary of Inspection Report for Projects Under Construction (PUC) as of 31 October 2015

No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
26	OR-P-15-140	September 9-11, 2015	The following existing equipment/ materials have not yet decommissioned /dismantled at Bacolod S/S: 1. 15 kV Metalclad Switchgear; 2. Station Service Transf.; 3. 69 kV Concrete Pole Structures; & 4. 69 kV Wood Pole Structures.	The decommissioning / dismantling will start after the energization of the new equipment.
27	OR-P-15-141	September 9-11, 2015	Two (2) single-circuit lattice type steel towers for 90-degrees deflection angle (to connect the existing 100 MVA TR No. 2 from Bay 7-01 to Bay 5-01) are yet to be erected at Bacolod S/S.	Erection will be scheduled after the completion of the structures for temporary connection / tapping.
28	OR-P-15-142	September 9-11, 2015	Two (2) double-circuit lattice type steel towers for 90-degrees deflection angle (to connect the existing 100 MVA TR No. 1 from Bay 7-04 to Bay 5-02 and the new TR No. 3 from Bay 7-05 to Bay 5-03) are yet to be erected at Bacolod S/S.	Erection will be scheduled after the completion of the structures for temporary connection / tapping.
29	OR-P-15-143	September 9-11, 2015	Three (3) 69 kV single self- supporting steel poles, dead-end type for 90-110 degree deflection angle are yet to be erected at Bacolod S/S.	Erection will be scheduled after the completion of the structures for temporary connection / tapping.
30	OR-P-15-144	September 9-11, 2015	The Protection, Control & Communication Equipment has been delivered but not yet installed at Bacolod S/S.	To be installed once the expansion of the Control Building is completed.
31	OR-P-15-145	September 9-11, 2015	Construction of new Auxiliary Building and the expansion of the two (2) storey Control Building are not yet completed at Bacolod S/S.	On-going construction.
32	OR-P-15-146	September 9-11, 2015	Air conditioning and ventilation system are not yet delivered at Bacolod S/S.	For delivery.
33	OR-P-15-147	September 9-11, 2015	Fire Protection System is yet to be installed at Bacolod S/S.	For installation.
34	OR-P-15-148	September 9-11, 2015	The Oil/Water Separate System has yet to be constructed at Bacolod S/S.	Still for determination of final location.
35	OR-P-15-149	September 9-11, 2015	Three (3) out of the 9 units of 138 kV Current Transformer (CT) are yet to be installed at Cadiz S/S	On-going installation.
36	OR-P-15-150	September 9-11, 2015	Three (3) out of the 6 units of 138 kV Voltage Transformer (VT) are still for installation at Cadiz S/S.	On-going installation.
37	OR-P-15-151	September 9-11, 2015	Two (2) sets of 15 kV Metalclad Switchgears are not yet installed at Cadiz S/S.	To be installed after the completion of the Auxiliary Building.
38	OR-P-15-152	September 9-11, 2015	The existing 15 kV Metalclad Switchgear & 150 kVA Station Service Transformer are yet to be decommissioned / dismantled at Cadiz S/S	To be decommissioned / dismantled after the installation of the new Metalclad Switchgears & Station Service Transformer.
39	OR-P-15-153	September 9-11, 2015	The Substation Protection, Control and Communication System are not yet installed at Cadiz S/S.	To be installed after the approval of the revised plan submitted, which is based on the actual panel installed at relay room.
40	OR-P-15-154	September 9-11, 2015	The existing Main Control Switchboard and RTU are yet to be expanded /modified at Cadiz S/S.	Modification/expansion works will start after the installation of the new Protection System.
41	OR-P-15-155	September 9-11, 2015	Construction of the New Auxiliary Building (Gallery Type) has not yet completed	Finishing works on-going.
42	OR-P-15-156	September 9-11, 2015	Fire Protection System is yet to be installed at Cadiz S/S.	For installation.
43	OR-P-15-157	September 9-11, 2015	Air-conditioning and Ventilation System is yet to be delivered at Cadiz S/S.	For delivery.
44	OR-P-15-158	September 9-11, 2015	There is no Manufacturer /Supplier's Certificate that oil is PCB-Free with lab certification that PCB concentration is less than 2 ppm Source: DAO 04-01 (Chemical Control Order for PCBs)	To be secured from NARI Group Corporation- a power contractor from China.
MINDANAO				
1	(MIN-PR-15-06) OR-P-15-78	July 13-16, 2015	The Contract already expired and no approved Contract Time Extension (CTE) has been issued.	The proposed CTE was already submitted by the contractor for approval. Evaluation already in progress.
2	OR-P-15-79	July 13-16, 2015	Three (3) remaining steel structures (GMS Nos. 126, 127 and 128) of the Matanao-Gen	Expropriation cases for the 3 remaining steel structures were already filed at

Annex 2. TransCo Summary of Inspection Report for Projects Under Construction (PUC) as of 31 October 2015

No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
			Santos T/L Project are yet to be erected due to ROW problems.	court. Foundation works will start after the issuance of Writ of Possessions (WOP).
3	OR-P-15-80	July 13-16, 2015	The swinging of the existing Klinan Line 1 from the existing Take-off Structure to the new Take-off Structure at Matanao S/S has not yet started.	Waiting for the completion of Gen. Santos & Matanao Substations.
4	OR-P-15-81	July 13-16, 2015	No tree placement have been planted and maintained on open areas and watershed areas as part of environmental rehabilitation and protection measures	On-going reforestation program is initiated by EMD-NGCP.
5	OR-P-15-82	July 13-16, 2015	The original target completion of November 26, 2014 for Matanao & Gen. Santos Substation Project was not attained.	The proposed CTE was already submitted by the contractor for approval. Evaluation already in progress.
6	OR-P-15-83	July 13-16, 2015	No revised Implementation Schedule has been issued for Matanao and Gen. Santos Substation Project.	The preparation of the revised Implementation Schedule will be based from the approved CTE. Evaluation of the proposed CTE is already on-going.
7	OR-P-15-84	July 13-16, 2015	All the supplied substation equipment were already installed at Gen. Santos & Matanao S/S however, connection cables are yet to be installed.	On-going submission/approval of Cable & Wiring Termination Plan by Contractor to EDD.
8	OR-P-15-85	July 13-16, 2015	Swinging of the 138 kV Take-off Lines (Tacurong Line 1 & 2) from the existing 1st Take-off structure to the gantry structure at Gen. Santos S/S has not yet completed.	Waiting for the completion of Gen. Santos Substation.
9	OR-P-15-86	July 13-16, 2015	The following Fiber Optic Communication System at Gen. Santos S/S are not yet installed: a. Optical Distribution Frame (ODF); b. Fiber Optic Approach Cable, 36 fibers, 1550nm, single mode; & c. 2 units of Interface Modules / Cards (SL1 with SFPs).	Equipment and Cables were available at site. Ready for installation.
10	OR-P-15-87	July 13-16, 2015	The existing Protection Panel at Gen. Santos S/S is not yet modified.	For modification.
11	OR-P-15-88	July 13-16, 2015	The existing SAS (Areva PACIS) at Gen. Santos S/S is not yet reconfigured/integrated and modified.	For reconfiguration/integration and modification
12	OR-P-15-89	July 13-16, 2015	The existing equipment / materials such as protection and control panels, AC/DC auxiliary panels, modules, cables, devices at Gen. Santos S/S are yet to be decommissioned, dismounted and hauled to the designated area in the substation	The decommissioning works will start after the energization of new equipment such as protection and control panels, AC/DC auxiliary panels, modules, cables, devices.
13	OR-P-15-90	July 13-16, 2015	The following Fiber Optic Communication System at Matanao S/S are yet to be installed: a. AREVA/ALSTOM (MSE5010/ DXC5000) Terminal Equipment Panel, comprising of modules/cards and other accessories; & b. Fiber Optic Approach Cables, 36 fibers, 1550nm, single mode (from station gantry to the Optical Distribution Frame at the FOT equipment room).	Already at the Gen Santos S/S. For delivery & installation at Matanao S/S.
14	OR-P-15-91	July 13-16, 2015	The Protection Signalling Equipment (Microwave Radio Communication System), complete with all the necessary interface cables, software & manuals is yet to be installed at Matanao S/S.	Already at the Gen Santos S/S. For delivery & installation at Matanao S/S.
15	OR-P-15-92	July 13-16, 2015	The existing Main Control Switchboard at Matanao S/S were not yet modified to conform with the new set-up of the substation including installation of necessary equipment, meters, synchro-check relays, test & control switches, annunciator window and accessories.	For modification after the new protection, control and communication equipment are installed.
16	OR-P-15-93	July 13-16, 2015	The existing RTU at Matanao S/S is yet to be expanded/modified (complete with the furnishing and installation of required modules, devices, RTU's interface wirings, protocol converter and other accessories).	For modification after the new protection, control and communication equipment are installed.
17	OR-P-15-94	July 13-16, 2015	The dismantling, transferring & re-installation of the existing Line Traps and Line Matching	Line traps will be transferred to the new Bay.

Annex 2. TransCo Summary of Inspection Report for Projects Under Construction (PUC) as of 31 October 2015

No.	Observation Report No.	Inspection Date/ Area	Description of Observation (TransCo)	Action Plan / Remarks (NGCP)
			Units (LMU) of Gen. Santos Line 1 PLC Link to its new bay/termination including laying of the new coaxial cables at Matanao S/S are not yet completed.	
18	OR-P-15-95	July 13-16, 2015	The existing equipment/materials at Matanao S/S such as protection panels, modules, devices, cables are not yet retired & hauled to the designated area in the substation.	The retiring works of protection panels, modules, devices, cables will start after the energization of new equipment.
19	(MIN-PR-15-09) OR-P-15-159	October 14-16, 2015	The original target completion of November 26, 2014 for the Gen. Santos and Kidapawan Substation Projects under the MSEP2 was not attained due to late delivery of substation equipment/materials.	A proposed Contract Time Extension (CTE) was already submitted by the contractor for NGCP approval. Evaluation already in progress
20	OR-P-15-160	October 14-16, 2015	The MSEP2 contract (Sp12.MGTL&MSEP2.Mt-0094R) expired on November 26, 2014 and yet no revised Implementation Schedule (IS) has been issued.	The revision of the IS will be based on the approved CTE, where, the approved no. of calendar days will be the basis of the extension of the construction / installation activities. Evaluation of the proposed CTE is already on-going.
21	OR-P-15-161	October 14-16, 2015	All the supplied substation equipment were already installed at Gen. Santos S/S, however, HV bus work not yet undertaken due to unavailability of line connectors/hardwares.	Waiting for delivery of line connectors/hardwares.
22	OR-P-15-162	October 14-16, 2015	The quantity of Pole Structures at Gen. Santos S/S were already revised thru Variation Order No. 1 to suit the actual field condition, however, these structures are yet to be erected.	For erection.
23	OR-P-15-163	October 14-16, 2015	The following structures at Gen. Santos S/S are not yet dismantled, including the power conductor & OHGW: • 2 sets of 2-lightweight ST-SC; • 1 set of 2-concrete pole DC; & • 2 sets of 1-concrete pole DC.	For dismantling.
24	OR-P-15-164	October 14-16, 2015	1 set of 125 VDC Battery Charger/Rectifier is not yet delivered at Gen. Santos S/S.	For delivery.
25	OR-P-15-165	October 14-16, 2015	The 1-50 MVA Power Transformer is not yet hauled from Gen. Santos S/S to Kidapawan S/S.	To be hauled after the energization of the newly installed transformer at Gen. Santos S/S.
26	OR-P-15-166	October 14-16, 2015	1 set out of the 2 sets of 69 kV PCB, dead-tank type, motor spring charged, suitable for 3+1 pole operation, are not yet installed at Kidapawan S/S.	For installation.
27	OR-P-15-167	October 14-16, 2015	2 sets out of the 4 sets of 69 kV DS, 2000A, 40kA, 3-phase, motor & manually operated, without earthing, are yet to be installed at Kidapawan S/S.	For installation
28	OR-P-15-168	October 14-16, 2015	3 units out of the 6 units of 69 kV VT, complete with the required accessories, support structures and anchor bolts are not yet installed at Kidapawan S/S.	For installation
29	OR-P-15-169	October 14-16, 2015	The following substation equipment and materials at Kidapawan S/S are yet to be decommissioned/ dismantled: 1 set - 69 kV PCB, live-tank 2 sets - 69 kV DS 3 units - 69 kV CT 3 units - 69 kV PT 3 units - 69 kV SA 1 unit - 15 kV MCS 1 unit - Station Service Transf. 69 kV Wood Poles, gantry post	For dismantling.
30	OR-P-15-170	October 14-16, 2015	The following are not yet modified/expanded at Kidapawan S/S: 1. Existing Main Control Switchboard (MCSB); & 2. Exiting Remote Terminal Unit (RTU)	For modification.
31	OR-P-15-171	October 14-16, 2015	69 kV Gantry structure at Kidapawan SS is not yet completely erected.	For erection.
32	OR-P-15-172	October 14-16, 2015	The station service transformer at Gen. Santos SS has insufficient catch basin.	To be corrected

Source: TransCo

Annex 3. NGCP Related Petitions to ERC as of 31 October 2015

CASE NO./ DATE OF FILING	NATURE OF PETITION	GROUNDS FOR FILING	STATUS
ERC 2015 173RC/ 02 October 2015	In the Matter of the Application for the Approval of an Interim Maximum Annual Revenue for Calendar with Prayer for the Issuance of Provisional	• Immediately issue an Order provisionally approving the collection of the iMAR2016 in the amount of PhP45,287.24Mn and the iNPI2015 of PhP1,029.76Mn, and the SO and MSP Charges beginning the billing period of 26 December 2015 – 25 January 2016. • APPROVE, after notice and hearing, the authority to collect the IMAR2016 in the amount of PhP45, 287.24Mn, the iNPI2015 of PhP1, 029.76Mn and the SO and MSP Charges.	• On October 21, 2015, the ERC issues an Order setting the jurisdictional hearing/expository presentation for Luzon on November 26, 2015, and the expository hearing for Visayas and Mindanao on January 27, 2016 and February 3, 2016, respectively. The pre-trial and evidentiary hearing was set on February 10, 2016.
ERC Case 2015-136 RC/ 15 July 2015	In the Matter of the Application of the National Grid Corporation of the	• DECLARE the Typhoon Glenda as Force Majeure Event (FME); • GRANT Provisional Approval to implement and bill the FM Pass- Through Amounts to Visayas and Luzon customers starting October 2015 billing month to December 2020 billing month or until such time that the amount incurred is fully recovered; • APPROVE the Capital Expenditure (CAPEX) amounting to PhP194,844,662.28 incurred by NGCP for the repair, restoration and rehabilitation of the damaged transmission assets and other related facilities due to the FME Typhoon Glenda as FME; • APPROVE, after due notice and hearing, the proposed FM Pass Through Amount to be collected from the Luzon and Visayas customers starting October 2015 billing month to December 2020 billing month oruntil such time that the amount incurred is fully recovered; • APPROVED and ALLOW the recovery of the Net Fixed Asset Value of the transmission assets and other related facilities damaged by the FME Typhoon Glenda amounting to PhP13,525,335.28, 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 Typhoon Glenda as FME; • EXCLUDE the proposed Pass-Through Amount from the side constraint calculation.	• Awaiting ERC Order
ERC Case 2015-079 RC/27 April 2015	In the Matter of the Application for the Approval of the Mindanao 230KV Transmission Backbone Project, with Prayer for Provisional Authority	• Immediately ISSUE an Order Provisionally authorizing the implementation of Mindanao 230kV Transmission Backbone Project; and • APPROVE, after notice and hearing, the Application for the implementation of Mindanao 230kV Transmission Backbone Project.	• On July 20, 2015, the ERC issued an order setting the jurisdictional, expository,pre-trial and evidentiary hearing on August 27, 2015 (Thursday) at 2:00PM, ERC Mindanao Field Office, Mintrade Building, Monteverde corner Sales St., Davao City. • Pursuant to ERC order dated July 20, 2015 the jurisdictional, expository, pre-trial and evidentiary hearing were conducted and terminated on August 27, 2015 in Davao. NGCP was directed to submit its Formal Offer of Evidence (FOE).
ERC Case 2015-078 RC/27 April 2015	In the Matter of the Application for the Approval of the Pagbilao EHV Substation Project, with Prayer for the	• ISSUE, immediately upon filing of the Application, a Provisional Approval for the implementation of the Pagbilao EHV Substation Project; and	• On July 20, 2015, the ERC issued an order setting the jurisdictional, expository, pre-trial and evidentiary hearing on August 26, 2015 (Wednesday) at 10:00AM, ERC Pasig.

<table>
<tr><td></td><td></td><td>• APPROVE, after notice and hearing, the Application for the implementation of the Pagbilao EHV Substation Project and render judgment making provisional approval permanent).</td><td>• Pursuant to ERC order dated July 20, 2015 the jurisdictional, expository, pre-trial and evidentiary hearing were conducted and terminated on August 26, 2015. NGCP was directed to submit its Formal Offer of Evidence (FOE).</td></tr>
<tr><td>ERC Case 2015-049 RC/12 March 2015</td><td>In the Matter of the Application for the Approval of the Cebu-Negros-Panay 230 kV Backbone Project -Stage 2 (CebuSubstation 230 kV Upgrading), with Prayer for the Issuance of a Provisional Authority</td><td>• Immediately ISSUE an Order provisionally approving the implementation of the CNP 230kV backbone Project Stage 2(Cebu Substation 230 kV Upgrading); and
• APPROVE, after notice and hearing, the Application for the implementation of the CNP 230kV Backbone Project Stage 2(Cebu Substation 230kV Upgrading).</td><td>• On June 2, 2015, the jurisdictional, expository, pre-trial and evidentiary hearing were conducted. NGCP was directed to file its Formal Offer of Evidence within 15 days.
• On Sept. 23, 2015, TransCo received a copy of NGCP's compliance (dated Sept. 17, 2015) to ERC's directive as per ERC Order dated August 12, 2015.</td></tr>
<tr><td>2015-113 RC/June 11, 2015</td><td>In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement Between the National Grid Corporation of the Philippines (NGCP) and SPC Power Corporation (SPC), with Prayer for the Issuance of Provisional Authority</td><td>• Immediately ISSUE a provisional authority to implement the subject ASPA;
• After notice and hearing APPROVE the subject ASPA.</td><td>• On June 15, 2015, the ERC issued an order setting the jurisdictional hearing,expositoy presentation, pre-trial conference and evidentiary hearing on July 15, 2015 at 9:00 AM in ERC Visayas field Office.
• On Sept. 23, 2015, the ERC posted on its website an order dated August 24, 2015 granting the Provisional Approval on the application filed by NGCP and SPC subject to some conditions.</td></tr>
<tr><td>ERC Case 2015- 005 RC/January 14, 2015</td><td>In the Matter of the Application of the National Grid Corporation of the Philippines of the Approval of the Force Majeure (FM) Event Regulated FM Pass Through for Typhoon Agaton in Mindanao in Accordance with the Rules for Setting Transmission wheeling Rates, with Prayer for Provisional Authority</td><td>• Grant provisional approval to implement and bill the FM Pass Through Amounts to Mindanao customer starting February 2015 billing month to December 2020 billing month or such until time that the amount incurred is fully recovered;
• Declare the Typhoon Agaton as Force majeure Event (FME);
• Approve the CAPEX incurred for the repair, restoration, and rehabilitation of the damaged transmission assets and other related facilities due to Typhoon Agaton in Mindanao as FME;
• Approve the proposed pass-through amount representing return of capital and taxes associated with the emergency responses and the repair, restoration, and rehabilitation of NGCP's transmission assets and other related facilities damaged by FME Typhoon Agaton, as shown in the table below:
<table><tr><td>Grid</td><td>2015</td><td>2016</td><td>2017</td><td>2018</td><td>2019</td><td>2020</td></tr><tr><td>Mindanao</td><td>0.18</td><td>0.04</td><td>0.04</td><td>0.04</td><td>0.04</td><td>0.04</td></tr></table>• Approve and allow the recovery of the Net Fixed Asset Value of the transmission assets and other related facilities damaged by Typhoon Agaton in Mindanao in the amount of One Million Six Hundred Eighty-One Thousand Fifty-Six Pesos and 18/100 (PhP1,681,056.18) as part of the FM Pass Through Amount given that the said amount would have been fully recovered by NGCP if these transmission assets and other related facilities have not been damaged or destroyed by Typhoon Agaton as FME; and
• Exclude the proposed Pass-Through amount from the side constraint calculation.</td><td>• On May 12, 2015, the Jurisdictional compliance was conducted and terminated while the expository, Pre-trial and evidentiary were set on July 1, 2015 in Mindanao.
• On June 1, 2015 , the ERC issued an order setting the expository, pre-trial and evidentiary hearing on July 1, 2015 in Mindanao.</td></tr>
<tr><td>ERC Case 2014 - 163 RC/</td><td>In the Matter of the Application of the National Grid Corporation of the Philippines</td><td>• GRANT Provisional Approval to implement and bill the FM Pass-Through Amounts to Visayas customers starting January 2015 billing month to December 2020 billing month or until such time that the amount is fully recovered;</td><td>On May 13, 2015, the pre-trial-conference and the direct examination of the witnesses was</td></tr>
</table>

<table>
<tr>
<td>November 5, 2014</td>
<td>for the Approval of Force Majeure (FM) Event Regulation FM Pass Through for Typhoon Yolanda in Accordance with the Rules for Setting Transmission Wheeling Rates, with Prayer for Provisional Authority</td>
<td>• DECLARE the Typhoon Yolanda as Force Majeure Event (FME);
• APPROVE the Capital Expenditure (CAPEX) incurred by NGCP for the repair, restoration and rehabilitation of the damaged transmission assets and other related facilities due to the FME Typhoon Yolanda;
• APPROVE, after due notice and hearing, the proposed FM Pass Through Amount to be collected from the Visayas customers starting January 2015 billing month to December 2020 billing month or until such time that the amount incurred is fully recovered;
• APPROVE and ALLOW the recovery of the Net Fixed Asset Value of the transmission assets and other related facilities damaged by the FME Typhoon Yolanda in the amount of One Billion One Hundred Fourteen Million Six Hundred Seventy-Seven Thousand Two Hundred Eighty-Two Pesos and 90/100 (PhP1,114,677,282.90) as part of the FM Pass Through Amount given that the said amount would have been fully recovered by NGCP if these transmission assets and other related facilities have not been damaged or destroyed by Typhoon Yolanda as FME; and
• EXCLUDE the proposed Pass-Through Amount from the side constraint calculation.</td>
<td>conducted. Continuance of hearing for this case is set on June 16, 2015.

On June 17, 2015, the continuation of the evidentiary hearing was conducted.

On July 20, 2015, the NGCP submitted its "Partial Compliance with Motion"

On July 30, 2015 hearing, TransCo was directed by the Commission to file their Manifestation on or before September 3, 2015, identifying therein the names of the witnesses it wishes to be crossed, and it has to be served/submitted personally to NGCP and ERC.

TransCo continued and concluded its cross examination during the continuation of hearing on September 30, 2015.</td>
</tr>
<tr>
<td>ERC Case 2014 -155 RC/ October 17, 2014</td>
<td>In the Matter of the Application for the Approval of the Maximum Allowable Revenue for the Calendar Year 2015 and the Net Performance Incentive for Calendar Year 2014 Under the Rules for Setting the Transmission Wheeling Rates, with Prayer for Provisional Authority</td>
<td>• Immediately GRANT provisional authority to implement the collection of the MAR2015 in the amount of PhP43,078.95Mn, the PIS2014 of PhP923.08Mn, and the corresponding System Operator and Metering Service Provider Charges beginning the billing period of 26 December 2014 to 25 January 2015;
• APPROVE, after notice and hearing, the collection of the MAR2015 in the amount of PhP43,078.95Mn, the PIS2014 of PhP923.08Mn and the corresponding System Operator and Metering Service Provider Charges; and
• APPROVE the fifty % (50%) of PhP15.08Mn or the equivalent of PhP7.54Mn as RBRt from co-location and rental of equipment;</td>
<td>On July 29, 2015 , the continuation of evidentiary hearing was conducted and terminated. NGCP was directed to file their Formal Offer of Evidence (FOE) within 10 days.</td>
</tr>
<tr>
<td>ERC Case 2014 -127 RC/ 29 August 2014</td>
<td>In the Matter of the Application of the National Grid Corporation of the Philippines for the Approval of Force Majeure (FM) Event regulated FM pass through for sabotage incidents and landslide due to continuous heavy rains in Mindanao and Typhoons Santi and Vinta in Luzon in accordance with the Rules for Setting Transmission Wheeling Rates, with prayer for Provisional Authority.</td>
<td>• GRANT Provisional Approval to implement and bill the FM Pass-Through Amounts to Luzon and Mindanao customers starting October 2014 billing month to December 2015 billing month or until such time that the amount incurred is fully recovered;
• DECLARE the sabotage incidents and landslide due to continuous heavy rains in Mindanao, and Typhoons Santi and Vinta in Luzon as Force Majeure Events (FME);
• APPROVE the CAPEX incurred for the restoration, rehabilitation and repair of the damaged transmission assets and other related facilities due to the sabotage incidents and landslide due to continuous heavy rains in Mindanao, and Typhoons Santi and Vinta in Luzon as FMEs;
• APPROVE the proposed passthrough amount representing return on capital, return of capital and taxes associated with emergency responses and the repair and rehabilitation of facilities damaged due to the said events, as shown in the table below:
<table>
<tr><th>Grid</th><th>2014</th><th>2015</th></tr>
<tr><td>Luzon</td><td>0.0338</td><td>0.0083</td></tr>
<tr><td>Mindanao</td><td>0.2830</td><td>0.0703</td></tr>
</table>
•</td>
<td>On May 6, 2015, the continuation of hearing was conducted. NGCP to submit FOE within 20 days.</td>
</tr>
</table>

		• EXCLUDE the proposed Pass-Through Amount from the side constraint calculation.	
ERC Case 2014-007 RC/ 30 January 2014	In the Matter of the Application for Approval of the Ancillary Services Procurement Agreement (ASPA) Between the National Provisional Authority.	• ISSUE a provisional authority to implement the subject ASPA; and • After Notice and hearing, APPROVE the subject ASPA.	On May 5, 2015, the ERC posted on its website an Order dated April 11, 2015, extending the Provisional Authority until revoked or made permanent by the Commission.

Source: Transco

Annex 4. Private Sector Initiated Power Projects in Luzon (COMMITTED) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION/PROJECT COST	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
COAL	**1,237.00**	•		
Anda Power Corporation's 82 MW Ciculating Fluidized Bed Coal Fired Power Plant/ Anda Power Corporation/ Brgy. Bundagul, Mabalacat, Pampanga **Cost: US$196,246,837.63**	82	• Financial Arrangement Secured; • Asia Pacific Energy Corp was initially issued with ECC and subsequently transferred to ANDA based on the confirmation letter issued by DENR dated 18 February 2014; • On-going negotiations with offtakers;- Awaiting for the review report of NGCP of the SIS (Unit 1 to be included in the simulation in the SIS); • Commencement of Construction:March 2014;	June 2015	September 2015
2 X 150 MW SLPGC Coal-Fired Power Plant Phase I/ Southwest Luzon Power Generation Corporation (Project Company)/ Brgy. San Rafael, Calaca, Batangas **Cost for Phase I: PhP20.4B**	300	• Financial Arrangement Secured on 24 February 2012 (60% Loan / 40% Equity); • GIS approved by NGCP on 8 November 2011; ECC issued on 21 October 2011; • Completed Feasibility Study July 2015; • Awaiting for the approval of NGCP for the Dasmariñas-Calaca Reinforcement and right of way for the transmission lines; • Hydro testing for the boiler - 25 April 2014; • Embedded plate for turbine, ready for installation - Unit 1; • Complete Seawater Intake - June 2014; • On-going installation for panels - Unit II; • Expected to complete Coal yard operation by Mid-May 2014; • 230 kV Switchyard steel super structure is substantially completed; • On-going negotiations with prospective off-takes (DUs and those currently with PSAs and contestable market under Open Access Regime; • Site Mobilization / Commencement of Construction on May 2012; • Project Progress as of 31 August 2014 - 86.7%; • Completed Steam Turbine Bed Plate Locating-Unit II; Completed Boiler Test Hydro Test - Unit II; • On-going installaton of CW Piping; • On-going Central Control Room Civil Works;Assembly and alignment of turbne on September 2014; • On-going erection/assembly of gantry steel structure (beam and columns) and equipment pedestal steel structure; • DCS Cabinet Unit 1 to be energized by the end of August 2014; • EPC Contract signed March 2012; • Groundbreaking - May 2012;	Unit I -June 2015 Unit II - August 2015	Unit 1 - August 2015 Unit 2 - September 2015;
135 MW Puting Bato Coal Fired Power Plant Phase II/ South Luzon Thermal Energy Corp. (SLTEC)/ Brgy. Puting Bato West, Calaca, Batangas **Cost: PhP 9.6B**	135	• Financial Close with tenders on 1 July 2013; • GIS approved by NGCP on 17 May 2013; DENR-ECC issued to TAOil for project on 30 April 2010; • Transfer to ECC to SLTEC on 14 Dec 2011; • Ash Handling Facility issued on 24 January 2012; • Switching Station 21 January 2013; • Started Construction on August 2013; • Construction Duration - 28 Months; • Delivered Boiler Stream Drum - 22 April 2014; • Delivery of Turbine - 2nd week of September 2014; • EPC works as of 31 August 2014: 64.05% completed; • Turbine Generation House - On-going construction;	August 2015	November 2015

Annex 4. Private Sector Initiated Power Projects in Luzon (COMMITTED) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION/PROJECT COST	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		• Boiler Structure: On-going Construction; • Coal yard-98% completed (as of August 2014);- On-going Construction; Downcomer pipes installed; Awaiting for ESP structure; Chimney Foundtion - 3.7m; -Material Receiving Facility - 99.59% completed; -Groundbreaking Target Date - August 2013;		
300 MW Limay Power Plant Project Phase I (2x150MW)/ SMC Consolidated Power Corporation/ Brgy. Lamao, Limay, Bataan **Cost: $622.15M / Php25.508B**	300	-Financial Arrangement Secured (65% Loan / 35% Equity); -Environmental Impact Assessment completed; Topographic and Hydrographic completed;Soil Investigation completed; -GIS/SIS submitted last 12 July 2013, under review of NGCP; -Site development in terms of physical accomplishment as of April 2015 is 87.54%; Construction Activities of Unit 1&2 2 x 150MW Power Plant - 2.30%;Design and Construction of Pier and Jetty Structure is 99.55%;Overall Piling Works is 52.29%; Turbine and Generator Building is 58.47%;Ash Dump Design and Construction - 100%; - Facility Study already sent to NGCP for review; -EPC was executed in January 2013; awarded; -ECC was issued on 17 September 2013; -Groundbreaking was held September 2014; Construction of the Project has been underway since January 2014; -SEC issued last 19 August 2011; -Land acquisition completed; -On-going electric power supply contract negotiation with prospective off-takers (DUs); -Clearance to Underatake GIS from DOE issued on 13 February 2013; Addendum for the re run of SIS was submitted to NGCP last Jan 30, 2015 for review; -	Unit 1 - 150 MW -May 2016 Unit 2 - 150 MW -October 2016	Unit 1 - 150 MW -August 2016 Unit 2 - 150 MW - January 2017
1 x 420 MW Pagbilao Coal-Fired Thermal Power Plant/ Pagbilao Energy Corporation/ Pagbilao Power Station, Nrgy. Ibabang Polo, Pagbilao, Quezon **Cost: US$ 1,000,000,000.00**	420	-Financial Arrangement Secured with various lenders on 30 July 2014;All conditions precedent have been fulfilled/satisfied;First and second drawdowns completed;-Estimated Net Capacity: 400MW; -Feasibility Study completed; -Marketing of Generating Capacities: Contract with off-takers completed, Suppy agreement executed;-Permits & Other Regulatory Requirements: 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; Marketing of Generating Capacities: 50% of the plant's capability will be sold to Therma Luzin Inc. and other 50% will be sold to TeaM (Phils.) Energy Corporation; 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; -Target Commencement of EPC and Construction: 30 May 2014; Ground Breaking Date: 23 July 2014-Estimated	Between May to November 2017	November 2017
NATURAL GAS	**1,150.00**			
100 MW San Gabriel Avion Project/ Prime Meridian PowerGen Corporation (Project Company)	100	-Financial Arrangement Secured : -Secured Clearance from DOE for the conduct of GIS on 21 June 2011; -System Impact Study (SIS) was completed; -Amendment of Philippine Ports Authority (PPA) charter to accomodate for the right of way for the project site is still for approval by the Office of the President; Engineering and design by the Contractors is ongoing	August 2015 (Target Commercial Operation)	September 2015

Annex 4. Private Sector Initiated Power Projects in Luzon (COMMITTED) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION/PROJECT COST	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
First Gen Corporation/ Barangay Bolbok, Batangas **Cost: PhP10B**		finalization with parallel reviews being performed by PMPC and its Technical Consultants; Excavation and ground preparation works by the EPC contractor are ongoing; Procurement of plant equipment is continuing, with most of the major power plant components either being manufactured or are scheduled for delivery to the site; Delivery of the first of two (2) Gas Turbine and some anicillary euipment have arrived at the Port of Batangas on 5 October 2014 and are expected to be delivered to the site by 24 October 2014;Shipment of the 2nd Gas Turbine and ancillary equipment is expected to arrive at the prot of Batangas by the end of October 2014; -All test are conducted such as Seismic, Geological and Hydro tests; -Seven (7) poles are to be set up for the transmission lines; -Signing of Contract with Meiscor for the construction of transmission line April 22, 2014; -Committed Arrival of the Turbine - September 2014; -Off-taker: Discussion with target off-takers on-going; -Commencement of Construction will be on October 2013; -Completion of facility on April 2015 -Completion of testing and commissioning (with the availability of Natural gas from Malampaya) on May 2015		
1x450 San Gabriel Power Plant (Phase II)/ First NatGas Power Corp./ Santa Rita, Batangas **Cost: US$600 Million**	450	-Financial Arrangement with kfW Secured on 4 September 2014 : -Secured Clearance from DOE for the conduct of GIS on 18 February 2013 ; -Engineering, Procurement and Construction (EPC) and Operations Maintenance (O&M) contracts already awarded on December 16, 2013 -Ongoing application for the Permit to operate mechanical equipment such as boilers, pressure vessels etc from City Engineers office of Batangas; Ongoing application for COE and MOA from DOE; Ongoing application for ERC point to point connection of transmission lines for Sta. Rita, San Lorenzo switchyard; Ongoing negotiations with NGCP for contract metering and Transmission Service Agreement; -SIS was approved by NGCP on 11 December 2013. ; -Commencement of Construction: 16 December 2013; -Off-taker:Discussion with target offtakers targeted for the first half of 2014; still on-going (17 June 2015); -Construction of the Project has been progressing with iste preparation and foundation works;	1Q 2016	June 2016
Pagbilao 600 MW Combined Cycle Gas Fired Power Plant/Proposed 3x200 MW CCGT Power Plant/ Energy World Corporation/ Brgy. Ibabang Polo, Grande Island, Pagbilao, Quezon **Cost:$300M**	600	-Financial Arrangement Secured : Financing equity will be 100% sourced from EWC; - 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; -Land is already secured with a long lease entered into since 2007; -Commencement of Construction: December 2013; -Off-taker:No specific offtaker 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; Permits and Regulatory Requirements: 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 Liquified Natural Gas (LNG) Power Plant; On-going processing of ECC for power plant; On-going processing -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;	October 2015	U1 - November 2015 U2 - December 2015 U3 - December 2016

Annex 4. Private Sector Initiated Power Projects in Luzon (COMMITTED) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION/PROJECT COST	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
HYDROPOWER	**83.90**			
Catuiran/ Sta. Clara Power Corp/ Naujan, Oriental Mindoro	8.0	-Financial Arrangement Secured; -Ground breaking held in January 2013; -Issued Confirmation of Commerciality on 07 February 2013; -Submission lacking requirements e.g. permits in progress; '-On-going construction (Project start construction 6 January 2014; -Target completion 6 July 2016	July, 2016	July 2016 (Target Testing and Commissioning)
Inabasan/ Ormin Power, Inc./ San Teodoro, Oriental Mindoro	10.0	-Financial Arrangement Secured; -Ground breaking held on 29 July 2013; -Issued Confirmation of Commerciality on 28 May 2013; -Project start construction 6 January 2014; '-Already secured DENR ECC, NCIP Certificate, and NWRB Permit; -Submitted Feasibility Study, Detailed Engineering Design and 5-Yr Work Plan.	May 2018	May 2018 (Target Testing and Commissioning)
Kapangan/ Cordillera Hydro Electric Power Corporation/ Kapangan & Kibungan, Benguet	60.0	- Issued Confirmation of Commerciality on 13 February 2014; -On-going civil works of hydro facilities	February 2019	February 2019
Bulanao/ DPJ Engineers and Consultants/ Tabuk, Kalinga **Cost PhP 293M**	1.0	-Financial Arrangement Secured; -Issued Confirmation of Commerciality on 11 March 2014; -Already secured NCIP clearance, DENR Permits, ESA with Kalinga Apayao Electric Cooperative Inc., Land lease Agreement; -On-going construction of intake structure and with purchase order for the turbine generator system; -Submitted Feasibility Study and 5-Yr Work Plan. Financing from DBP;	March 2019	March 2019
Prismc/ PNOC-Renewables Corp./ Rizal, Nueva Ecija	1.0	-On-going construction activities; -Ground breaking held on 11 July 2014. Confirmed DOC on 4 September 2014; Rehabilitation	September 2019	September 2019
Magat A/ Isabela Electric Cooperative, Inc./ Ramon, Isabela	1.4	-On-going rehabilitation	Feb 2020	Feb 2020
Magat B/ Isabela Electric Cooperative, Inc./ Ramon, Isabela	1.0	-On-going rehabilitation	Feb 2020	Feb 2020
Tubao/ Tubao Mini-Hydro Electric Corp./Tubao, La Union	1.5	-Issued Confirmation of Commerciality on 19 March 2015; -Ground breaking held on 8 November 2014. Pending submission of requirements for construction	March 2020	March 2020
SOLAR	**50.00**			
Currimao Solar Photovoltaic Power Project/ Mirae Asia Energy Corporation/ Currimao, Ilocos Norte	20	-Awarded with Solar Energy Service Contract (SESC No. 2012-08-020) on 19 Sept 2012; -Secured Memorandum of Agreement with Provincial Government of Ilocos Norte for the utilization of the land; Completed feasibility study; Conducted Third Party SIS, currently under review by NGCP; Acquired ECC from DENR, CNO from NCIP, Provincial, Municipal and Barangay Resolutions of Support, EPC Contract with LG CNS Co. Ltd., and proofs of negotiations/certifications with financial institutions for project financing; -Secured Clearance from DOE for the conduct of GIS on 11 October 2012; -Conducted Groundbreaking Ceremony on Nov 2012; - Acquired the DOE -Certificate of Confirmation of Commerciality on 12 Jul 2013; -On-going construction; Construction Stage as of 30 September 2014(Pre-Construction -25% completed, Construction-0% completed, Interconnection - 0% completed); -Issued Confirmation of Commerciality on 12 July 2013;	November 2015	November 2015

Annex 4. Private Sector Initiated Power Projects in Luzon (COMMITTED) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION/PROJECT COST	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Cost: US$51.9Million		-Pre-construction stage 25 % completed as of 31 March 2014; -On-going negotiations for project financing		
Macabud Solar Photovoltaic Power Project/ ATN Philippines Solar Energy Group, Inc./ Brgy. Macabud, Rodriguez, Rizal **Cost: US$70.0 Million**	30	-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, clearances from Land Registration Authority and DAR, EPC Contract, and proofs of negotiations/certifications with financial institutions for project financing; -Completed feasibility study; -Acquired the DOE Certificate of Confirmation of Commerciality on 27 Jun 2013; -On-going construction; Construction Stage as of 30 September 2014(Pre-Construction -80% completed, Construction-0% completed, Interconnection - 0% completed); -Clearance to Underatake GIS from DOE issued on 17 October 2011; -On-going negotiations or connection agreement, project financing, ROW, and PPA with MERALCO in the absence of REPA; -On-going negotiations for project financing, connection agreement and ROW; - Facility Study is under review by NGCP; DIS/DAS with MERALCO is on-going; -Negotiations for financial closing is on-going; Pre-construction 65% completed as of 31 March 2014	February 2016	February 2016
BIOMASS	**59.53**			
12.5 MW Bataan 2020 Rice hull-fired Cogen Plant/ Bataan 2020 Inc./ Bataan	7.50	- Financially Closed; --BREOC No. 2010-01-008; --Issued Certificate Confirmation of Commerciality on 27 August 2013; -100% Constructed & Operational (Operating for Own-Use); -Interconnection - 80% completed as of 30 September 2014;	May 2015	August 2015
20 MW Rusk-Fired Biomass Power Plant/ Isabela Biomass Energy Corporation/ Alicia, Isabela **Cost: PhP1.9B**	18	-Financially Closed; -BREOC No. 2013-03-030; -Issued Certificate Confirmation of Commerciality on 6 January 2014; -On-going construction; Pre-construction -95% completed; Interconnection-2% completed; -Steam Turbine Generator (STG) - for concreting; -Fuel Storage - with partial roofing; -Awaiting permit from DPWH for the construction of drainage system; - Permits obtained (ECC, LGU Endorsement, Land Use Permit, etc.); -Secured Clearance from DOE for the conduct of GIS on 22 April 2013 ; -Issued Declaration of Commerciality on 6 January 2014; -Has EPC; -Project Status as of 30 September 2014:Pre-construction: 95%;Construction:49%;Interconnection 2%; -Subject to FIT	August 2015 (Subject to FIT)	August 2015 (Subject to FIT)
12 MW Biomass Power Plant Project/ Green Innovations for Tomorrow Corporation/ Nueva Ecija	10.80	-Financially Closed; -BREOC No. 2013-09-037; -Project Status as of 30 September 2014: Pre-Construction: 79%; Construction: 18%;Interconnection:0% -Issued Declaration of Commerciality on 16 June 2014; -On-going construction	November 2015	November 2015
24 MW SJCiPower Rice Husk-Fired Biomass power Plant Project (Phase 1 - 12MW	10.80	'-Financially Closed; --BREOC No. 2011-01-013; -Pre-construction (100% completed as of 31 August 2014); -Phase I - Estimated Accomplishment of Construction 98 % completed as of 31 August 2014;Remaining	Phase 1 - Operational Phase 2 - July	Phase 1 - November 2014 (Operational

Annex 4. Private Sector Initiated Power Projects in Luzon (COMMITTED) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION/PROJECT COST	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Phase 2 - 12 MW)/ San Jose City I Power Corporation/ Brgy. Tulat, San Jose, Nueva Ecija **Cost: PhP1.234B**		major equipment in-progress is the installation of travelling gate;On-going installations of the feedwater 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); -Construction - (On-going construction as of 30 September 2014 - Pre-Construction - 100%; Construction-98%; Interconnection-100%); -Permits obtained-ECC,LGU,LandUse Permit) EPC w/ Engcon of Singapore; -Secured Clearance from DOE for the conduct of GIS on 21 July 2011 ; -Issued Certificate Confirmation of Commerciality on 2 Sept 2013; -Groundbreaking on 12 Oct 2013	2017 (Subject to FIT)	) Phase 2 - July 2017 (Subject to FIT)
2 MW ACNPC WTE Biomass Power Plant Project/ Asian Carbon Neutral Power Corporation/ Tarlac	1.50	-Financially Closed; -On-going construction	Phase 1 - September 2015 Phase 2 - July 2016	Phase 1 (0.75MW) September 2015 Phase 2 - July 2016 (0.75MW)
5 MW Bicol Biomass Energy Corp./ Bicol Biomass Energy Corp./ Camarines Sur	4.50	-Financially Closed; -On-going construction	December 2015	December 2015
0.4MW VM Agbayani Rice Mill Rice Husk-Fired Power Plant/ V.M. Agbayani Rice Mill/ Oriental Mindoro	0.28	-Financially Closed; -On-going construction	December 2015	December 2015
70 kW Biomass Gasification Power Plant Project/ PowerSource Philippines, Inc./ Palawan	0.05	-Financially Closed; -On-going construction	January 2016	January 2016
8.8 MW Biogas Power Plant Project/ AseaGas Corporation/ Batangas	6.1	-On-going construction	February 2016	February 2016

Total Committed Rated Capacity: 2,634.43

Source: DOE

Annex 5. Private Sector Initiated Power Projects in Luzon (INDICATIVE) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
COAL	**6,875.00**			
CFB Coal Power Plant/ DMCI Power Corporation/ Barangay Bato-bato, Narra, Palawan	15	-Secured Barangay, Municipal and Provincial endorsements; filed application for Certificate Pre-Condition from the National Commission on Indigenous People (NCIP); issued ECAN Zoning Certificate from PCSD and Zoning Certificate from the Municipal Planning Development Office -Currently processing NCIP endorsement from DOE	Feb-17	Mar-17
Limay Power Plant Project Phase II (2x150MW)/ SMC Consolidated Power Corporation/ Brgy. Lamao, Limay, Bataan	300	-Completed Feasibility Study; - 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: 1) Handover of site for Unit 1 is 31 Oct. 2014;2) Handover of Site for Unit 2 is 28 February 2015;3) 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; -Land acquisition completed; -On-going electric power supply contract negotiation with prospective off-takers (DUs); -On-going negotiations for financing arrangements - securing project financing 70:30 Debt-equity ratio; -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 an dother ancillaries, ash pond construction and water supply); -Target commencement of construction- Site development/Land preparation: 2 September 2013 (upon release of ECC), Start of Piling and Construction: 15 October 2013; -Date of Ground Breaking: 3rd Week of September 2013; -Project cost is Under Planning and Budget Review	Unit 1 - December 2016 Unit II - May 2017	Unit 1 - December 2016 Unit II - May 2017 (Target Testing & Commissioning)
Limay Power Plant Project Phase III (2x300MW)/ SMC Consolidated Power Corporation/ Brgy. Lamao, Limay, Bataan	600	-Completed Feasibility Study; - 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; -Land acquisition completed; - Site Development Target: 1) Handover of site for Unit 1 & 2 is December 2015 -Transmission Target: New extra high voltage TL and SS should be ready by November 2016; -On-going electric power supply contract negotiation with prospective off-takers (DUs); -On-going negotiations for financing arrangements - securing project financing 70:30 Debt-equity ratio;	Unit 1 - October 2016 Unit II - March 2017	Unit 1 - December 2016 Unit II - May 2017 (Target Testing & Commissioning)

Annex 5. Private Sector Initiated Power Projects in Luzon (INDICATIVE) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		-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 an dother ancillaries, ash pond construction and water supply); -Target commencement of construction- Site development/Land preparation: 2 September 2013 (upon release of ECC), Start of Piling and Construction: 15 October 2013; -Date of Ground Breaking: 3rd Week of September 2013; -Project cost is Under Planning and Budget Review		
1x300 MW Coal Power Plant/ Lucidum Energy, Inc./ Silanguin Bay, Zambales **Cost: US$ 600,000,000.00**	300	-The target date for the feasibility study is set by the end of October; Pacifictech Solutions has completed Feasibility Study as of November 2014 -Arrangement fo 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; -Marketiing of Generating Facilities: 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; -Permits and Other Regulatory Requirements: 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; -Financing Arrangements: 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; -Construction Contracts for Plants and Equipment are on hold pending the completion of detailed Engineering Studies; -Commencement of Construction will be based upon completion of the Feasibility Study and the Assessments of the financing companies involved; -Construction Contracts for plants and equipment has been 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	June 2017	June 2017 (Target Testing & Commissioning)
2 X 150 MW SLPGC Coal-Fired Power Plant Phase II/ Southwest Luzon Power Generation Corporation (Project Company)/ Brgy. San Rafael, Calaca, Batangas **Cost for Phase II: PhP19.864B**	300	-Property is currently under Land Lease Agreement (LLA) between Sem-Calaca Power Corporation (SCPC) with PSALM; -On-going negotiations with prospective off-takes (DUs and those currently with PSAs and contestable market under Open Access Regime; -ACQUIRED Permits: SEC Registration - Aug 2011; ECC application approved 21 Oct. 2011; Issued COE for BOI on 11 March 2013 under the name of SLPGC; ECC application approved 21 Oct. 2011; -On-going securing other necessary permits; -On-going financing negotiations with prospective banks; -On-going negotiation with prospective EPC; -Target NTP - End of 2013	Unit I - 2016 Unit II - 2016	December 2017
4 X 150 MW Coal Fired Thermal Power Plant/ JG Summit Holdings, Inc./ Brgy. Pinamukan Ibaba, Batangas City	600	-Project Timeline: Pre-Construction Phase (8 months)- 1. construction of EIA study and permitting; 2. Design and Engineering; 3. Commissioning of EPC Contractor (Phase 1 and Phase2); Construction Phase (12 months) - Civil Works and plant equipment installation; Operation Phase (design life) - 1. Start-up and unit synchronization; 2. Commercial Operation;- Conduct of public Scoping with Stakeholder representatives - 10 October 2013;-Conduct of Technical Scoping with EMB and EIA Rev Com - 6 November 2013;-Conduct of EIA Study and Preparation of EIS - November 2013 to	Unit 1 - June 2018Unit 2 - Dec 2018Unit 3 - June 2019Unit 4 - Dec 2019	Unit 1 - June 2018Unit 2 - Dec 2018Unit 3 - June 2019Unit 4 - Dec 2019(Target

Annex 5. Private Sector Initiated Power Projects in Luzon (INDICATIVE) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		February 2014;-Draft EIS Submission and Preliminary Review - Middle of 2014;-Public Hearing - 1 month after submission of EIS;-EMB Review - 55 days;-ECC Decision - Target before end of 2014; awaiting ECC Decision; In its latest ruling SC upheld the CA decision to deny "for insufficiency of evidence," the request to issue a writ of kalikasan. The CA still invalidated the ECCs and the LDA. The respondents eventually filed a motion for reconsideration, which had just been denied with CA's latest ruling; -Secured Clearance from DOE for the conduct of GIS on 21 February 2014; -Secured Endorsement from DOE for Certificate of CNO from NCIP on14 July 2014; -On-going negotiations for the financing arrangements and other permits; -On-going securing of regulatory requirements		Testing & Commissioning Date)
2 X 600 MW Mariveles Expansion Project/ GNPower Mariveles Coal Plant Ltd. Co./ Mariveles, Bataan	1,200.00	-On-going presentation/proposal submissions to potential customers;-Clearance to Underatake GIS from DOE issued on 26 June 2013; -Obtained LGU endorsements; BOI registration for 600 MW pre-approved;On-going SIS;-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 GNPower; -On-going negotiation with tenders;-On-going finalization of EPC Contract; Commercial operation by 2018; -Project cost is $1B	Unit I - August 2018 Unit II - 2019	Unit I - January 2019 Unit II -January 2020
San Buenaventura Power Ltd. Co. (SBPL) Project/ San Buenaventura Power Ltd. Co. (SBPL)/ Mauban, Quezon **Cost: PhP37.8B**	460	-Completed Selection Study in 2012;Coal Sourcing Study completed in 2012; -System Impact Study completed in 2007 and is being revalidated in 2013; Facility Study to be done in 2014; -Project will be located within the existing site; -Clearance to Underatake GIS from DOE issued on 7 March 2013; - 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; - No need for the additional transmission infra since they will be using the existing transmission infrastructure connected to QPPL; - Permits and Other Regulatory Requirements: 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; Reguest 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; -Financing arrangements under development; Financing arrangements is expected to be secured only after the ERC issues the final approval; -Owner's Engineer selected; EPIC bids received in November 2013; SIS completed in 2007 and is being revalidated;Municipal LGU endorsement issued April 19, 2005; Award EPC contract estimate September 2013; -Commencement of Construction Target: end of 2014;Expect to commence construction only after the ERC issues the final approval;and will take 4 years to fully complete the construction of the plant; -ECC issued on 4 June 2007;ECC extension of validity issued on 31 May 2012 and valid until 4 June 2015; Request for Amendment to upgrade technology was submitted to EMB on 17 February 2014;Request to assign the ECC for new project was requested on 2 June 2014;Additional documentation submitted to EMB on 7 August 2014; -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; -ERC application was filed on 2 June 2014; Financing arrangements is expected to be secured only after the ERC issues the final approval;	December 2018	March 2019

Annex 5. Private Sector Initiated Power Projects in Luzon (INDICATIVE) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		-Owner's Engineer selected; EPC bids received in November 2013; EPC Contract signed October 2014;		
2 X 300 MW Coal-Fired Power Plant/ Redondo Peninsula Energy, Inc./ Sitio Naglatore, Cawag, Subic Bay Freeport Zone **Cost: Php50B / $1.2B**	600	-Feasibility study completed; -Project Site is leased from the Subic Bay Metropolitan Authority; Amended ECC (3rd Amendment) secured last 15 November 2012; -The Connection Agreement has been executed last October 24, 2014.Execution after completion of NGCP's review of the revised System Impact Study and Facilities Study prepared by RPE; -NGCP's application to ERC for approval of Transmission Asset has been completed and is currently awaiting decision. RPE's application to the ERC for the Connection Asset has been deemed sufficient in form and substance; -Revised System Impact GIS review by NGCP completed 10 May 2012; -Any further development dependent on Supreme Court decision on Writ of Kalikasan case; -Public consultations conducted in Subic on 29 June 2012; Engineering, Procurement and Construction (EPC) contract negotiations finalized; -Site preparation construction on-going, construction commenced on Q3 2013; -On-going financing arrangements; -Started discussions with the Manila Electric Company for sale of power; 52% owned by Meralco PowerGen Corp. (MPGC); Target signing RP Energy and MERALCO PSA June 2015; Filing of application for PSA with ERC June 2015; Site Preparation completed in 2013; -Target Commencement of Construction will be Dependent on Supreme Court decision on Writ of Kalikasan Case	Unit I - October 2018 Unit II - December 2018 (Target Commencement of Construction will be Dependent on Supreme Court decision on Writ of Kalikasan Case.)	December 2018
2 X 300 MW Masinloc Expansion/ AES Masinloc Power Partners Co., Inc./ Zambales **Cost: PhP49.45B**	600	-Feasibility studies completed Feb 2011; -Grid Impact Studies obtained on 7 January 2011; -No additional land will be aquired 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;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; -Selection of EPC Contractor on going; -Commencement of Construction:2nd Qtr 2014; -Undergoing consultation with international / local banks	Unit 3 (300 MW) - June 2019 Unit 4 (300 MW) - June 2020	3rd Quarter of 2019 (Target Testing and Commissioning)
2 x 600 MW (net) Coal-Fired Power Plant/ Meralco PowerGen Corporation (Project Company: Atimonan One Energy/ Atimonan, Quezon	1,200	-Feasibility Study completed as of 21 Jan -15; -On-going securing of ECC; SEC already amended; -Energy to be sold to DUs and electric cooperatives - Acquisition of the parcels of the land in the target plant site in Atimonan, Quezon is on-going (expanding); -Financing discussion on-going -Clearance to Underatake 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. -Discussion of PSA with potential off-takers on-going; Informal discussions have begun with several banks with respect to the financing of the project.; '-Owner's Engineer has been appointed; EPC pre-qualification process on-going -On-site works targeted to start in 2016	December 2020	December 2020

Annex 5. Private Sector Initiated Power Projects in Luzon (INDICATIVE) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		'-EIS draft submitted to DENR in Nov. 2014; 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);No contracts have been awarded to date re: EPC; still on-going -The parties have yet to agree on when construction will commence; -On-going negotiations with lenders		
2 x 350 MW PCB Subcritical Coal-Fired Power Plant/ H & WB ASIA PACIFIC (PTE LTD) CORPORATION/ Jose Panganiban, Camarines Norte	700	-Pre-feasibility studies have conducted to determine the viability of the project;- land already secured and it has beenre-classified as industrial; being resurveyed for titling (6/12/2015)-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-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; On-going processing of ECC requirements; -On-going discussions with major banks and capital companies for debt-financing;-Ongoing discussion with four potential co-developers and equity partners;-Ongoing sourcing of potential EPC Contractors;-Construction to commence on the 4th Quarter 2017;	Unit 1 - 4th Quarter 2020Unit 2 - 4th Quarter 2025	Unit 1 - 4th Quarter 2020Unit 2 - 4th Quarter 2025
OIL	**150.00**			
Aero Derivative Combined Cycle Power Plant/ Calamba Aero Power Corporation/ Calamba, Laguna **Cost: PhP5.67B**	150	-On-going securing of permits and other regulatory requirements; -Granted clearance by DOE for the conduct of GIS	TBA	TBA
NATURAL GAS	**3,550.00**			
250 MW Mobile Gas Turbine Power Plant/ Team (Philippines) Energy Corporation/ Barangay Libjo, Batangas City	250	-Secured the necessary endorsement from DOE such as Clearance to undertake GIS released on 23 June 2015; -Securing the required land, Marubeni emphasized that they only need to secure a Right of Way from Shell; - Negotiating with various electric cooperatives for bilateral and also consider selling of power to WESM; -Project will last for only 8 years since the gas supply will be depleted by 2024	May 2016	June 2016
2 x 1,200 MW Combined Cycle Gas Turbine Power Plant Project/ Atlantic Gulf and Pacific Company of Manila, Inc./ Limay, Bataan (PNOC-AFC Industrial Estate)	2,400	-On-going Feasibility Study; Secured Clearance to Undertake GIS from DOE on 3 June 2013; -Awaiting for review and approval of conversion of PNOC ECC from Petro Chemicals to LNG for Power ; -AG&P has made major financial commitments to the development of the new power plant project at Bataan which includes expert third parties to provide: (i) market data for electricity; (ii) technical feasibility and initial design studies for the project development; (iii) environment support and permitting and (iv) market study on LNG supplies; -Details of off-takers for electricity are still being considered	Unit 1 - March 2017 Unit II - March 2018	Unit 1 - October 2017; Unit 2: October 2018;
2x450 Sta. Maria Power Plant (Phase II)/ First Gen Ecopower Solutions Inc./ Santa Rita, Batangas	900	-On-going Feasibility Study; Power Plant options update completed as of 17 June 2015 -Parcels of land to be used by the Project shall be purchased from FGHC and FGP Corp; -Discussion on targeted offtakers on-going; -City and Barangay endorsements acquired in 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) -Discussion with International Financing outfits and local banks on-going;	1st Unit-2017 2nd Unit-2019	1st Unit-December 2017 2nd Unit-December 2019

Annex 5. Private Sector Initiated Power Projects in Luzon (INDICATIVE) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		-EPC and Operation Maintenance contracts targeted to be awarded on December 2015; -Target Commencement of Construction for first unit is on December 2015; -Secured Clearance from DOE for the conduct of GIS on 18 February 2013		
GEOTHERMAL	**111.00**			
Bacman 3 (Tanawon) Geothermal Project/ Energy Development Corporation/ Guinlajon, Sorsogon **Cost: $140M-180M**	31	-On-going Feasibility Study; DOE Service Contract within GRESC # 2009-10-003; -LGU endorsement, Land Use Permits, DENR-ECC, and Water Rights obtained; -Turnkey Contract pending result of feasibility study under negotiation; - EDC submitted the Declaration of Commerciality (DOC) on 17 June 2014, evaluation by DOE of the DOC is still on-going; - Project to be finance by EDC; - Target commencement of construction on 1st half of 2015	December 2016	2nd Half 2017
Rangas Geothermal Project/ Energy Development Corporation/ Bacon District, Sorsogon, Sorsogon City	40	-On-going Feasibility Study; 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;Turnkey Contract pending result of feasibility study; -Project financing pending result of feasibility study; - Target commencement of construction on 1st half of 2015; -Project cost is sibject to the result of the feasibility study	June 2018	1st Half 2018
Kayabon Geothermal Project/ Energy Development Corporation/ Manito, Albay	40	-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; -Target commencement of construction on 2nd half of 2017; -Clearance to Underatake GIS from DOE issued on 7 October 2011; -Project cost is subject to the result of feasibility study	December 2019	December 2019
HYDROPOWER	**541.30**			
Ibulao Hydroelectric Power Project/ Hydrocore, Inc./ Lagawe, Ifugao	4.5	-Issued Confirmation of Commerciality on 26 June 2013; -Already secured LGU Endorsements, DENR Environmental Compliance Certificate, NCIP Certificate of Precondition, Land Lease agreement and NWRB Permit. Also submitted Feasibility Study, Detailed Engineering Design and 5-Yr Work Plan and Grid Impact Study; -Clearance to Underatake GIS from DOE issued on 17 October 2011; -On-going construction (Pre-construction - 100%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	June 2018	June 2018
Barit (Irrigation Discharge) Hydroelectric Power Project/ NASCENT Technologies Corporation/ Buhi, Camarines Sur	0.4	-Issued Confirmation of Commerciality on 12 September 2014; -Submission of Lacking requirements e.g. permits in progress;-On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014; Pending submission of requirements for construction	September 2019	September 2019
Dupinga Hydroele Constellation Energy Corporation ctric Power Project/ Gabaldon, Nueva Ecija	3	-Issued Confirmation of Commerciality on 26 June 2013; -Already secured LGU Endorsements, DENR Environmental Compliance Certificate, NCIP Certificate of Compliance, and NWRB Permit. Also submitted Feasibility Study and 5-Yr Work Plan; -Submission of lacking requirements e.g. permits in progress; -Construction Progress (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014; -On-track with the schedule with regards to the permitting; on-going conduct of pre construction	June 2018	June 2018

Annex 5. Private Sector Initiated Power Projects in Luzon (INDICATIVE) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		activities such as permittings; Issued confirmation of Commerciality on 26 June 2013 e.g. permits in progress		
Pinacanauan/ Sunwest Water & Electric Co., Inc./ Peñablanca, Cagayan	6.0	-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; -Clearance to Underatake GIS from DOE issued on 25 March 2013; -Construction Progress (Pre-construction - 0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014 ;	September 2018	September 2018
Colasi/ Colasi Mini Hydro Electric Power Plant Corporation/ Mercedes, Camarines Norte	1.0	-On-going rehabilitation; -Submission of lacking requirements e.g. permits in progress; -Clearance to Underatake GIS from DOE issued on 3 December 2012;	February 2019	February 2019
Tinoc 1/ Philnew Hydro Power Corporation/ Tinoc, Ifugao	4.1	-Pending submission of requirements for construction; -Issued Confirmation of Commerciality on 9 August 2013	August 2019	August 2019
Tinoc 4/ Philnew Hydro Power Corporation/ Tinoc, Ifugao	5.0	-Issued Confirmation of Commerciality on 09 August 2013; -Submission of lacking requirements e.g. permits in progress; -Clearance to Underatake GIS from DOE issued on 11 July 2011; -Construction Progress (On going Pre-construction, Construction-0%, Interconnection-0%) completed as of 30 September 2014	August 2019	August 2019
Majayjay/ Majayjay Hydro Power Company, Inc./ Majayjay, Laguna	2.2	-On-going pre construction activities; Submission of lacking requirements e.g. permits in progress;	April 2019	April 2019
Ranggas/ Clean and Green Energy Solutions, Inc./ Goa & Tigaon, Camarines Sur	1.5	-Submission of lacking requirements e.g permits in progress;	June 2019	June 2019
Tinoc 3/ Quadriver Energy Corp./ Tinoc, Ifugao	5.0	-Issued Confirmation of Commerciality on 06 January 2014; -Submission of lacking requirements e.g. permits in progress; -Clearance to Underatake GIS from DOE issued on 11 July 2011; -Construction Progress (Pre-construction - on-going, Construction-0%, Interconnection-0%) completed as of 30 September 2014	January 2019	January 2019
Tignoan HEP/ Aurora All Asia Energy Corp./ Real, Quezon	20.0	-currently on-going Preparation of Business Plan; -On-going negotions of Business Financing Arrangement; -Clearance to Underatake GIS from DOE issued on December 2014	July 2019	July 2019
Biyao/ AV Garcia Power Systems Corp./ Balbalan, Kalinga	0.8	-Issued Confirmation of Commerciality on 01 August 2014; -Submission of lacking requirements e.g. permits in progress; -Construction Progress (Pre-construction - 0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014 ; -Ongoing construction	August 2019	August 2019
Abdao HEP/ AV Garcia Power Systems Corp./ Tabaan Sur, Tuba, Benguet	1.0	-Issued Confirmation of Commerciality on 25 September 2014; -Submission of Lacking requirements e.g. permits in progress; -On-going pre construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014 ; Pending submission of requirements for construction	September 2019	September 2019
Tumauini (Lower Cascade)/ Quadriver Energy Corp./ Tumauini, Isabela	7.8	-On-going pre-construction activities; -Submission of Lacking requirements e.g. permits in progress	October 2019	October 2019

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NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Tumauini (Upper Cascade)/ Quadriver Energy Corp./ Tumauini, Isabela	14.0	-On-going pre-construction activities; -Submission of Lacking requirements e.g. permits in progress	October 2019	October 2019
Tinoc 2/ Philnew Hydro Power Corporation/ Tinoc, Ifugao	11.0	-Issued Confirmation of Commerciality on 06 January 2014; -Submission of lacking requirements e.g. permits in progress; -Clearance to Underatake GIS from DOE issued on 11 July 2011; -Construction Progress (Pre-construction - 0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	January 2019	January 2019
Tinoc 5/ Philnew Hydro Power Corporation/ Tinoc, Ifugao	6.9	-Ongoing pre-construction activities -Submission of lacking requirements e.g. permits in progress;	December 2019	December 2019
Tinoc 6/ Philnew Hydro Power Corporation/ Tinoc, Ifugao	8.0	-Ongoing pre-construction activities-Submission of lacking requirements e.g. permits in progress;	December 2019	December 2019
Alilem/ Philnew Hydro Power Corporation/ Alilem, Ilocos Sur	16.2	-Ongoing pre-construction activities -Submission of lacking requirements e.g. permits in progress; Pending submission of requirements for construction	December 2019	December 2019
Kapipian/ Sunwest Water & Electric Co., Inc./ San Miguel, Catanduanes	2.4	-Issued Confirmation of commerciality on 26 January 2015; -on going permitting	Jan-20	Jan-20
Ilaguen/ Isabela Power Corporation/ San Mariano & San Guillermo	19.0	-Issued Confirmation of commerciality on 18 February 2015; -on going permitting; Pending submission of requirements for construction	February 2020	February 2020
Cawayan 2/ Sunwest Water & Electric Co., Inc./ Sorsogon, Sorsogon	1.0	-Issued Confirmation of commerciality on 15 April 2015; -Pending submission of requirements under development stage	April 2020	April 2020
Ilaguen 2/ Isabela Power Corporation/ Dinapique, Isabela	14.0	-Issued Confirmation of commerciality on 22 May 2015; -Pending submission of requirements for construction	May 2020	May 2020
Danac/ Philnewriver Power Corp./ Sugpon, Ilocos Sur	13.2	-Issued Confirmation of commerciality on 29 June 2015; -Pending submission of requirements for construction	June 2020	June 2020
Matuno/ Epower Technologies Corporation/ Bambang, Nueva Ecija	8.0	-Issued Confirmation of commerciality on 24 June 2015; -Pending submission of requirements for under development stage	June 2020	June 2020
Dibuluan/ Greenpower Resources Corp./ San Agustin, Isabela	5.0	-Issued Confirmation of commerciality on 24 June 2015; -Pending submission of requirements for under development stage	June 2020	June 2020
100 Alimit/ SN Aboitiz Power-Ifugao/ Lagawe, Ifugao	100.0	-Completed Pre-FS; 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	January 2021	January 2021
240 Alimit/ SN Aboitiz Power-Ifugao/ Lagawe, Ifugao	240.0	- Completed Pre-FS; 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	January 2021	January 2021

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NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
10 MW Olilicon HEPP/ SN Aboitiz Power-Ifugao/ Lagawe, Ifugao	10.0	- Completed Pre-FS; 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	January 2021	January 2021
Maris Main Canal 1 HEP/ SN Aboitiz Power Generation/ Ramon, Isabela **Pre Development Stage Cost: PhP25 M**	6.0	- 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; - CNC for transmission line issued; - NGCP studies completed; Environmental and Social Studies completed; Water right and right of way acquisition on-going; - Feasibility design completed; technical studies completed;	January 2021	January 2021
Maris Main Canal2 HEP/ SN Aboitiz Power Generation/ Alfonso Lista, Ifugao **Pre Development Stage Cost: PhP25 M**	1.8	- 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; - CNC for transmission line issued; N - GCP studies completed; - Feasibility design completed; - technical studies completed	TBA	TBA
2.6 MW Maapon River Mini-Hydro Power Project (MHP)/ Renesons Energy Corporation/ Brgy. Piis, Lucban, Quezon	2.6	-DOE issued Certificate of Endorsement for CoC on May 2014	TBA	TBA
SOLAR	**65.55**			
Clark Freeport Zone Solar Power Project/ Enfinity Philippines Renewable Resources, Inc./ Clark Freeport Zone, Pampanga	12	-Awarded with Solar Energy Service Contract (SESC No. 2014-07-086) on 24 July 2014; -Acquired the DOE Certificate of Confirmation of Commerciality on 20 March 2015; -On-going construction negotiation for Financial closing	December 2015	December 2015
Concepcion Solar Power Project/ Enfinity Philippines Renewable Resources, Inc./ Brgy. Sta. Rosa, Concepcion Tarlac	50.55	-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; -On-going construction negotiations for financial closing (see FIT Monitoring Board)	December 2015	December 2015
Cavite Solar Power Project/ Enfinity Philippines Renewable Resources, Inc./ Cavite Economic Zone, Rosario Cavite	3	-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; -On-going construction negotiations for financial closing	February 2016	March 2016
WIND	**249.00**			

Annex 5. Private Sector Initiated Power Projects in Luzon (INDICATIVE) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Phase 1: Pasuquin East Wind Power Project/ Energy Logics Philippines, Inc./ Pasuquin, Ilocos Norte **Cost: PhP6.048B**	48	-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; Completed the feasibility study; 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 committment 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-ROW as per Workplan; - Acquired DOE Certificate of Confirmation of Commerciality on 02 December 2013; -Negotiation for financial closing is on-going -On-going construction; Construction Stage as of 30 September 2014(Pre-Construction - 39% completed, Construction-0%, Interconnection-0%);On-going negotiation for project financing and acquisition of TL-ROW as per Work Plan;	June 2016	June 2016
Sembrano Wind Power Project (Formerly: Phase 2: Mabitac Wind Power Project)/ Alternergy Sembrano Wind Corporation/ Mt. Sembrano, Mabitac, Laguna	72	-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 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; -AWOC to finance the implementation of the project with 100% equity; -Interconnection Agreement with MERALCO last 1 March 2012; -EPC and O&M Contract with consortium of Nordex SE and McConnell Donnell last 11 July 2012; -Project Finance Term Sheet with Bank last 27 July 2012; -Negotiation for financial closing is on-going; -Final review of GIS by NGCP last 31 July 2012; -On-going construction; Construction Stage as of 30 September 2014(Pre-Construction - 22% completed, Construction-0%, Interconnection-0%); -On-going completion of Pre-construction activities including financial closing Work Plan; -Amended the Contract Area and assigned partially to Alternergy Sembrano Wind Corporation ASWC-WESC No. 2009-09-018-AP2 on 27 February 2014 - Project cost is Php7.056B; -Acquired DOE Certificate of Confirmation of Commerciality on 13 February 2014; -Negotiations for financial closing is on-going	April 2017	April 2017
Balaoi Wind Power Project/ Northern Luzon UPC Asia Corporation/ Brgy. Balaoi, Pagudpud, Ilocos Norte	45	-Awarded with Wind Energy Service Contract (WESC No. 2010-02-038) on 1 Feb 2010; Conducted detailed wind resource assessment; -Completed detailed feasibility atudy; -Acquired various LGU permits and resolutions of support, NCIP Certificate of Non-Overlap on 15 Jan 2007, Forest Landuse Agreement with DENR on 20 May 2009, DENR Environmental Compliance Certificate on 23 Jul 2009, DPWH Road Right-of-Way for T/L construction, and CAAP Height Clearance permit; -Final Report of SIS and Connection Agreement with NGCP secured on 4 Jan 2011; BOI Registered on 23 Jun 2011;	August 2017	August 2017

Annex 5. Private Sector Initiated Power Projects in Luzon (INDICATIVE) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Cost: US$139.5Million		-Submitted proofs of negotiations/certifications from banks for project financing; - Acquired DOE Certificate of Confirmation of Commerciality on 02 December 2013; -On-going construction - 17.33% as of 30 March 2015; Construction Stage as of March 2015(Pre-Construction - 52% completed, Construction of Wind Farm-0%, Interconnection Facilities - 0%); Construction shall commence upon completion of Caparispisan Project; -Development works shall commenced upon completion of Caparispisan Project; -Acquired DOE Certificate of Confirmation of Commerciality on 02 December 2013; -Financial Closing - 10% completed as of December 2014 (Project substantially permitted but funders will require clarity on Feed-in-Tariff installation targets before committing funding); -EPC, O&M, Owner's Engineer Contract/Agreement: 30% completed as of December 2014 (detailed Design Complete, Environmental Studies Complete); -Connection Agreement:NGCP is conducting SIS prior to signing of Connection Agreement; -Land Rights Acquisition for WTG or PV, Access Road, and TL:12% ompleted as of December 2014 (all land rights secured through Flags and private agreements; TL ROW permitting on going); -Overall Accomplishments: 17.33% completed as of 31 December 2014		
Pagudpud Wind Power Project/ EDC Pagudpud Brgy. Balaoi and Caunayan, Pagudpud, Ilocos Norte Wind Power Corporation	84	'-Awarded with Wind Energy Service Contract (WESC No. 2010-02-040) on 19 Feb 2010; -On-going construction; Construction Stage as of 30 September 2014(Pre-Construction - 20% completed, Construction-0%, Interconnection-0%); -Construction shall commence upon completion of Burgos Project; -Conducted detailed wind resource assessment; -Completed detailed feasibility study; -Acquired various LGU permits and resolutions of support, DENR Environmental Compliance Certificate; - Acquired DOE Certificate of Confirmation of Commerciality on 13 June 2014;	December 2018	December 2018
BIOMASS	**39.60**			
20 MW Waste-to-Energy Project using Thermal Gasifier Conversion/ CJ Global Green Energy Philippine Corp./ Camarines Sur	18	-Financially Closed; -For construction	August 2015	August 2015
12 MW Rice Husk-Fired Biomass Power Plant Project/ Grass Gold Renewable Energy Corp./ Nueva Ecija	10.8	-For construction	January 2018	January 2018
12 MW Napier Grass-Fired Biomass Power Plant Project/ CleangreenEnergy Corporation/ Bataan	10.8	For construction	December 2018	December 2018

Total Indicative Rated Capacity: 11,581.45

Source: DOE

*Annex 6. **Private Sector Initiated Power Projects in Visayas (COMMITTED) as of 31 August 2015***

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
COAL	**270.00**			
2 X 135 MW Concepcion Coal-fired Power Plant/Phase 1-135MW (1st Unit)/Phase 2-135MW (2nd Unit)/ Palm Concepcion Power Corp. (Formerly DMCI Concepcion Power Corp.)/ Brgy. Nipa, Concepcion, Iloilo **Cost: PhP26.356B**	270	-Financial Arrangement Secured : Done on 24 July 2013; -Secured Clearance from DOE for the conduct of GIS on 14 June 2012; -SIS Report approved by NGCP on 17 July 2012; ECC issued on 3 June 2013; -Secured the Appraisal report for the PPA/MLA from the DENR Regional Director; -Commencement of Construction for 1st Unit on 18 July 2013; 2nd Unit on September 2014 (specific dates for the 2nd unit will still firmed up after 1st unit's commencement of construction) ; -Civil Construction: Work is on slope protection; dormitory and guesthouse; main power House Concrete Foundation Work and Chimney rebar work;Boiler Steelwork commenced on 27 July 2014. Start Lift Boiler Steel Structure has been achieved with 52 days ahead of schedule;3 out of 5 total layers of Boiler Steel Structure have been completed;Start Lift Main Power House Steel structure has been achieved on 6 October 2014; piling work concrete foundation work, backfilling in substation area; Protectionfor storm surge is also undertaken. Mechanical Construction: Steel structure for boiler area already started. -Offtaker: Signed Electric Power Purchase Agreements (EPPA) with VRESCO (5MW) - 14 Nov. 2012, NOCECO (10MW)- 31 Jan. 2013, NORECO(1 MW)- 13 Feb. 2013, CENECO (22.6MW) on 11 March 2013, PECO(10MW) on 20 May 2013, AKELCO (12MW) on 22 Aug. 2013, and CAPELCO (2MW) on 5 Sep. 2013; -Ground breaking of construction on 15 Jan. 2013; - Commencement of Construction -1st Unit -18 July2013,2nd Unit (specific dates for the 2nd unit will still be firmed up later); Basic design has been completed; foundation excavation and pile driving for boiler house, main powerhouse and Electro Static Precipitator to have been completed; Cast First Concrete Pour on the boiler Foundation was achieved on April 29, 2014; - Procurement of power plant's major equipment has been completed; Procurement of Auxiliary Equipment has substantially been completed; Manufacturing of equipment is ongoing; -Major activities as of 30 November, 2014 project is ahead of schedule with 37.06 actual vs. 23.87 planned; procurement of auxiliary equipment category 1 to category 4 have substantially been completed; the manufacturing of the auxiliary Equipment has been commenced and some has already been delivered to site. Start Lift Boiler Steel Structure has been achieved; Boiler Steam Drum lifting on or before 20th December 2014; Start Lift main Power House Steel Structure achieved 6 October 2014; Boiler Steam Drum arrived 30 November 2014 -As of 31 Jan 2015, project is ahead of schedule with 48.90% actual vs. 41.12 planned - DOE Endorsement for NCIP for Unit 1 issued on 3 June 2014; -Overall EPC Progress 59.04% Actual; 50.16% Plan	1st Unit - June 2016 2nd Unit - May 2016 to September 2016 (specific dates for the 2nd unit will still be firmed up after 1st unit's commencement of construction)	1st Unit - 2nd Quarter 2016 2nd Unit - November 2016 (specific dates for the 2nd unit will still be firmed up after 1st unit's commencement of construction); To be firmed up
OIL	**18.90**			
18.9MW Calumangan Diesel Power Plant/ Energreen Power Development & Management, Inc./ Brgy. Calumangan, Bago City, Negros Occidental	18.9	-Feasibility Study:(1)Topographic Survey-June 2012;(2)Soil Boring Test-July 2012;Environmental Impact Assessment Study-Sept.2012; -Arrangement for Securing the Required Land: Purchased 6.9 hectares land in Brgy. Calumanggan, Bago City. The diesel plant will occupy 2 hectares: -Marketing of Generating Capacities: CENECO and Energreen Power has a signed Amended Memorandum of Agreement and Supplementary Agreement for Peaking and Reserve Services to be embedded in the distribution system of CENECO; -Permits and Other Regulatory Requirements: DENR ECC-R6-1305-0174-4220 dated 21 Nov.2013; DOE COE No. 2013-09-001 dated 19 September 2013;Brgy. Calumangan Endorsement per Brgy. Reso No. 2012-12 dated 1 September 2012; -Financing Arrangements: 65% Debt and 35% Equity;	1st Unit - 5MW July 15-25, 2015 2nd Unit - 5 MW Aug 20-25, 2015 3rd Unit - Sept 26 - Oct 10, 2015 -4th unit - 3.9 MW Oct 26-Nov 10, 2015	1st Unit - 5MW October, 2015 2nd Unit - 5 MW October, 2015 3rd Unit - Sept 26 - October, 2015 -4th unit - 3.9 MW Oct 26-December 2015

*Annex 6. **Private Sector Initiated Power Projects in Visayas (COMMITTED) as of 31 August 2015***

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		-Construction Contracts for Plants and Equipment: Supplier of main quipment will be an established HFO Power Plant supplier from China; Energreen's owner engineer would be ENgcon Energy of Singapore; Commencement of Construction: Civil Works Site - Dec 2013; Power House-16 May to 15 Oct. 2014;CT % Other Pump Bldg. Facility -6 July to 25 Oct 2014;HFO Treatment Bldg. Facility - 11 Aug. to 25 Sept. 2014;Feul Farm Facility-6 nJuly to 25 Sept. 2014;Maintenance Bldg. Facility 16 June t0 30 Sept. 2014;Raw Water System Source-16 Aug. to 5 Oct. 2014;Power Grid Integration-6 July to 20 Oct. 2014;Generation Facility Installation - 5 Aug to 30 Dec 2014;Site Raw Water and Fire Hydrant Installation-6 Oct to 5 Nov 2014;Other Facilities - 1 Nov to 30 Dec 30 2014		
GEOTHERMAL	**10.00**			
49 MW Biliran Geothermal Plant Project/ Biliran Geothermal Incorporated/ Biliran, Biliran **Cost: US$ 208.021 M**	10	-On-going feasibility studies; -F15On-going processing of requirements such as GIS, LGU endorsement, DENR-ECC. -Obtained Geothermal Service Contract with DOE; Secured ECC for the proposed Geothermal Exploration Drilling and Biliran Power Plant Project on December 06, 2012 and August 23, 2013, respectively. -Ongoing negotiation with EPC. Memorandum of Understanding by and among Envent Holdings Philippines, Inc. (EHPI) and Philippine Associated Smelting and Refining Corp. (PASAR) was signed on May 10, 2013. --Confirmation of Commerciality obtained from DOE obtained on 28 December 2014.	August 2016	September 2016 (Target Testing and Commissioning)
HYDROPOWER	**21.90**			
Igbulo (Bais) Hydroelectric Power Project/ Century Peak Energy Corporation/ Igbaras, Iloilo	5.1	-Issued Confirmation of Commerciality on 26 June 2013; -Clearance to Underatake GIS from DOE issued on 14 August 2013; -Submission of lacking requirements e.g. permits in progress; -On-going construction (Pre-construction -70%, Construction-2%, Interconnection-0%) completed as of 30 September 2014 ; -On-going construction of power house & admin office; on-going construction of access road from powerhouse to weir;	December 2017	January 2018 (Target Testing and Commissioning)
Villasiga HEP/ Sunwest Water & Electric Co., Inc./ Brgy. Igsoro, Bugasong, Antique **Cost: Php1.4B**	8.00	-Financial Arrangement Secured from Bank; -Various permits obtained (Water Permit last 19 Februaru 2010, Reconnaisance Permit, ECC last 8 July 2010, BOI last 24 November 2010 and DOE Hydropower Service Contract last 1 February 2010); -Already secured LGU Endorsements, DENR Environmental Compliance Certificate; Energy Sales Agreement with Antique Electric Cooperative; -Submitted feasibility study, detailed engineering design and 5-Year Work Plan; -Off-taker: Energy Sales Agreement with Antique Electric Cooperative; -Reported total accomplishment of 98.75%; On-going construction; --Project cost Php1.4B - Construction is 98% complete as of 11 June 2014; 99.07% total work accomplishment (7/9/2015)	July 2015	September 2015
Cantakoy/ Quadriver Energy Corp./ Danao, Bohol	8.00	-Financial Arrangement Secured; -Secured Clearance from DOE for the conduct of GIS on 11 July 2011 ; -Construction was on-hold due to conflict with LGU	June 2018	June 2018
Amlan/ Natural Power Sources Integration, Inc./ Amlan, Negros Oriental	0.8	-Issued Confirmation of Commerciality on 25 September 2014; -Submission of lacking requirements e.g. permits in progress; -Conduct of Feasibility Study for the expansion on-going; -On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014; On-going rehabilitation as of June 2015	November 2019	December 2019
SOLAR	**173.50**			

*Annex 6. **Private Sector Initiated Power Projects in Visayas (COMMITTED) as of 31 August 2015***

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
San Carlos Solar Power Project Phase C-10/Phase D-13/ San Carlos Solar Energy Inc./ San Carlos City, Negros Occidental	23	-Awarded Solar Energy Service Contract (SESC No. 2014-04-075) on 06 June 2014; -Filed declaration of Commerciality on 28 August 2014 (under evaluation); -Acquired DOE Certificate of Confirmation of Commerciality on 11 December 2014 -Substation transformer for delivery May 24, 2015; Testing and Commissioning June 14, 2015; Grid Connection June 14, 2015	July 2015	August 2015 (Target Testing and Commissioning)
La Carlota Solar Power Project Phase A (SACASOL II-A)/ San Carlos Solar Energy Inc./ La Carlota City, Negros Occidental	18	-Covered by Solar Energy Service Contract (SESC No. 2013-09-037) on 30 October 2013; -Acquired DOE Certificate of Confirmation of Commerciality on 1 April 2015	November 2015	November 2015
Cadiz Solar Power Project/ Phil.Power Exploration & Development Corporation/ Brgy., Tinampa-an Cadiz City, Negros Occidental	132.5	Acquired DOE Certificate of Confirmation of Commerciality on 11 December 2014. See FIT Monitoring Board -Awarded with Solar Energy Services (SESC No. 2013-06-035) on 3 July 2013; -Filed declaration of Commerciality on 2 September 2014 (under evaluation)	March 2016	March 2016 (Target Testing and Commissioning)
WIND	**14.00**			
Nabas Wind Power Project Phase I - 34 Phase II-16/ PetroWind Energy Corporation/ Brgy. Pawa, Nabas, Aklan	14	Financial Arrangement Secured: Submitted a certification dated 31 August 2012 from its Lead Arranger, ensuring the required financing is already available if needed; -Awarded with Wind Energy Service Contract (WESC No. 2009-09-002) on 14 Sept 2009; -Conducted detailed wind resource assessment; -Completed final feasibility study on Aug 2012; -Secured Clearance from DOE for the conduct of GIS on 16 September 2011 ; -SIS Final Report from NGCP dated 1 Oct 2012; -Acquired ECC from DENR dated 4 Jun 2012; -Acquired CNO from NCIP; secured Barangay, Municipal, and Provincial Resolutions of Support; EPC Contract with EEI Corp. secured 31 Jul 2012; -Heads of Agreement with AKELCO for T/L construction secured 28 Nov 2012; - Acquired the DOE Certificate of Confirmation of Commerciality on 31 May 2013; -On-going construction as of 30 September 2014 (Pre-construction -98% completed, Construction - 20% completed, Interconnection - 69% completed) ; -On-going land rights acquisition for WTG Foundations, access roads, and civil works on access roads; -Major Activities: Installation of remaining 24 WTGs; Installation of remaining foundation works; Construction of Switchyard and Substation; Installation of Optical Ground Wires -31.25% acc.; -Secured contract to sell. lease and other forms of consent of 49 out of 61 lot owners -Road and network construction is ongoing -Total project cost is US$118.44M	Phase 1 (36 MW) - March 2015 Phase 2 (14 MW) -3rd Quarter 2015	Phase 1 (36 MW) - June 2015 (Operational since June 10, 2015) Phase 2 (14 MW) -September 2015 (Target Testing and Commissioning)
BIOMASS	**20.00**			
46 MW Universal Robina Corporation Bagasse Cogeneration Facility/ Universal Robina Corporation/ Kabankalan,Negros Occidental	17.00	-Financial Arrangement Secured; - BREOC No. 2013-11-040; -Issued Certificate Confirmation of Commerciality on 24 April 2014; -On-going construction: Project Progress as of 30 September 2014: Pre-construction: 100%; Construction:34%;Interconnection:73%) -On-going construction as of 31 May 2014 (Overall Accomplishment - 45% completed) - a.Power House Structural and Civil Works; b. Steam Turbine Generator House Structural Works; c. Boiler	Phase 1 (16MW) - December 2014 Phase 2 (30 MW) - August 2015	Phase 1 (16MW) - (Operational) January 26, 2015 Phase 2 (30 MW) - September 2015

*Annex 6. **Private Sector Initiated Power Projects in Visayas (COMMITTED) as of 31 August 2015***

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		House Structural and Civil Works; d. Cooling Tower Foundation Works; e. Transmission Facility -Clearance to Underatake GIS from DOE issued on18 October 2013		
34 MW VMCI Bagasse-Fired Cogeneration Plant/ Victorias Milling Company Inc./ Negros Occidental	3.00	-Financial Arrangement Secured; -Secured Clearance from DOE for the conduct of GIS on 29 May 2013 ; -Approved SIS on Sept 2014; -Amended Capacity from 2MW to 3MW on 4 September 2014; -Operating for Own-Use	October 2015	November 2015

Total Committed Rated Capacity: 528.30

Source: DOE

Annex 7. Private Sector Initiated Power Projects in Visayas (INDICATIVE) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
COAL	**450.00**			
PEDC Expansion Project Former report (1x150 MW Circulating Fluidized Bed (CFB) Coal-Fired Power Plant)/ Panay Energy Development Corporation (Global Business Power Corporation)/ Brgy. Ingore, La Paz, Iloilo **Cost: PhP6.199B**	150	-Estimated Net Capacity: 130MW, Estimated Household: 120MW; -The target date for the start of the expansion project will be on on October 2013 and is expected to be completed in thirty three (33) months.GBPC is currently in the process of securing the Environmental Compliance Certificate (ECC) which is expected to be released by the end of July 2013; Still currently processing ECC; -Panay-Guimaras Power Supply Consortium (PPSG) - 25yr power supply deal for 24 MW; Other negotiations are ongoing and confidential; -Notice to Proceed (NTP) for the construction will be issued to the contractor as soon as the ECC will be released; -Reclamation compacting; Site levelling & compacting; -Reclamation completed September 11, 2014 -Backfilling has already started while sile levelling and compacting is awaiting for the final bid; - Ongoing negotiation with probable customers in Panay; -Securing necessary permits; secured clearance from DOE for the conduct of GIS for 82MW on 3 March 2011; e;-Milestone of Activities:(a. June 2014 - Turnover of project site to Formosa Heavy Industries); b. August 2014 - Pile driving; c. December 2014 - Column Standing; d. April 2015 - Drum Lifting; e. August 2015 - Hydraulic test; f. November 2015 - Power tie-in;g. March 2016 - Initial Ignition;h. May 2016 - Synchronization;i. July 2016 - Take-over and commercial operation; -no progress in the SIS. current percentage is the same as previous -EPC Contractors selected as follows: Formosa Heavy Industry Poyry Energy; Ground breaking: March 7, 2014; Construction started August 14, 2014; -Major Activities: (Piling owrks - 100%; b. Foundation works -55%; Steel Structure -29.9%; d. Grounding - 22.5%); Overall progress 43.1% actual; 37% Plan -PEDC signed an PhP11B loan with 6 Financial Institutions on March 26, 2015; (awaiting Bank statements) -	July 2016	August 2016
300 MW Therma Visayas Energy Project/ Therma Visayas Inc./ Brgy. Bato, Toledo City, Cebu **Cost: PhP23B**	300	-Site feasibility tests to be completed by September 2012; completed as of May 2015; -Done with the arrangement for securing the required land except for the remaining 2% of project site; -On-going discussions with target off-takers; -On-going securing of permits and other regulatory requirements; - On-going processing of the Certificate of Non-Overlap (CP/CNO) from the National Commission on Indigenous Peoples -ECC issued last May 2013; EPC Contract awarded last 30 May 2014; -BOI registered and GIS study approved; Acquisition of the parcels of the land in the target plant site is on-going; -Self-funded with on-going negotiations with financing institutions; awaiting closure; -EPC Contract awarded to Hyundai Engineering Co., Ltd. and Galing Power & Energy Co., Inc. last May 30, 2014 -Clearance to Underatake GIS from DOE issued on 16 June 2012; -Site development works to start by November 2014; completed as of May 2015 status; contractor is mobilizing, foreshore development works have commenced	June 2017	Unit 1: December 2017 Unit 2: March 2018
OIL	**-**			
GEOTHERMAL	**40.00**			

Annex 7. Private Sector Initiated Power Projects in Visayas (INDICATIVE) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Dauin Geothermal Project/ Energy Development Corporation/ Dauin, Negros Oriental	40	-On-going feasibility studies; -On public land but portions of access road leading to Site sits on provate land; Land-use permits for areas on public land obtained; -Ongoing negotiations with lot owners for access road; DOE Service Contract Project Project within GRESC # 2009-10-002; -LGU endorsement obtained; SLUP Obtained; -TCP Obtained; RRW Obtained;Water rights obtained; DENR-ECC obtained; -SLUP and TCP permits subject for renewal;Turnkey Contracts pending result of feasibility study; -Ongoing negotiations on the financing; -Target Commencement of Construction:2nd half of 2019; -Target Commissioning December 2018; -Project cost is subject to the result of feasibility study	December 2021	December 2021
HYDROPOWER	**73.00**			
Maninila (Lower Cascade)/ Century Peak Energy Corporation/ San Remigio, Antique	4.5	-Issued Confirmation of Commerciality on 02 October 2013; -Clearance to Underatake GIS from DOE issued on August 2013; -Submission of lacking requirements e.g. permits in progress; -On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	October 2018	October 2018
Maninila (Upper Cascade)/ Century Peak Energy Corporation/ San Remigio, Antique	3.1	-Issued Confirmation of Commerciality on 02 October 2013; -Clearance to Underatake GIS from DOE issued on August 2013; -Submission of lacking requirements e.g. permits in progress; -On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	October 2018	October 2018
Sibalom (Upper Cascade)/ Century Peak Energy Corporation/ San Remigio, Antique	4.2	-Issued Confirmation of Commerciality on 02 October 2013; -Clearance to Underatake GIS from DOE issued on August 2013; -Submission of lacking requirements e.g. permits in progress; -On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	October 2018	October 2018
Sibalom (Middle Cascade)/ Century Peak Energy Corporation/ San Remigio, Antique	4.0	-Issued Confirmation of Commerciality on 02 October 2013; -Clearance to Underatake GIS from DOE issued on August 2013; -Submission of lacking requirements e.g. permits in progress.	October 2018	October 2018
Sibalom (Lower Cascade)/ Century Peak Energy Corporation/ San Remigio, Antique	4.0	-Issued Confirmation of Commerciality on 02 October 2013; -Clearance to Underatake GIS from DOE issued on August 2013; -Submission of lacking requirements e.g. permits in progress; -On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	October 2018	October 2018
Basak II/ Meadowland Developers, Inc./ Badian, Cebu	0.5	-Issued Confirmation of Commerciality on 30 April 2014; -Submission of lacking requirements e.g. permits in progress; -Groudbreaking held on 16 February 2013	April 2019	April 2019
Hilabangan (Upper Cascade)/ Century Peak Energy Corporation/	4.8	-Issued Confirmation of Commerciality on 02 October 2013; -Clearance to Underatake GIS from DOE issued on August 2013; -Submission of lacking requirements e.g. permits in progress	August 2018	August 2018

Annex 7. Private Sector Initiated Power Projects in Visayas (INDICATIVE) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Kabankalan, Negros Occidental		-On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014		
Hilabangan (Lower Cascade)/ Century Peak Energy Corporation/ Kabankalan, Negros Occidental/	3.0	-Issued Confirmation of Commerciality on 02 October 2013; -Clearance to Underatake GIS from DOE issued on August 2013; -Submission of lacking requirements e.g. permits in progress.	August 2018	August 2018
Timbaban Hydroelectric Power Project/ Oriental Energy and Power Generation Corporation/ Madalag, Aklan	18	-Issued Confirmation of Commerciality on 28 May 2013; -Submission of lacking requirements e.g. permits in progress; -On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	August 2017	August 2017
Main Aklan River Hydroelectric Power Project/ Sunwest Water & Electric Company, Inc./ Libacao, Aklan	15	-Issued Confirmation of Commerciality on 3 June 2013; -Submission of lacking requirements e.g. permits in progress; -Issued Confirmation of Commerciality on 19 September 2014; -On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	September 2018	September 2018
Malugo/ Vivant-Malogo Hydropower, Inc./ Silay City, Negros	6	-On-going pre construction activities -Submission of lacking requirements e.g. permits in progress	October 2019	October 2018
Amlan (Plant B)/ Natural Power Sources Integration, Inc./ Amlan, Negros Oriental	1.5	-Issued Confirmation of Commerciality on 11 July 2014; -Submission of lacking requirements e.g. permits in progress; -Conduct of Feasibility Study for the expansion on-going; -On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	July 2019	July 2019
Amlan (Plant A)/ Natural Power Sources Integration, Inc./ Amlan, Negros Oriental	3.2	-Issued Confirmation of Commerciality on 25 September 2014; -Submission of lacking requirements e.g. permits in progress;-Conduct of Feasibility Study for the expansion on-going;-On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	September 2019	September 2019
Loboc Hydroelectric Power Project/ Sta. Clara Power Corporation/ Loboc, Bohol	1.2	-Issued Confirmation of Commerciality on 3 June 2013; -Submission of lacking requirements e.g. permits in progress; -On-going construction (Pre-construction -70%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	June 2018	June 2018
SOLAR	55.67			
Miag-ao Solar Power Project/ COSMO Solar Energy, Inc./Miag-ao, Iloilo	5.67	-Covered by Solar Energy Services (SESC No. 2013-09-036) on 31 October 2013; -Filed declaration of Commerciality on 26 September 2014 (under evaluation); Acquired the DOE Certificate of Commerciality on 12 January 2015	July 2015	August 2015
50 MW Grid Tied Solar Farm/ E & P Green Energy, Inc./ Biliran, Biliran	50	On going Feasibility Study 50% as of May 2015; Market Study 60%; Technical Study 60%; Financial Study -Secured GIS April 2015	1st Quarter 2016	March 2016

Annex 7. Private Sector Initiated Power Projects in Visayas (INDICATIVE) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Pulupandan Wind Power Project/ First Maxpower International Corporation/ Pulupandan, Negros Occidental **Cost: $124,475,000.00**	50	-Awarded with Wind Energy Service Contract (WESC No. 2010-02-037) on 1 February 2010; -Conducted detailed wind resource assessment; Completed feasibility study;Completed the conduct of GIS; -Secured various LGU permits and Resolutions of Support; Secured DENR ECC permit;Secured NCIP Certificate on Non-Overlap on 7 Jnauary 2013; Secured clearances from MARINA, BFAR, Philippine Coast Guard;Secured DPWH Road Right-of-Way for overhead T/L; Conducted Third Party System Impact Study, currently under review by NGCP;Secured proof of Consent from different Lot Owner; Conducted Public Consultation; - Acquired DOE Certificate of Confirmation of Commerciality on 17 September 2013; -Negotiation for financial closing with local financial institutions is on-going and expected to be completed by February 2014 (70-30 debt equity ratio); -On-going construction; Construction Stage as of 30 September 2014(Pre-Construction - 56% completed, Construction-0%, Interconnection-0%);On-going completion of Pre-construction activities including financial closing as per Work Plan;	December 2016	December 2016
BIOMASS	84.37			
20 MW SCBiopower Bagasse-Fired Power Generation Project/ San Carlos Biopower, Inc./ Negros Occidental	18	-On-going site development;	November 2015	November 2015
South Negros 25 MW Biomass Power Plant 22.37MW-Grid 2.63MW- Own use South Negros Biopower Inc./ Brgy. Cubay, La Carlota City, Negros Occidental	22.37	-Assessment of Target Site: Considering Biommas supply within 40 km radius from the site about 1,650,000 tons per year of biomass supply as fuel can be harnessed; -Preparation of Business Plan: Underway; -No developments on the site yet; For construction; -Marketing of Capacities: Feed-in Tariff; -Status of Permits and Other Regulatory Requirements:(1) Endorsements from Local Government Units were secured;(2)Environmental Compliance Certificate has been granted to SNBP on 17 December 2013 and the approval on the amendment was released on 2 June 2014; (3)Biomass Renewable Energy Operating Contract was signed between the Department of Energy and SNBP effective on 11 April 2014;(4) Clearance to Undertake System Impact Study has been granted for the start of negotiations with NGCP; -Financing Arrangements: IFC approved the financing requirement in July; -For Construction; -Construction Contracts for Plants and Equipment:EPC Contract is under negotiations; -Construction of Facility: Site Office construction has stated; Facility will start on 2nd Qtr 2016 -Clearance to Underatake GIS from DOE issued on 5 February 2014	April 2017	April 2017
12 MW Multi-Feedstock Biomass Power Plant Project/ Megawatt Clean Energy, Inc./ Negros Occidental	12	-For construction	May 2018	May 2018
35.0 MW Mina Multi-Fuel Biomass Power Generation	32	-For construction	Phase I - May 2017	Phase I - May 2017

Annex 7. Private Sector Initiated Power Projects in Visayas (INDICATIVE) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Facility/ Green Power Panay Phils., Inc./ Iloilo			Phase II May 2018	Phase II May 2018
BATTERY	40.00			
40 MW Battery Storage Project/ AES Philippines Power Partners Co., LTD./ Kabankalan, Negros Occidental	40	-On-going feasibility study; - Option to lease was secured on 18 September 2013; Lease Contract for finalization. Sanggunian Panlalawigan issued Resolution 98-2077 declaring the lot as industrial.; Agreement for Easement Right of Way on Adjacent private land (for transmission), executed 1/14/2014 -Conversion process on-going; - ECC scoping on-going.SIS from NGCP expected to be released on 30 October 2013; - Financing Arrangement: On-going negotiations with International/Local banks; -Selection of Owner's Engineer On-going for the Construction Contracts for Plants and Equipment; -DOE COE, GIS approved Aug-2014; DENR-ECC approved 28 Oct-2014; Facility Study - awaiting NGCP's approval (submitted Dec 12, 2014) -Proponent is planning to equity fund the Project -Clearance to Underatake GIS from DOE issued on 31 January 2013; -Target Commencement of Construction: May 2014	October 2016	December 2016

Total Indicative Rated Capacity: 793.04

Source: DOE

Annex 8. Private Sector Initiated Power Projects in Mindanao (COMMITTED) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
COAL	**1,910.00**			
2 X 100 MW Southern Mindanao Coal Fired Power Station/ Sarangani Energy Corporation **Cost: $450M**	200	-Financial Arrangement Secured on 12 December 2012; -Project Status (Over-all) as of 20 September 2014 - 54% completed; -On-going process in securing the regulatory requirements, permits, GIS, etc. ; ECC issued on April 2009; -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; -Off-taker: 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; -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); -On-going Civil Works; -Construction is 95.78% as of 14 June 2015 -Phase 2: Notice to proceed construction is yet to be issued this 2015 (most likely 2nd Quarter)	Phase 1 - June 2015 (100MW)	Phase 1 - November 2015 Phase II - November 2016
2 X 150 MW Coal-Fired Therma South Energy Project/ Therma South Inc./ Brgy. Binugao, Toril, Davao City and Brgy. Inawayan, Sta. Cruz, Davao Del Sur	300	-Financial Arrangement Secured: Self-funded with financing arrangements with various Banks; -Secured Clearance from DOE for the conduct of GIS on 12 October 2011; -Off-taker: Power Sales Agreement (240 MW sold) between Therma South, Inc. and Davao Light & Power Company is 100MW (DLPC), Cotabato Light & Power Company is 5MW (CLPC), Agusan del Sur is 10MW (ASELCO), Surigao del Sur II is 5MW (SURSECO II), Davao Oriental EC is 5MW (DORECO), Misamis Occidental I is 3MW (MOELCI I), Cotabato EC is 8MW (COTELCO), Sultan Kudarat EC is 8MW (SUKELCO), Zamboanga del Norte is 5MW (ZANECO), Bukidnon 2 EC is 2MW (BUSECO), Surigao del Sur I is 3MW (SURSECO I), Surigao del Norte is 5MW (SURNECO), and Zamboanga del Sur I is 5MW (ZAMSURECO); -Marketing of Generating Capacities: 240 MW Sold as 31 May 2014; -Secured the permits for site development works; -Secured required land - EPC Contract awarded to Black and Veatch last June 2012; - Commencement of Construction: Currently in Project Month 37 of construction or approximately 100% complete; -Project Status as of 12 January: 95% completed; -Project cost is Php24B -On-going securing of permits (Water Permit for Seawater intake from NWRB and COC from ERC); On-going construction/installation; ECC issued on 9 Sept 2011	Unit 1 - On-going Unit 2 - January 2016	Unit 1 - August 2015 Unit 2 - February 2016

Annex 8. Private Sector Initiated Power Projects in Mindanao (COMMITTED) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
300 MW SMC Davao Power Plant Project Phase I 2x150MW/ San Miguel Consolidated Power Corporation/ Brgy. Culaman, Malita, Davao del Sur **Cost: $630M / Php25.8B**	300	-Financial Arrangement Secured from various banks on 12 May 2014; -On-going construction; Project Status (over-all) as of April 2015 82.54 %; -Groundbreaking held last 15 July 2013; -Land acquisition completed; Groundbreakingwas held last July 2014; -Environmental Impact Assessment completed; Topographic and Hydrographic completed;Soil Investigation completed; -GIS/SIS already submitted to NGCP for review; NGCP returned the report toSMC GPHC with comments; -Site development in terms of physical accomplishment as of April 2015 is 98.41%; Construction Activities of Unit 1&2 2 x 150MW Power Plant - 34.20%; Design and Construction of Pier and Jetty Structure is 99.93%;Transmission Connection 25%; Water Development 80.56%; Engineering Design & Manufacturing of Parts - 83.02%;Right-of-Way Acquisition Status-20.01%;; Ash Dump Design and Construction - 100% -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; EPC Contract executed on January 2013; ECC issued in June 2013; EPC Contract 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) -On-going electric power supply contract negotiation with prospective off-takers; -Clearance to Underatake GIS from DOE issued on 29 August 2011; -On-going civil works construction/installation; -Target Completion Date of Transmission Connection on March 2016	Unit 1 - December 2015 Unit 2 -May 2016 *Note: remaining 900 MW still understudy	Unit 1 - March 2016 Unit 2 -June 2016 (subject for validation with EPC Contractor)
3 X 135 MW FDC-Misamis Circulating Fluidized Bed (CFB) Coal-Fired Power Plant Project/ FDC Utilities, Inc./ Phividec Industrial Estate, Villanueva, Misamis Oriental	405	-Financial Arrangement Secured on 27 December 2013 with various Banks;-Project information Memorandum Completed;-Secured Clearance from DOE for the conduct of GIS on 12 September 2011; GIS Review by NGCP completed; Connection Agreement approved by NGCP in October 2013;-ECC for plant site issued on May 2013; ECCs for power plant and transmission line were issued;ECC for transmission line issued on August 2013;-NWRB water permit for Tagoloan issued on Sept. 2013; NWRB conditional water permit for cooling water at Macajalar Bay to be issued in May 2014;NCIP Certficate of Non-Overlap issued on Feb. 2014;Secured LGU endorsements from concerned provincial, municipality and barangays;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); Registerd with the BOI on August 2013; secured Locatonal Clearance from Villanueva;Negotiation for Foreshore Lease was completed; -Off-taker:Contracted approximately 88 percent of the net output of the first three units of the project (As of 20 October 2014);On-going electric power purchase agreement negotation with offtakers to raise contracted demand for the third unit;-Already concluded ground breaking ceremony in Villanueva, Misamis Oriental on November 2013;-EPC Contractor was awarded in September 2013;Construction Contracts for Plant's Equipment:Contract EPC was awarded in Sept. 2013; Tendering Process of the first and most of 2nd batch auxiliary equipment has been completed;Groundbreaking ceremony was held in November 2013; Project Site activities commenced in first quarter of 2014;-Project site activities as of 30 September 2014: 1. Arrival of achor bolts, plates,channel and other embedded parts for Unit 1; 2. Completion of pile driving and foundation excavation for boiler house for Unit 1;3.Ongoing backfilling and pile driving in Power Block;4.Ongoing manufacturing of Shanghai boiler, Alstom turbine and generator, amd steel structures;Ongoing	1st Unit - July 20162nd Unit - September 20163rd Unit- November 2016	1st Unit - June 20162nd Unit - September 20163rd Unit- December 2016

Annex 8. Private Sector Initiated Power Projects in Mindanao (COMMITTED) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Cost PhP: 30.019B		construction of temporary facilities;5. Ongoing detailed design activities for the foundations, steel structures and concrete structures;6.Ongoing design of turbine generator structures;6. Finalizing of the jetty design and ordering of the jetty piles; -On-going securing of necessary permits and clearances; On-going construction/installation; on going approval of proposed boiler erection;-On-going electric power purchase agreement negotiations with off takers for remaining capacity of 3rd unit -Project Status as of 17 October 2014: On-going construction works; structural works and electr0-mechanical equipment installation on-going		
3x55 MW Balingasag Thermal Power Plant (Circulating Fluidized Bed Combustion (CFBC) Coal-Fired Power Plant Plant)/ Minergy Coal Corporation/ Brgy. Mandangoa, Balingasag, Misamis Oriental **Cost: PhP23.9B**	165	- Financial arrangement Secured from various banks (2x55MW secured on 22 January 2014, Additional 1x55MW secured on 26 May 2014; - Conducted Feasibility study from February to September 2013; - Land acquisition completed at Brgy. Mandangoa Balingasag, Misamis Oriental; Processing land titling on the acquired lots - SEC Registered on February 2013;Certificate of Endorsement (No. 2013-07-007) issued on 1 August 2013; -Site Evaluation completed on 14 August 2002; -Issued the following regulatory: Business Permit/Mayor;s permit - 16 January 2013;SEC Certiicate 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 Fenruary 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;- Offtaker: Provisional Approval was issued on September 2013 for PSA between the Owner and CEPALCO; -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 foe 1x55MW on 29 May 2014); -Ongoing construction:42.1% completed as of December 2014; -Technical review on-going; Off-taker - CEPALCO (embedded via double ckt 138 kV line); -Main EPC Contractor: Mitsubishi Corporation; Main Sub-contractor: Toshiba Plants Systemes * Services Corp. (TPSC)	Unit 1: July 2016 Unit 2: September 2016 Unit 3: November 2016	Unit 1: January 2017 Unit 2: March 2017 Unit 3: May 2017
GNPower Kauswagan Ltd. 540MW Clean Coal-Fired Power Plant/ GN Power Kauswagan Ltd. Co./ Kauswagan, Lanao del Norte	540	- Financial Arrangement Secured on 28 May 2014; - ECC issued on 14 March 2014; A multipartite monitoring team is being established pursuant to the ECC; - Clearance to Underatake 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; - GNPK and the land owners of the Project site are in the final stages of satisfying their respective obligations under the land purchase agreements; - EPC contract was signed on 15 May 2014; - 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	January 2017	December 2017

Annex 8. Private Sector Initiated Power Projects in Mindanao (COMMITTED) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Cost: US$740 Million		arranged by AMRECO PSAG;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 - Granted LGU Endorsement; - Permits and Other Regulatory Requirements: All permits obtained under the name of 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 Auhority Endorsement, LGU Endorements); 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; -Financing Arrangements signed 23 December 2014: Commitments from several lenders have been obtained; -Construction Contracts for Plant and Equipment: Significant pre-Notice to proceed activities are being done by the EPC contractor at the site in China; Commencement of Construction: NTP expected tp be issued to the EPC contractor by November 2014; -Construction of temporary facilities, housing facilities and foundation design validation activities are on-going		
OIL	**11.90**			
11.9 MW Koronadal Diesel Power Plant (7 x 1.7MW)/ Supreme Power Corporation/Purok Garfin, Barangay Paraiso, Koronadal City	11.9	-Obtained SEC Endorsement from DOE on 18 April 2013; - The company was incorporated on 10 May 2013; -Entered into an Electricity Supply and Transfer Agreement with South Cotabato I Electric Cooperative Inc. (SOCOTECO I) executed through a 15-year Build-Operate-Transfer contract between the two; -In the process of constructing the power plant at the ite owned by SOCOTECO 1; -Ground breaking was held 8 Jan 2015; construction started 12 January 2015 by Bussbar Corporation; construction works to be completed in 6 months	15 August 2015	September 2015 (Target Date of Testing & Commissioning
HYDROPOWER	**134.20**			
Lake Mainit/ Agusan Power Corporation/ Jabonga, Agusan del Norte	25.0	-Financial Arrangement Secured; -Clearance to Underatake GIS from DOE issued on 7 October 2012; -On-going construction; - Submission of lacking requirements e.g. permits in progress.	March 1, 2016	March 2016 (Target Testing and Commissioning)
New Bataan/ Euro Hydro Power (Asia) Holdings, Inc./ New Bataan, Compostela Valley	2.40	-Issued Confirmation of Commerciality on 24 April 2014; - Submission of lacking requirements e.g. permits in progress; -On-going Pre-construction activities; -On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	January 2017	January 2017 (Target Testing and Commissioning)
Manolo Fortich I/ Hedcor Bukidnon, Inc./ Santiago, Bukidnon	43.40	- Submission of lacking requirements e.g. permits in progress; -On-going Pre-construction activities;	October 2019	October 2019
Manolo Fortich 2/ Hedcor Bukidnon, Inc/ Santiago, Bukidnon	25.40	- Submission of lacking requirements e.g. permits in progress; -On-going Pre-construction activities	October 2019	October 2019
Puyo Hydroelectric Power Project/ First Gen Mindanao Hydropower	30	-Financial Arrangement Secured; -Ground breaking held on 17 April 2013; -Issued Confirmation of Commerciality on 12 July 2013;	July 2018	July 2018 (Target Testing

Annex 8. Private Sector Initiated Power Projects in Mindanao (COMMITTED) as of 31 August 2015

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Corp./ Jabonga, Agusan del Norte		-Already secured LGU Endorsements, DENR Certificate of Non-Coverage, NCIP Certificate and NWRB Permit; -Also submitted Feasibility Study and 5-Yr Work Plan; -EPC for main facilities for tender; -Pre-Construction stage (100% completed as of 31 August 2014);Interconnection - 0% as of 31 August 2014; -Construction stage (10% completed as of 31 August 2014); om hold as of April 2015 due to security threat in the area; -Groundbreaking held on 17 April 2013; -Project implementation on hold due to security threat in the area		and Commissioning)
Asiga/ Asiga Green Energy Corp./ Santiago, Agusan del Norte	8.00	-Financial Arrangement Secured; -Issued Confirmation of Commerciality on 1 August 2014; - Submission of lacking requirements e.g. permits in progress; -Ongoing construction	August 2019	August 2019
BIOMASS	14.20			
3 MW Biomass Cogeneration Facility/ Philippine Trade Center, Inc./ Sultan Kudarat, Maguindanao	1.60	-Financial Arrangement Secured: -Operating for Own-Use; -Secured Clearance from DOE for the conduct of GIS on 13 March 2014	August 2015	September 2015
3.5 MW Biomass Cogeneration System/ Green Earth Enersource Corporation/ Maguindanao	2.60	-Financial Arrangement Secured; -On-going construction	November 2015	December 2015
15 MW LPC Biomass Power Plant Project/ Lamsan Power Corporation/ Sultan Kudarat, Maguindanao	10.00	-Financial Arrangement Secured; -On-going construction; -Secured Clearance from DOE for the conduct of GIS on 28 February 2014	February 2016	February 2016 (Target Testing & Commissioning)

Total Committed Rated Capacity: 2,070.30

Source: DOE

*Annex 9. **Private Sector Initiated Power Projects in Mindanao (INDICATIVE) as of 31 August 2015***

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
COAL	**1,400.00**			
SMC Davao Power Plant Project Phase II/ San Miguel Consolidated Power Corporation/ Brgy. Culaman, Malita, Davao del Sur	600	-Land acquisition completed;-Secured DENR ECC (ECC-CO-1304-0010) on 18 June 2013;-On-going securing of permits and other regulatory requirements; -On-going negotiations for financing arrangements;-On-going civil works construction/installation;-Project Status as of 30 September 2014 - 22.25% completed	Phase I Unit 1 (150MW) - January 2016Unit 2 (150MW0 - June 2016Phase II300 MW - Dec 2016	Phase I Unit 1 (150MW) - January 2016Unit 2 (150 MW - June 2016 Phase II 300 MW - Dec 2016
Sibuguey Power Plant Project/ Philippine National Oil Company (PNOC-EC)/ Sibugay, Zamboanga	100	-Technical and economic feasibility study was completed in July 2011; -Eligible bidder for Transaction Advisor on 8 August 2012; -On-going bid processing for the EIS consultancy leading to ECC application and other permits; processing of ECC requirements; -Clearance to Underatake GIS from DOE issued on14 October 2011	September 2016	September 2016 (Target Testing and Commissioning)
300 MW Coal Fired Power Plant Phase 1 - 2 x 100MW Phase 2 - 1 x 100MW/ Ozamiz Power Generation, Inc./ Brgy. Pulot,Ozamiz City,Misamis Occidental	300	-Presented plan to the LGU of Ozamiz and was endorsed the project through Sangguniang Panglungsod Resolutions; -Final Revised Copy will be submitted by end of January; Land acquisition will be completed by 1st Quarter of 2015; Certificate of Compatibility with Land Use from the City Planning and Development Office already issued last 7 October 2014; -Topographic and Bathymetric Survey of the proposed site as well as the first Technical Review by EMB are completed on June 2014;-CAAP application, NCIP Certificate of Non-Overlap, BOI application and detailed development plans are all ongoing; Awaiting release of Certificate of Non-Coverage from NCIP; On-going securing of DOE Endorsement for DENR-ECC; on-going completion of DENR requirements; -Securing of required land and conversion is 50% completed; -Final report on the 1st technical review was completed last 18 August 2014;Completing requirements for CAAP/BOI application, Endorsement from DOE to NCIP for the issuance of the CNO on 9 September 2014, BOI application and detailed site development plans are still on process;Clearance to undertake GIS released on 6 August 2014;Commencement of Geological Drilling was moved to 3rd week of November 2014 due to consolidation of additional borehole requirements; - 1st Public Scoping was already completed on 28 May 2014;Land aquisition and conversion is still on-going. 1st Phase Target Completion on August 2014; 2nd Phase and Land Conversion Target Completion October 2014; - Target Completion of DENR requirements (Environmental Impact Assessment, Environmental Compliance Certificate and Area Clearance Certificate on September 2014; DENR-ECC to be started; Target date of Ground breaking for site development works mov -Barangay and City Endorsement acquired last 7 March 2014 and 10 March 2014, respectively; SEC Registration obtained 11 Nov. 2013; - Target date of Ground breaking for site development works moved to January 2015; -Negotiations with prospective off-takers are on-going, ; 1st phase target completion October 2014;2nd Phase Target Completion February 2015;All Marketing negotiations and consolidation of cotracts s targeted to be complete by April to May 2015;	Phase 1 - 2 x 100MW -March 2018 Phase 2 - 1 x 100MW - 2018	Phase 1 - 2 x 100MW - September 2018 Phase 2 - 1 x 100MW - 2018

*Annex 9. **Private Sector Initiated Power Projects in Mindanao (INDICATIVE) as of 31 August 2015***

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		-Negotiations with foreign partners for financing arrangements on-going; Detailed Site Development Plans ongoing; Detailed Engineering Plans ongoing -Geological Drilling on going; completing requirements for CAAP application; Completingrequirements for BOI application; -Awaiting release of Certificate of Non-Coverage from NCIP; consolidating requirements for NWRB -Selection of EPC Contractor on-going; Target awarding of EPC contract by December 2014		
SMC Davao Power Plant Project Phase II/ San Miguel Consolidated Power Corporation/ Brgy. Culaman, Malita, Davao del Sur	300	-Land acquisition completed; On-going processing of ECC requirements; -On-going securing of permits and other regulatory requirements; -On-going negotiations for financing arrangements	December 2018	December 2018 (Target Testing and Commissioning)
ZAM 100 MW Circulating Fluidized Bed (CFB) Coal-Fired Power Station/ San Ramon Power Inc./ Sitio San Ramon, Bgry. Talisayan, Zamboanga City	100	-On-going securing permits; -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; -EPC Contract between Owner and Daelim Philippines, Inc. executed on 27 December 2012; -Land Lease Agreement with ZamboEcozone signed on 28 January 2013; DENR had issued ECC in April 2012; -On-going sourcing of financing the project; -Ground breaking last 27 January 2013; -Notice to Proceed targeted on Q4 2013; -Project cost is $292M	To be determined	To be determined
2.4 MW Fuel Power Plant Project/ Bukidnon Power Corporation/ Barangay Barandias, Municipality of Pangantucan, Province of Bukidnon	2.4 to 4.8	-Obtained SEC Endorsement from DOE on 16 September 2014; -Signed Power Supply Agreement with FIBECO -Secured Environmental Clearance Certificate (ECC) from EMB-DENR as of 8 October 2014 -covered areas: Municipality of Maramag, Pangantucan, Kalilangan, Wao -Off taker First Bukidnon Electric Cooperative, Inc. (FIBECO)	March 2015	March 2015
GEOTHERMAL	**50.00**			
Mindanao 3 Geothermal Power Project/ Energy Development Corporation/ Kidapawan, North Cotabato	50	-Ongoing feasibity study, resource assessment and studies in optimal power plant capacity; -The project is within the DOE Service Contract -GRESC# 009-10-004; 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;Target commissioning on 1st half of 2018; -Clearance to Underatake GIS from DOE issued on 7 June 2012; -Project cost is subject to the result of the feasibility study	June 2018	1st Half 2018 (Target Testing and Commissioning)
HYDROPOWER	**385.44**			

*Annex 9. **Private Sector Initiated Power Projects in Mindanao (INDICATIVE) as of 31 August 2015***

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
Bubunawan Hydroelectric Power Project/ First Gen Mindanao Hydropower Corp./ Baungon and Libona, Bukidnon	23	-Issued Confirmation of Commerciality on 02 July 2013; - Already secured LGU Endorsements, DENR Environment Compliance Certificate , NCIP Certificate and NWRB Permit; -Also submitted Feasibility Study and 5-Yr Work Plan; -Clearance to Underatake GIS from DOE issued on 28 September 2012; -Bids and tendering for the EPC started on April 2014; -Construction is set to start on the 3rd quarter of 2014; -On-going Pre-construction activities; -On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	July 2016	July 2016 (Target Testing and Commissioning)
Pasonanca/ Philcarbon, Inc./ Zamboanga City	0.50	-Issued Confirmation of Commerciality on 09 January 2014; -Submission of lacking requirements e.g. permits in progress; -On-going Pre-construction activities; -On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	December 2016	January 2019 (Target Testing and Commissioning)
Limbatangon Hydroelectric Power Project/ Turbines Resource & Development Corp./ Cagayan de Oro City, Misamis Oriental	9	-Financial Arrangement Secured; -On-going construction; - Issued Confirmation of Commerciality on 12 July 2013; - Already secured LGU Endorsements, DENR ECC, and NCIP Certificate; -Also submitted Feasibility Study, Detailed Engineering Design, and 5-Yr Work Plan; -Construction stage (10% completed as of 30 September 2014); -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	- Issued Confirmation of Commerciality on 02 July 2013; Pending submission of requirements for construction	June 2018	June 2018
Culaman Hydroelectric Power Project/ Oriental Energy and Power Generation Corporation/ Manolo Fortich, Bukidnon	10	-Issued Confirmation of Commerciality on 03 June 2013; -Clearance to Underatake GIS from DOE issued on 5 October 2012; - Submission of lacking requirements e.g. permits in progress; -On-going Pre-construction activities;Pre-Construction stage (93% completed as of 30 September 2014)	June 2018	June 2018 (Target Testing and Commissioning)
Cabadbaran Hydroelectric Power Project/ First Gen Mindanao Hydropower Corp./ Impasugong & Sumilao, Bukidnon	9.8	-Issued Confirmation of Commerciality on 02 July 2013; -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; -On-going Pre-construction activities; Pre-Construction stage (93% completed as of 30 September 2014)	July 2018	July 2018 (Target Testing and Commissioning)
Tumalaong Hydroelectric Power Project/ First Gen Mindanao Hydropower Corp./ Baungon, Bukidnon	9	-Issued Confirmation of Commerciality on 2 July 2013; - Already secured LGU Endorsements DENR Certificate of Non-Coverage, and Conditional Water Permit; - Also submitted Feasibility Study and 5-Yr Work Plan; -On-going Pre-construction activities;Pre-Construction stage (93% completed as of 30 September 2014)	July 2018	July 2018 (Target Testing and Commissioning)

*Annex 9. **Private Sector Initiated Power Projects in Mindanao (INDICATIVE) as of 31 August 2015***

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
10 MW Cabulig-2 Hydroelectric Power Plant Project/ Mindanao Energy Systems, Inc./ Jasaan, Misamis Oriental	10.00	- On-going permits and other regulatory requirements completion	Dec-18	March 2019
Clarin/ Philnew Hydro Clarin, Misamis Occidental Power Corporation/ Clarin, Misamis Occidental	5.00	- Issued Confirmation of Commerciality on 09 April 2014; - Submission of lacking requirements e.g. permits in progress; -On-going Pre-construction activities; -On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014;	April 2019	April 2019
Mat-i-I/ Philnew Hydro Power Corporation/ Claveria, Cagayan de Oro	2.00	-Issued Confirmation of Commerciality on 09 April 2014;- Submission of lacking requirements e.g. permits in progress;-On-going Pre-construction activities;-On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	April 2019	April 2019
Mangima Hydroelectric Power Project/ Philnew Hydro Power Corp./ Manolo Fortich, Bukidnon	10	-Issued Confirmation of Commerciality on 3 September 2014; Pending submission of requirements for construction	September 2019	September 2019
Mat-i-2/ Philnew Hydro Power Corporation/ Cagayan de Oro, Misamis Oriental	1.60	-Issued Confirmation of Commerciality on 3 September 2014; - Submission of lacking requirements e.g. permits in progress; -On-going Pre-construction activities; -On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014;	September 2019	September 2019
Mat-i-3/ Philnew Hydro Power Corporation/ Cagayan de Oro, Misamis Oriental	3.25	-Issued Confirmation of Commerciality on 3 September 2014;- Submission of lacking requirements e.g. permits in progress;-On-going Pre-construction activities;-On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014	September 2019	September 2019
Maladugao River (Upper Cascade)/ UHPC Bukidnon Hydro Power I Corporation/ Wao, Bukidnon	5.50	- Issued Confirmation of Commerciality on 12 January 2015; On going permitting	January 2020	January 2020
Maladugao River (Lower Cascade)/ UHPC Bukidnon Hydro Power I Corporation/ Kalilangan & Wao, Bukidnon	10.00	- Issued Confirmation of Commerciality on 14 April 2015; On going permitting; Pending submission of requirements for construction	April 2020	April 2020
Lanon (Lam-alu)/ Euro Hydro Power (Asia) Holdings, Inc./ Lake Sebu, South Cotabato	9.50	-Issued Confirmation of Commerciality on April 14, 2015; Pending submission of requirements for construction	May 2020	May 2020
Silo-o/ Philnewriver Power Corp./ Malitbog, Bukidnon	3.29	-Issued Confirmation of Commerciality on June 5, 2015; Pending submission of requirements for construction	June 2020	June 2020
Agus III/ Maranao Energy Corporation/ Pantar & Balo-I, Lanao del Sur & Lanao del Norte	225.00	-Pending submission of requirements for construction	July 2020	July 2020
SOLAR	**58.87**			
Digos Solar Photovoltaic Power Project/ Enfinity Philippines Renewable Resources, Inc./ Digos City, Davao del Sur	10	-Awarded with the Solar Energy Service Contract (SESC No. 2012-09-033) on 12 October 2014; -Acquired ECC from DENR; -Acquired the DOE Certificate of Confirmation of Commerciality subject to execution of	October 2015	October 2015 (Target Testing and Commissioning)

*Annex 9. **Private Sector Initiated Power Projects in Mindanao (INDICATIVE) as of 31 August 2015***

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
		Amendment Contract on 11 March 2014; -Clearance to Underatake GIS from DOE issued on 7 August 2013; On-going acquisition of relevant permits under Pre-Construction Stage as per Work Plan; -On-going construction; Construction Stage as of 30 September 2014(Pre-Construction - 0% completed, Construction-0%, Interconnection-0%);On-going acquisition of relevant permits under Pre-Construction Stage as per Work Plan		
Digos Solar Photovoltaic Power Project II/ Enfinity Philippines Renewable Resources, Inc./ Digos City, Davao del Sur	19.58	-Additional investment to the Solar Energy Service Contract (SESC No. 2012-02-100) -Acquired the DOE Certificate of Confirmation of Commerciality subject to execution of Amendment Contract on 11 June 2015; -On-going negotiations for financial closing	December 2015	Decemberr 2015 (Target Testing and Commissioning)
Kibawe Solar Power Project/ Asian GreenEnergy Corp./ Brgy. Labuagon, Kibawe, Bukidnon	10.49	-Awarded with the Solar Energy Service Contract (SESC) No. 2014-04-074 on 6 May 2014; -Acquired the DOE Certificate of Confirmation of Commerciality 19 June 2015; -Negotiations for financial closing is on-going (see FIT Monitoring Board)	January 2016	January 2016
Kirahon Solar Power Project Phase 1/ Kirahon Solar Energy Corporation/ Brgy. Kirahon, Villanueva,Misamis Oriental	12.5	-Awarded with the Solar Energy Service Contract (SESC No. 2012-03-004) on 3 May 2012; - Filed Declaration of Commerciality on 09 September 2014 (under evaluation); '-ERC issued its decision on the Power Supply Agreement between CEPALCO and KSEC with approved rate of PhP 7.39 per kWh	July 2016	July 2016 (Target Testing and Commissioning)
Centralla Solar Power Project/ NV Vogt Philippines Solar Energy One, Inc./ Brgy. Centralla, Surallah, South Cotabato	6.3	-Awarded with the Solar Energy Service Contract (SESC No. 2013-10-043) on 05 December 2014; -Non-FIT Project, Embedded to SOCOTECO I; -Acquired ECC from DENR, CNO from NCIP, Resolutions of Support (Barangay, Municipal, and Provincial), Land Ownership, Municipal Ordinance for Land-Use Conversion from Agricultural to Commercial/Industrial, Third Party Distribution Impact Study, and Power Purchase Agreement with SOCOTECO I; -Declaration of Commerciality was submitted on 11 April 2014; -Acquired the DOE Certificate of Confirmation of Commerciality on 18 June 2014; -Filed for ERC's Certificate of Compliance; -Secured Clearance from DOE for the conduct of GIS on 9 October 2013	To be determined	To be determined
BIOMASS	**72.20**			
23.5 MW EPC Woody Biomass Power Plant Project/ Eastern Petroleum Corp./ Agusan del Norte	21.00	-For construction	October 2015	October 2015
10MW Kalilangan Bio-Energy Corp. Multi-Feedstock Power Generating Facility/ Kalilangan Bio-Energy Corp./ Bukidnon	9.00	-For construction; Not yet in construction phase as of April per MFO's site visit report -Clearance to Underatake GIS from DOE issued on 28 January 2014;	August 2016	August 2016
10MW Don Carlos Bio-Energy Corp. Multi-Feedstock Power Generating Facility/ Don Carlos Bio-Energy Corp./ Bukidnon	9.00	-For construction; Not yet in construction phase as of April per MFO's report	August 2016	August 2016

*Annex 9. **Private Sector Initiated Power Projects in Mindanao (INDICATIVE) as of 31 August 2015***

NAME OF THE PROJECT/PROJECT PROPONENT/LOCATION	RATED CAPACITY (MW)	PROJECT STATUS	TARGET TESTING & COMMISSIONING	TARGET COMMERCIAL OPERATION
10MW Malay-balay Bio-Energy Corp.n Multi Feedstock Generating Facility/ Malaybalay Bio-Energy Corp./ Bukidnon	9.00	-For construction	August 2016	August 2016
12 MW Biomass Power Plant Project/ Misamis Oriental Bio-Energy Corp./ Misamis Oriental	10.80	-For construction; -Clearance to Underatake GIS from DOE issued on 6 June 2014	October 2017	October 2017
3.5 MW Biomass Cogeneration System/ Green Earth Enersource Corporation/ Maguindanao	2.60	-For construction;	December 2017	December 2017
12 MW Napier Grass-Fired Biomass Power Plant Project/ Manolo Fortich Biomass Energy Corporation/ Bukidnon	10.80	-For construction;	January 2018	January 2018

Total Indicative Rated Capacity: 1,966.51

Source: DOE

Annex 10. Annex ERC Approved Capital Expenditure Projects as of 30 September 2015

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
Bohol I Electric Coop.e, Inc. (BOHECO I) ERC CASE NO. 2014-023 RC	**FORCE MAJEURE CAPITAL PROJECTS (2014)**			18 March 2014/ 25 May 2015
	Rerouting, repair, restoration, and replacement of distribution lines and facilities damaged by the 7.2 magnitude earthquake	• The 7.2 magnitude earthquake caused massive damage on BOHECO I's distribution lines and facilities resulting to power blackout. • The immediate rerouting, repair, replacement and restoration it conducted are necessary to ensure a safe, reliable and efficient power service for the benefit of the member-consumers.		
Cabanatuan Electric Corporation (CELCOR) ERC CASE NO. 2014-148 RC	**ADDITIONAL CAPITAL EXPENDITURE PROJECTS (2014)**			02 October 2014/ 04 May 2015
	Construction of new 69 kV, 20/25 MVA Sumacab Norte Substation including 69 kV Subtransmission Lines and additional 13.8 kV Feeder Lines	• To accommodate the load requirement of the area at the load center of Cabanatuan City. The project will address, among others, the power requirement of a big commercial establishment with estimated load requirement of 5 MW to 8 MW. • To feed the new substation, CELCOR will construct additional 69 kV Subtransmission line. The Subtransmission line will be tapped at the CELCOR's 69 kV lines located at Maharlika Highway besides Robinson Mall. It will be using 336 MCM ACSR on steel poles. • This project includes the construction of 13.8 kV Feeder Lines from the new substation, and it will be utilized to supply power to the new establishments and to balance the existing line loading configuration.	77,221,063.51	
	Acquisition of one (1) unit Truck with Mounted Crane.	• The unit will be used in the proposed rehabilitation, maintenance and construction of CELCOR's 69 kV Subtransmission lines. • The areas are now heavily populated with commercial and residential establishments and new buildings and structures are now present. The new design will provide CELCOR's lines with sufficient clearance and provide a safe window of protection from the different activities in the area.	11,700,000.00	
Davao Light and Power Company (DLPC) ERC CASE NO. 2013-208 RC	**NETWORK PROJECTS (2014-2015)**			29 October 2013/ 11 May 2015
	Construction of Binugao – New Substation	To ensure safety on the consumers and the general public. This project will deload Toril and Dumoy Substation, cater existing and future load growth in the Toril area, and improve flexibility of nearby substations during contingency conditions. This project will also be implemented to supply power in the construction of TSI 300 MW Coal Power Plant	121,717,326.50	
	Construction of 69 kV In/Out Breaker (Mighty Steel)	To improve the reliability of the system.	46,392,780.25	
	Construction of 69 kV In/Out Breaker (Gaisano and Panacan substation)	To improve the reliability of the system.	108,836,096.00	
	Conversion of Overhead Distribution System to Underground System	To provide health and safety and promote comfort and convenience to the people.	108,000,000.00	
Leyte II Electric Cooperative, Inc. (LEYECO II) ERC CASE NO. 2011-135 RC and	**NETWORK PROJECTS (2011-2016)**			
	Expansion of 25 MVA Campetic Substation	The proposed power substation expansion project is necessary to support the load growth and power demand requirements, particularly in the Palo-Tacloban area. The existing 10 MVA substation is more than 80% loaded of its rated capacity. It is imperative that additional substation capacity be installed to support the increasing power demand requirements.	45.420,000.00	30 September 2011 and 21 March 2013/ 04 May 2015
	Uprating of Overloaded Distribution System	Due to the load growth in the system, the existing transformers could no longer accommodate the additional power requirements of its consumers. The uprating of overloaded distribution transformers	4,462,894.66	

Annex 10. Annex ERC Approved Capital Expenditure Projects as of 30 September 2015

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
2013-107 RC		will include the procurement of additional distribution transformers and using existing transformers which may be transferred due to replacement.		
	Installation of Distribution Transformers	To address consumer load growth. The expansion of lines and increase in load will require the installation of additional distribution transformer. Additional load requires additional capacity in the secondary network.	15,957,615.00	
	Installation of 9 Reclosers at Midstream of Feeders 1 through 9	To install additional protective devices in locations where faults will be sensed to maintain the overall safety of the LEYECO II's distribution system.	6,243,993.00 (Government Subsidy)	
	Installation, extension, and refurbishment of Primary Lines	To accommodate new customers of LEYECO II.	2,431,520.00	
	Installation, extension, and refurbishment of Secondary Lines	To accommodate new customers' connections.	4,660,402.00	
	Requisition of Secondary Service Drops and Metering Equipment	To accommodate new customers' connections.	26,300,750.00	
	NON-NETWORK PROJECTS (2011-2016)			
	Purchase of Supervisory Control and Data Acquisition (SCADA) System	To increase operations efficiency through system automation and centralized data gathering.	10,000,000.00	
	Procurement of Vehicles	The acquisition of vehicles will improve employees' mobility and response time in performing the assigned tasks and provide travelling comfort to personnel particularly those attending various maintenance service assignments. The purchase of a boom truck will provide the required support in distribution operations particularly in pole hauling and erection and line construction activities.	4,000,000.00	
	Purchase of Lot	The proposed lot area in the Municipality of Palo will provide prompt service and response to consumer connection requirements and complaints in view of its proximity and accessibility to its consumers.	1,500,000.00	
	Site Development and Warehouse construction	The San Jose lot shall be used as the location for new warehouse. In addition, part of the land area will also be utilized as a pole storage or hardware stockyard to maximize the available land area.	3,500,000.00	
	Purchase of Technical Tools and Instruments	The equipment is necessary for monitoring, in-house and field testing of various substation and power distribution equipment. This testing equipment will provide LEYECO II's technicians the means to conduct testing and verify the accuracy of the data for operations and maintenance purposes. The proposed equipment will also provide the means to measure electrical parameters for efficient monitoring of power distribution equipment and other system abnormalities such as harmonics, voltage variations, and other power quality parameters.	8,365,396.00	
Quirino Electric Cooperative, Inc. (QUIRELCO) ERC CASE NO. 2012-093 RC	**NETWORK PROJECTS (2011-2015)**			19 July 2012/ 25 May 2015
	Installation of Reclosers and Fuse Cut-outs to Main Feeders and Lateral Lines	The proposed project shall maintain the security of the entire distribution system and improve QUIRELCO's reliability performance.	3,587,578.91	
	Acquisition of Feeder Metering Equipment	• The proposed project is necessary to monitor the system efficiency performance of its distribution network.	142,000.00	

Annex 10. Annex ERC Approved Capital Expenditure Projects as of 30 September 2015

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
		• It will also aid QUIRELCO's technical staff in monitoring and planning the development of the distribution system.		
	Replacement of Defective kWh Meters	The proposed project is intended to improve the efficiency of the entire distribution system.	4,360,221.78	
	Extension of secondary distribution line to provide electricity to the far-flung areas	The construction of distribution line extension to energize customers located at far-flung areas or sitios is a mandate of the electric cooperative.	149,198,256.77 (Government subsidy)	
	Installation of service drop wires and metering facilities for residential customers	The DU is mandated to provide the distribution services and connections to its consumers in accordance with the Philippine Distribution Code (PDC).	2,217,274.04	
	Uprating of Distribution Transformer Capacity	The replacement of the existing overloaded and old DTs installed within the network is necessary to address the impending capacity problem and to maintain a safe, efficient and reliable distribution system.	6,773,943.35	
	Acquisition of Distribution Upgrading Materials and Equipment	The proposed project is necessary in order to maintain a safe, efficient and reliable distribution system.	16,485,856.04	
	NON-NETWORK PROJECTS (2011-2015)			
	Acquisition of Test Equipment	• The equipments shall enable QUIRELCO to constantly monitor the power quality of its distribution system, the condition of the installed kWh meters, and the condition of the electrical wirings within the customer's premises. • This equipment shall improve the distribution system's reliability and efficiency performance since QUIRELCO will have the capability to implement preventive maintenance measures.	4,253,369.95	
	Acquisition of Vehicles	QUIRELCO believes the project is necessary in order to meet the growing demand of its consumers. The continuous increase of its distribution lines, the power demand and the number of customers require an expansion of utility and service vehicles in order to maintain these assets and efficiently respond to customers' demands.	9,831,576.76	
	Acquisition of Computer Hardware	QUIRELCO intends to offer the best possible services to its customers through this project. The acquisition of new computer units for the distribution utility personnel shall further extend their capabilities in terms of performing customer services.	276,813.50	
	Acquisition of Engineering Software (Integrated Facility Data Management System)	QUIRELCO has existing SYNERGEE Engineering Analysis software which serves as a vital tool for its engineers in the performance of their duties in analyzing the distribution system and develops plans and procedures to efficiently improve the system. However, its usage is minimized due to the absence of technical database and software that can interface with the data inputs required by the said software.	1,288,000.00	
		The proposed project shall support its preparation for distribution network planning to improve, if not maintain, an efficient, reliable and safe distribution system.		

Annex 10. Annex ERC Approved Capital Expenditure Projects as of 30 September 2015

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
	Acquisition of Accounting, Warehousing and Consumers Data Management Software	• QUIRELCO intends to acquire Management Information System software in order to enhance its accounting practices. The proposed project shall adopt automated financing and accounting system which will aid the management in its decision making on accounting matters. • The overall design of the proposed system will also provide the necessary document that will comply with the current demands of the electric industry, the existing government and regulatory agencies, and the actual work flow of the DU.	6,500,000.00	
	Acquisition of Billing Software	QUIRELCO intends to acquire additional hardware and software to upgrade its existing billing and collection system in order to meet the increasing demand of its consumers. Considering the availability of modern day technology, it would likewise take the opportunity to utilize the system in order to provide adequate service to its customers.	1,500,000.00	
	Acquisition of Lot and construction of Buildings for Cabarroguis and Sugaday Sub-Offices	• The proposed project intends to establish a long term solution on office rental expenditures. • The proposed project shall ensure the convenience of the member-consumers as well as the office employees during the regular transactions.	4,000,000.00	
	Acquisition of Meter Reading and Billing Gadgets	The proposed project will provide a "read & bill" system or a system of collecting energy bills from the customers using the meter-reading/billing equipment which will enhance customer service efficiency.	1,141,358.40	
Southern Leyte Electric Cooperative, Inc. (SOLECO) ERC CASE NO. 2012-077 RC	**CAPITAL EXPENDITURE PROJECTS (2012-2015)**			05 June 2012/ 11 May 2015
	Construction of substation at San Isidro, St. Bernard	To address the capacity problem of SOLECO's Himay-angan Substation	7,365,297.89	
	Construction of substation at Combado, Maasin City	To address the capacity problem of SOLECO's Maasin Substation	43,422,225.00	
	Installation of reclosers and disconnect switches along distribution lines of SOLECO	To improve the safety of SOLECO's distribution network.	11,189,995.00	
	Installation of Auto Voltage Regulator (AVR) and shunt capacitor including line reconductoring	To improve the power quality level of its primary distribution network.	24,025,079.85	
	Load centering of Distribution Transformers, splitting of over-extended Secondary Lines, Primary Line extension, and line reconductoring	To improve the power quality level of its secondary distribution network.	56,906,740.82	
	Installation of Shunt Capacitors	To improve the power factor of its system.	506,054.25	
	Conversion of Primary Line	To improve power quality issues affecting over-extended distribution lines.	12,987,084.11	
	Replacement and up-rating of approx.. 5.95 km. of existing primary distribution lines of Feeder 11	To ensure the safety of the distribution network.	4,412,549.03	
	Replacement of defective Kilowatt-Hour Meter and rotten/ broken/dilapidated Poles	To provide a safe and reliable distribution system and to comply with its obligation to provide accurate measurement of energy consumed by each member-consumers	20,928,691.44	

Annex 10. Annex ERC Approved Capital Expenditure Projects as of 30 September 2015

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
	Procurement of Distribution Transformer	To address the increasing demand of SOLECO.	10,784,589.00	
	Procurement of Service Drop Wires, Metering Equipment, etc.	To accommodate the new customers of SOLECO.	22,130,572.00	
	Construction of Under-Built and open Secondary Lines	To accommodate the new customers of SOLECO.	22,368,736.00	
	NON-NETWORK REQUIREMENTS (2012-2015)			
	Procurement of Engineering System Software	To improve service efficiency.	1,500,000.00	
	Procurement of Geographical Information System (GIS) software and server	To improve service efficiency.	2,000,000.00	
	Procurement of maintenance and service vehicle	To improve service efficiency.	5,100,000.00	
	Procurement of meter test set, transformer turns ratio tester, infrared scanner, load logger, step ladder extension, etc,	The proposed capital project is intended to maximize the performance and safety of SOLECO's personnel in maintaining its distribution system including the proper monitoring of its equipment to avoid unwanted failures or system interruption.	13,047,257.06	
	Installation of SCADA (Supervisory Control and Data Acquisition) System	To improve SOLECO's monitoring and control of its distribution system.	10,000,000.00	
	Construction of Sub-Offices (including lot acquisition)	In order to lessen its operational cost, SOLECO intends to acquire several lot/properties within its franchise area and construct its own building for its sub offices. SOLECO will likewise construct its main office annex building and consumers assembly hall to provide a more convenient facility to its personnel and member consumers.	20,900,000.00	
Sorsogon I Electric Coop., Inc. (SORECO I) ERC CASE NO. 2014-179 RC	**FORCE MAJEURE CAPITAL PROJECTS (2014)**			01 December 2014/ 25 May 2015
	Repair, restoration, replacement and/or rehabilitation of distribution lines, facilities and equipments damaged by Typhoon Glenda	The repair and reconstruction of the damaged facilities of SORECO I are necessary to enable it to continue serving the electricity requirements of its consumers within its franchise area.	19,747,171.11	
Cagayan I Electric Coop., Inc. (CAGELCO I) ERC CASE NO. 2014-182 RC	**FORCE MAJEURE CAPITAL PROJECTS (2014)**			15 December 2014/ 01 September 2015
	Rehabilitation and repair of the damaged lines and equipment due to Typhoon Luis	Restore the electric service within its franchise area.	3,031,694.81	
Nueva Ecija II Electric Coop., Inc. Area 1 (NEECO II Area 1) ERC CASE NO. 2014-059 RC	**FORCE MAJEURE CAPITAL EXPENDITURE PROJECTS (2014)**			13 March 2014/ 01 September 2015
	Rehabilitation and restoration of damage distribution line facilities including poles, conductors, fixtures, pole line hardwares and household meter services due to Typhoon Santi.	The immediate repair and restoration of the damage distribution lines and facilities was undertaken in order to continue providing electricity to the affected consumers.	10,624,948.59	

Annex 10. Annex ERC Approved Capital Expenditure Projects as of 30 September 2015

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
Agusan Del Sur Electric Coop., Inc. (ASELCO) ERC CASE NO. 2013-109 RC	**FORCE MAJEURE CAPITAL PROJECTS (2013)**			
	Repair and restoration of damaged distribution line facilities including poles, conductor fixtures, and pole line hardwares damaged by Typhoon Pablo.	The immediate repair and restoration of damaged distribution lines and facilities were initiated in order to continue serving electricity to affected customers.	833,618.00	23 May 2013/ 8 September 2015
Bukidnon Second Electric Cooperative, Inc. (BUSECO) ERC CASE NO. 2013-109 RC	**CAPITAL EXPENDITURE PROJECTS (2014-2016)**			29 August 2013/ 14 September 2015
	Installation of control unit for feeder protection recloser at Aglayan Substation	To ensure the safety of its personnel and faster switching during emergency situation or maintenance activity.	2,309,280.00	
	Installation of circuit breaker at Lunocan Substation	To ensure the safety of BUSECO's Lunocan Substation and its Distribution Network.	6,759,132.00	
	Replacement of dilapidated poles	To provide a safe and reliable distribution system.	27,522,687.20	
	Conductor uprating from #2 ACSR to 2/0 ACSR and 2/0 ACSR to 4/0 ACSR	To improve the power quality level of M1F2 Feeder of BUSECO.	3,501,510.17	
	Conversion from single-phase/V-phase lines to three-phase lines	To improve the power quality level of M1F2 and M3F1 Feeders of BUSECO.	6,279,121.82	
	Capacitor placement/indicator	To improve the power quality level in certain areas being supplied by BUSECO's Lantapan and Cabanglasan Feeders.	402,288.00	
	Voltage regulator installation/placement	To improve the power quality level of M1F2 Feeder of BUSECO.	816,000.00	
	Rehabilitation and upgrading of over-extended secondary lines	To improve the power quality level of its secondary distribution network.	75,885,229.39	
	Line augmentation	To address the power quality issue of Libona Feeder (M1F2), Circuit 2 Feeder (M3F2) and Cabanglasan Feeder (M3F4).	4,341,843.44	
	Expansion of distribution lines	To accommodate new customers of BUSECO.	3,901,500.00	
	Purchase of kilowatt-hour meters for residential low voltage and high voltage customers	To accommodate new customers of BUSECO.	37,979,654.16	
	Reconfiguration of Lunocan Substation Feeder	To ensure the safety of the distribution network.	2,448,000.00	
	Relocation of service entrance, kWhr meters and service drops of residential customers	The proposed capital project is intended to relocate existing metering facilities that are not located inside fences, buildings and other locations which are not accessible for reading/ maintenance by the DU.	3,175,487.53	
	Substation check metering (69 kV line)	To improve service efficiency.	9,520,680.00	
	Procurement of potential transformer and current transformer for Aglayan Substation	To improve service efficiency.	1,494,135.25	

Annex 10. Annex ERC Approved Capital Expenditure Projects as of 30 September 2015

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
	Replacement of defective kilowatt-hour meters	To provide accurate measurement of energy consumed by each member-consumers.	6,037,000.00	
	Installation of switching facilities to identified higher voltage customers	The proposed capital project is intended for the implementation of the Interruptible Load Program (ILP) of BUSECO. This will facilitate disconnection/reconnection activities for the participating high voltage customers in the event of power curtailment.	2,907,000.00	
	NON-NETWORK PROJECTS (2014-2016)			
	Asset Management Program	To improve service efficiency	7,823,354.00	
	Building and building improvement program	The growing number of BUSECO's customers and the demand for the conduct of several activities essential for both employees and member-consumers entail wider venue and additional equipment to ensure convenience and better service. There is also a need to improve or rehabilitate existing facilities of BUSECO.	77,003,545.90,	
	Integrated Automation Program (IAP)	To improve service efficiency.	30,360,708.22	
	Network Connectivity Program (NCP)	To improve service efficiency.	32,430,145.56	
	Safety equipments and gadgets	The proposed capital project is intended to maximize linemen's performance and safety.	15,678,425.71	
	Vehicle Augmentation Program (VAP)	The franchise area of BUSECO comprises widely of mountainous and rough terrains that brings difficulty in responding to consumer concerns and emergencies at the same time hampers the conduct of its daily operation. In order to address the said problems, the cooperative must acquire new vehicles to assure immediate response, efficient operations and quality support services to its consumers. This will likewise augment the existing old vehicles of BUSECO.	20,564,656.16	
	Lot Acquisition (LA)	Power crisis is still considered as one of the major problems in Mindanao despite the extensive efforts of the national government to alleviate the situation. Several plans have been laid down both short and long term to resolve the said crisis. One of these short term plans is the procurement or lease of modular generator set by the DOE. In view of the fact the BUSECO's energy demand is increasing yet the supply is not sufficient, it is deemed proper to avail of the said modular generator set through rental. BUSECO prefers to rent rather than to buy since it has initially engaged in some power supply contracts that will commence in 2016 which will adequately cater to its demand. As of the moment, BUSECO does not have a place for the generator though it has determined already its suitable location. Hence, BUSECO needs to acquire a lot to assure execution of the project and for proper safe keeping of the equipment. In the long run, BUSECO will utilize the lot for its installation of additional substation to ensure reliable supply of electricity towards its member-consumers. Further, the cost of acquiring the proposed property is not included in the generation cost for the rental of the modular generator set.	2,060,000.00	
	Distribution Asset Labeling (DAL)	The said project is in compliance with Section 7.12.2 of the Philippine Distribution Code (PDC). Moreover, this project will assist the Engineering and Technical Services Department of the cooperative on their asset monitoring. Further, putting safety signages on areas deemed risky will minimize if not prevent accidents thereby assuring safety to personnel and member-consumers.	5,003,700.00	
Iloilo I Electric Cooperative, Inc. (ILECO I)	**NETWORK PROJECTS**			28 October 2011/14
	Completion of 5 MVA Cabatuan Substation	To meet the increasing demand of Sta. Barbara Substation and its power quality problems to the downstream particularly Feeder 1	12,256,983.17	

Annex 10. Annex ERC Approved Capital Expenditure Projects as of 30 September 2015

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
	Uprating and Upgrading of Primary Distribution Lines	To correct under voltage problem and to reduce system loss	20,305,819.18	September 2015
	Distribution Transformer Requirement	To accommodate new customers of ILECO I; and to uprate, split and relocate the identified overloaded distribution transformers	9,119,811.65	
	Replacement of Fuse-links and Installation of Additional Fuse Cut-outs Combination	To improve the reliability performance of ILECO I	1,378,088.15	
	Primary and Secondary Line Expansion	To accommodate new customers of ILECO I	2,780,498.77	
	Kilowatt Hour Meter for New Consumer	To accommodate new customers of ILECO I	6,255,913.91	
	Replacement of Kilowatt Hour Meter (kWh) by Electronic kWh Meter	Replacement of old kWh Meters	4,340,548.06	
	NON-NETWORK PROJECTS			
	Office equipment, furtniture, and fixture	Some of the proposed equipment are considered office supplies and should form part of ILECO I Operation and Maintenance (O&M) expenditures	1,989,745.07	
	Communication equipment	To improve service efficiency of ILECO I	75,750.00	
	Electrical testing equipment	To improve the technical services	300,000.00	
	Automation System (SCADA)	To increase operations efficiency through system automation and centralized data gathering	28,000,000.00	
Bukidnon Second Electric Cooperative, Inc. (BUSECO)	Installation of control unit for feeder protection recloser at Aglayan Substation	At present, the feeder recloser of Aglayan Substation is manually operated. BUSECO intends to install an automatic control unit for the said equipment for the remote operation of the device to minimize/remove the risk during operation. This is to ensure the safety of its personnel and faster switching during emergency situation or maintenance activity.	2,309,280.00	August 29, 2013/ September 14, 2015
	Installation of circuit breaker at Lunocan Substation	To ensure the safety of BUSECO's Lunocan Substation and its distribution network	6,759,132.00	
	Replacement of dilapidated poles	To provide a safe and reliable distribution system	27,522,687.20	
	Conductor up-rating from #2 ACSR to 2/0 ACSR and 2/0 ACSR to 4/0 ACSR	To improve the power quality level of M1F2 feeder of BUSECO	3,501,510.17	
	Conversion from single-phase/v-phrase lines	To improve the power quality level of M1F2 and M3F1 feeders of BUSECO	6,279,121.82	
	Capacitor placement/installation	To improve the power quality level in certain areas being supplied by BUSECO's Lanta an and Caban lasan Feeders	402,288.00	
	Voltage regulator installation/placement	To improve the power quality level of M1F2 feeder of BUSECO	816,000.00	
	Rehabilitation and upgrading of over-extended secondary lines	To improve the power quality level of its secondary distribution network	75,885,229.39	
	Line augmentation	To address the power quality issue of Libona Feeder (M1 F2), Circuit 2 Feeder M3F2 and Caban lasan Feeder M3F4	4,341,823.44	
	Expansion of distribution lines	To accommodate new customers of BUSECO	3,901,500.00	

Annex 10. Annex ERC Approved Capital Expenditure Projects as of 30 September 2015

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
	Purchase of kilowatt-hour meters for residential, low voltage, and high voltage customers	To accommodate the new customers of BUSECO	37,979,654.16	
	Reconfiguration of Lunocan Substation feeder	To ensure the safety of the distribution network	2,448,000.00	
	Relocation of service entrance, kilowatt-hour meters and service dropwires of residential customers	To relocate existing metering facilities that are located inside fences, buildings and other locations which are not accessible for readinglmaintenance by the DU.	3,175,487.53	
	Substation check metering (69 kV line)	To improve service efficiency	9,520,680.00	
	Procurement of potential transformer and current transformer for Aglayan Substation	To improve service efficiency	1,494,135.25	
	Replacement of defective kilowatt-hour meters	To provide accurate measurement of energy consumed by each member-consumers	6,037,000.00	
	Installation switching facilities to identified higher voltage customer	The proposed capital project is intended for the implementation of the Interruptible Load Program (ILP) of BUSECO. This will facilitate disconnection/reconnection activities for the participating high voltage customers in the event of power curtailment. The proposed cost submitted by BUSECO was adopted by the Commission as a result of the evaluation made on the detailed estimates of the capital project. Unit costs/prices of materials in the detailed estimate are com arable to the NEA Price Index.	2,907,000.00	
	Asset Management Program (AMP)	To improve service efficiency	7,823,354.00	
	New building and building improvement programs	The growing number of BUSECO's customers and the demand for the conduct of several activities essential for both employees and member-consumers entail wider venue and additional equipment to ensure convenience and better service. There is also a need to improve or rehabilitate existin facilities of BUSECO.	77,003,545.90	
	Integrated Automation Program (IAP)	To improve service efficiency	30,360,708.22	
	Network Connectivity Program (NCP)	To improve service efficiency	32,430,145.56	
	Safety equipments and gadgets	The proposed capital project is intended to maXimize linemen's performance and safety. However, details of the project consist of several items that should be deemed part of the O&M expense of BUSECO (e.g. hard hat, safety shoes, lineman's gloves, etc.). Hence, the Commission adjusted the proposed cost of the project by excluding all items that should be art of the OPEX of BUSECO.	15,678,425.71	
	Vehicle Augmentation Program (VAP)	The franchise area of BUSECO comprises widely of mountainous and rough terrains that brings difficulty in responding to consumer concerns and emergencies at the same time hampers the conduct of its daily operations. In order to address the said problems, the cooperative must acquire new vehicles to assure immediate response, efficient operations and quality support services to its consumers. This will likewise augment the existing old vehicles of BUSECO.	20,564,656.16	
	Lot Acquisition (LA)	Power crisis is still considered as one of the major problems in Mindanao despite the extensive efforts of the national government to alleviate the situation. Several plans have been laid down both short and long term to resolve the said crisis. One of these short-term plans is the procurement or lease of	2,060,000.00	

Annex 10. Annex ERC Approved Capital Expenditure Projects as of 30 September 2015

APPLICANT	PROJECT DESCRIPTION	RATIONALE	PROJECT COST (PhP)	DATE FILED/ APPROVED
		modular generator set by the Department of Energy (DOE). In view of the fact that BUSECO's energy demand is increasing yet the supply is not sufficient, it is deemed proper to avail of the said modular generator set through rental. BUSECO prefers to rent rather than to buy since it has initially engaged in some power supply contracts that will commence in 2016 which will adequately cater to its demand. As of the moment, BUSECO does not have a place for the generator though it has determined already its suitable location. Hence, BUSECO needs to acquire a lot to assure execution of the project and for proper safe keeping of the equipment. In the long run, BUSECO will utilize the lot for its installation of additional substation to ensure reliable supply of electricity towards its member-consumers. Further, the cost of acquiring the proposed property is not included in the generation cost for the rental of the modular enerator set.		
	Distribution asset labeling	The said project is in compliance with Section 7.12.2 of the Philippine Distribution Code (PDC) which provides that: "... 7.12.2 Site and Equipment Identification Label" *7. 12.2. 1 The Distributor shall develop and establish a standard labeling system, which specifies the dimension, sizes of characters, and colors of labels, to identify the Sites and Equipment.* *7.12.2.2 The Distributor of the User shall be responsible for the provision and installation of a clear and unambiguous label showing the Site and Equipment Identification at their respective System ... "* Moreover, this project will assist the Engineering and Technical Services Department of the cooperative on their asset monitoring. Further, putting safety signages on areas deemed risky will minimize if not prevent accidents thereby assuring safety to personnel and member-consumers.	5,033,700.00	

Source: ERC website

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

Billing Month	MERALCO	REST OF LUZON	TOTAL LUZON	VISAYAS	MINDANAO	TOTAL
2001						1,682,000,000.00
2002						3,051,860,000.00
2003						3,223,300,000.00
2004						3,467,100,000.00
2005						3,267,100,000.00
2006						2,624,120,000.00
2007						2,679,840,000.00
2008	786,079,461.86	832,317,675.85	1,618,397,137.71	561,119,367.51	635,133,615.12	2,814,650,120.34
2009	588,151,359.71	706,070,755.91	1,194,222,115.62	566,935,169.51	689,177,083.02	2,550,334,367.15
2010	202,192,491.42	83,694,601.88	285,887,093.30	427,552,082.83	714,165,916.31	1,427,545,092.44
2011	101,220,503.49	53,654,853.12	155,448,933.21	269,063,509.57	742,749,200.70	1,167,291,643.48
2012	17,089,283.62	17,148,265.50	34,237,549.12	226,319,497.74	714,532,284.67	975,089,331.53
2013	5,709,192.08	0.00	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
TOTAL	**1,700,442,292.18**	**1,692,886,152.26**	**3,293,902,021.04**	**2,460,098,367.73**	**5,423,019,477.30**	**31,272,309,865.07**

Source: NPC