

26th Electric Power Industry Reform Act (EPIRA) Implementation Status Report

(For the Report Period April 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 implementation to date of Republic Act No. 9136 otherwise known as Electric Power Industry Reform Act (EPIRA) of 2001 or EPIRA embodies significant achievements in the Government's effort to ensuring adequacy, affordability, and reliability of electricity services to all electricity end-users in the Philippines. During this report period, the Government faced major challenges in implementing measures to address the foreseen tight power supply during the Summer Months of 2015, covering the period 01 March to 31 July 2015. Specifically, the Department of Energy (DOE) recommended to the President of the Philippines to trigger *Section 71 of EPIRA* on Electric Power Crises Provision.

The 26th Status Report on the EPIRA implementation covering the period of November 2014 to April 2015 highlights the following:

- Updates on the privatization of the remaining assets in particular on Power Barges (PBs) 101-104 and transfer of contract to an Independent Power Producer Administrator (IPPA) of Unified Leyte Geothermal Power Plant (ULGPP) for the Bulk Energy;
- Continuing turn-over to qualified Distribution Utilities (DU) of the sub-transmission assets (STAs) of the TransCo which has signed one hundred twelve (112) sale contracts with eighty (80) distribution utilities(DUs)/ECs/consortia amounting to about PhP5.90 billion;
- Updates on electricity rates to include average electricity rates such as the summary of MERALCO residential unbundled power rates and list of Energy Regulatory Commission (ERC) Decisions on DU's Rate Applications, updates on universal charge, loan condonation, lifeline rates and mandatory rate reduction;
- Updates on wholesale electricity spot market (WESM) operations and governance to include operational highlights on price, supply demand, and governance aspects;
- Monitoring compliance to installed capacity limitation under *Section 45 of the EPIRA* highlighting the approval of the Energy Regulatory Commission (ERC) relative to the Installed Generating Capacity (IGC) per Grid and National Grid, and the Market Share Limitation (MSL) per Regional Grids and the National Grid applicable for the year 2015;
- Updates on the implementation of retail competition and open access (RCOA) which highlights the summary of RCOA registration and retail market transaction status;
- Power supply-demand situation/outlook including reports on the significant Incidents in the power system, outages for 2014, and various initiatives of the DOE pursuant to *Section 71 of the EPIRA*; and
- Electrification status to include the household electrification level of the country estimated at 79.9% which corresponds to 17.4 million energized households out of the estimated total household population of 21.8 million.

II. PRIVATIZATION

The following are the recent developments on the privatization of the remaining plants and NPC-IPP contracts of the Power Sector Assets and Liabilities Management (PSALM) Corporation:

A. Privatization of Generating Assets

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

The Closing and Turn-over Date of PBs 101, 102 and 103 last 20 February 2015 to Trans-Asia did not push through due to unresolved issue with Keppel Subic. PSALM has unpaid/outstanding billings with Keppel related to tank cleaning, wharfage and general services costs, which Trans-Asia considers as an “Encumbrance” as defined under the APA. Under the APA, the asset should be free and clear from any encumbrance at the time of closing.

In a letter dated 24 February 2015, Trans-Asia expressed that it expects PSALM to resolve the issue with Keppel and be able to turn-over the power barges within forty five (45) days or until 10 April 2015.

PSALM has paid Keppel for the tank cleaning services for PB 103. However, the charges for wharfage and general services for the period starting from completion of tank cleaning up to present is still for resolution by PSALM.

PSALM is seeking the PSALM Board’s approval for the Corporation to enter into a contract with KSSI to cover the charges for wharfage and other services rendered to PB 103.

In a letter dated 08 April 2015, PSALM notified NPC of the postponement of the closing of sale until further notice. The new Closing Date shall be subject to the resolution of the remaining issue.

For PB 104, the negotiation with Trans-Asia as instructed by the Board shall proceed after the sale of PBs 101, 102 and 103 has been completed.

The PSALM Board has previously deferred the commencement of the next round of bidding for PB 104 in view of the possibility of negotiating the sale of the same to Trans-Asia.

Sucac Thermal Power Plant (STPP)

As of 30 April 2015, the rebidding for STPP is rescheduled on 2nd Semester 2015 after the notice of termination of the Asset Purchase Agreement (APA) was accepted and acknowledged by Genetron International Marketing (GIM). To recall, PSALM terminated the APA due to the breach on the Standby Letter of Credit (SLBC) issued by GIM which did not follow specific terms and conditions under the Bidding Procedures.

Relatively, PSALM has sought direction from the Department of Energy (DOE) in its letter dated 15 December 2014 with regard to the privatization of STPP. In response, the DOE in its letter dated 02 February 2015 directed PSALM that the land where the STPP is situated should still be for energy use.

However, PSALM in its letter dated 16 February 2015 clarified with DOE if the direction stated by the Department is a clearance for PSALM to push through with its privatization strategy to sell the asset as scrap. PSALM noted that its internal study shows that rehabilitation is more expensive than putting up a new power plant.

DOE replied that the STPP land should be used for energy purposes only.

PSALM is currently updating the sale structure of STPP for presentation to the Board.

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 30 April 2015

| Asset Type/ Plant Name | Rated Capacity (MW) | Bid Date | Turnover Date |
|--------------------------------|------------------------|---|-------------------------------|
| Owned Generating Plants | | | |
| Malaya Thermal | 650.00 | Privatization is subject to DOE instruction | |
| PB 101 (Diesel/Bunker) | 32.00 | 2 nd Semester 2014 | 1 st Semester 2015 |
| PB 102 (Diesel/Bunker) | 32.00 | | |
| PB 103 (Diesel/Bunker) | 32.00 | | |
| PB 104 (Diesel/Bunker) | 32.00 | 2 nd Semester 2015 | 2 nd Semester 2015 |
| 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 | - | 2 nd Semester 2015 | 2 nd Semester 2015 |
| Bataan Thermal | - | Sale/disposal is subject to resolution of cases involving the asset | |
| Bataan Gas Turbines | - | | |
| Malaya Gas Turbines | - | Settlement/Closing in 2015 | |

Source: PSALM

B. Transfer of NPC Contracted Energy Outputs from its IPPs to Independent Administrators

Mindanao I and II (Mt. Apo 1 and 2) Geothermal Power Plants

PSALM turned over the administration of the contracted energy of Mt. Apo 1 and 2 to FDC Misamis Power Corporation (FDC Misamis) last December 26, 2014. Consequently, PSALM deregistered said plant in the Interim Mindanao Electricity Market (IMEM) to facilitate the registration of FDC Misamis in the IMEM.

Unified Leyte Geothermal Power Plant (ULGPP)

Last December 19, 2014, PSALM issued the Certificate of Effectivity (COE) to the seven (7) winning bidders the ULGPP's Strips of Energy as follows:

- Aboitiz Energy Solutions, Inc., which has been awarded 40 megawatts (MW) or 40 strips of energy;

- FDC Utilities, Inc. (FDCUI), 40 MW;
- Trans-Asia Oil and Energy Development Corporation, 40 MW;
- Unified Leyte Geothermal Energy Inc. (ULGEI), 40 MW;
- Good Friends Hydro Resources Corporation, 20 MW;
- Vivant Energy Corporation, with 17 MW; and
- Waterfront Mactan Casino Hotel Inc., three (3) MW.

Meanwhile, PSALM has initiated its selection and appointment of the Independent Power Producer Administrator (IPPA) for the Bulk Energy of the Unified Leyte Geothermal Power Plants (ULGPP), with its publication of the Invitation to Bid (ITB) in local newspapers last March 11-13, 2015. As part of the pre-sale activities, PSALM is currently drafting the IPP Administrator Administration Agreements (IPPA AAs), in partnership with the Office of the Government Corporate Counsel (OGCC) as PSALM's legal advisor for the IPPA transactions.

As of the report period, a total of four (4) bidders have submitted Letters of Interest (LOI) and complied with the initial requirements for the selection and appointment of the IPPA for the ULGPP Bulk Energy, namely SPC Power Corporation, Therma Central Visayas, Inc., Trans-Asia Oil and Energy Development Corporation and Unified Leyte Geothermal Energy, Inc. (ULGEI). The deadline for the submission of LOI was on 24 March 2015 while the payment of the nonrefundable participation fee and execution of a Confidentiality Agreement and Undertaking was on 30 March 2015.

The Pre-bid Conference for the said prospective bidders of ULGPP Bulk Energy is scheduled on 06 May 2015.

Mindanao Coal-Fired Thermal Power Plant

On 18 November 2014, the PSALM Board approved the commencement of bidding activities for the selection and appointment of IPPA for the Mindanao Coal-Fired Thermal Power Plant.

On 12 February 2015, PSALM conducted a Power Investors' Forum to solicit insights from prospective bidders in formulating PSALM's privatization structures, as well as explain its bidding processes and qualification and other documentary requirements.

Meanwhile, for the Mindanao Coal IPPA, twelve (12) bidders have submitted LOIs and complied with the initial requirements, namely: Conal Holdings Corporation; FDC Davao Del Norte Power Corporation; FirstGen Northern Power Corporation; GDF Suez Energy Philippines, Inc.; Masinloc Power Partners Co. Ltd.; Meralco Powergen Corporation; Nexif Pte Ltd.; SMC Global Power Holdings Corporation; SPC Power Corporation; Team (Philippines) Energy Corporation; Therma Southern Mindanao, Inc. (TSMI); and Vivant Energy Corporation. The deadline for the submission of LOIs was on 07 April 2015 while the payment of the nonrefundable participation fee and execution of a Confidentiality Agreement and Undertaking was until 13 April 2015.

PSALM will conduct the Pre-bid Conferences for the prospective bidders of Mindanao Coal on 06 May 2015.

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 30 April 2015

| Grid | Plant Name | Contracted Capacity (MW) | Bid Date | Turnover Date |
|--------------------|---------------------------------|--------------------------|---|-------------------------------|
| Luzon Grid | Casecnan Multi-Purpose Hydro | 140.00 | Privatization is subject to DOF instruction | |
| | Benguet Mini Hydro** | 30.75 | IPP contract to expire in January 2018 | |
| | Caliraya-Botocan-Kalayaan Hydro | 728.00 | 2 nd Semester 2016 | 1 st Semester 2017 |
| | Sub-total Luzon | 898.75 | | |
| Visayas Grid | Unified Leyte - Bulk Energy | 160.00* | 2 nd Semester 2015 | 2 nd Semester 2015 |
| | 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 | 2 nd Semester 2015 | 2 nd Semester 2015 |
| | Sub-total Mindanao | 350.00 | | |
| GRAND TOTAL | | 1,408.75 | | |

* 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 1st quarter 2015, PSALM generated total proceeds of US\$19.9 billion while actual collection amounted to US\$9.6 billion. The proceeds were utilized for debt prepayment, regular payment of debts and IPP obligations, and payment of other privatization-related expenses with details indicated in Table 3.

Table 3. Generated and Collected Proceeds of Privatization as of 1st Quarter 2015, (in US\$ Billion)

| Privatization Assets | Generated | Collected | Balance |
|------------------------------|---------------|--------------|---------------|
| Generating Assets | 3.534 | 3.534 | 0.000 |
| Decommissioned Plants | 0.004 | 0.004 | 0.000 |
| Transmission Asset (TransCo) | 6.383 | 3.826 | 2.557 |
| Appointment of IPPAs | 9.957 | 2.213 | 7.744 |
| TOTAL | 19.878 | 9.577 | 10.301 |

Source: PSALM

Out of the US\$8.8 billion privatization proceeds utilized, US\$8.7 billion or 98.77% was used for the liquidation of financial obligations. The difference between the total amount collected and total utilization in the amount of US\$0.78 billion is placed in temporary investments while awaiting utilization.

Table 4. Utilization of Privatization Proceeds as of 1st Quarter 2015

| Privatization Proceeds Utilized | In US\$ Billion |
|---------------------------------|-----------------|
| Debt Prepayment | 1.298 |
| Regular Debt Service | 4.979 |
| Lease Obligations | 2.412 |
| Others | 0.107 |
| TRANSCO Opex | 0.001 |
| TOTAL | 8.797 |

USD1:PhP44.796 (BSP Guiding Rate dated 31 March 2015)

Source: PSALM

D. Concession of the National Transmission Network

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

Meanwhile, a Technical Working Group (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.

On 27 April 2015, the Joint PSALM and TransCo Technical Working Group discussed with NGCP the checklist/findings of the completed inspection and resolved the issues particularly the records which were unavailable during the time of inspections and the reasons why certain records are not applicable/available but included in the checklist.

Meanwhile, TransCo maintains their activities 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.

As of 30 April 2015, TransCo has signed one hundred twelve (112) 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 865 MVA of substation capacity. Of the one hundred twelve (112) sale contracts, fifty one (51) contracts with total sale price of PhP 2.7¹ billion have been approved by the ERC. However, five (5) contracts with a total amount of PhP110 million were disapproved and one contract amounting to PhP24.2 million was withdrawn by the ERC. The rest of the sale contracts are for filing for ERC's evaluation and approval.

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

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.

hundred twelve (112) sale contracts already signed, seventy (70) 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 160 ckt-km of sub-transmission lines and 25 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 30 April 2015

| | DUs | Sale Amount in PhP (Original Contract) | CKM |
|--------------|------------|--|--------------|
| North Luzon | 34 | 1,659,041,373.27 | 1,272 |
| South Luzon | 17 | 1,120,511,843.37 | 467 |
| Visayas | 27 | 1,168,202,902.00 | 685 |
| Mindanao | 31 | 1,913,027,055.63 | 1,598 |
| TOTAL | 109 | 5,860,783,174.27 | 4,022 |

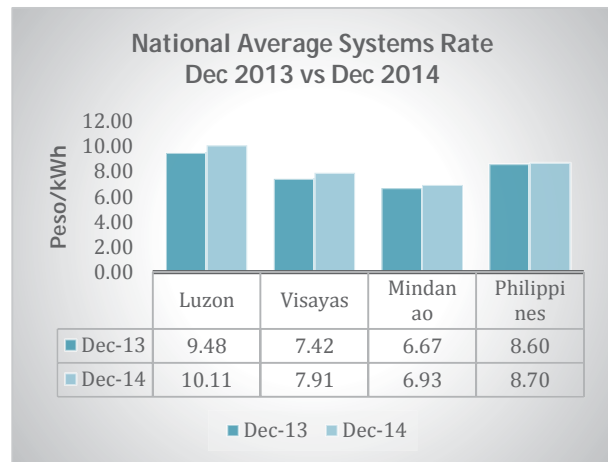
Source: Transco

III. ELECTRICITY RATES

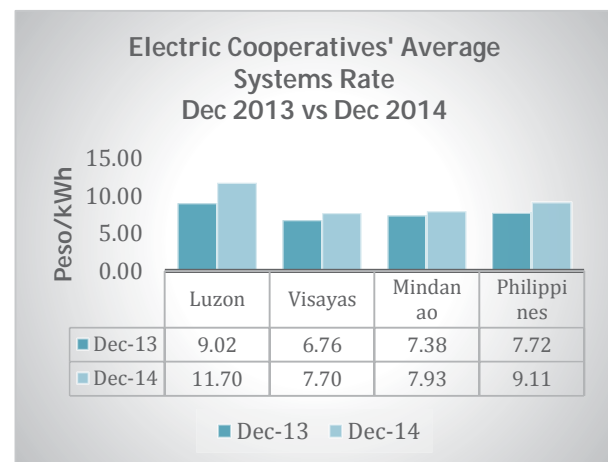
This section provides updates on electricity price data and other significant related developments based on information from the ERC, TransCo, PSALM, NPC and distribution utilities, among others.

A. Distribution Utilities' Electricity Rates Data and Regulatory Actions

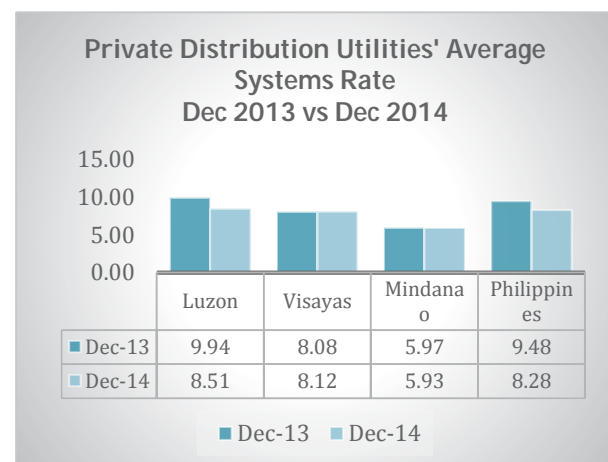
The country's average electricity rates as of December 2014 is PhP8.70/kWh, slightly higher by 10 centavos/kWh compared with the December 2013 national average systems rate. Among the three major grids, Luzon has the highest rate at PhP10.11/kWh while Mindanao remains the lowest at PhP6.93/kWh for December 2014. Significant increase in rate was posted in Luzon Grid at PhP9.48/kWh in December 2013 to PhP10.11/kWh in December 2014 or an increase of PhP0.63/kWh.



Meanwhile, the ECs' average systems rate for December 2014 is PhP9.11/kWh, an increase of PhP1.39 from December 2013. Increase in rates were posted in all the three grids wherein the largest was observed in the Luzon grid from PhP9.02/kWh in December 2013 to PhP11.70/kWh in December 2014.



The national average systems rates of private DUs however posted a reduction of PhP1.20/kWh from PhP9.48/kWh in December 2013 to PhP8.28/kWh in December 2014. Slight increase of PhP 4 centavos/kWh was noted in the Visayas grid from PhP8.08/kWh in December 2013 to PhP8.12/kWh in December 2014.



Source: NEA for ECs
Monthly Operations Report (MOR) for PDUs

Table 6. EC's Unbundled Average Effective Residential Electricity Rates, December 2014 (PhP/kWh)

| Bill Subgroup | LUZON | | VISAYAS | | MINDANAO | | NATIONAL | |
|--------------------------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|
| | PhP/kWh | % share | PhP/kWh | % share | PhP/kWh | % share | PhP/kWh | % share |
| Generation | 4.4783 | 47.82 | 5.2732 | 52.03 | 3.8049 | 45.23 | 4.5188 | 48.57 |
| Transmission | 1.0448 | 11.16 | 0.8719 | 8.60 | 0.8937 | 10.62 | 0.9368 | 10.07 |
| System Loss | 0.7788 | 8.32 | 0.8253 | 8.14 | 0.6689 | 7.95 | 0.7577 | 8.14 |
| DSM ¹ | 1.6988 | 18.14 | 1.8190 | 17.95 | 1.6805 | 19.98 | 1.7328 | 18.62 |
| RFSC ² | 0.3451 | 3.68 | 0.3549 | 3.50 | 0.4571 | 5.43 | 0.3857 | 4.14 |
| Other Charges ³ | (0.0698) | (0.74) | 0.0313 | 0.31 | (0.0716) | (0.85) | (0.0367) | (0.39) |
| Subsidy Charges ⁴ | 0.0680 | 0.73 | 0.0538 | 0.53 | 0.0695 | 0.83 | 0.0638 | 0.69 |
| Universal Charges ⁵ | 0.3468 | 3.70 | 0.3470 | 3.42 | 0.3370 | 4.01 | 0.3436 | 3.69 |
| Other Taxes ⁶ | 0.0539 | 0.57 | 0.0561 | 0.55 | 0.0423 | 0.50 | 0.0508 | 0.55 |
| VAT | 0.6205 | 6.62 | 0.5030 | 4.96 | 0.5301 | 6.30 | 0.5512 | 5.92 |
| Total | 9.3652 | 100.00 | 10.1355 | 100.00 | 8.4124 | 100.00 | 9.3045 | 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

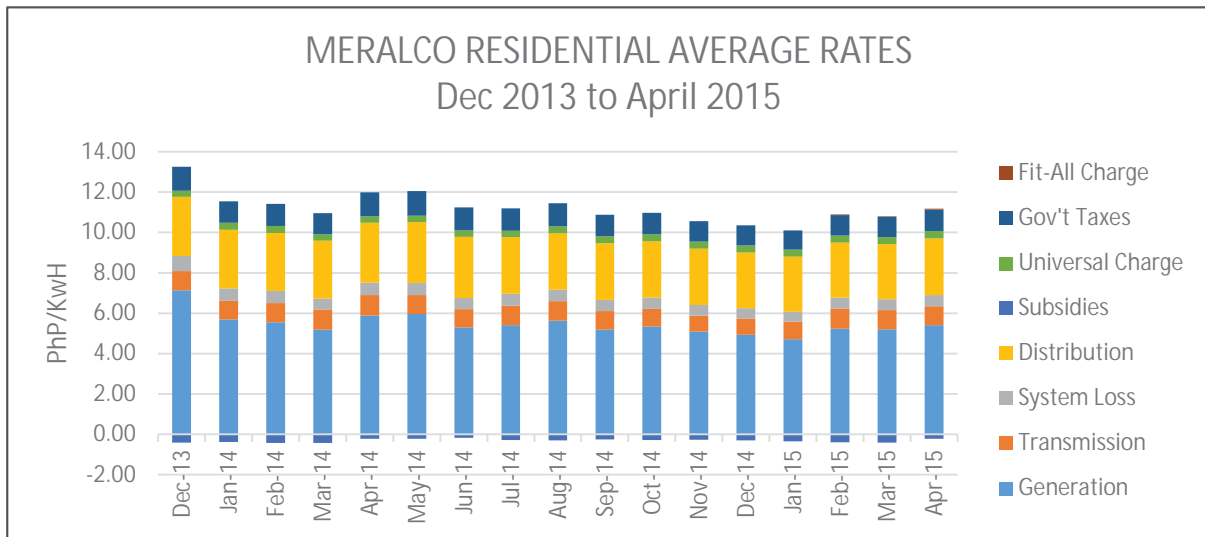
Meanwhile, for the April 2015 billing of MERALCO, its effective residential rates for the different residential customer classes ranged from PhP10.68/kWh to PhP12.05/kWh of which the highest component was generation costs at PhP5.41/kWh. MERALCO distribution charges for its different residential customer classes comprised to 21% to 28% of the total effective residential rates equivalent to PhP2.20/kWh and PhP3.41/kWh, respectively. Systems loss charges on the other hand was 55-centavos. The Fit-All Renewable was introduced beginning January 2015 at PhP0.0406/kWh. As previously reported, the FIT-All is a uniform charge imposed on all On-Grid electricity consumers who are supplied with electricity through the distribution or transmission network. It is essential to the implementation of the FIT System as established under Section 7 of Republic Act No. 9513, otherwise known as the Renewable Energy Act of 2008 (RE Law).

Table 7. Summary of MERALCO Residential Unbundled Power Rates, 30 April 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 | 5.4121 | 51% | 5.4121 | 49% | 5.4121 | 47% | 5.4121 | 45% |
| Transmission | 0.9386 | 9% | 0.9386 | 9% | 0.9386 | 8% | 0.9386 | 8% |
| System Loss | 0.5579 | 5% | 0.5579 | 5% | 0.5579 | 5% | 0.5579 | 5% |
| Distribution | 2.2045 | 21% | 2.5220 | 23% | 2.8393 | 25% | 3.4147 | 28% |
| Subsidies* | 0.1564 | 1% | 0.1564 | 1% | 0.1564 | 1% | 0.1564 | 1% |
| Universal Charge | 0.3524 | 3% | 0.3524 | 3% | 0.3524 | 3% | 0.3524 | 3% |
| FIT-All Renewable | 0.0406 | 0% | 0.0406 | 0% | 0.0406 | 0% | 0.0406 | 0% |
| Government Taxes | 1.0209 | 10% | 1.0607 | 10% | 1.1006 | 10% | 1.1729 | 10% |
| TOTAL | 10.6834 | 100% | 11.0407 | 100% | 11.3979 | 100% | 12.0456 | 100% |

Source: MERALCO Website

It can be noted that from December 2013 to April 2015, MERALCO's average residential rates significantly reduced from PhP12.85/kWh to PhP10.96/kWh or PhP1.89/kWh.



B. Transmission Rates Regulatory Updates

During the report period, issuances on ERC's decision/actions on transmission charges and adjustments filed by NGCP are duly approved. Annexes 3 and 4 show the summary of the transmission rates regulatory updates.

1. ERC Case 2014-032 MC (docketed on 01 December 2014), *In the Matter of the Application for Authority to Develop, Own and Operate a Dedicated Point to Point Limited Facilities for the Proposed San Lorenzo Wind Farm Project of Trans-Asia Renewable Energy Corporation (TAREC) to Connect to the Visayas Grid Through the Transmission System of the National Grid Corporation of the Philippines (NGCP)* - approved with modification subject to the following conditions:
 - a. TAREC was authorized to develop and own a dedicated point-to-point transmission facilities to connect to the transmission system of NGCP;
 - b. The Connection Assets shall be used solely by TAREC and should not be used directly to serve the end-users. In the event that the said facilities or any portion thereof will be used/required for competitive purposes or to connect any other user, ownership of the same shall be transferred to the TransCo/NGCP;
 - c. NGCP shall operate the dedicated point-to-point transmission facilities subject to applicable charges; and
 - d. The said dedicated point-to-point facilities shall be developed and constructed in accordance with the System Impact Study (SIS) requirements so as not to result in the degradation of NGCP's transmission system

TAREC was also directed to pay a permit fee in the amount of Seven Million Two Hundred Seventy-Six Thousand Seven Hundred Fifty-Nine Pesos (PhP7,276,759.00), within 10 days from receipt of the decision.

2. The ERC in its Order on its Case 2014-155 RC (filed by NGCP on November 2014) entitled “In the Matter of the Application for the Approval of the Maximum Allowable Revenue for the Calendar Year 2015 (MAR 2015) and the Net Performance Incentive for Calendar Year 2014 (PIS2014) Under the Rules for Setting the Transmission Wheeling Rates” granted a Provisional Authority on 18 December 2014, in the amount of PhP43 Million (MAR 2015) excluding the PIS, as follows:

On the basis of the new revenue cap, the ERC estimated the indicative Power Delivery Service (PDS) Charges as shown below in the following table (where these charges are assumed to apply on the average for the entire duration of CY 2015 and the billing determinant as forecasted by NGCP):

| PARTICULARS | Average Transmission Rate | | |
|-------------------------|---------------------------|-----------|-----------------------|
| | MAR 2014 | MAR 2015 | Difference Inc./(Dec) |
| MAR, PhP, Million | 42,506.68 | 43,078.95 | 572.27 |
| Forecast Demand (MW) | 133,351 | 139,678 | |
| Rate Impact, PhP/kW.mo. | 318.76 | 308.42 | (10.34) |
| Forecast Energy (GWh) | 66,249 | 69,918 | |
| Rate Impact, PhP/kWh | 0.6416 | 0.6161 | (0.0255) |

The above computation of the PDS Rate is exclusive of the PIS and the Ancillary Service Charge. Notably, compared to the MAR 2014, the effective MAR for CY 2015 increased by PhP572 Million; however, the actual rate impact to the customers is projected to be a decrease since the percentage increase in billing determinant is higher than the percentage increase in the MAR. This is because the higher the billing determinant, the lower the resulting rate per unit or PhP/kWh and PhP/kW/mo.

The percentage increases in the MAR & Billing Determinant:

| | 2014 | 2015 | %age Increase (%) |
|-------------|-----------|-----------|-------------------|
| MAR 2015 | 42,506.68 | 43,078.95 | 1.35 |
| Demand, MW | 133,351 | 139,678 | 4.75 |
| Energy, GWh | 66,249 | 69,918 | 5.54 |

The ERC reviewed the calculation of NGCP pursuant to the methodology required by the OATS Rules under Clause F (All) 1, as follows:

- a. System Operator Charge

| FIRM (PhP/kW/mo.) | Proposed 2015 SO Rates |
|----------------------|--------------------------|
| | NON-FIRM (PhP/kW/day) |
| 15.82 | 0.5201 |

b. Metering Service Provider Charge

| Per Voltage Level | Proposed 2015 MSP Rates (in PhP) | |
|----------------------|-------------------------------------|------------|
| | Full | Meter only |
| 500/230 kV | 39,670 | 7,433 |
| 138/115 kV | 26,741 | 5,010 |
| 69 kV | 17,372 | 3,255 |
| 34.5/23 kV | 10,032 | 1,880 |
| 13.8 kV and below | 5,241 | 982 |
| Common Charge | 3,618 | |

Performance Incentive Scheme (PIS) 2014 – The PIS rewards or penalizes NGCP to the extent that the actual level of performance of the grid for the Regulatory Year (i.e. from September 2013 to August 2014) exceeds or falls below the target level of performance as defined in the Final Determination. NGCP claims a net performance incentive regard of PhP923 Million applicable for CY 2014. But the ERC deems it appropriate not to include the PIS considering that NGCP has yet to substantiate the same.

As of this report period, the ERC had concluded the jurisdictional hearing, pre-trial conference, expository presentation and evidentiary hearings on the said case.

3. ERC Case 2014-016 MC (decided on 22 October 2014) filed by Petrowind Energy, Inc. (PWEI) entitled “In the Matter of the Application for Authority to Develop, Own and/or Operate Dedicated Point-to-Point Facilities to Connect Nabas Wind Power Plant to the 69 kV Nabas Substation – Caticlan Substation Overhead Transmission Line of the National Grid Corporation of the Philippines (NGCP) with Prayer for Provisional Authority”, was approved by the ERC subject to the following conditions:
 - a) The NGCP shall operate the subject dedicated point to point transmission facilities subject to applicable charges;
 - b) The subject facilities shall be developed and constructed in accordance with the SIS requirements;
 - c) The subject facilities shall be used solely by the generating facility; and
 - d) Any portion thereof required for competitive purposes or to connect any other user, ownership of the same shall be transferred to TransCo/NGCP.

PWEI was also directed to remit to the ERC within fifteen (15) days from receipt of the decision, a total permit fee in the amount of One Million Ninety-Nine Thousand Five Hundred Eighteen Pesos (PhP1,099,518.00).

C. Generation Costs

Following are relevant updates affecting the cost of generation which are imposed to consumers as pass-through charges.

1. Adoption of a Pre-emptive Mitigation Measure for the Wholesale Electricity Spot Market (WESM)

The ERC on 15 December 2014, issued and adopted Resolution No. 20 Series of 2014 providing for the pre-emptive mitigating measure in the Wholesale Electricity Spot Market (WESM), through the following:

- a. A Cumulative Price Threshold (CPT) amounting to PhP1,512,028.00 equivalent to the Generator Weighted Average Prices (GWAP) over a rolling 7-day period or one hundred sixty eight (168)-hour trading interval, is set in the WESM. This is equivalent to an average spot price of PhP9,000/MWh over the period.

Table 8. Formulation of the Rolling Average Price Threshold

| Period | No. of Hours in a day | Average LWAP (PhP/MWh) | Price Threshold PhP/MWh |
|---|-----------------------|------------------------|-------------------------|
| 1 st Off-peak | 8 | 2,756 | 22,048 |
| Peak | 10 | 8,166 | 81,660 |
| Price Spike | 3 | 32,000 | 96,000 |
| 2 nd Off-peak | 3 | 5,432 | 16,296 |
| Total | 24 | | 216,004 |
| 7-day Cumulative Price Threshold | | | 1,512,028 |
| Average CPT Per Hour | | | 9,000 |

Source: ERC

A breach of the CPT for the said period triggers the imposition of a price cap amounting to PhP6,245/MWh. The market clearing price for the immediate trading interval following the breach will be pegged at the value of the price cap and shall be imposed until after a determination that the succeeding GWAP rolling average is already below the CPT.

However, during the period where the price cap is imposed, if there are intervals where the market clearing price is lower than the price cap, the market clearing price will be applied for settlement purposes.

- b. During the period where the CPT has been breached and the price cap is in effect, the oil-based plants will be entitled to recover additional compensation equivalent to the remainder of the total cost of fuel and variable Operations & Maintenance (O&M) costs, upon submission of sufficient proof that the application of the pre-emptive mitigation measure is not sufficient to cover the fuel cost and variable O&M costs of the plant, to be evaluated and confirmed by the Philippine Electricity Market Corporation (PEMC);
- c. The claim for additional compensation by oil-based plants shall be processed by PEMC within thirty (30) days from receipt of supporting documents.

2. Feed-in Tariff (FiT)

The ERC issued on 28 October 2015 an Order under ERC Case No. 2014-109 RC granting provisional authority (PA) to TransCo to implement the Feed-in Tariff Allowance (FiT-All) rate of 4.06 centavos/kWh starting January 2015 billing of all On-Grid electricity consumers. Through the said PA, TransCo will perform its duties as Fund Administrator and ensure the timely payment to the Renewable Energy (RE) Developers of their entitled FiT Rate.

The FiT-All is a uniform charge imposed on all On-Grid electricity consumers who are supplied with electricity through the distribution or transmission network. The FiT-All is essential to the implementation of the FiT System as established under *Section 7 of Republic Act No. 9513*, otherwise known as the Renewable Energy Act of 2008 (RE Law).

There are some concerns on FiT implementation as regard the recovery having been referred to the WESM Prices specially when the price at the market becomes zero or negative, as follows:

- i. Impact of negative prices –The basis for settlement in the WESM is the Locational Marginal Prices (LMP) which are the economic value of energy at each node considering the marginal price of generation, transmission losses and congestion. Thus, the system marginal price is the price set by the marginal generator scheduled in any trading interval or period based on its offer.

As specified under the WESM Rules, generation offers may include negative prices which require compliance to market rules including payments due to negative prices. However, negative prices were not considered in the financial model of TransCo in their ERC filing for the FiT All which may possibly cause depletion of the FiT All Fund. The concern lies on the premise that FiT system provides guaranteed payment for the FiT-eligible generators during the eligibility period and this may be invoked by the generators if they will be obliged to pay for the negative price.

- ii. Offsetting of payments and market fees – remittance to TransCo for the Actual Cost Recovery Revenue (ACRR) will be net of market fees since this is pursuant to the membership of FiT generator in the WESM. Under the WESM Rules, a generation company with facilities connected to a transmission or distribution system is required to register with the Market Operator.
- iii. Impact on FiT implementation - If a GenCo has a combination of FiT-Eligible generating unit and a non-FiT generating unit, this would result to a conflict with the requirement to remit to TransCo the full WESM proceeds for the FiT-eligible plant based on the payment and collection guidelines. Payment to FiT-eligible generating unit will be offsetted with the balances of the non-FiT generator if there will be one depository bank for the same GenCo.
- iv. Proposed Offsetting Payments – A separate banking account would also be required from these plants. For certain period of time where a FiT eligible plant will be exposed to extreme negative prices, no collection would be made until such time that it will reflect a positive prices.

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 30 April 2015 amounted to PhP69.1 billion while interest earnings from deposits and placements of UC funds amounted to PhP144 million. Of this amount, PhP45.5 billion was disbursed by PSALM to NPC-SPUG for missionary electrification and environmental charge in accordance with the provisions of the EPIRA. Meanwhile, PhP23.4 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. This leaves the UC fund with a balance of PhP245 million.

Pursuant to the ERC Decision and Clarificatory Order dated 12 August 2013 and 10 October 2013, respectively, cash incentive totalling to Php69 million was paid to Romblon Electric Cooperative, Inc. (ROMELCO), RE Developer of Cantingas Mini Hydro Power Plant Corporation (CHPC) in Romblon; Sunwest Water & Electric Co. (SUWECO) to RE Developer of Hitoma 1 & Solong; and Oriental Mindoro Electric Cooperative, Inc. (ORMECO), the 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 Php0.245 billion as of 30 April 2015, as indicated in Table 9.

Table 9. Universal Charge Remittances, Interests and Disbursements as of 30 April 2015
(In Billion PhP)

| Particulars | Remittances | Interests | Disbursements | Balances |
|--|---------------|--------------|-----------------|--------------|
| Missionary Electrification NPC-SPUG ORMECO | 43.968 | 0.044 | 43.962 0.020 | 0.030 |
| Missionary Electrification – Renewable Energy Developer Cash Incentive (REDCI) | 0.118 | | 0.069 | 0.049 |
| Environmental Charge | 1.534 | 0.092 | 1.491 | 0.135 |
| Stranded Contract Cost | 23.439 | 0.008 | 23.416 | 0.031 |
| Total: | 69.059 | 0.144 | 68.958 | 0.245 |

Source: PSALM

For the period November 2014 to April 2015, PSALM received a total of Php10.868 billion in UC remittances from collecting entities, and disbursed to NPC-SPUG the total amount of Php4.725 billion for missionary electrification. The monthly breakdown of the collections and disbursements are provided in Tables 10 and 11.

Table 10. UC Collections for November 2014 – April 2015 (in Billion PhP)

| Month | UC – ME (NPC-SPUG) | UC-ME (REDCI) | UC – EC | UC-SCC | Total / Month |
|---------------|-----------------------|------------------|--------------|--------------|------------------|
| November 2014 | 0.803 | 0.011 | 0.013 | 1.034 | 1.861 |
| December 2014 | 0.791 | 0.008 | 0.013 | 0.997 | 1.809 |
| January 2015 | 0.798 | 0.010 | 0.013 | 1.010 | 1.831 |
| February 2015 | 0.804 | 0.008 | 0.013 | 1.010 | 1.835 |
| March 2015 | 0.726 | 0.007 | 0.012 | 0.906 | 1.651 |
| April 2015 | 0.827 | 0.010 | 0.014 | 1.031 | 1.882 |
| Total | 4.749 | 0.054 | 0.078 | 5.988 | 10.869 |

Source: PSALM

Table 11. UC Disbursements for November 2014 – April 2015 (in Billion PhP)

| Month | UC – ME | ORMECO's Claim | UC-ME (REDCI) | UC-SCC | UC – EC | Total / Month |
|---------------|--------------|-------------------|------------------|--------------|--------------|---------------|
| November 2014 | 0.806 | 0.003 | 0.001 | 1.058 | - | 1.868 |
| December 2014 | 0.770 | 0.004 | 0.001 | 0.978 | - | 1.753 |
| January 2015 | 0.808 | 0.004 | 0.059 | 1.020 | - | 1.891 |
| February 2015 | 0.811 | 0.003 | - | 1.026 | - | 1.84 |
| March 2015 | 0.723 | 0.003 | 0.001 | 0.905 | - | 1.632 |
| April 2015 | 0.807 | 0.003 | 0.004 | 1.020 | 0.777 | 2.611 |
| Total | 4.725 | 0.02 | 0.066 | 6.007 | 0.777 | 11.595 |

Source:PSALM

For the UC-EC, PSALM disbursed to NPC a total amount of PhP777 million, pursuant to the ERC Decision dated 15 December 2014, to fund NPC's Plans 7 to 10 Watershed Management Program.

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

CY 2013 UC-SCC under ERC Case No. 2014-111 RC

- The Petition for NPC's SCC Portion of the UC for CY 2013 was filed by PSALM before the ERC on 30 July 2014, docketed under ERC Case No. 2014-111 RC. In the said petition, PSALM seeks the ERC's approval to collect the UC-SCC amounting to PhP4.078 billion over a 1-year period, which translates to a UC charge of 5.31 centavos/kWh sales to all electricity end-users;
- PSALM submitted its Compliance with the ERC's jurisdictional requirements dated 15 September 2014;
- During the Jurisdictional Hearing held on 16 September 2014 at the ERC Office, PSALM presented its Expository Presentation of the case before the ERC and intervenors and the queries and concerns raised by both were addressed and clarified by PSALM;
- During the continuation of the Expository hearing held on 02 October 2014, PSALM presented a Supplementary Expository Presentation in compliance with the directive of the ERC during the Jurisdictional and Expository Hearing in September 2014;
- On 16 October 2014, the initial Pre-Trial Conference was held wherein the facts of the case and the issues were discussed and agreed upon by Petitioner PSALM together with the intervenors;
- The continuation of the said conference was conducted on 10 November 2014 for those intervenors who were not present during the 16 October 2014 initial conference; and
- The Evidentiary Hearing commenced after the Pre-Trial Conference wherein PSALM presented its first witness from the PSALM Universal Charge Administration Department who was cross-examined by the intervenor from MERALCO. PSALM is awaiting the ERC Order on the next scheduled hearing for the continuation of the Evidentiary Hearing.

CY 2011-2012 UC-SCC under ERC Case No. 2013-160 RC

- The hearing on the Petition for True-Up Adjustment for NPC's SCC Portion of the UC for CYs 2011-2012 continued with the cross-examination by the intervenors of PSALM's 2nd witness for the case on 04 September 2014.

CY 2013 UC-SD

- The calculation of the True-Up Adjustment of NPC's UC-SD for CY 2013 resulted in negative PhP49.6 billion, which means no SD was incurred. In compliance with the ERC-approved Guidelines on the Recovery of SCC and SD from the UC, PSALM submitted to the ERC on 31 July 2014 a letter dated 30 July 2014

informing that no SD was incurred for CY 2013, together with a report under oath thereon and the Variance Analysis Report (VAR) certified by the COA.

E. PSALM Liability Management

As of 1st quarter 2015, PSALM reported that the 2001 beginning balance of PhP830.7 billion which peak at PhP1.241 billion in 2003 has been reduced to PhP574.92 billion (or USD12.83 billion). The reduction of PhP666.1.08 billion from 2003 level was due to the lower BOT lease obligations and debt balance. From the 2003 balances, the BOT lease obligations decreased by PhP504.03 billion, while debts also decreased by PhP161.65 billion.

Table 12. Total Financial Obligations as of 1st Quarter 2015

| Items | PhP Equivalent (In Billions) | USD Equivalent (In Billions) |
|---------------------|---------------------------------|---------------------------------|
| Debts | 321.75 | 7.18 |
| BOT/IPP Obligations | 253.17 | 5.65 |
| Total | 574.92 | 12.83 |

Source: PSALM

Table 13. Debt Profile Currency as of 1st Quarter 2015

| Currency | Amount in PhP equivalent (in Millions) | Amount in USD equivalent (In Millions) | % to Total (%) |
|--------------|--|--|-------------------|
| EUR | 162.4 | 3.6 | 0.05% |
| JPY | 29,570.3 | 660.1 | 9.19% |
| PHP | 133,675.9 | 2,984.1 | 41.55% |
| USD | 158,345.3 | 3,534.8 | 49.21% |
| Total | 321,753.9 | 7,182.6 | 100.00% |

Exchange Rates Used: BSP Guiding Rate dated 31 March 2015

| | | |
|-----|------------|-----------|
| USD | : PhP 1.00 | = 44.7960 |
| JPY | : PhP 1.00 | = 0.3729 |
| EUR | : PhP 1.00 | = 48.4961 |
| KRW | : PhP 1.00 | = 0.0504 |

Source: PSALM

As part of its strategy to effectively manage NPC's liabilities, PSALM initiated several loan prepayments, which generated a net present value (NPV) of interest savings in the amount of USD51.9 million as of end 2014.

Prepayment details are as follows:

- Prepaid the Credit National loans amounting to EUR3,476,915.56 (inclusive of interests amounting to EUR45,388.82), equivalent to USD4,429,242.73;
- Prepaid KfW (Spares) loan relented by the Bureau of the Treasury amounting to EUR3,606,929.30, equivalent to PhP203,702,053.60; and
- Prepaid all KfW loans amounting to EUR86,652,374.55 (USD110,126,502.82).

Fund Management Activities

- To date, PSALM has collected PhP14.15 billion from the Department of Environment and Natural Resources (DENR) and National Irrigation Administration (NIA) for the reimbursement of advances of PSALM/NPC for the San Roque Multi-Purpose Project (SRMPP advances), as follows:

Table 14. Remittance From DENR and NIA on Advances for SRMPP

| Agency | Previous Years | 2015 | Total (in PhP) |
|--------|----------------|--------------|-----------------------|
| DPWH | 160,370,000 | | 160,370,000 |
| DENR | 3,556,000,000 | 215,000,000 | 3,771,000,000 |
| NIA | 10,218,000,000 | | 10,218,00,000 |
| | | Total | 14,149,370,000 |

Source: PSALM

- The amount collected goes to PSALM Investment Fund which is used to service the principal amount of PSALM retail bonds.

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 year 2014, the average total amount of subsidy provided to lifeline consumers was PhP291.6 million which translated to an average of PhP1.77/kWh per month subsidy to lifeline customers in the whole country. On the average, each of the lifeline customers had enjoyed an average monthly subsidy of PhP58.08. The amount of subsidy paid for by the non-lifeline customers of PDUs is at PhP88.32 per month, Php5.55 higher compared to the MERALCO franchise area which is at PhP82.77 per month. For the ECs, non-lifeline customers subsidized an average of PhP28.37 per month.

Meanwhile, Table 15 shows the January to December 2014 status of lifeline rate subsidy implementation, as provided by the ERC.

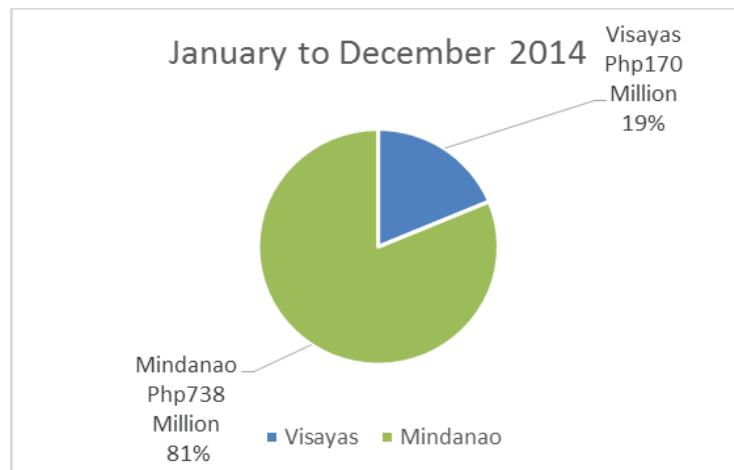
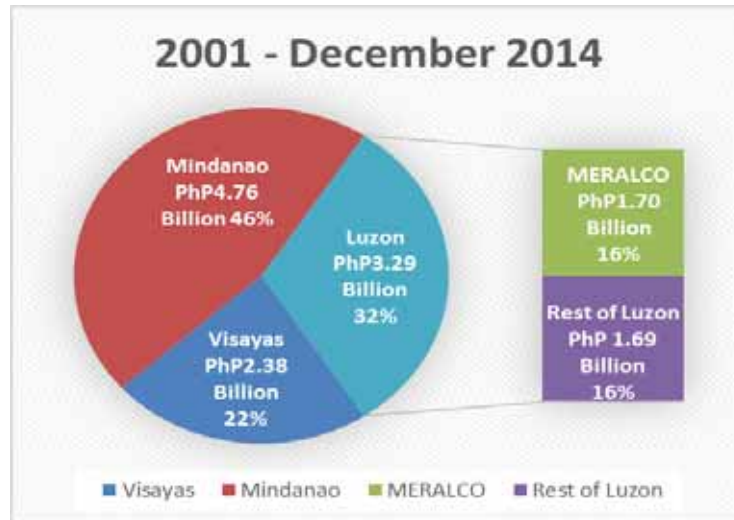
Table 15. Summary of Lifeline Subsidy Implementation, January to December 2014

| Particulars | MERALCO | Other PDUs | ECs | Total |
|---|----------------|--------------|--------------|----------------|
| Monthly Average Total Amount of Subsidy Provided by Non-Lifeline Customers (in PhP) | 186,193,031.63 | 39,541,920 | 65,919,540 | 291,654,492.03 |
| Average Monthly Total Consumption of Lifeline Customers (kWh) | 103,756,720.33 | 19,378,486 | 41,923,683 | 165,058,889.90 |
| Monthly Average Number of Lifeline Customers | 2,249,597 | 447,734 | 2,323,930.75 | 5,021,261.58 |
| Monthly Average Number of Non-Lifeline Customers | 11,702,666 | 802,151 | 6,808,285 | 19,313,102.33 |
| Average Amount of Subsidy Provided to Lifeline Customers (In PhP/kWh) | 1.79 | 2.04 | 1.57 | 1.77 |
| Average Amount of Subsidy Provided to Lifeline Customers (In PhP/Customer) | 82.77 | 88.32 | 28.37 | 58.08 |
| Average Amount of Subsidy Paid by Non-lifeline customers (in PhP/Customer) | 15.91 | 49.29 | 9.68 | 15.10 |

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 December 2014, total discounts granted by NPC have amounted to PhP908.328 million of which 81% were availed by residential customers in Mindanao and 19% 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 PhP30.76 billion of which 46% was availed by Mindanao residential customers while 31% and 23% went to Luzon and Visayas, respectively. Data for MRR is summarized under Annex 17.



H. Pantawid Kuryente Program

The Department of Social Welfare and Development (DSWD) with the assistance of the National Electrification Administration (NEA) continues to implement Pantawid Kuryente: Katas ng VAT Program, one-time cash subsidy worth P500 in line with the directive of President Gloria Macapagal-Arroyo to alleviate the plight of poor families affected by the spiraling prices of electricity, fuel, and basic commodities.

Said assistance of NEA to DSWD is in line with their signed Memorandum of Agreement (MOA) for the implementation of this Program in areas covered by the electric cooperatives (ECs) nationwide whereas the DSWD will transfer to NEA the amount that will cover the P500 subsidy for each of the customers consuming 100 kWh per month or less than with the initial release of P500M.

Meanwhile, the table below shows the summary per tranche on the implementation of Pantawid Kuryente: Katas ng VAT Program as provided by NEA on the subsidy extended to consumers of ECs.

Table 16. Summary per Tranche on the Implementation of Pantawid Kuryente: Katas ng VAT Program as of 31 March 2015

| Tranche | No. of Consumers Given CM | Subsidy Received (PhP) | Consumers | | Application | |
|-----------------|---------------------------|-------------------------|------------------------|------------|-------------------------|-----------|
| | | | # of Consumers with CM | % | Amount (PhP) | % |
| 1 st | 1,010,286 | 505,143,000.00 | 1,010,286 | 100 | 500,608,851.55 | 99 |
| 2 nd | 1,012,217 | 506,108,308.97 | 1,012,217 | 100 | 500,284,551.77 | 99 |
| 3 rd | 79,058 | 39,529,000.00 | 79,058 | 100 | 39,164,949.31 | 99 |
| 4 th | 1,011,054 | 505,527,000.00 | 1,011,054 | 100 | 500,708,220.45 | 99 |
| 5 th | 967,111 | 483,555,500.00 | 967,057 | 100 | 477,329,739.50 | 99 |
| 6 th | 663,947 | 331,973,500.00 | 663,947 | 100 | 325,241,959.65 | 99 |
| 7 th | 40,564 | 20,282,000.00 | 40,564 | 100 | 20,034,651.83 | 99 |
| 8 th | 54,775 | 27,387,500.00 | 54,775 | 100 | 26,901,460.47 | 99 |
| Total | 4,839,012 | 2,419,505,808.97 | 4,838,958 | 100 | 2,390,274,384.53 | 99 |

Source: NEA

As of 31 March 2015, the subsidy fund intended for “Pantawid Kuryente” amounting to Php 2.389 billion had been released to one hundred eighteen (118) ECs. Further, there are forty-six (46) ECs which have completed 100% application, while forty (40) have reached 99% application.

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 April 2015, the integrated WESM (Luzon and Visayas) has a total of two hundred thirty seven (237) registered participants comprised of sixty seven (67) generating companies and one hundred seventy (170) customers comprised of fourteen (14) Private Distribution Utilities, seventy one (71) ECs, seventy eight (78) Bulk users, and seven (7) Wholesale Aggregators.

Table 17. Registration Update as of 30 April 2015 (Luzon and Visayas)

| CATEGORY | | EXPECTED (Luz& Vis) | REGISTERED | | | | | |
|---|-----------------------|------------------------|------------|-----------|-----------|-----------|-----------|----------|
| | | | DIRECT | | | INDIRECT | | |
| | | | LUZ | VIS | LUZ/VIS | LUZ | VIS | LUZ/VIS |
| Generation Companies | | 67 | 40 | 24 | 3 | 0 | 0 | 0 |
| Customer Trading Participants | Private DUs & LGUs | 14 | 8 | 3 | 0 | 3 | 0 | 0 |
| | ECs | 71 | 27 | 28 | 0 | 16 | 0 | 0 |
| | Bulk Users | 78 | 6 | 7 | 1 | 51 | 12 | 1 |
| | Wholesale aggregators | 7 | 0 | 0 | 7 | 0 | 0 | 0 |
| Total Customer Trading Participant | | 170 | 41 | 38 | 8 | 70 | 12 | 1 |
| TOTAL PARTICIPANTS/ APPLICANTS | | 237 | 81 | 62 | 11 | 70 | 12 | 1 |

Source: PEMC

For the billing period of November 2014 to January 2015, average system-wide demand constantly decreased from 7,559MW in November to 6,528MW in January influenced by the colder weather conditions and the observance of holidays during the period. Given the decreasing trend of the demand for the said period, peak demand registered at 9,473MW during the 1400H trading interval on 18 November 2014. Demand in Luzon largely declined in January 2015 by 12.6% as compared to December 2014. While demand in the Visayas grew by 5.1% in November 2014 compared to the previous month's average, it exhibited a decline of 5.1% and 7.2% in December 2014 and January 2015, respectively. For the billing months of February and March 2015, average system demand increased to 7,046MW and 7,458MW, respectively. It further increased to 7,736MW in April 2015 due to hotter weather conditions.

In terms of supply, the total WESM registered capacity increased to 15,216 MW during the billing month of November 2014 with the entry of Northwind Development Corporation, North Luzon Renewable Energy Corporation, EDC Burgos Wind Power Corporation, and Trans-Asia Renewable Energy Corporation. With this, non-scheduled generation shares 1.9 % of the total registered capacity in Luzon. Also, two (2) units of Cebu Thermal Power Plant were registered anew on 14 November 2015. In December 2014, the total registered capacity increased further to 15,261MW attributable to the additional registered capacity of Bac-man geothermal plant effective on 03 December 2014 and the entry of the 40MW biomass generating unit of Universal Robina Corporation on 18 December 2014. Consistently, the total registered capacity also increased to 15,604MW in January 2015 due to the entry of 1x35 solar non-scheduled generating unit of Majestics Energy Corporation on 06 January 2015 and 2x150 coal scheduled generating units of Southwest

Luzon Power Generation Corporation. In addition, geothermal plant of Energy Development Corporation, Nasulo, modified its registered capacity from 40MW to 47.5MW on 26 December 2014. The WESM registered capacity continuously increased to 15,632MW in February 2015 due to the entry of PetroWind Energy, Inc., a non-scheduled generating unit that is yet to start commercial operations. It increased further in March 2015 with 15,769.9MW which was primarily attributable to the entry of 100MW of Millennium Energy Inc., 24.48MW of Phil. Solar Farm-Leyte, Inc. and 3.7MW of Energy Development Corporation. Renewable energy plants continued to increase by the entry of the 14.3MW non-scheduled hydro generating unit of Hedcor Sabang on 16 April 2015 and the 10MW non-scheduled solar-powered generating unit of RASLAG on 23 April 2015. This resulted in a total WESM registered capacity of 15,794MW at the end of April 2015.

Despite the increasing trend in registered capacity, only 62% in November 2014 and 63% of the registered capacities in December 2014 were offered in the market. Offered capacities continuously dropped to 56% and 54% of the total registered capacities in January and February 2015, respectively. Nonetheless, improvements in the offered capacities manifested in March and April at 57% and 60% of the total registered capacities, respectively.

Table 18 below shows the summary of capacities not offered while Table 19 shows the plant outages that contributed to the unavailable capacities in Luzon and Visayas during the said period:

Table 18. Unavailable capacities for the billing period of November 2014 to April 2015

| Billing Month | November 2014 | December 2014 | January 2015 | February 2015 | March 2015 | April 2015 |
|----------------------------------|---------------|---------------|--------------|---------------|------------|------------|
| Capacity Not Offered (MW) | 2,387 | 2,409 | 2,304 | 2,414 | 2,666 | 2,918 |
| (% of Registered Capacity) | 15.8% | 16.9% | 15% | 16% | 17% | 19% |
| Outage Capacity (MW) | 1,674 | 1,544 | 2,702 | 2,956 | 2,367 | 1,612 |
| (% of Registered Capacity) | 11.1% | 10.9% | 18% | 19% | 15% | 10% |
| Ancillary Services (MW) | 894 | 879 | 936 | 902 | 860 | 912 |
| (% of Registered Capacity) | 5.7% | 5.9% | 6.1% | 6% | 5% | 6% |

Source: PEMC

| Table 19. Plant Outages in Luzon and Visayas Luzon | | |
|--|---|--|
| November 2014 | December 2014 | January 2015 |
| GNPower 1; Sual 1 Calaca 2 Pagbilao 2 QPPL Makban 1, 2, 5, 6, and 9 Tiwi 1 and 3 Angat M2 Magat 4 Botocan Kalayaan 3 and 4 Sta. Rita 3 San Lorenzo 1 and 2 Limay 1, 3, 4, and 7 Malaya 1 | Asia Pacific En GN Power 1 and 2 Masinloc 2 Calaca 2 QPPL Bacman 1, 2, 3 Makban 1, 5, 6, and 9 Tiwi 1, 2, 3 Ambuklao 1 Angat M2 Binga 1 and 2 Botocan Caliraya 1 and 2 Ilijan A and B San Lorenzo 1 and 2 Limay 3, 4, 5, and 7 Malaya 1 | Asia Pacific En Calaca 1 and 2 GN Power 1 and 2 Masinloc 1 and 2 SL Thermal Energy QPPL Bacman 1 and 3 Makban 1, 4, 5, 6, and 9 Tiwi 2 and 3 Angat M2 Binga 3 and 4 Botocan Magat 3 Ilijan A and B San Lorenzo 2 Sta. Rita 1, 2, 3, and 4 Limay 5, 6, 7, and 8 Malaya 1 |
| February 2015 | March 2015 | April 2015 |
| GN Power 1 and 2 Masinloc 1 and 2 Pagbilao 1 QPPL SL Thermal Energy Bacman 1 Makban 1, 4, 5, 6, and 9 Tiwi 2 and 3 Ambuklao 1, 2, and 3 Angat M2 Binga 4 Botocan Caliraya 1 and 2 Kalayaan 1, 2, and 4 Magat 3 and 4 Ilijan A and B San Lorenzo 1 and 2 Limay 2, 3, 4 and 5 Malaya 1 | Calaca 1 and 2 GN Power 1 and 2 Masinloc 1 SL Thermal Energy QPPL Sual 1 and 2 Bacman 3 Makban 4, 6, and 9 Tiwi 2, 3, and 5 Casecanan 2 Magat 3 and 4 Ilijan A and B | GN Power 1 and 2 Calaca 1 SLTEC 1 Bacman 3 Makban 4 Makban 6 Tiwi 2, 3, 5 Binga 1, 2, 3, and 4 Magat 1, 2, 3, and 4 San Roque 1 and 2 Ilijan A1, A2, A3, B1, B2, and B3 Sta. Rita, 1, 2, 3, and 4 San Lorenzo 1 and 2 Limay 2 and 3 Malaya 1 Ipower |
| Visayas | | |
| November 2014 | December 2014 | January 2015 |
| CEDC 2 Cebu TPP1 Kepco Salcon 1 TPC Sangi PEDC 2 Mahanagdong A2 and B1 Upper Mahiao 3 Leyte 3 PGPP1 Unit 3 PGPP2 Unit 3 Bohol 3 and 4 PDPP3 D, G, and H PB102 Unit 1, 2, and 4 | CEDC 3 Cebu TPP1 TPC Sangi PEDC 2 Upper Mahiao 3 and 4 Leyte 2 PGPP2 Unit 3 Cebu Diesel 3 PDPP 3 D, E, F, G, and H PB101 Unit 4 | Cebu TPP1 CEDC 2 and 3 TPC Sangi PEDC 1 and 2 Leyte 1 and 3 PGPP1 Unit 1 PGPP2 Unit 3 Upper Mahiao 3 Cebu Diesel 3 PDPP3 D and E PB 102 Unit 4 |
| February 2015 | March 2015 | April 2015 |
| CEDC 1, 2, and 3 Cebu TPP1 Kepco Salcon 1 and 2 TPC Sangi PEDC 1 and 2 Upper Mahiao 3 PGPP1 Unit 1 PDPP3 D | CEDC 1 and 2 Cebu TPP1 Kepco Salcon 1 PEDC 1 Leyte 2 Cebu Diesel 3 Bohol 4 PDPP3D | Cebu TPP1 TPC Sangi PEDC 1 and 2 Leyte 2 |

Source: PEMC

As scheduled, Malampaya Onshore Natural Gas went on shutdown on 15 March 2015. Nonetheless, better supply condition was noted during the said schedule compared to the previous months. Sta. Rita and San Lorenzo ran on alternate fuels at full capacities. Block A of Ilijan plant was running on B2 Fuel but at limited capacity and Malaya 2 was utilized as MRU. Also, decrease in unavailable capacities was attributable to lower occurrences and shorter durations of forced outages.

Wide supply margins were observed during the period, highest in Luzon registered at 1,644MW in December 2014 and in Visayas at 330 MW in January 2015. On the other hand, the lowest margin was registered at 814 MW in February 2015 in Luzon and 224MW in November 2014 in Visayas. Within the billing period of November 2014 to April 2015, Visayas had imported by as much as 200 MW from Luzon during peak hours and exported to Luzon as much as 350MW during off-peak hours.

System-wide load weighted average price (LWAP) recorded at an average of Php3,348/MWh in November 2014. High market prices were experienced during 27-29 October, 3, 5, 11-12, and 20 November 2014 which may have been caused by the low supply level. During these trading days, market prices ranged from Php8,023.56/MWh to as high as Php20,246/MWh. In December 2014, wider supply margin resulted in the decline of system-wide LWAP to an average of Php2,174/MWh. The highest market price exhibited in Luzon was at Php11,941/MWh on 27 November 2014 attributable to the forced outage of GN Power 2 and the planned outage of Limay 3 while in Visayas registered at Php14,133/MWh due to concurrent outages of coal plants. Nonetheless, extreme negative prices were also observed in both regions for as low as Php-102,726/MWh in Luzon and Php-5,949/MWh in Visayas during off-peak hours of 25 December 2014, when system-wide demand largely dropped while supply was maintained at a relatively high level. Moreover, system-wide LWAP increased to an average of Php3,384/MWh during the billing month of January 2015. The maximum LWAP stood at Php28,303/MWh during the 1900H trading interval of 21 January 2015 which was influenced by the low energy offers from hydro plants such as Binga, Magat, Pantabangan, Casecnan and Kalayaan during the trading day. Furthermore, system-wide LWAP rose to an average of Php5,100/MWh due to the tight supply condition during the billing month of February 2015 and still increased to Php5,114/MWh in spite of better supply and demand condition in March 2015. However, it declined again by 44.8% at Php2,824/MWh influenced by the wider supply margin in April 2015. The maximum price for the billing period of November 2014 to March 2015 registered at Php28,631/MWh due to loss of 1,294MW capacity of Sual 1 and 2 during the trading interval 1500H on 13 March 2015.

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)

The MSC submitted to the PEM Board the Request for Investigation (RFI) for possible non-compliance with the WESM Rules on the Submission of Offers and Real Time Dispatch (RTD) Schedule by Generator Trading Participants for the billing month of September, October, November, and December 2014, as follows:

| September 2014 | MOR | RTD |
|--------------------------------------|------------|------------|
| Total Number of Generating Plants | 51 | 52 |
| Total Number of Trading Participants | 32 | 36 |
| Total Number of Trading Intervals | 41,851 | 11,028 |
| October 2014 | MOR | RTD |
| Total Number of Generating Plants | 47 | 48 |
| Total Number of Trading Participants | 33 | 36 |
| Total Number of Trading Intervals | 36,816 | 10,853 |
| November 2014 | MOR | RTD |
| Total Number of Generating Plants | 52 | 50 |
| Total Number of Trading Participants | 35 | 38 |
| Total Number of Trading Intervals | 38,000 | 12,252 |
| December 2014 | MOR | RTD |
| Total Number of Generating Plants | 50 | 50 |
| Total Number of Trading Participants | 35 | 39 |
| Total Number of Trading Intervals | 38,295 | 11,641 |
| February 2015 | MOR | RTD |
| Total Number of Generating Plants | 55 | 52 |
| Total Number of Trading Participants | 38 | 39 |
| Total Number of Trading Intervals | 40,247 | 13,281 |

- Recommended to adopt the MAG’s recommendations to further improve compliance and efficiency in the market as follows:
 - a. Revisit the recommendations on establishing and implementing a market floor price under the WESM Design Study and PEMC’s Market Studies on WESM Price Cap and Floor Price as well as on Mitigating Measures.
 - b. There is a need for the generators and customers to strengthen their coordination regarding their bilateral contract declarations for their mutual benefit.
 - c. There is a need for the DUs to review the appropriateness of their bilateral contract quantities with respect to their demand requirements and their responsibilities to supply electricity in the least cost manner to their captive customers.
 - d. It is suggested to fast track the approval of the Proposed WESM Rules Change on the Provision of Minimum and Maximum Ramp Rates and Ramping Capability Curves of Generating Units.
- Assisted the Review Panel Meeting on the review of the motions for reconsideration submitted by the Trading Participants on the PEM Board’s decision imposing penalties for breach of the Must Offer Rule for the period November to December 2013;

- Reviewed the Monthly Monitoring Reports on Compliances for the billing month of October and March 2015 with summary as follows:
 - a. Report on Compliance to the Must Offer Rule of the Luzon and Visayas Generators:

| October 2014 | Luzon | Visayas |
|---|--------------|----------------|
| Total Number of Generating Trading Intervals with Capacity Gap | 26,949 | 9,867 |
| Total Number of Generating Plants Involved | 30 | 16 |
| Average Capacity Not Offered | 1,967MW | 430MW |
| December 2014 | | |
| Total Number of Generating Trading Intervals with Capacity Gap | 28,436 | 9,859 |
| Total Number of Generating Plants Involved | 30 | 18 |
| Average Capacity Not Offered | 1,989MW | 469MW |
| March 2015 | | |
| Total Number of Generating Trading Intervals with Capacity Gap | 25,797 | 9,142 |
| Total Number of Generating Plants Involved | 35 | 21 |
| Average Capacity Not Offered | 2,185MW | 510MW |

- b. Report on the non-compliance Compliances with RTD Schedule of the Luzon and Visayas Generators:

| October 2014 | Luzon | Visayas |
|---|--------------|----------------|
| Total Number of Generating Trading Intervals with Deviation between RTD Schedule and Actual Dispatch Exceeding +/-3% Tolerance Limit | 10,520 | 5,126 |
| Total Number of Generating Plants Involved | 33 | 19 |
| December 2014 | | |
| Total Number of Generating Trading Intervals with Deviation between RTD Schedule and Actual Dispatch Exceeding +/-3% Tolerance Limit | 11,453 | 3,825 |
| Total Number of Generating Plants Involved | 33 | 19 |
| January 2015 | | |
| Total Number of Generating Trading Intervals with Deviation between RTD Schedule and Actual Dispatch Exceeding +/-3% Tolerance Limit | 12,747 | 4,241 |
| Total Number of Generating Plants Involved | 33 | 20 |
| February 2015 | | |
| Total Number of Generating Trading Intervals with Deviation between RTD Schedule and Actual Dispatch Exceeding +/-3% Tolerance Limit | 12,774 | 3,532 |
| Total Number of Generating Plants Involved | 33 | 20 |
| March 2015 | | |
| Total Number of Generating Trading Intervals with Deviation between RTD Schedule and Actual Dispatch Exceeding +/-3% Tolerance Limit | 11,837 | 1620 |
| Total Number of Generating Plants Involved | 36 | 18 |

- Finalized and transmitted its Report on its Review of the Over-riding Constraints for January 2015;
- Deliberated the Proposed Amendments to the Dispatch Protocol Manual particularly on the Dispatch Tolerance Limit submitted by the SN Aboitiz Power (SNAP); and
- Informed the ERC regarding the generating plants that exceeded the maximum two (2)-month period of testing as provided for under the ERC Resolution 16, Series of 2014, A Resolution Adopting the 014 Revised Rules for the Issuances of Certificates of Compliances (COCs) for Generation Companies, Qualified End Users and Entities with Self-Generation Facilities

2. Technical Committee (TC)

- Endorsed to the RCC its comments on the Proposed Amendments to WESM Rules, WESM Manual and Retail Manual on Metering Standards and Procedures and submitted its comments to the RCC on 21 November 2014 e.g. that a back-up meter is not mandatory both in the WESM and Retail Markets;
- Finalized and transmitted to the RCC on 18 December 2014 the results of its review of the RCC's request for assistance in determining the classification of the Battery Energy Storage System (BESS) whether as a Generation Company certified as Ancillary Service Provider or as a purely Ancillary Services Provider; and
- Started the discussion on the minimum stable load of a combined cycle gas turbine (CCGT) plants that the technical Pmin of CCGT should be based on a simple cycle operation

3. Dispute Resolution Administration (DRA)

- Reviewed the matrix comparing the arbitral tribunal's schedule of fees in the WESM with that of the PDRCI and CIAC;
- Finalized all the templates of the forms that will be used during negotiations, mediation, and arbitration;
- Reviewed the draft Internal Business Procedures (IBP) submitted to the Secretariat;
- Collected the submissions of designated Dispute Management Protocol (DMP) Focal Persons and Alternates from WESM and Retail Market Participants;
- Discussed with the Secretariat on the preliminary contents of the Dispute Resolution Handbook;
- Published the list of Dispute Management Protocol (DMP) Focal Persons and their respective contact details in the MyWESM section of the WESM Market Information Website;

- Conducted a meeting with the officers from the Institute of Integrated Electrical Engineers of the Philippines, Inc. (IIEE) and discussed the possibility of accrediting new WESM Mediators/Arbitrators from their organization;
- Continued to develop the WESM Dispute Resolution Handbook;
- Conducted a review of the accomplishments against the 2014 Work Plan, followed by a discussion as regards the activities to be lined up for the 2015 Work Plan;
- Uploaded an updated list of DMP Focal Persons in the WESM website;
- Conducted a meeting with the Secretariat, a representative from PEMC-Legal, and the officers of the Philippine Dispute Resolution Center, Inc. (PDRCI), an ADR Support Service Provider;
- Discussed regarding the accrediting the PDRCI as the ADR Support Service Center (ASSC) of the WESM tasked to handle WESM disputes and serve as the Secretariat for the entire duration of a case which is subject to PEM Board approval;
- Conferred that PEMC will use the services of PDRCI in an 'ad hoc' arrangement while the accreditation of PDRCI is pending; such that, PEMC will handle the main administrative tasks when a mediation or an arbitration case is initiated and will still avail the PDRCI's facilities and partial administrative services; and
- Finalized the proposed amendments to the provisions related to the determination of WESM administrative ("admin") fees for mediation and arbitration proceedings wherein additions were made to Annex C, Section B and Annex D, Article 2, Section 4 of the Dispute Resolution Market Manual ("Manual") to reflect that the provision prescribed admin fees does not preclude the parties from veering away from it if they so agree.

4. Rules Change Committee (RCC)

The RCC has completed 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. The provisions of the WESM Rules and the Market Manuals amended are summarized as follows:

- Proposed Amendments to the Dispatch Protocol Manual resulting from the harmonization of WESM Rules and Manual; and
- Proposal for Amendments to the WESM Rules and WESM Manual of Procedure for Changes to the WESM Rules, with inputs from the DOE;
- Proposed Amendments to the Billing and Settlement Manual;
- Proposed Amendments to the Manual on the Guidelines on Significant Variations;

- Proposed Amendments to the Manual on the Management of Must-Run Units and Must Stop Units Issue 5;
- Proposed Amendments to the Administered Price Determination Methodology Manual by PEMC

Meanwhile, the RCC have continued deliberations on the following aspects of the WESM Rules and Market Manuals:

- Proposed Amendments to the WESM Rules and WESM Manual on Metering Standards and Procedures;
- Proposed Payment for the Commissioning and Testing of Plants;
- Proposed Amendments to WESM Rules on Disconnection Procedure;
- Proposed Amendments to WESM Rules on Submission of Offers of Battery Energy Storage Systems;
- Proposed Amendments to a) WESM Rules and Manual on the Registration of Ramp Rates and b) Registration Manual on the Provisional Approval of Request of Change in Generator's Pmax within a Prescribed Timeline;
- Confirmation of the Detailed Formula for the Payment to Displaced Generator in relation to the Filing with the ERC on the MRU-MSU matter;
- Proposed Amendments to the WESM Rules and WESM Manual on Metering Standards and Procedures;
- Proposal on the Computation of Ex- Ante Quantity (EAQ) of Generators vis-à-vis their House Load;
- PEM Board Directives Relative to the Prescriptive Period for Validation of Must Run Unit (MRU) - Must Stop Unit (MSU) data;
- Proposed Amendments to the Dispatch Protocol Manual
- RCC Proposal Relative to the Submission of Standing Bids and Offers;
- Proposed Amendments to the WESM Rules and Applicable Market Manuals in Relation to the PEM Board Directives to Review and Propose Changes to Relevant Provisions in the WESM Rules and Affected Market Manuals on the Prescriptive Period for the Validation of MRU/MSU Data; and
- Proposed Amendments to the WESM Rules and the Billing and Settlement Manual, MRU-MSU and APDM of APC

5. PEM Audit Committee (PAC)

- Continued supervision of the 2nd Metering arrangements review and completed the on-site inspection of one hundred ninety eight (198) metering sites in Luzon and Visayas. The Metering Arrangements Review is expected to conclude by the 1st Quarter of 2015;

- Commenced the conduct of the 5th Independent Audit WESM with RSM Bird Cameron as the Independent Auditor, in partnership with Reyes Tacandong & Co. and Market Reform, selected through a competitive bidding;
- Assisted the ERC on the preparations for the conduct of System Operations Audit;
- On 18 of December 2014, initiated discussion on a draft Resolution which will order the review, by the PAC and an independent third party reviewer, of the operations of NGCP as the System Operator. This intends to ascertain that NGCP attains the regulator-set standards as the system operator of the WESM. Said draft Resolution may be subjected to public consultation; and
- External Auditors engaged for the conduct of the 5th Market Operations submitted its draft inception report on 16 March 2015 and presented the status of their 1st Progress report to the PEMC Management, PAC, and TWG on 27 April 2015.

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 09 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)

As of 31 March 2015, the CRB has registered a total of four hundred twenty one (421) RCOA participants or an increase of 4.5% over the October 2014 registration. This is composed of three hundred sixty five (365) CCs, twenty four (24) Retail Metering Service Providers (RMSP), sixteen (16) RES, eleven (11) Local Retail Electricity Suppliers (LRES) and five (5) Suppliers of Last Resort (SOLRs).

1. RCOA Participation and Registration

As of 31 March 2015, the Central Registration Body (CRB) registered a total of four hundred twenty one (421) participants out of 1,077 prospective RCOA participants while thirty five (35) applicants for registration are in process. Out of the estimated nine hundred seventy (970) ERC certified Contestable Customers (CCs), three hundred sixty five (365) or 35% were successfully registered with the CRB while eighteen (18) applications are in process. There were two (2) newly registered Directly Connected Customers (DCCs) that

registered with the CRB in addition to five (5) that were recorded during the last report period. Three (3) are Indirect WESM Members and two (2) are Direct WESM Members.

Twenty three (23) DUs have been allowed by the ERC to engage in retail supply as Local RES of which eleven (11) have been registered with the CRB to include MPower of MERALCO, SFELAPCO, DECORP and VECO Local RES.

Twenty three (23) DUs were registered as RMSP while five (5) applicants are still being evaluated by the CRB. As regard to SOLRs, there are four (4) registered while five (5) applications are being evaluated. Table 20 summarizes the registration status as of 31 March 2015.

GN Power Mariveles and SEM Calaca RES Corporation did not renew their RES licenses which expired on 24 May 2013 and 15 November 2013, respectively.

Table 20. Summary of RCOA Registration

| Participants | Prospective based on ERC data | Registered as of October 2014 | Registered as of March 2015 | Increase/ Decrease |
|-----------------------------------|-------------------------------|-------------------------------|-----------------------------|--------------------|
| Retail Electricity Supplier* | 18 | 16 | 16 | 0.0% |
| Local Retail Electricity Supplier | 23 | 10 | 11 | 9.0% |
| Retail Metering Service Provider | 39 | 23 | 24 | 4.2% |
| Contestable Customer | 970 | 344 | 364 | 5.8% |
| Supplier of Last Resort | 27 | 4 | 5 | 20.0% |
| Total | 1,077 | 402 | 421 | 4.51% |

Source: PEMC

2. Retail Market Transaction Highlights

- For the period October 2014 to March 2015, the CCs energy consumption increased by 7.8% compared to the October 2014 level of 3,540 GWh to 3,817 GWh. This can be attributed to the increase of participation by the Contestable Customers which has increased by 5.8% in March 2015 from October 2014.
- MPower or the MERALCO Local RES reduced its registered CCs by two (2) due to delisting while it registered new participant to a total of two hundred three (203) CCs. Hoya Glass Disk Phils., Inc. and Manila Mandarin Hotel delisted from RCOA effective October 2014 due to stopped operations. Regardless of the delisting, MPower maintained the biggest share of CCs at 51.8% while Aboitiz Energy Solutions, Inc. (AESI) followed with a total of 50% or 12% of the total registered.

Table 21. Customer Switching as of 31 March 2015

| Customer | Incumbent Supplier | New Supplier | Date Approval Switch | Contract Start | Contract End |
|--|--------------------|--------------|----------------------|----------------|--------------|
| Amkor Technology Philippines, Inc. | AESIRES | ADVENTRES | 19-Aug-14 | 26-Aug-14 | 25-Feb-16 |
| Amkor Technology Philippines, Inc. | AESIRES | ADVENTRES | 19-Aug-14 | 26-Aug-14 | 26-Feb-16 |
| Asian Transmission Corporation | AESIRES | ADVENTRES | 19-Aug-14 | 26-Aug-14 | 25-May-16 |
| Travellers International Hotel Group, Inc. | AESIRES | ADVENTRES | 19-Aug-14 | 26-Aug-14 | 25-May-20 |
| Travellers International Hotel Group, Inc. | AESIRES | ADVENTRES | 19-Aug-14 | 26-Aug-14 | 25-May-20 |

| Customer | Incumbent Supplier | New Supplier | Date Approval Switch | Contract Start | Contract End |
|---|--------------------|--------------|----------------------|----------------|--------------------|
| Philippine Auto Components | AESIRES | ADVENTRES | 19-Aug-14 | 26-Aug-14 | 25-May-20 |
| OPTODEV, Inc. | AESIRES | ADVENTRES | 19-Aug-14 | 26-Aug-14 | 25-Feb-16 |
| Lufthansa Technik Philippines | AESIRES | ADVENTRES | 19-Aug-14 | 26-Aug-14 | 25-Feb-16 |
| Samsung Electronic-Mechanics Phils. Corporation | AESIRES | ADVENTRES | 19-Aug-14 | 26-Aug-14 | 25-May-16 |
| Samsung Electronic-Mechanics Phils. Corporation | AESIRES | ADVENTRES | 19-Aug-14 | 26-Aug-14 | 25-Feb-16 |
| Air Liquide Pipeline Utilities Services, Inc. | AESIRES | ADVENTRES | 19-Aug-14 | 26-Aug-14 | 25-May-16 |
| China Oceanis Philippines, Inc. | TPECRES | MRLCOLRE | 10-Sep-14 | 26-Sep-14 | Open Source |
| Eagle Cement Corporation | SMELCRES | MRLCOLRE | 17-Oct-14 | 26-Oct-14 | 25-Oct-24 |
| Universal Robina | | TAORES | 9-Dec-14 | 26-Dec-14 | 25-Dec-17 |
| Fujitsu Ten Corporation of the Philippines | MRLCOLRE | EPMIRES | 9-Dec-14 | 26-Dec-14 | 25-Feb-16 |
| Nidec Philippines Corporation | MRLCOLRE | EPMIRES | 9-Dec-14 | 26-Dec-14 | 25-Feb-16 |
| Nidec Philippines Corporation | MRLCOLRE | EPMIRES | 9-Dec-14 | 26-Dec-14 | 25-Feb-16 |
| TDK Philippines Corporation | MRLCOLRE | EPMIRES | 9-Dec-14 | 26-Dec-14 | 25-Feb-16 |

Source: PEMC

- Aside from the twelve (12) CCs who have switched Suppliers in the last report period, another six (6) have been recorded by the CRB as follows:
 - Eagle Cement Corporation;
 - Universal Robina;
 - Fujitsu Ten Corporation of the Philippines;
 - Two (2) accounts of Nidec Philippines Corporation; and
 - TDK Philippines Corporation
- In terms of MWh sales, MPower shares the bulk of 50.5% equivalent to 1,928 GWh for the period October 2014 to March 2015. AESI on the other hand, shared 11.5% while Advent Energy surpasses Ecozone Power Management Inc. with 9.3% and 7.4% share respectively. VECO Local RES and SFELAPCO Local RE, the supply segment of the Visayan Electric Company (VECO) and San Fernando Light and Power Company (SFELAPCO) Local RES did not register new CCs In their portfolio during the report period.

Table 22. Retail Electricity Supplier Demand and Sales per MWh (31 March 2015)

| SUPPLIER | No. of CCs | % Share | Total Sales MWh | % Share | Total Demand kW | % Share |
|--------------------------------|------------|---------|-----------------|---------|-----------------|---------|
| MERALCO Local RES | 203 | 55.8% | 1,928,678.02 | 50.52% | 527,131.19 | 51.8% |
| Aboitiz Energy Solutions, Inc. | 50 | 13.7% | 439,538.96 | 11.51% | 126,736.28 | 12.4% |
| Advent Energy, Inc. | 20 | 5.5% | 356,158.59 | 9.33% | 90,825.02 | 8.9% |
| Direct Power Services, Inc. | 32 | 8.8% | 210,034.00 | 5.50% | 80,633.34 | 7.9% |
| Ecozone Power Management. Inc. | 26 | 7.1% | 282,779.60 | 7.41% | 53,552.66 | 5.3% |
| Trans-Asia Oil & Energy | 4 | 1.1% | 65,496.94 | 1.72% | 31,367.22 | 3.1% |

| SUPPLIER | No. of CCs | % Share | Total Sales MWh | % Share | Total Demand kW | % Share |
|---------------------------------------|------------|-------------|---------------------|-------------|---------------------|-------------|
| Development Corporation | | | | | | |
| Global Energy Supply Corporation | 2 | 0.5% | 112,715.06 | 2.95% | 25,449.82 | 2.5% |
| Masinloc Power Partners Company Ltd. | 1 | 0.3% | 80,102.35 | 2.10% | 22,959.25 | 2.3% |
| TeaM (Philippines) Energy Corporation | 11 | 3.0% | 194,659.73 | 5.10% | 18,890.18 | 1.9% |
| San Miguel Electric Corporation | 7 | 1.9% | 95,016.64 | 2.49% | 18,769.13 | 1.8% |
| VECO Local RES | 1 | 0.3% | 25,198.39 | 0.66% | 7,990.17 | 0.8% |
| San Fernando Light and Power LRES | 1 | 0.3% | 5,021.16 | 0.13% | 6,411.56 | 0.6% |
| GNPower Ltd. Co. | 2 | 0.5% | 7,438.31 | 0.19% | 4,552.33 | 0.4% |
| SN Aboitiz Power-RES, Inc. | 3 | 0.8% | 14,672.90 | 0.38% | 3,276.18 | 0.3% |
| First Gen Energy Solution | 1 | 0.3% | 0 | 0.00% | - | 0% |
| Total | 364 | 100% | 3,817,510.65 | 100% | 1,018,544.34 | 100% |

* Three (3) Suppliers have yet to sign their first CC as of the report period.

Source: PEMC

E. Market Share Monitoring

The ERC, on 09 March 2015, approved the Installed Generating Capacity (IGC) per Grid and National Grid, and the Market Share Limitation (MSL) per Regional Grids and the National Grid applicable for the year 2015. This is based on its mandate under *Sec. 45 (a) of Republic Act No. 9136 or the Electric Power Industry Reform Act of 2001 (EPIRA)* to set the MSL annually to prevent a person, company, related group or Independent Power Producer Administrator (IPPA), singly or in combination, to own, operate, or control more than 30% of the IGC of a Grid, and/or 25% of the National IGC. The ERC issued the guidelines for the determination of MSL and IGC thru ERC Resolution No. 26, Series of 2005.

Based on its latest MSL determination there is a slight increase in both the IGC and its limit by 11% when compared with the previous year's capacities from 15,832 MW in 2014 to 17,585 MW in 2015. The increase or decrease in the IGC of the power plants as determined by the ERC through the following:

- 1) increase in the IGCs of some power plants;
- 2) decrease in the IGCs of certain power plants; and
- 3) inclusion of IGCs for new, re-commissioned, or additional power plant facilities of Independent Power Producers (IPPs). Based on simulations made, it appears that no GenCo has violated any of the limits provided by law.

Below are the details of the ERC approved IGCs and MSLs vis-a-vis the 2014 levels:

Table 23. ERC-Approved IGCs and MSLs vis-a-vis the 2014 Levels

| Grid | As of March 2014 Installed Generating Capacity (kW) | As of March 2015 Installed Generating Capacity (kW) | % MSL per RA 9136 | Installed Generating Capacity Limit (kW) As of March 2014 | Installed Generating Capacity Limit (kW) As of March 2015 |
|----------|--|--|----------------------|---|---|
| Luzon | 12,041,417.28 | 13,057,758.00 | 30% | 3,612,425.18 | 3,917,327.40 |
| Visayas | 1,827,292.00 | 2,363,690.70 | 30% | 548,187.60 | 709,107.21 |
| Mindanao | 1,963,639.00 | 2,163,718.16 | 30% | 589,091.70 | 649,115.44 |
| National | 15,832,348.28 | 17,585,166.86 | 25% | 3,958,087.07 | 4,396,291.71 |

Source: ERC

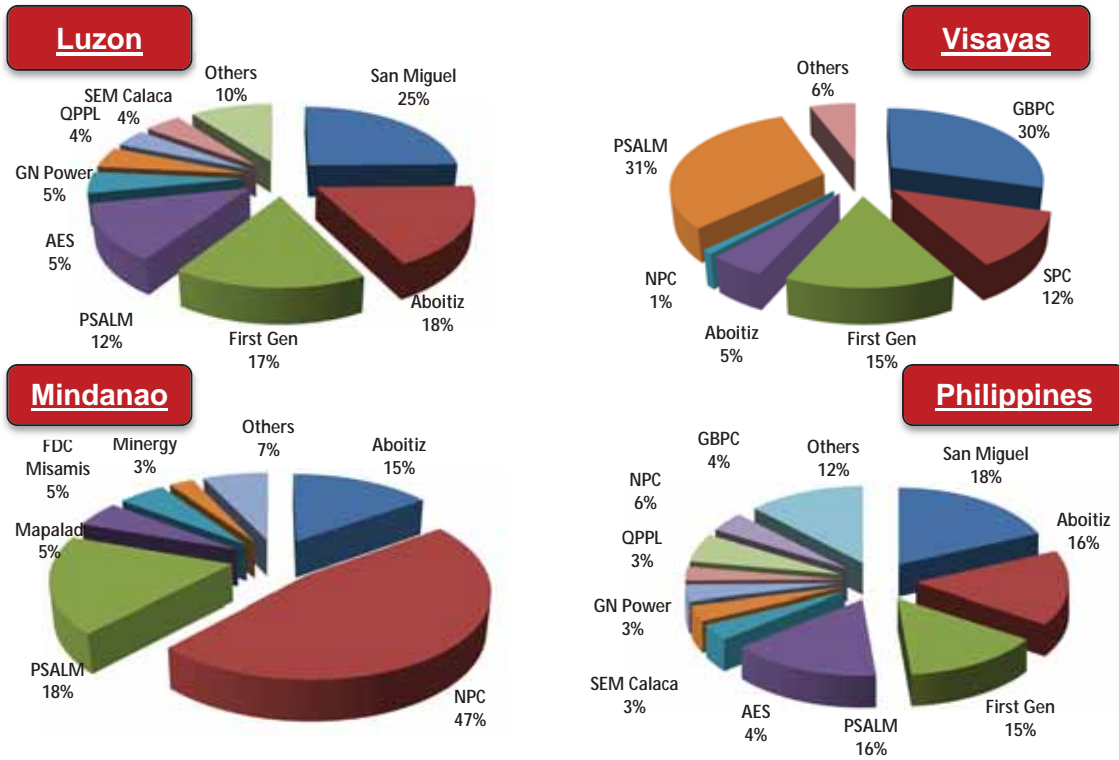
As provided in the guidelines, the National Power Corporation (NPC) or the Power Sector Assets and Liabilities Management Corporation (PSALM) are exempted from the MSL during the time that NPC assets are being privatized. Power plants located in the isolated grids that are not connected to the high voltage transmission systems are also exempted from the MSL. Based on ERC, no generation companies have exceeded the MSL and IGC limitations for 2015.

Based on the latest issuance by the ERC, the generation sector is still dominated by San Miguel Energy Corporation (SMEC) with 25% in the Luzon Grid or 18 % of the National Grid. This is followed by the Aboitiz Power with 18% in Luzon while First Gen has 17% or equivalent to 16% and 15% of the National Grid respectively.

In the Visayas, Global Business Power Corporation (GBPC) continue to grow increase its portfolio with the commercial operation of Toledo Power Corporation, Toledo IA Coal Power Plant. It has now a total of 730 MW in the Visayas Grid or equivalent to 29.64% share for the Visayas Grid in 2015. Salcon power Corporation (SPC) follows with 12% with 372 MW in its portfolio.

In Mindanao, the government continue to dominate the generation sector with PSALM only able to privatize its 104 MW IPP contract with Mt. Apo Geothermal Power Plant. Smaller generation companies have also contributed to Mindanao generation sector such as Mapalad Energy Generation Corporation which was able to purchase the old Iligan Diesel Power Plant from the local government of Iligan City. Overall in Mindanao, the Government still holds 65% of the total generation capacity with NPC, and PSALM is holding about 47% and 18% of the generation capacity, respectively.

Figure 1. Market Share 2015



V. POWER SUPPLY SECURITY AND RELIABILITY

This section highlights the updates on the power situation and project developments in Luzon, Visayas and Mindanao for the period November 2014 to April 2015.

A. Installed and Dependable Capacity

Total installed and dependable capacity in the country as of 31 December 2014 slightly increased to 17,944 MW and 15,633 MW, respectively due to the entry of new power plants in the three grids adding 557 MW to the installed capacity and 153 MW in dependable capacity.

Installed capacity in Luzon totaled to 13,213 MW or 73.6% of the total installed capacity mix followed by Visayas with 2,520 MW or 14%. Mindanao has 2,211 MW or 12.3%. As of the breakdown of dependable capacity, 11,622 MW or 74.3% is accredited to Luzon grid, 2,160 MW or 13.8% is from Visayas, and 1,851 MW or 11.84% is from Mindanao.

In Luzon, new plants were commercially operational such as 18.9 MW Northwind Phase 3, 81 MW UPC Caparispisan wind, 150 MW EDC Burgos wind farm which are all in the Ilocos region and the 12 MW SCJI power Biomass plant in Nueva Ecija. In addition, the inclusion of the 140 MW Petron Refinery Solid Fuel-Fired Boiler (RSFFB) power plant in Limay, Bataan, 12.7 MW Lafarge diesel power plant and the 1.8 MW Communal-Uddiawan mini-hydro plant in Nueva Ecija resulted to an increase in installed capacity by 421 MW.

Moreover, the adjustments made in the dependable capacity of plants such as GN Power in Mariveles, Bataan, TMO Barges in Navotas, Bacman Geothermal Power Plant in Sorsogon due to improved dependable capacity as well the uprating of Binga Hydroelectric power plant in Benguet from 125 MW to 132 MW, unavailability of Botocan hydroelectric power plant in Laguna due to transmission line problem and the decline in dependable capacity of Montalban Methane Facility in Rizal and Bacavalley LFG in Laguna resulted to a 103 MW net increase in dependable capacity for Luzon.

Table 24: Comparison of Installed and Dependable Capacity, Luzon

| FUEL TYPE | Installed Capacity (MW) | | | Dependable Capacity (MW) | | |
|--------------|-------------------------|---------------|------------|--------------------------|---------------|------------|
| | Dec-14 | Mar-14 | Difference | Dec-14 | Mar-14 | Difference |
| Coal | 4,671 | 4,531 | 140 | 4,391 | 4,219 | 172 |
| Oil Based | 2,033 | 2,020 | 13 | 1,507 | 1,736 | (229) |
| Natural Gas | 2,861 | 2,861 | 0 | 2,759 | 2,759 | 0 |
| Geothermal | 844 | 844 | 0 | 692 | 607 | 85 |
| Hydro | 2,471 | 2,464 | 7 | 2,131 | 2,147 | (16) |
| Wind | 283 | 33 | 250 | 103 | 17 | 86 |
| Biomass | 50 | 38 | 12 | 39 | 34 | 5 |
| TOTAL | 13,213 | 12,792 | 421 | 11,622 | 11,519 | 103 |

Source: DOE List of Existing Power Plants as of December 2014

The installed and dependable capacity in Visayas as indicated in Table 25, increased by 59 MW and 47 MW, respectively due to the commercial operation of the additional 9 MW SACASOL solar farm in San Carlos City and the 50 MW Nasulo Geothermal Power plant, both located in Negros Occidental.

Table 25: Comparison of Installed and Dependable Capacity, Visayas

| FUEL TYPE | Installed Capacity (MW) | | | Dependable Capacity (MW) | | |
|--------------|-------------------------|--------------|------------|--------------------------|--------------|------------|
| | Dec-14 | Mar-14 | Difference | Dec-14 | Mar-14 | Difference |
| Coal | 806 | 806 | 0 | 777 | 777 | 0 |
| Oil Based | 670 | 670 | 0 | 505 | 505 | 0 |
| Geothermal | 965 | 915 | 50 | 817 | 777 | 40 |
| Hydro | 11 | 11 | 0 | 11 | 11 | 0 |
| Biomass | 44 | 44 | 0 | 32 | 32 | 0 |
| Natural Gas | 1 | 1 | 0 | 1 | 1 | 0 |
| Solar | 22 | 13 | 9 | 17 | 10 | 7 |
| TOTAL | 2,520 | 2,461 | 59 | 2,160 | 2,113 | 47 |

Source: DOE List of Existing Power Plants as of December 2014

In Mindanao, 124 MW and 102 MW were added to the installed and dependable capacity of oil-based and hydroelectric power plants. The grid additional capacity of 15 MW came from Mapalad Power Corporation (MPC)-Digos, 19 MW SoEnergy, 15 MW Mapalad Energy Generation Corporation (MEGC) Diesel plant, 15 MW Panaon Diesel plant and 8 MW Tandag Diesel plant of King Energy Generation Inc. (KEGI) for Oil-based plants, while additional 13.6 MW was added from Tudaya 1 and 2 Hydroelectric power plants in Davao del Sur. The 37.1 MW thermal plant from the directly-connected industry Philippine Sinter Corporation (PSC) also augmented the existing plants in Mindanao that supplies power to the grid.

Table 26: Comparison of Installed and Dependable Capacity, Mindanao

| FUEL TYPE | Installed Capacity (MW) | | | Dependable Capacity (MW) | | |
|--------------|-------------------------|--------------|------------|--------------------------|--------------|------------|
| | Dec-14 | Mar-14 | Difference | Dec-14 | Mar-14 | Difference |
| Coal | 232 | 232 | 0 | 210 | 210 | 0 |
| Oil Based | 773 | 663 | 110 | 693 | 605 | 88 |
| Geothermal | 108 | 108 | 0 | 98 | 98 | 0 |
| Hydro | 1,061 | 1,047 | 14 | 840 | 826 | 14 |
| Solar | 1 | 1 | 0 | 0 | 0 | 0 |
| Biomass | 36 | 36 | 0 | 10 | 10 | 0 |
| TOTAL | 2,211 | 2,087 | 124 | 1,851 | 1,749 | 102 |

Source: DOE List of Existing Power Plants as of December 2014

B. Generation

Generation of the entire country was recorded at 77,261 GWh in 2014. This is 2.65% or 1,995 GWh higher than 2013 generation at 75,266 GWh. This covers generation of the grid-connected plants from the three main grids as well as embedded and off-grid generations. Data are based on the submitted Monthly Operations Report (MOR) from the generation facilities operators.

As indicated in Table 27, coal-fired power plants remained the major contributor to the country's total generation 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 0.47% or 364 GWh of the total generation.

Table 27. 2014 and 2013 Comparative Gross Generation, Philippines

| PHILIPPINES | | | | | | |
|-------------------------|---------------|---------|---------------|---------|--------------|-------------|
| PLANT TYPE | 2014 | | 2013 | | Difference | |
| | GWh | % Share | GWh | % Share | MWh | % |
| Coal | 33,054 | 42.78 | 32,081 | 42.62 | 973 | 3.03 |
| Oil-based | 5,708 | 7.39 | 4,491 | 5.97 | 1,217 | 27.10 |
| Natural Gas | 18,690 | 24.19 | 18,791 | 24.97 | (101) | (0.54) |
| Geothermal | 10,308 | 13.34 | 9,605 | 12.76 | 704 | 7.32 |
| Hydro | 9,137 | 11.83 | 10,019 | 13.31 | (882) | (8.80) |
| Wind | 152 | 0.20 | 66 | 0.09 | 86 | 131.59 |
| Biomass | 196 | 0.25 | 212 | 0.28 | (16) | (7.68) |
| Solar | 17 | 0.02 | 1 | 0.00 | 15 | 1068.03 |
| Total Generation | 77,261 | | 75,266 | | 1,995 | 2.65 |

Source: DOE Power Statistics 2014

Power generation in Luzon (Table 28), was at 56,766 GWh or 73.47% of the total generation of the country for 2014. This is higher by about 3.55% than last year's generation of 54,820 MW. Coal plants still dominate the generation mix with a share of 48.17% or 27,346 GWh. On the other hand, Natural Gas plants contributed 32.92% or 18,686 GWh.

Table 28. 2014 and 2013 Comparative Gross Generation, Luzon

| LUZON GRID | | | | | | |
|-------------------------|---------------|---------|---------------|---------|--------------|-------------|
| PLANT TYPE | 2014 | | 2013 | | Difference | |
| | GWh | % Share | GWh | % Share | MWh | % |
| Coal | 27,346 | 48.17 | 25,756 | 46.98 | 1,591 | 6.18 |
| Oil-based | 2,342 | 4.13 | 1,601 | 2.92 | 742 | 46.34 |
| Natural Gas | 18,686 | 32.92 | 18,783 | 34.26 | (98) | (0.52) |
| Geothermal | 3,817 | 6.72 | 3,399 | 6.20 | 419 | 12.32 |
| Hydro | 4,357 | 7.68 | 5,156 | 9.40 | (798) | (15.49) |
| Wind | 152 | 0.27 | 66 | 0.12 | 86 | 131.59 |
| Biomass | 65 | 0.11 | 60 | 0.11 | 6 | 9.35 |
| Total Generation | 56,766 | | 54,820 | | 1,947 | 3.55 |

Source: DOE Power Statistics 2014

As the 7.2 magnitude Bohol earthquake and Typhoon Yolanda hit the Visayas during the latter part of 2013 (details in the Significant Incident), power generation in the region dropped by a small percentage at 0.77% from 11,100 GWh in 2013 to 11,014 GWh in 2014. This constitutes to 14.26% of the country's total generation. Contrary to Luzon, majority or half of the power generation in the Visayas came from geothermal power plants while the remaining half were generated from other sources as indicated in Table 29. In 2014, generation from coal decreased by 240 GWh due to frequent unexpected outages experienced by large coal plants such as KSPC, PEDC and CEDC.

Table 29. 2014 and 2013 Comparative Gross Generation, Visayas

| VISAYAS GRID | | | | | | |
|--------------------------|---------------|---------|---------------|---------|-------------|---------------|
| PLANT TYPE | 2014 | | 2013 | | Difference | |
| | GWh | % Share | GWh | % Share | MWh | % |
| Coal | 4,449 | 40.40 | 4,690 | 42.25 | (240) | (5.12) |
| Oil-based | 766 | 6.95 | 796 | 7.18 | (31) | (3.84) |
| Natural Gas | 4 | 0.04 | 8 | 0.07 | (4) | (45.37) |
| Geothermal | 5,627 | 51.09 | 5,463 | 49.22 | 164 | 3.01 |
| Hydro | 35 | 0.32 | 37 | 0.33 | (1) | (3.96) |
| Biomass | 117 | 1.06 | 106 | 0.95 | 11 | 10.27 |
| Solar | 15 | 0.14 | | | | |
| Sub-Total Visayas | 11,014 | | 11,100 | | (86) | (0.77) |

Source: DOE Power Statistics 2014

Power generation in Mindanao grew to 9,481 GWh which is equivalent to 12.27% of the total generation of the country. The improved operation of power plants in Mindanao resulted to a slight growth of about 134 GWh as shown in Table 30. Majority of this is

credited to the operation of hydroelectric power plants which contributed 4,745 GWh or 50.05 % 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 2,599 GWh or 27.42 % of the generation mix. This was attributed to the generation from embedded diesel plants within the distribution utilities in Mindanao. Coal generation dropped to 1,258 GWh or 13.26 % since the sole coal plant in Mindanao, the two units of STEAG Mindanao Coal-fired plant in Misamis Oriental, suffered generator turbine damage which caused the facility to be on forced outage starting the end of February 2014. Unit 2 was first restored on 8 May 2014 followed by Unit 1 on 1 June 2014.

Table 30. 2014 and 2013 Comparative Gross Generation, Mindanao

| MINDANAO GRID | | | | | | |
|-------------------------|--------------|---------|--------------|---------|------------|-------------|
| PLANT TYPE | 2014 | | 2013 | | Difference | |
| | GWh | % Share | GWh | % Share | MWh | % |
| Coal | 1,258 | 13.26 | 1,635 | 17.50 | (378) | (23.10) |
| Oil-based | 2,599 | 27.42 | 2,094 | 22.40 | 506 | 24.17 |
| Geothermal | 864 | 9.11 | 743 | 7.95 | 121 | 16.23 |
| Hydro | 4,745 | 50.05 | 4,827 | 51.64 | (82) | (1.70) |
| Solar | 1 | 0.02 | 1 | 0.02 | 0 | 4.45 |
| Biomass | 14 | 0.15 | 47 | 0.50 | (33) | (70.18) |
| Total Generation | 9,481 | | 9,347 | | 134 | 1.43 |

Source: DOE Power Statistics 2014

A. System Peak Demand

The system peak demand for Luzon grid for 2014 was recorded at 8,717 MW which occurred on 21 May 2014. This was 4.96 % or 412 MW higher than the recorded demand of 8,305 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.

The highest recorded coincident peak demand in Visayas for 2014 occurred on 27 May 2014 at 1,636 MW. This was 4.07% higher than the previous year's demand with 1,572 MW which occurred on May 2014. Demand in Visayas in 2014 had normalized after being hit by Super Typhoon Yolanda in 2013, wherein they experienced low demand. As depicted in Table 31, highest demand for Visayas came from the Cebu sub-grid with 52.69% share followed by Negros and Panay with an almost equal share at 16.29 and 16.16%, respectively while the remaining 14.86% came from the Leyte-Samar and Bohol sub-grids.

Table 31. Breakdown of the 2014 Highest Demand of Visayas at 1,636 MW as of 27 May 2014

| Visayas Sub-grid | 2014 Peak Demand Breakdown (MW) | % Share |
|-----------------------------|---------------------------------|---------------|
| Cebu | 861.83 | 52.69 |
| Negros | 266.41 | 16.29 |
| Panay | 264.32 | 16.16 |
| Leyte-Samar | 181.44 | 11.09 |
| Bohol | 61.69 | 3.77 |
| Total Visayas Demand | 1,635.69 | 100.00 |

In Mindanao, the recorded highest demand including embedded loads was at 1,469 MW which occurred on 12 November 2014. It grew by 3.82% from 1,415 MW in 2013 despite the tight supply condition that caused curtailment/ rotating brownouts in the grid.

Table 32. Comparison of 2013 and 2014 Peak Demand from Luzon, Visayas and Mindanao

| GRID | Peak Demand (MW) | | | | Deviation | |
|----------|------------------|--------|-------|--------|-----------|------|
| | 2014 | Date | 2013 | Date | MW | % |
| LUZON | 8,717 | May-14 | 8,305 | 13-May | 412 | 4.96 |
| VISAYAS | 1,636 | May-14 | 1,572 | 13-May | 64 | 4.07 |
| MINDANAO | 1,469 | Nov-14 | 1,415 | 13-Dec | 54 | 3.82 |

Source: NGCP Daily Operation Report (DOR)

B. Electricity Sales

The Philippine electricity sales and consumption continued to manifest resiliency in 2014 amid lingering uncertainties in the global economy particularly the sluggish recovery in the euro area, recession in Japan and the destruction brought about by typhoons (Glenda, Luis, Mario, Ruby) that strike the country in 2014. The country's electricity sales and consumption moderately eased to 2.65% from 3.21% in 2013, buoyed by the steady outlook on the domestic economy as well as explicit industries, such as wholesale and retail trade, manufacturing, and real estate, renting and business activities, among others.

The growth of the country's Gross Domestic Product (GDP) grew by 6.1% in 2014, slower than the 7.2% expansion posted in 2013 due to lower government spending and the contraction in the agriculture sector. However, the expansion was boosted by the Industry and Services² sector, particularly, Trade and Real Estate, Renting & Business Activities, and by the accelerated performance of Manufacturing. The electricity sales established a solid performance, albeit at slower pace, grew by 2.36% in the year of wooden horse, from the previous year's 4.60%.

Table 33. 2014 and 2013 Comparative Electricity Sales and Consumption, Philippines

| Sector | PHILIPPINES | | | | | |
|--------------------------|---------------|---------------|---------------|---------------|-----------------|---------------|
| | 2014 | | 2013 | | Difference | |
| | GWh | % Share | GWh | % Share | GWh | % Growth Rate |
| Residential | 20,969 | 27.14% | 20,614 | 27.39% | 355.15 | 1.72% |
| Commercial | 18,761 | 24.28% | 18,304 | 24.32% | 457.04 | 2.50% |
| Industrial | 21,429 | 27.74% | 20,677 | 27.47% | 752.18 | 3.64% |
| Others | 2,186 | 2.83% | 1,971 | 2.62% | 215.11 | 10.91% |
| Total Sales | 63,345 | 81.99% | 61,566 | 81.80% | 1,779.48 | 2.89% |
| Own-Use | 6,646 | 8.60% | 5,959 | 7.92% | 686 | 11.52% |
| System Loss | 7,271 | 9.41% | 7,741 | 10.28% | -470 | -6.08% |
| Total Consumption | 77,261 | | 75,266 | | 1,995.62 | 2.65% |

Source: DOE

² Philippine Statistical Authority Makati, National Accounts, <http://www.nscb.gov.ph/>

In spite of slowdown in the growth of household consumption led by higher consumer prices, particularly food prices due to tight domestic supply conditions caused by weather-related production interruptions, delays in the delivery of supplies instigated by port congestion and changes in transportation policies, notwithstanding the losses from natural disasters in 2014, the total electricity sales and consumption all over the country still posted a notable figure of 77,261 GWh in 2014 from 75,266 GWh in 2013. Out of these total sales and consumption, 43,351 GWh or 68.44 % was contributed by Private Investor Owned Utilities (PIOU's), while 15,340 GWh or 24.22 % was from the Electric Cooperatives. Non-utilities and Other Services were 4,190 GWh or 6.62%, 464 GWh or 0.73%, respectively. Total sales accounted to 63,345 GWh, corresponding to 81.99% share to total consumption. "Own-use" of power plants and distribution utilities accelerated further by 686 GWh (11.52%) from 5,959 GWh in the previous year to 6,646 GWh in 2014. It is noted that "Losses" from generator, transmission and distribution has been on the downward trend since 2013, accounted for 7,270 GWh or 9.41% as shown in Figure 3.

Figure 3. 2014 Electricity Sales and Consumption

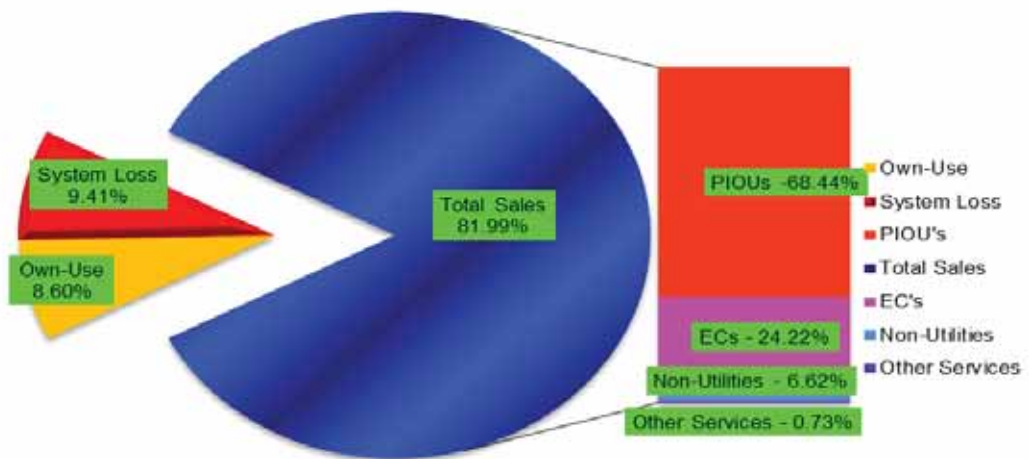
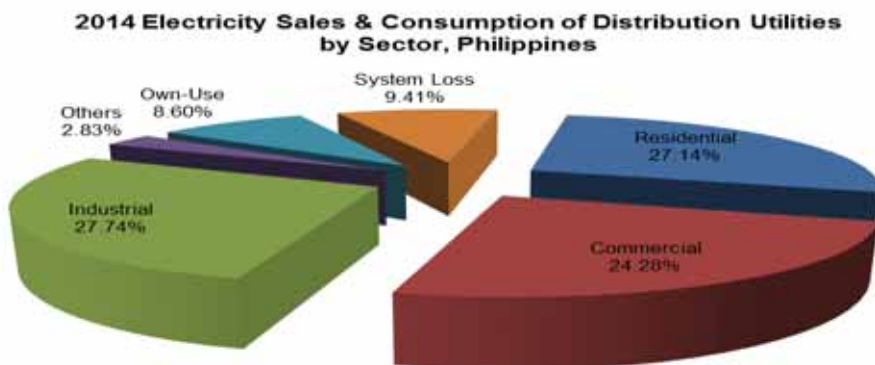


Figure 4. 2014 Electricity Sales & Consumption by Sector



On a per grid basis, Luzon grid ranked the highest in terms of growth in electricity sales by 3.15% in 2014, albeit lower than the 4.56% increase recorded in 2013. The domestic natural calamities as well as the pigging activity for Ilijan pipeline scheduled on 11 July 2014 (2200H) to 13 July 2014 (2200H) for the purpose of inspecting its integrity, as well as to clean the debris in the pipeline were the major factors that contributed to the slower growth in Luzon's electricity sales in 2014.

On the other hand, the growth rate in the Mindanao electricity sales resulted to 1.43% in 2014, lower than the year-ago rate of 2.41%. Although still in expansion mode, the experienced slowdown of the Mindanao grid was may be attributed to the Market Intervention that has been issued by the NGCP due to insufficient supply brought about by the grid-wide Mindanao black-out that was affected by sudden break down of STEAG Unit I & Unit II on 27 February 2014 but was eventually synchronized to the grid on 30 May 2014 and 08 May 2014, respectively.

Meanwhile, despite of the adverse effects of typhoon Yolanda on crop production and businesses in 2013 and 2014, Visayas grid still registered growth, representing a robust increase of 1.06% over the previous year from the recorded growth of 1.11% in 2013. The expansion was boosted by the continued collaborative programs/efforts of the government and support of private sectors to the reconstruction in areas affected by Yolanda, Bohol Earthquake, and other smaller disasters in the grid.

Table 34. 2014 Electricity Sales & Consumption of Distribution Utilities, by Grid

| TYPE OF DISTRIBUTION UTILITIES | LUZON | VISAYAS | MINDANAO | PHILIPPINES |
|---|---------------|--------------|--------------|---------------|
| Electric Cooperatives (EC'S)* | | | | |
| Residential | 4,079 | 1,775 | 1,936 | 7,790 |
| Commercial | 1,704 | 757 | 863 | 3,324 |
| Industrial | 975 | 589 | 1,296 | 2,860 |
| Others | 552 | 361 | 453 | 1,366 |
| Total Sales | 7,311 | 3,482 | 4,547 | 15,340 |
| Own-Use | 20 | 13 | 10 | 43 |
| System Loss | 1,080 | 461 | 703 | 2,244 |
| Total | 8,411 | 3,956 | 5,260 | 17,627 |
| Private Investors Owned Utilities (PIOU's) | | | | |
| Residential | 11,225 | 996 | 959 | 13,179 |
| Commercial | 14,398 | 545 | 494 | 15,437 |
| Industrial | 10,918 | 1,845 | 1,634 | 14,397 |
| Others | 215 | 70 | 53 | 338 |
| Total Sales | 36,756 | 3,455 | 3,140 | 43,351 |
| Own-Use | 59 | 6 | 2 | 68 |
| System Loss | 2,489 | 306 | 209 | 3,004 |
| Total | 39,305 | 3,767 | 3,351 | 46,423 |
| Non-Utilities/Directly Connected | | | | |
| Other Services | 128 | 1,218 | 24 | 1,369 |
| Plant Station Used | 4,961 | 1,215 | 360 | 6,535 |

| | | | | |
|--|---------------|---------------|--------------|---------------|
| Transmission Losses | 1,638 | (653) | 132 | 1,117 |
| Total Electricity Sales & Consumption | 57,489 | 10,292 | 9,481 | 77,261 |

* Includes off-grid sales and consumption

Non-utilities includes Ecozone, Industrial and Government served by the National Grid

Other services includes energy delivered to other generator

Source: DOE

Table 35. 2014 and 2013 Comparative Electricity Sales of Distribution Utilities, by Sector, by Grid

| Luzon | 2014 | 2013 | % Growth Rate |
|--------------------------|---------------|---------------|----------------------|
| <i>Residential</i> | 15,304 | 15,056 | 1.65% |
| <i>Commercial</i> | 16,103 | 15,510 | 3.82% |
| <i>Industrial</i> | 14,939 | 14,379 | 3.90% |
| <i>Others</i> | 895 | 859 | 4.17% |
| Total Sales | 47,241 | 45,803 | 3.14% |
| Own-Use | 5,040 | 4,550 | 10.79% |
| System Loss | 5,208 | 5,383 | -3.25% |
| Total Consumption | 57,489 | 55,736 | 3.15% |
| Visayas | 2014 | 2013 | % Growth Rate |
| <i>Residential</i> | 2,770 | 2,735 | 1.28% |
| <i>Commercial</i> | 1,302 | 1,446 | -9.99% |
| <i>Industrial</i> | 3,214 | 3,137 | 2.47% |
| <i>Others</i> | 753 | 550 | 37.02% |
| Total Sales | 8,039 | 7,868 | 2.18% |
| Own-Use | 1,234 | 1,055 | 16.90% |
| System Loss | 1,019 | 1,260 | -19.16% |
| Total Consumption | 10,292 | 10,183 | 1.06% |
| Mindanao | 2014 | 2013 | % Growth Rate |
| <i>Residential</i> | 2,895 | 2,823 | 2.54% |
| <i>Commercial</i> | 1,357 | 1,348 | 0.65% |
| <i>Industrial</i> | 3,275 | 3,161 | 3.61% |
| <i>Others</i> | 538 | 563 | -4.30% |
| Total Sales | 8,065 | 7,895 | 2.16% |
| Own-Use | 372 | 355 | 4.83% |
| System Loss | 1,044 | 1,097 | -4.89% |
| Total Consumption | 9,481 | 9,347 | 1.43% |
| Philippines | 2014 | 2013 | % Growth Rate |
| <i>Residential</i> | 20,969 | 20,614 | 1.72% |
| <i>Commercial</i> | 18,761 | 18,304 | 2.50% |
| <i>Industrial</i> | 21,429 | 20,677 | 3.64% |
| <i>Others</i> | 2,186 | 1,971 | 10.91% |
| Total Sales | 63,345 | 61,566 | 2.89% |
| Own-Use | 6,646 | 5,959 | 11.52% |
| System Loss | 7,271 | 7,741 | -6.08% |
| Total Consumption | 77,261 | 75,266 | 2.65% |

Note:

-Own Use includes Distribution Utilities company used and Power Plants Station Used.

-System Losses includes Distribution Utilities losses and Transmission losses (substation used, transformation and other unaccounted losses).

-Others includes public buildings, street lights, irrigation, energy recovered and others not elsewhere classified.

Source: Department of Energy

Table 36. Sectoral Share to 2014 Electricity Sales & Consumption, by Grid

| Luzon | Total (GWh) | % Share to Total Sales | % Share to Total Consumption |
|--------------------------|--------------------|-------------------------------|-------------------------------------|
| <i>Residential</i> | 15,304 | 32.40% | 26.62% |
| <i>Commercial</i> | 16,103 | 34.09% | 28.01% |
| <i>Industrial</i> | 14,939 | 31.62% | 25.99% |
| <i>Others</i> | 895 | 1.89% | 1.56% |
| Total Sales | 47,241 | 100% | 82.17% |
| Own-Use | 5,040 | | 8.77% |
| System Loss | 5,208 | | 9.06% |
| Total Consumption | 57,489 | | 100.00% |
| Visayas | Total (GWh) | % Share to Total Sales | % Share to Total Consumption |
| <i>Residential</i> | 2,770 | 34.46% | 26.92% |
| <i>Commercial</i> | 1,302 | 16.19% | 12.65% |
| <i>Industrial</i> | 3,214 | 39.98% | 31.23% |
| <i>Others</i> | 753 | 9.37% | 7.32% |
| Total Sales | 8,039 | 100% | 78.11% |
| Own-Use | 1,234 | | 11.99% |
| System Loss | 1,019 | | 9.90% |
| Total Consumption | 10,292 | | 100.00% |
| Mindanao | Total (GWh) | % Share to Total Sales | % Share to Total Consumption |
| <i>Residential</i> | 2,895 | 35.89% | 30.53% |
| <i>Commercial</i> | 1,357 | 16.82% | 14.31% |
| <i>Industrial</i> | 3,275 | 40.61% | 34.55% |
| <i>Others</i> | 538 | 6.68% | 5.68% |
| Total Sales | 8,065 | 100% | 85.07% |
| Own-Use | 372 | | 3.92% |
| System Loss | 1,044 | | 11.01% |
| Total Consumption | 9,481 | | 100.00% |

| Philippines | Total (GWh) | % Share to Total Sales | % Share to Total Consumption |
|--------------------------|---------------|------------------------|------------------------------|
| <i>Residential</i> | 20,969 | 33.10% | 27.14% |
| <i>Commercial</i> | 18,761 | 29.62% | 24.28% |
| <i>Industrial</i> | 21,429 | 33.83% | 27.74% |
| <i>Others</i> | 2,186 | 3.45% | 2.83% |
| Total Sales | 63,345 | 100% | 81.99% |
| Own-Use | 6,646 | | 8.60% |
| System Loss | 7,271 | | 9.41% |
| Total Consumption | 77,261 | | 100.00% |

Source:DOE

❖ Industrial Sector

The electricity sales for the industrial customers comprised 21,429 GWh or 27.74% of total electricity sales in 2014, implying an increase of 3.64% from 20,677 GWh in 2013.

The electricity sales of the industry sector in Luzon continued to trend higher, consistent with a moderate growth by 3.90% in 2014 from 14,379 GWh in 2013 to 14,939 GWh in 2014, driven primarily by the increased production of food and beverage, electrical machinery, automotive, and consumer electronics.

Similarly, the full-year growth in industry sector was driven also by the impressive performance of the Mindanao industrial customers, posting a significant increase of 3.61% in 2014. The robust growth was boosted by the strong performance of manufacturing industry in the Mindanao grid. The growth in industry sector was likewise driven by the increase in nickel mining and stone quarrying activities in the grid.

Meanwhile, despite of the devastation brought about by the series of natural disasters that hit the country in the last quarter of 2013, the electricity sales of the industry sector in Visayas improved further, albeit at a slower pace compared to the other grids due to weather-related disruptions brought by the consecutive typhoons and torrential rains which constrained industrial production and agricultural production. Electricity sales from industry sector in Visayas increased by 2.47% year-on-year in 2014, slower than the 3.46% expansion in the previous year.

❖ Residential Sector

The electricity sales for residential sector expanded further in 2014 by 1.72%, slightly lower compared to 4.67% in 2013, led by slowdown in the growth of household consumption. On the other hand, higher temperature during the summer months led to increased usage of air cooling appliances supported by the 21% uptick in sales of consumer air-conditioners, as well as refrigerators in 2014. The drivers of this positive momentum include sales from first-time buyers and the replacement market with increasing popularity

of inverter technology; continued rise in commercial projects; and improving profitability of the domestic refrigeration business as cost reductions and investments in high-margin products have gained traction.³ Likewise, growth in the sector was supported by the brisk real estate and renting activities led by increased number of energized housing units since the residential real estate market in the Philippines particularly in Luzon was back on track.

The electricity sold to Luzon residential sector has maintained its growth momentum, albeit at a slower pace growing by 1.65% in 2014 from 5.56% in 2013. 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 gained momentum of the household consumption and exports on the expenditure side 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, higher overseas Filipinos remittances, and improved employment conditions.

In Mindanao, electricity sales rate increased by 2.54% in 2014 from 2.11% in 2013 or an equivalent of 2, 895 GWh from the year-ago level of 2, 823 GWh.

On the other hand, sales of electricity in Visayas were flabbier than of the other two grids. Visayas residential customers posted a slower growth of 1.28% in 2014 from 2.52% rise in overall residential sales for Visayas in 2013 due to the remaining uncertainties in supply and demand conditions in some areas in the island after the onslaught of typhoon Yolanda in the southern areas of the Visayas grid.

❖ Commercial Sector

Commercial consumption increased at markedly lower rate from the resilient growth performance of 2.50% in 2014 to a modest growth of 2.96% in 2013. Similar to the previous year, sales in the commercial sector was propelled by the expansion in service sector led by real estate services sub-sector, specifically, business outsourcing (BPO) and casinos along with trade and private services sub-sectors.

Similarly, improved commercial energy sales in Luzon in 2014 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.

The uptick in electricity sales inflation for the commercial sector for Luzon was likewise 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.

³ Raul Joseph A. Concepcion, Chairman and CEO, CONCEPCION Industrial Corp. (CIC)/ Business World Online/www.ccac.com.ph/

Meanwhile, commercial sector in Visayas grid which account for 16.19% of total Visayas electricity sales, dropped by 9.99% to 1,302 MW from 1,446 GWh in the previous year due to the adverse effects of super typhoon Yolanda that hit the country in 2013 which further reduced market optimism.

On the other hand, commercial sector in Mindanao grid rebounded by 0.65% in 2014 from a 6.79% contraction in the previous year. 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 2013. Mindanao's economy grew by an average of 8% wherein the service sector contributed largely consistent with the increase on the number of newly constructed malls and commercial establishments brought by rare occurrences of natural or manmade adversities as compared to 2013, wherein its growth was decelerated by the after effects of Typhoon Pablo and the Zamboanga siege in 2012.

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 10.91% from 1,971 GWh in 2013 to 2,186 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 2014 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 whole year of 2014 also contributed to the performance of "Other" sector.

❖ Own-Use and System Loss

Total system loss accounted to 7,271 GWh, corresponding to 9.41% share to total consumption. The contraction on the Losses, which posted a 6.08% dropped in 2014 from 7,741 GWh in 2013 due to the increasing network efficiency and improved pilferage management by 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.

Meanwhile, utilities' own-use for office and station use of the power plants expanded timidly by 11.52% from 5,959 GWh in 2013 to 6,646 GWh in 2014.

C.

C. Significant Outages

LUZON

- Calaca Unit 2 (300 MW) – on extended planned outage from 31 December 2013 to 14 May 2014;
- Pagbilao Unit 1 (382 MW) – on extended planned outage from 10 June to 14 July 2014;
- Pagbilao Unit 2 (382 MW) – on planned outage from 29 July to 22 August 2014;
- Masinloc Unit 2 (315 MW) – on forced outage due to series of boiler tube leaks from 17 March to 18 April 2014;
- Sual Unit 1 (647 MW) – on scheduled maintenance from 25 September to 25 October 2014;
- Sual Unit 2 (647 MW) – on scheduled maintenance from 29 August to 29 September 2014;
- GNPowder Unit 1 (326 MW) – on extended planned outage from 25 December 2013 to 28 March 2014; on forced outage since 26 October 2014;
- GNPowder Unit 2 (326 MW) – on forced outage due to generator excitation trouble from 5 September to 3 October 2014;
- Malaya Unit 1 (300 MW) – on forced outage due to high vibration trouble since 21 March 2014;
- Ilijan Block A and B (1,200 MW) – extended planned outage during the PIGging activity from 11 to 13 July 2014;
- Ilijan A2 (200 MW) – on forced outage since 23 December 2014;
- Sta Rita Module 40 (265 MW) – on forced outage due to power transformer trouble from 27 February to 19 July 2014;
- Kalayaan Unit 1 (180 MW) – on scheduled maintenance from 1 July to 11 September 2014; and
- Magat Unit 1 (90 MW) – on half-life refurbishment from 12 January to 11 June 2014

VISAYAS

- PB 103 (32 MW) – on deactivated shutdown due to damaged mooring site and barge hull following passage of TY Yolanda since 8 November 2013;
- Unified Leyte – Upper Mahiao GPP (136 MW) – on forced outage due to 26 January 2014 earthquake near Leyte from 26 January to 4 February 2014;
- CEDC Unit 2 (82 MW) – on forced outage due to leaking feedwater control valve from 20 July to 5 August 2014;
- KSPC Unit 1 (100 MW) – on scheduled maintenance from 5 to 22 July 2014;
- KSPC Unit 2 (100 MW) – on scheduled maintenance from 28 September to 20 October 2014;
- PEDC Unit 2 (82 MW) – on scheduled maintenance from 30 January to 15 February 2014;
- CASA Bio (15 MW) – on forced outage due to end of milling season from 11 May to 31 October 2014;
- FFHC Bio (21 MW) - on forced outage due to end of milling season from 2 May to 15 August 2014;
- FFHC Bio (21 MW) - on forced outage due to end of milling season from 15 April to 23 August 2014;
- UMPP Unit 3 (34 MW) – on forced outage from 22 October to 1 December 2014;
- TGPP Unit 1 (37.5 MW) – on forced outage from 2 November to 28 December 2014;

- MGPP Unit 1 (60 MW) – on forced outage from 8 October to 11 November 2014 and 13 November 2014 to 4 January 2015;
- UMPP Unit 3 (34 MW) – on forced outage from 22 October to 1 December 2014;
- PGPP 2 U3 (20 MW) – on forced outage from 29 July to 21 December 2014; and
- CTPP (105 MW) and CDPP 1 (43.8 MW) – on deactivated shutdown since late September 2014 due to turnover to Salcon Power Corporation

MINDANAO

- STEAG Mindanao Coal-fired Power plant Unit 1 (105 MW) – on forced outage due to plant control system trouble from 27 February to 30 May 2014;
- STEAG Mindanao Coal-fired Power plant Unit 2 (105 MW) – on forced outage due to plant control system trouble from 27 February to 7 May 2014;
- PB 117 Unit 1 (50 MW) – on emergency shutdown due to high exhaust gas temperature from 8 July to 13 September 2014;
- Agus 2 Unit 1 (60 MW) – on scheduled maintenance from 8 November to 20 December 2014;
- Agus 6 Unit 2 (25 MW) - on series of forced outage from 29 January to 15 March 2014 (High thrust bearing temperature), 19 April to 7 June 2014 (emergency shutdown due to unusual sound from the excitation unit), 10 June to 16 October 2014 (governor system problem);
- Agus 6 Unit 3 (50 MW) – on extended planned outage from 17 February to 15 May 2014;
- Agus 6 Unit 5 (50 MW) – on forced outage from 1 October to 7 November 2014;
- Agus 7 Unit 1 (27 MW) – on planned outage from 1 to 15 December 2014 and on forced outage from 16 to 23 December 2014; and
- Agus 7 Unit 1 (27 MW) – on forced outage from 1 to 11 December 2014

C. DOE Initiatives in Imposing Compliance with Section 71 of the EPIRA

In July 2014, DOE announced that there would be a possible power shortage in the summer 2015 especially during the 2015 thirty(30)-day Malampaya Turnaround that will limit the natural gas plants in the maximum capacity and have them operating using an alternate yet more expensive fuel in replacement of the gas not supplied during the turnaround period. DOE proposed to grant the President of the Philippine “special” power to solve this impending event through *Section 71 of the EPIRA* Law that will allow to establish additional generating capacity in the Luzon grid. Primary proposal was to have additional capacity by purchasing or leasing generator set equivalent to the projected shortage including the required reserve for normal operation of the grid.

Due to lack of time for thorough discussion in the committee level of the House of Committee of Energy (HCoE), the option was scrapped. Instead the Committee agreed to put replacement option as they passed the House Joint Resolution No. 21 on November 2014, which was led by Committee on Energy Chairman Hon. Reynaldo Umali Jr. of Oriental Mindoro, wherein the additional capacity will be sourced from the following:

1. Interruptible Load Program (ILP);
2. Fast Tracking of New Committed Projects;
3. Plants for Interconnection and Rehabilitation; and
4. Adoption and execution of energy efficiency and conservation measures.

The Senate also amended resolution through the Senate Joint Resolution No. 12 that was approved on March 2015. The resolution was led by Committee on Energy Chair Sergio Osmeña in support of sourcing out of additional generating facilities through the options mentioned in the Congress Joint Resolution.

Meanwhile, further to the Government's measure to address possible power shortage in summer of 2015, the DOE in coordination with the ERC undertook steps for the implementation of the Interruptible Load Program (ILP). The ILP is a mechanism devised to augment limited power supply of DUs and is considered as a pro-active measure to help solve power shortages. The ILP was originally implemented in the Visayas and Mindanao Regions in order to alleviate power shortage in the area during power shortages that occurred way back in 2010.

The ILP allows the DU and the participating customers to enter into an agreement wherein the customer may be requested by its DU to be partially or fully de-loaded or disconnected for a period of time as determined by the DU. The customer shall then be paid by the DU a de-loading compensation for incremental cost incurred which shall be recovered from all customers of the DU as part of the monthly total power cost.

This mechanism is then adopted in Luzon through MERALCO and during its initial implementation, there were 115 MW de-loading capacity registered. The authorities realized that most of companies that have capability to participate in the program are contestable customers who are already contracted with RES through the implementation of the RCOA. With this, the ERC initiated for the revision of ERC Resolution No. 8 Series of 2013 entitled "A Resolution Amending Article IV, Section 1 of the Rules to Govern the Interruptible Load Program of Distribution Utilities" in order to cover the ILP implementation for Contestable Customers (CC) which are contracted with the Retail Electricity Suppliers (RES) as well as Directly Connected Customers (DCCs).

The proposed amendment to the rules has already gone through the initial public hearing may soon come out with the resolution in early 2015 and is expected to provide for the protocols on de-loading and compensation mechanism for the DCCs and CCs.

Relative to the proposed implementation of the ILP to the Contestable Market, the DOE started to encourage several CCs to consider participation and among them were members of the Semiconductors and Electronics Industries of the Philippines (SEIPI) which have committed about 173 MW ILP capacity from their members if the following pre-conditions were met:

- No penalty from RES;
- Connection: Own Use (export to the grid);
- De-loading: Partial or 4 hours only;
- Guaranteed supply/delivery of fuel;
- One shift (8 hours) to one week notification and transition phase of 2 hours should be considered;
- Iron out taxation issues, offsetting should be allowed;
- Remains voluntary and the government assures time-bounded with immediate concrete plans to recover; and
- The government should be committed to secure power supply reliability.

Further to SEIPI members, the DOE also met with other companies, which also aired their conditions/concerns in participating the ILP as follows:

- The ERC approved compensation rates are not realistic without including the maintenance and other costs;
- Need to recover production loss due to transition from the system to generator;
- Compensation formula will not break-even;
- Exemption from Manual Load Dropping (MLD); otherwise, it will require for a company 36 hours to go back to normal operation after MLD;
- Exemption from taxes that will be incurred in ILP participation;
- Preferred run time of generator sets for ILP, e. g. 10 AM – 6 PM (during hours of plant operation);
- Notification of at least one day;
- Recovery scheme of compensation from production losses resulting from switching to generator sets; and
- Compensation of ramp-up costs of generator sets if not dispatched should also be considered, among others.

The DOE was able to get commitments of about 79.6 MW from the CCs which is composed of 22.9 MW from Directly Connected Customers (DCCs) and 56.7 MW from CCs. The said commitments were endorsed by the DOE to MERALCO and NGCP for further negotiation and consideration.

C. Status of Government Generating Assets

1. Agus VI HEPP Uprating Project

On 12 December 2013, the Notice of Award (NOA) was issued to the joint venture (JV) of Guangxi Hydroelectric Construction Bureau and ITP Construction Inc. As of 30 April 2015, the Project's overall accomplishment is 74.08% with the following activities:

Table 37. Project Over-All Accomplishments as of 30 April 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 | 60% | 4.2 |
| | Unit 1 | 7.0 | - | - |
| | Common Plant Equipment | 8.0 | 60% | 4.8 |
| 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 | 35% | 1.58 |
| 6.0 | Installation | | | |
| | Unit 2 | 3.0 | - | - |
| | Unit 1 | 3.0 | - | - |
| | Civil and Architectural Construction | 4.0 | - | - |
| | Total | 100.0 | | 74.08 |

Source: PSALM

The delivery of the major equipment and associated components and appurtenances from China to the Philippines is targeted in the last week of May 2015 while the skilled manpower for equipment dismantling and erection/installation will arrive from China on 06 May 2015.

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

The issuance of the Notice of Award (NOA) was released on 12 May 2014 to JV of Guangxi and ITP as the winning bidder with the Single Calculated and Responsive Bid with the negotiated price of PhP438,000,000.00. Said project had commenced on 16 April 2014 with the publication of the Invitation to Bid (ITB) under Negotiated Procurement (Emergency Cases).

The Project consists of engineering investigation, design, manufacturing and installation of new generator unit and excitation system for Unit 4, as well as replacement of electrical equipment, materials and devices to meet the rated capacity of the generator unit of 50 MW.

The Project's overall accomplishment is still at 9% with no work accomplished from June 2014 up to the report period due to the following reasons:

- Conduct of site survey and design activities were on hold because the generator drawings which are necessary in the preparation of design of new generator unit are not available at the Plant;
- Due to non-availability of drawings, the Contractor (Guangxi) requested for a 10-day shutdown to allow the conduct of the actual equipment measurements. During the coordination meeting on 16 June 2014, PSALM, NPC and NGCP agreed on a 30-day shutdown for the Preventive Maintenance Shutdown (PMS) of Agus VI Unit 4, scheduled from 10 July 2014 to 9 August 2014. The 10-day period for the measurement will be performed by Guangxi to coincide with the PMS. However, NPC did not grant the requested shutdown and also refused to provide technical assistance as well as provision of necessary special tools and consumables to Guangxi during the implementation of the measurement activities; and
- PSALM in its letter dated 23 February 2015 requested National Power Corporation (NPC) to allow Guangxi to implement the dismantling works and actual measurement of the existing generator unit for a 10-day period coinciding with the Preventive Maintenance Schedule (PMS) of Agus VI Unit 4 scheduled from 01 to 30 April 2015.

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)**

PSALM has commenced the procurement of a one-year OMSC for the 650 MW MTPP with the publication of the ITB on 14 July 2014.

The MTPP OMSC procurement has an approved budget for the contract (ABC) of PhP451,301,265.86, to be sourced from PSALM's Corporate Operating Budget.

The bidding was conducted on 12 August 2014, participated in by two (2) bidders, namely STX Marine Service Co. Ltd. and SPC Malaya Power Corporation. STX submitted the lowest bid as read in the amount of PhP302,149,988.64 while SPC, the current OMSC provider of MTPP, offered PhP428,777,888.00. On 30 September 2014, PSALM awarded the OMSC for MTPP to STX with a contract amount of PhP297,799,028.80. On 15 October 2014, PSALM and STX signed the OMSC. On 25 October 2014, STX started the OMSC for MTPP.

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

The PSALM Board approved the budgetary requirement and to immediately proceed with the procurement of services and spare parts for the turbine/generator overhauling and other related works for MTPP Unit 1, respectively.

Out of seven (7) proposals which signified interest submitted on PSALM's Terms of Reference (TOR), the PSALM BAC and Technical Working Group (TWG) have conducted the successful post-qualification of STX. STX submitted the lowest bid as read in the amount of PhP80,627,176.00 for the overhauling of MTPP Unit 1.

On 10 November 2014, the NOA was issued to STX while on 25 November 2014, PSALM and STX signed the contract.

On 01 December 2014, PSALM issued the NTP to STX.

On 03 December 2014, the contract implementation commenced, which include mobilization, repair of spare rotor, dismantling of Unit 1 turbine/generator and other electrical works.

As of 31 March 2015, the High Pressure (HP) turbine assembly of MTPP Unit 1 was already taken out from its inner casting, with initial findings of a broken turbine moving blade, damaged journal bearing no. 1, eroded nozzle blocks, broken rear seal casing bolts and damage in the body of the inner and outer casing. STX has completed the refurbishment of the spare HP rotor, which will be used to replace the damaged HP rotor.

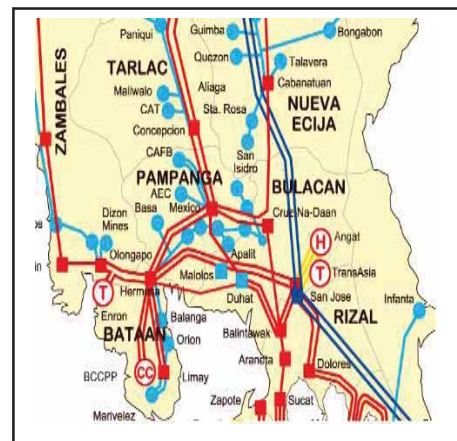
However, as of 30 April 2015, the High Pressure (HP) turbine parts were already delivered to MTPP for clearance checking in preparation for the installation on the assembly. The assembling of HP turbine has started and expected to be completed by two (2) weeks, including turbine balancing and rotor alignment. The overhauling of Circulating Water Pump 1B, preventive maintenance of Distributed Control System and close examination of Automatic Voltage Regulator were already completed. The target completion date of the overhauling is end of May 2015.

D. Status of Transmission Projects

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 31 December 2014 and is scheduled to be completed on 31 December 2015.

The Mariveles Coal Transmission Reinforcement Project involves the associated grid reinforcements needed to allow the full dispatch of both the proposed Mariveles 600 MW Coal-Fired Power Plant (CFPP) and Limay Combined-Cycle Power Plant (CCPP). The grid reinforcements involve the reconductoring of the existing Hermosa-Limay B-CCPP 230 kV line to maintain the N-1 provision of the line during the maximum dispatch of both CFPP and B-CCPP units. Likewise, this project also includes the replacement of Power Circuit Breakers at San Jose and Hermosa Substations. The remaining component, which is the BCCPP S/S expansion, was completed on 23 December 2014.

Figure 5. Mariveles Coal Transmission Reinforcement Project



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 31 March 2015, the substation and transmission component of this project are 84.9% and 19.2% complete, respectively, with target date of completion on 30 September 2015 for both components.

Figure 6. San Jose-Quezon 230kV Line 3 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,

Figure 7. Ambuklao-Binga 230kV T/L Project



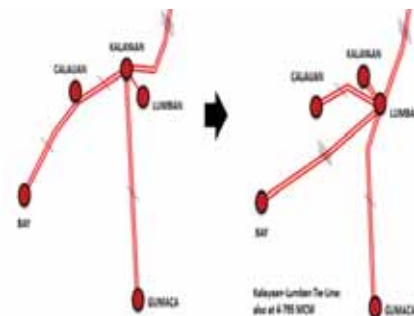
during maximum generation of both power plants, this project will prevent the overloading under N-1 contingency condition, i.e., outage of one 230 kV circuit. The substation component of this project is 71.08% complete as of 31 March 2015 and has a target date of completion on 31 December 2015.

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 98% and 94.9% complete respectively, as of 31 March 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. Other transmission sub-components are expected to be energized in various months of 2015.

Figure 8.. Lumban-Bay 230kV T/L Project (a)



Figure 8. Lumban-Bay 230kV T/L Project (b)



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

Figure 9. Binga-San Manuel 230 T/L Project



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 86.19% complete; and Stage 2 for San Manuel Substation with the status of 76.3% complete, as of 31 March 2015. The target date of completion for Binga and San Manuel Substation are on 31 August 2015 and 31 December 2015, respectively. On the other hand, the transmission component of this project is in the process of implementation

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. The statuses of the first and second schedule for transmission line component of this project are 75.6% and 86.9% complete respectively as of 31 March 2015, while San Esteban S/S component is 99.19% complete, as of 31 March 2015.

Figure 10. San Esteban-Laoag 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 31 March 2015, the transmission and substation components of the project are 93.7% and 85% complete, respectively.

Figure 11. Santiago-Tuguegarao 230kV T/L Project



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 31 March 2015 with target date of completion on 30 September 2015.

Luzon Voltage Improvement Project 2 involves the installation of a total of 600 MVAR capacitor banks at Biñan, Dasmariñas and Mexico Substations in order to improve voltage regulation and keep the voltages in the area within the Grid Code prescribed limits both during normal and N-1 conditions. One of the worst N-1 events for the

voltage profile is the outage of Dasmariñas-Ilijan 500 kV line. The increasing load will necessitate the installation of the said capacitor banks by year 2012. All components of this project were already energized, as of 31 March 2015.

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, for pre-commissioning works, with the status of 98.8% completed as of 31 March 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 31 March 2015, is 98.8% 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, 98.9% complete as of 31 March 2015.

Las Piñas (Zapote) Substation Expansion project, a newly implemented project which started on 30 October 2014, 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

Figure 12. Las Piñas S/S Project

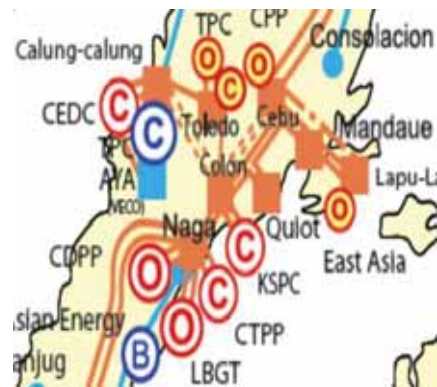


2012, when one transformer at Las Piñas Substation was damaged, sub-sectorization of the 115 kV distribution network of Meralco was implemented to avoid load shedding. This resulted in both reliability and low voltage issues as the 115 kV lines connected to Las Piñas Substation were put on radial configuration. 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.

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 31 March 2015, has a 91% and 97.8% completion for its transmission and substation components, respectively.

Figure 13. Calung-Calung-Colon 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 31 December 2014, the transmission and substation components of the project are 99.9% and 93.3% complete respectively with target date of completion on 31 August 2015 for transmission and 30 November 2015 for substation component.

Figure 14. Southern Panay Backbone 138 kV Transmission Project



Rita Substation to Quinapundan. The line shall provide an alternate supply route to the Eastern Samar load-end substations. Currently, as of 31 March 2015, the project is 67.0% complete and scheduled for completion on December 2015.

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 & Babatngon substation component is 94.6% complete as of 31 March 2015 with target date completion on 30 September 2015 while Amlan, Bacolod, Cadiz, Maasin and Samboan substation component is 68.3% complete as of 31 March 2015 with target date completion on 30 June 2016.

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. The status of Schedule 1A&2A are 97.4% and 57.0% complete for offshore and onshore portion, respectively while the status of Schedule 1B&2B are 100% and 84.1% complete for offshore and onshore portion, respectively.

Figure 19. 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. As of 31 March 2015, all components of this project were energized on 11 January 2015.

Figure 20. Balo-I (Abaga)-Villanueva (Kirahon) 230kV T/L Project



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. As of 31 March 2015, the transmission and substation components of the project are 30.5% and 28.0% complete respectively. The contractor of the project, China National Electric Engineering Company Limited has backed out thus, the NGCP will re-bid the remaining component of the project.

Figure 21. Aurora-Polanco 138kV T/L Project



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 31 March 2015, the transmission and substation components are 95.2% and 52.7% complete, respectively.

Figure 22. Matanao-Gen. Santos 138kV T/L Project

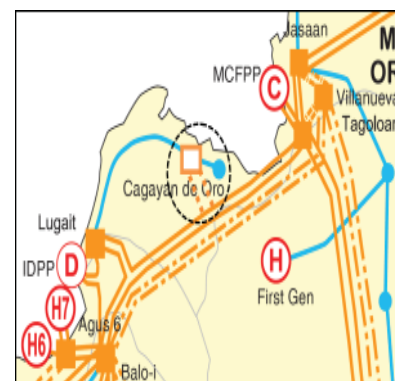


The Mindanao Substation Expansion II involves the installation of 100MVA new transformer unit at Gen. Santos Substation and deployment of its existing 50MVA unit to Kidapawan Substation. This will enable the said substations to meet demand growth and improve system reliability. The status of this project, as of 31 March 2015, is 52.7% complete and is scheduled for completion on 28 February 2016.

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 87.8% complete as of 31 March 2015 and its expected target completion is on 31 July 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 Lugait-Carmen 69kV line. The status of transmission and substation component of this project is 44.6% and 65.6% complete respectively, as of 31 March 2015. The transmission component is expected to be completed on 30 November 2015 while its substation component is expected to be completed on 31 December 2015.

Figure 23. Opol S/S Project



E. Distribution Infrastructure Projects

1. ERC-Approved Capital Expenditure (CAPEX) Projects

During the report period, the ERC approved eleven (11) Capital Expenditure (CAPEX) Projects applied by Aklan Electric Cooperative, Inc. (AKELCO), Bohol II Electric Cooperative, Inc. (BOHECO II), two (2) from Isabela II Electric Cooperative, Inc. (ISELCO II), Cagayan I Electric Cooperative, Inc. (CAGELCO I), Cebu I Electric Cooperative, Inc. (CEBECO I), Camarines Norte Electric Cooperative, Inc. (CANORECO), Misamis Oriental I Rural Electric Cooperative, Inc. (MORESCO I), two (2) from Siargao Electric Cooperative, Inc. (SIARELCO), and Cagayan II Electric Cooperative, Inc. (CAGELCO II). Annex 16 shows the said approved CAPEX projects as of the report period.

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

For this period, there are thirty (30) accounts from twenty six (26) ECs participating in the ECPCG Program. On booked accounts, no new account was added to the existing twenty one (21) accounts of nineteen (19) ECs, which has a total loan amount of PHP2.830 billion and corresponding guarantee coverage from the Program of PHP2.265 billion. There has been no incidence of loan default from these accounts.

On the other hand, the number of committed accounts increased from three (3) to nine (9) with the signing of the loan and guarantee agreements for the following ECs: (1) COTELCO; (2) CAGELCO I; (3) SORECO I; (4) BUSECO 3rd loan; (5) SOCOTECO I 2nd loan; and (6) MORESCO II. These accounts with approved investment financing requirements of PHP621.51 million originated from new ECs availing of the Program, as well as from existing EC clients and will entail ECPCG Program committed guarantee exposure support of PHP497.21 million.

Table 38. ECs Booked in EC-PCG Program

| | EC | Loan Amount (Php Million) | ECPCG Program Guaranteed Amount (PHP Million) | Lender | Signing Date of Loan and Guarantee Agreements |
|--|------------|---------------------------|---|---------------|---|
| 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 | 109.62 | 87.70 | 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 | 167.73 | 134.18 | UCPB | July 06, 2012 |
| 13 | CAMELCO | 140.00 | 112.00 | BPI | November 09, 2011 |
| 14 | NEECO I | 173.54 | 138.83 | PNB* | June 06, 2012 |
| 15 | BENECO | 163.50 | 130.80 | BPI | December 28, 2012 |

| EC | | Loan Amount (PhP Million) | ECPCG Program Guaranteed Amount (PhP Million) | Lender | Signing Date of Loan and Guarantee Agreements |
|--|--------------------------|------------------------------|---|---------------|--|
| 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 |
| Sub-Total | | 2,830.64 | 2,264.51 | | |
| B. Committed Accounts (Booked Accounts with no loan releases yet) | | | | | |
| 1 | GUIMELCO | 79.85 | 63.88 | Security Bank | November 21, 2013 |
| 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 | 179.93 | 143.94 | PNB | December 19, 2014 |
| 6 | SORECO I | 103.74 | 82.99 | Security Bank | January 29, 2015 |
| 7 | BUSECO (3rd loan) | 25.89 | 20.71 | Security Bank | January 28, 2015 |
| 8 | SOCOTECO I (2nd loan) | 91.92 | 73.54 | DBP | February 11, 2015 |
| 9 | MORESCO II | 40.00 | 32.00 | Security Bank | March 11, 2015 |
| Sub-Total | | 1,074.76 | 859.81 | | |
| Grand Total | | 3,905.40 | 3,124.32 | | |

* 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 November 2014, the household electrification level of the country is estimated at 79.9%. This corresponds to 17.4 million energized Households (HHs) out of the estimated total HH population of 21.8 million HHs (Table 39). The remaining 4.4 million unelectrified HHs are generally located in the rural and remote areas of the country as well as in outskirts urban areas Metro Manila and Davao City. Luzon has the highest household electrification level or around 89.3% while Mindanao remains the lowest electrification level at 56.3%.

Table 39. Status of Household Electrification as of November, 2014

| Region | HH Population Projected C2014 | Served HH 2014 | Unserved HH 2014 | HH Electrification Level 2014 |
|--------------------|-------------------------------|-------------------|------------------|-------------------------------|
| Luzon | 12,732,284 | 11,373,065 | 1,359,219 | 89.32% |
| CAR | 379,910 | 315,321 | 64,589 | 83.00% |
| I | 1,102,694 | 947,071 | 155,623 | 85.89% |
| II | 768,500 | 622,021 | 146,479 | 80.94% |
| III | 2,442,583 | 2,247,353 | 195,230 | 92.01% |
| IV-A | 3,233,265 | 3,029,388 | 203,877 | 93.69% |
| IV-B | 649,987 | 449,675 | 200,312 | 69.18% |
| NCR | 2,977,038 | 2,895,336 | 81,702 | 97.26% |
| V | 1,178,307 | 866,901 | 311,406 | 73.57% |
| Visayas | 4,128,355 | 3,267,161 | 861,194 | 79.14% |
| VI | 1,612,595 | 1,223,125 | 389,470 | 75.85% |
| VII | 1,603,599 | 1,355,333 | 248,266 | 84.52% |
| VIII | 912,161 | 688,703 | 223,458 | 75.50% |
| Mindanao | 4,966,626 | 2,794,436 | 2,172,190 | 56.26% |
| ARMM | 563,581 | 167,146 | 396,436 | 29.66% |
| CARAGA | 535,617 | 429,660 | 105,957 | 80.22% |
| IX | 761,588 | 401,696 | 359,892 | 52.74% |
| X | 998,145 | 630,297 | 367,848 | 63.15% |
| XI | 1,094,711 | 713,796 | 380,915 | 65.20% |
| XII | 1,012,984 | 451,842 | 561,142 | 44.61% |
| Grand Total | 21,827,265 | 17,434,662 | 4,392,603 | 79.88% |

Source: DOE

At regional level, NCR, Region IV-B (CALABARZON), and Region III (Central Luzon) posted the highest electrification level of 97.3%, 93.7% and 92.0%, respectively. The least electrified regions are ARMM, Region XII (Davao) and Region IX (Zamboanga Peninsula) with HH electrification levels of 29.7%, 44.6%, and 52.7%, respectively. Analysis of the actual number of unelectrified HHs shows that even provinces with high HH electrification level still have high number of unelectrified HHs. Table 40 shows the top provinces with more than 100,000 unelectrified HHs as of this report. North Cotabato is the province with the highest number of electrified HHs both in the country and in Mindanao. Pangasinan and Negros Occidental, being among the most populous, are the top provinces in Luzon and Visayas.

Table 40. Provinces with Highest Unelectrified HHs (>100,000 HHs) as of November 2014

| LUZON | | | | |
|---------------------|-------------------------------|----------------|----------------|------------------------------|
| Province | HH Population Projected C2014 | Served HH 2014 | Unenergized HH | HH Electrification Level (%) |
| Pangasinan | 645,417 | 518,204 | 127,213 | 80.3% |
| Palawan | 243,192 | 120,642 | 122,550 | 49.6% |
| Masbate | 183,225 | 61,572 | 121,653 | 33.6% |
| VISAYAS | | | | |
| Province | HH Population Projected C2014 | Served HH 2014 | Unenergized HH | HH Electrification Level (%) |
| Iloilo | 498,252 | 387,259 | 110,993 | 77.7% |
| Negros Occidental | 663,276 | 485,642 | 177,634 | 73.2% |
| Cebu | 1,009,000 | 908,155 | 100,845 | 90.0% |
| Negros Oriental | 300,203 | 187,076 | 113,127 | 62.3% |
| MINDANAO | | | | |
| Province | HH Population Projected C2014 | Served HH 2014 | Unenergized HH | HH Electrification Level (%) |
| Maguindanao | 148,897 | 32,386 | 116,511 | 21.8% |
| Zamboanga Del Norte | 218,608 | 106,511 | 112,097 | 48.7% |
| Zamboanga del Sur | 412,600 | 226,909 | 185,691 | 55.0% |
| Bukidnon | 296,635 | 171,515 | 125,120 | 57.8% |
| Lanao Del Norte | 207,673 | 94,301 | 113,372 | 45.4% |
| Misamis Oriental | 341,480 | 236,761 | 104,719 | 69.3% |
| Davao del Sur | 579,912 | 414,513 | 165,399 | 71.5% |
| North Cotabato | 368,732 | 147,255 | 221,477 | 39.9% |
| South Cotabato | 339,759 | 199,178 | 140,581 | 58.6% |
| Sultan Kudarat | 186,987 | 67,767 | 119,220 | 36.2% |

Source: DOE

The Household Electrification Development Plan (HEDP) 2015-2017

DOE’s HEDP 2015-2017 outlines the Government’s strategies and activities for achieving 90% household (HH) electrification by 2017. Figure 24 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.

Figure 24. HH Electrification Forecasts 2015-2017



DOE implements the various strategies defined under the HEDP to ensure the successful attainment of the above targets. These include the creation of the Household Unified Strategic Electrification (HOUSE) Team as program policy oversight support and the establishment of the Household Electrification Intensification System (HEIS) as defined in the Department Circular No. DC2014-09-0018 signed by DOE Secretary on 29 September 2014 for the same purposes. Based on the Kick-Off Meeting of the HOUSE Team last November 2014, current thrusts include the firming up of the roles of key government agencies involved in HH electrification and the development of a more detailed execution plan for the implementation of HH electrification projects and activities by DUs and other proponents. Capacity building activities, policy development and other technical assistance shall be also undertaken to ensure the attainment of the total electrification goals.

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.

On-going and Planned Programs and Activities

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

- **Grid Electrification**

1. NEA's Sitio Electrification Program (SEP)

This refers to NEA's program of attaining 100% 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 2010, SEP has energized a total of twenty one thousand five hundred forty three (21,543) sitios as of 30 January 2015. Since 2011, NEA had received a total of P16.9 billion for the SEP from the National Government. Table below shows the status of NEA-SEP accomplishments and targets. In 2014 alone, seven thousand five hundred sixty seven (7,567) sitios were energized which is 7.0% more than the target of seven thousand seventy three (7,073) sitios. Meanwhile, one thousand thirty (1,030) sitios have been electrified in January 2015.

Table 41. Status of NEA-SEP Program As of 28 February 2015

| YEAR | TARGETS | PROJECT COST (PhpB) | Actual Annual Sitios Energized | Cumulative Sitios Energized | Remaining Balance (Unenergized Sitios) | % Level |
|---|---------|---------------------|--------------------------------|-----------------------------|--|---------|
| BASELINE NO. UNENERGIZED SITIO (JUNE 2011) | | | | | 32,441 | |
| 2011 | 1,410 | 0.814 | 1,520 | 1,520 | 30,921 | 4.7% |
| 2012 | 6,007 | 4.053 | 6,163 | 7,683 | 24,758 | 23.7% |
| 2013 | 5,831 | 3.752 | 5,263 | 12,946 | 19,495 | 39.9% |
| 2014 | 4,563 | 3.400 | 7,567 | 20,513 | 11,928 | 63.2% |
| | 7,073 | 6.358 | | | | |
| 2015 | 7,557 | 7.557 | | | | |

Source: NEA

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.

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. More details are provided in Section VII of this report (Benefits to Host Communities).

4. DOE LFP Nationwide Intensification of Household Electrification (NIHE) 2015-2017

Approved in 2014, the NIHE project is three (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.

Specifically, the NIHE Project has targeted implementation of the grant assistance for housewiring connection with a total target of four hundred fifty thousand (450,000) unelectrified households until 2017 with priority given to unelectrified poor household beneficiaries of the Government's Pantawid Pamilyang Pilipino Program (4Ps). Specifically, the NIHE Project will provide an assistance amounting to PhP3,750.00 to each eligible HH as grant subsidy to shoulder the cost of housewiring and additional service drops per housing unit. DUs and ECs shall manage the actual connections of the beneficiaries while the LGUs shall have the responsibility to provide necessary assistance to HH beneficiaries such as by waiving the permitting fees and other requirements associated for connections.

- **Off-Grid Electrification**

1. *Solar PV Mainstreaming Program*

The program aims to scale-up PV Mainstreaming approach as the most effective and sustainable approach to solar home system (SHS) electrification based on the lessons learned from the past and recent activities in the country.

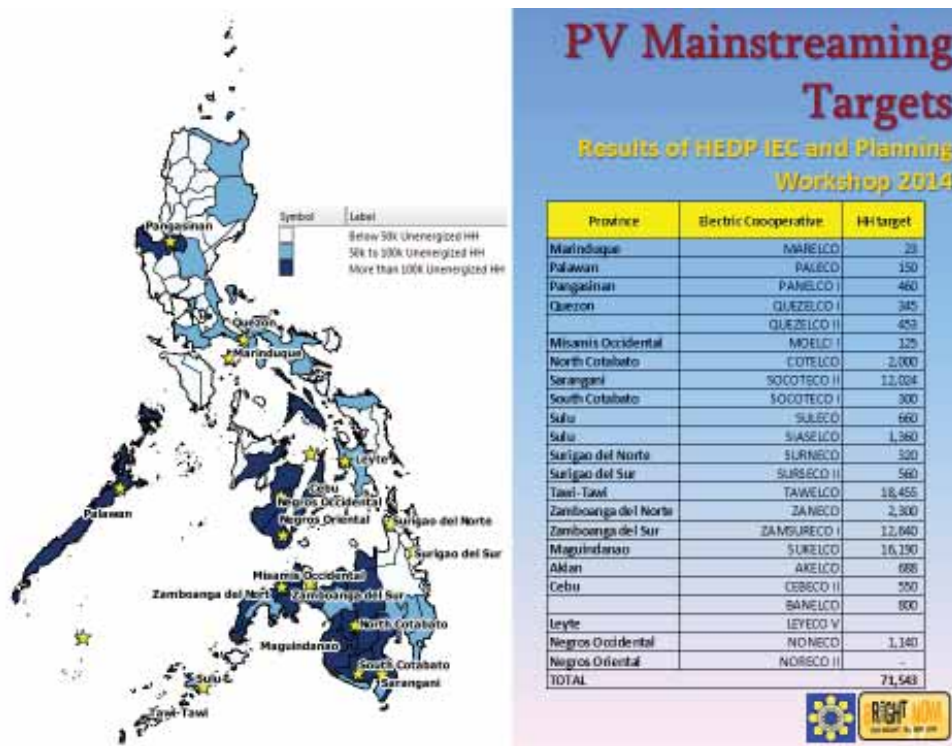
This program aims to encourage the DUs/ECs in implementing the SHS mainstreaming/fee-for-service approach for dispersed households and highly remote areas in their franchise areas. A World Bank-funded study showed the said approach is the most promising delivery mechanism for large-scale and sustainable SHS electrification of dispersed HHs and remote rural areas not viable for grid extension. Said concept was successfully piloted in six (6) ECs with a three thousand two (3,002) total households served. With the pilot implementation, the ECs have generated strong experiences on the procurement, installation, the operations/maintenance of the solar PV systems in their respective residential customers. It has proven that the said approach is the most promising mechanism for scaled-up SHS dissemination.

The positive result of the pilot implementation drove the Department to issue Department Circular No. DC 2014-007-0012 entitled "*Accelerating Household Electrification in Off-grid and Isolated Areas through Supply of Regulated Solar Home Systems*" which was signed last 03 July 2014. The said Circular laid down the policies for the provision of electric service by the DUs.

Subsequently, the DOE through the Philippine Rural Electrification Cooperative Association (PhilRECA), filed in April 2014, a proposed rules to govern the setting a regulated solar home system (SHS) tariff for the provision of electricity service for rural electrification by the Electric Cooperatives (ERC Case No. 2014-003 RM). ERC is still to conduct an additional public hearing on the proposed Rules tentatively set for the first quarter 2015. It is expected that ERC issues the Rules before the end of the year.

Figure 25 shows the initial list of the target provinces for the scaled-up implementation of the PV mainstreaming approach for off-grid electrification based on the interests indicated by the ECs with unviable areas for extension of distribution lines. As a result of the Business Development Planning Workshop conducted by DOE last November 2014, at least fourteen (14) ECs have submitted their Project Implementation Plan (PIP) to undertake PV mainstreaming project in their respective areas.

Figure 25. Potential Solar PV Mainstreaming Project as of December, 2014



Based on the submitted PIP, it is expected that a total of fifty thousand forty nine (50,049) households will be provided with solar PV electrification from 2015-2017. As part of the preparatory activities, DOE presented the program before the Board of Directors of ZAMSURECO I, SOCOTECO II and QUEZELCO 1. The said presentation sought the Boards' approval on the adoption of the PV Mainstreaming as part of its business operations in increasing household electrification within their respective franchise area.

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. TEFI has also introduced social enterprise approach to supplement electrification with productive uses. TEFI shall also expand its activities in other areas including Province of Pangasinan.

As of the report period, the Household Electrification Assistance through Renewable Technology and Social Preparation for the Upliftment of Lives Program is being implemented.

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 off-grid 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 a study to Accelerating Private Sector Participation in Offgrid Areas. The Policy Study aimed to review the existing laws/rules and policies on PSP in offgrid areas and develop implementing schemes and guidelines to modify existing framework and processes. A key deliverable of this Policy Study is the proposed amendment of the DOE QTP Circulars. The Policy Study has been completed in October 2014 after it has been subjected to consultations with the key stakeholders.

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

a. Rio Tuba QTP Project in Bataraza, Palawan

PowerSource Philippines, Inc. (PSPI) continues to operate as QTP in Barangay Rio Tuba. For the reporting period, the average monthly net electricity generation reached 230,313 kWh while the average monthly electricity sales at 203,552 kWh, both of which indicated a slight decrease of about 0.87% and 0.19% respectively as compared with the last year's (for seven (7) months period from April to October 2014) electricity generation and sales. Total connected households to-date are one thousand seven hundred forty four (1,744). The slowdown in demand and reduction in households connected were due to the fire that hit Rio Tuba in November 2014 displacing close to one hundred (100) member household.

There was further delay in the commissioning of its biomass gasifier due to the inability of the supplier to deliver the engine last November 2014. PSPI has contracted another supplier and the engine is targeted to be delivered on site by late April 2015. The Biomass Renewable Energy Operating Contract (BREOC) for the 70kw engine was signed on 02 February 2015. PSPI intends to apply for the COC once the engine becomes operational.

In order to provide efficient and reliable service and serve more customers, PSPI is undertaking the following activities, namely: 1) line extension to three (3) sitios; 2) line rehabilitation and upgrading of transformer capacity from 600kVa; and 3) upgrading of generating units to ensure 24/7 operations.

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

For the reporting period, PSPI submitted to ERC additional data requirement in support of its ERC application for the issuance of its Final Authority to Operate (ATO) and the Full Cost Recovery Rate (FCRR).

Meanwhile, PSPI continues to operate its existing generating facility in the island. The average net electricity generation was 100,148 kWh per month and the average electricity sales was 91,445 kWh. There was significant increase of about 30% in generation and 31% in sales which can be attributed to the extensive progress and recovery after Super Typhoon Yolanda in November 2013. To date, total customer connections are seven hundred seventy one (771) as compared

with seven hundred twenty two (722) connection is Sept. 2014, or a 7% increase in the past five (5) months.

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 for the 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 will 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. 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.

e. 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, further review and clarifications were conducted to determine the firms acceptability.

f. Brgy. Cabayugan , Puerto Princesa City

This QTP project is still undergoing negotiations between the QTP firm and NPC-SPUG to determine the full-cost recovery rate (FCRR), the UC-ME requirements and other technical parameters in the operation of the solar PV-storage and diesel hybrid system. The system 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.

It is expected that negotiation be completed by 1st Quarter 2015, thereafter, DOE's endorsement to the ERC for the issuance of the Authority to Operate and determination of the rates and subsidy requirements to be charged against the UC-ME.

g. Semirara Project in Caluya, Antique

DMCI Holdings established its subsidiary, Semirara 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.

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. 50% of one centavo per kilowatt-hour (P0.005/kWh) is for electrification projects, 25% (P0.0025/kWh) for development and livelihood projects and the remaining 25% (P0.0025/kWh) for reforestation, watershed management, health and/or environment enhancement projects.

DOE as fund administrator, has already established a total of seven hundred fifty one (751) 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 March 2015 has accrued to PhP 9.8 Billion from which Php6.3 Billion was obligated for the implementation of projects. This leaves an available fund at around PhP3.4 Billion.

Table 42. Summary of Financial Benefits from Inception to March 2015 (In PhP Billion)

| Particulars | EF | DLF | RWMHEEF | Total |
|-------------------------------|------|------|---------|-------|
| Accrued Financial Benefit | 4.06 | 2.68 | 3.02 | 9.76 |
| Approved | 3.26 | 1.49 | 1.57 | 6.32 |
| Available/Collectible Balance | 0.80 | 1.19 | 1.45 | 3.44 |

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 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 PhP37.5 Million for the implementation of various non-electrification projects. Php 17.10 Million worth of nineteen (19) development and livehoold projects will be implemented in the Provinces of Nueva Vizcaya, Isabela, Benguet Batangas, Quezon, Leyte, Lanao del Sur, Bukidnon, Iligan City and Davao City. While, Php20.4 Million was approved for nineteen (19) reforestations, watershed management, health and/or environment enhancement projects for implementation in the Provinces Nueva Vizcaya, Zambales, Pangasinan, Ilocos Sur, Benguet, Batangas, Laguna, Quezon, Leyte, Lanao del Sur, Bukidnon and Davao City.

Table 43. Project Approval (In PhP Million) November 2014 – March 2015

| Fund Source | No. of Approved Projects | Amount (PhP in Million) |
|---|--------------------------|-------------------------|
| Development and Livelihood Fund | 19 | 17.10 |
| Reforestation, Watershed Management, Health and/or Environment Enhancement Fund | 19 | 20.35 |

Source: DOE

- 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 104.2 Million from which Php 22.2 Million was sourced out for electrification projects, Php 43.1 Million for the implementation of twenty (20) various development projects and the remaining amount of Php 38.88 Million was intended for twenty four (24) reforestation, health and environment enhancement projects.

Table 44. Fund Release (In PhP Million) November 2014 – March 2015

| Fund Source | No. of Projects | Amount (PhP in Million) |
|---|-----------------|-------------------------|
| Electrification Fund | various areas | 22.23 |
| Development and Livelihood Fund | 20 | 43.06 |
| Reforestation, Watershed Management, Health and/or Environment Enhancement Fund | 24 | 38.88 |

Source: DOE

- Conduct of Information and Education Campaign (IEC)

Numerous IECs were conducted to re-orient local officials of the selected host communities in the the Provinces of Lanao del Sur, Nueva Vizcaya, Nueva Ecija, Iloilo, Ilocos Norte, and Benguet. It also intends to intensify the relationship of the Community Relations Officers (COMRELS) of the Generating Facility towards the local government to enhance the implementation of the E.R. 1-94 Program particularly in preparing, evaluating and endorsing projects that will contribute the progression of the locality.

- 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 PhP33.1 Million for five electrification projects implemented by LEYECO V, MERALCO and CEPALCO. Whereas, twenty one (21) DL and RWMHEE projects located in the Provinces of Pangasinan, Ifugao, Quezon, Batangas, Bataan, Albay, Zambales, Compostela Valley and Lanao del Sur were validated amounting to PhP41.4 Million.

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 the projects to the community. Resulting from the project implementation was the inspection of one hundred six (106) completed Electrification projects implemented by LEYECO V and MERALCO and sixteen (16) non-electrification projects in the Province of Quezon, Leyte and Iligan City. (*Selected photos of projects are shown in the next page*).

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.

DL and RWMHEE Projects in the Provinces of Cagayan De Oro, Tawi-Tawi, and Leyte



Project Title : Expansion of Distribution Line in 5 Barangays in the Municipality of Villanueva, Cagayan de Oro
Project Cost : Php 15,757,581.08
Fund Type : EF
DFI : CEPALCO



Project Title : Installation of PV-SHS in 3 Brgys. in the Municipality of Mapun, Tawi-Tawi
Project Cost : Php 4,749,486.06
Fund Type : EF
EC : CASELCO



Project Title : Multi-purpose Pavement/ Road Concreteng in 4 Barangays in the Municipality of Kananga, Leyte
Project Cost : Php 2,937,210.00
Fund Type : DLF
Power Plant : LEYTE UNIFIED GPPS



Project Title : Development of Concrete Flood Crossing Structure in Brgy. Hluclogan, Kananga, Leyte
Project Cost : Php 413,500.00
Fund Type : DLF
Power Plant : LEYTE UNIFIED GPPS

ANNEXES

Annex 1. Transco Inspection Report Based on Concession Agreement as of 30 April 2015

| No. | Inspection Report No. | Location | Name of Project/ Transmission Facilities | Inspection Date |
|-----------------|-----------------------|------------------------|---|------------------|
| LUZON | | | | |
| 1 | SLR-D2-14-56 | South Luzon District 2 | Tayabas, Gumaca, Makban, Kalayaan, Caliraya | Nov. 17-21, 2014 |
| 2 | SLR-D1-14-58 | South Luzon District 1 | Dasmariñas, Ternate, Rosario, Zapote, Sucat, Binan, Calaca, Batangas | Dec. 1-5, 2014 |
| 3 | NLR-D6-14-60 | North Luzon District 6 | Mexico, Concepcion, Cabanatuan, Pantabangan, Cruz na Daan | Dec. 8-12, 2014 |
| 4 | NLR-D7-15-02 | District 7 North Luzon | San Jose, Doña Imelda (Araneta), Tay-Tay (Dolores), Malaya, Quezon (Balintwak) | Jan. 12-16, 2015 |
| 5 | NL-MTDB-15-07 | North Luzon | Mexico, Pampanga | Feb. 9-13, 2015 |
| 6 | NLR-D3-15-09 | District 3 North Luzon | San Manuel, Bolo, Labrador, Kadampat, Nagsaag, Mangaldan, Cuyapo | Feb. 9-13, 2015 |
| 7 | SLR-D2-15-12 | District 2 South Luzon | Tayabas, Gumaca, Makban, Kalayaan, Caliraya | Mar. 9-13, 2015 |
| 8 | NLR-D5-15-13 | District 5 North Luzon | Hermosa, Limay, Hanjin, Olongapo, Subic, Botolan and Morong | Mar. 9-13, 2015 |
| 9 | SLR-PR-15-02 | South Luzon | Luzon PCB Replacement Project (Gumaca & Labo S/S) | Mar. 10-13, 2015 |
| 10 | SLR-RS-15-16 | South Luzon | Calapan, Pinamalayan and Dela Paz Repeater Stations | Mar. 23-27, 2015 |
| 11 | NLR-D1-15-18 | North Luzon | Bauang, Bacnotan, San Esteban, Bantay, Currimao, Laoag | Apr. 20-24, 2015 |
| VISAYAS | | | | |
| 1 | VIS-AC-14-57 | Visayas | Panay Area Control Center | Dec. 1-4, 2014 |
| 2 | VIS-RS-15-01 | Visayaa | Busay, Borbon (Muagao), Compostela & Biga Repeater Stations | Jan. 12-16, 2015 |
| 3 | VIS-MTDA-15-03 | Visayas | Visayas MTD-A (Talamban, Cebu) | Jan. 26-30, 2015 |
| 4 | VIS-D3-15-05 | District 3 Visayas | Bacolod, Cadiz, Kabankalan, Mabinay, Amlan | Jan. 26-30, 2015 |
| 5 | VIS-AC-15-06 | Visayas | Bohol Area Control Center | Feb. 9-13, 2015 |
| 6 | VIS-D2-15-10 | District 2 Visayas | Banilad, Mandaue, Mactan, Compostela, Quiot, Naga, BDPP, Ubay, Talisay | Feb. 23-27, 2015 |
| 7 | VIS-D4-15-15 | District 4 Visayas | Sta. Barbara, Dingle, San Juan, Panit-an, Baldoza | Mar. 23-27, 2015 |
| 8 | VIS-PR-15-03 | Visayas | Sta. Rita-Quinapondan 69kV T/L Project | Apr. 14-17, 2015 |
| MINDANAO | | | | |
| 1 | MIN-RS-14-59 | Mindanao | Mintal, Matina, Malalag and Tupi Repeater Stations | Dec. 8-11, 2014 |
| 2 | MIN-RS-14-61 | Mindanao | Talacogon (Lugait), Gingoog, and Camiguin Repeater Stations | Dec. 15-18, 2014 |
| 3 | MIN-RS-15-04 | Mindanao | Dinas, Ozamiz & Lopez Jaena Repeater Stations | Jan. 26-30, 2015 |
| 4 | MIN-D2-15-08 | District 2 Mindanao | Lugait, Iligan(Overton), Balo-i(Abaga), Mindanao RCC, Metering Facilities and Microwave Station | Feb. 9-13, 2015 |
| 5 | MIN-PR-15-01 | Mindanao | Butuan-Placer 138 kV T/L Project (S/S) | Feb. 11-13, 2015 |
| 6 | MIN-MTDB-15-11 | Mindanao | Davao MTD-B | Mar. 9-13, 2015 |
| 7 | MIN-D3-15-14 | District 3 Mindanao | Carmen, Tagoloan, Aplaya, Kibawe, Maramag | Mar. 23-27, 2015 |
| 8 | MIN-D5-15-17 | District 5 Mindanao | Davao, Kidapawan, Matanao, Bunawan, Nabunturan, Maco | Apr. 13-17, 2015 |

Source: Transco

Annex 2. Summary Inspection Report (PUC) as of 30 April 2015

| No. | Observation Report No. | Inspection Date/ Area | Description of Observation (TransCo) | Action Plan / Remarks (NGCP) |
|-----------------|--------------------------------|-----------------------|--|---|
| VISAYAS | | | | |
| | (VIS-PR-15-03) OR-P-15-0040 | April 14-17 | Based on the approved Implementation Schedule, the project is already delayed by more than a year | A Revised Implementation Schedule shall be prepared after the approval of the proposed CTE. The contractor is already being charged with Liquidated Damages (LD). |
| | OR-P-15-0041 | April 14-17 | 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. |
| | OR-P-15-0042 | April 14-17 | Steel poles including spares & spare parts are not yet completely delivered. | For delivery of the remaining steel poles, spares & spare parts. |
| | OR-P-15-0043 | April 14-17 | Stringing could not be started due to quality issue on the delivered Power Conductors and Overhead Ground Wire | The Power Conductors and OHGW will be replaced by the contractor. |
| | OR-P-15-0044 | April 14-17 | Twenty-six (26) out of the 560 delivered steel poles are yet to be erected. | To be erected after the re-erection/correction of the toppled/leaning steel poles. |
| | OR-P-15-0045 | April 14-17 | Re-erection / correction of topped / leaning structures werenot yet completed. | On-going re-erection/correction of topped/leaning structures. |
| | OR-P-15-0046 | April 14-17 | Concreting of encasement for the nine (9) steel poles situated in flood prone areas & near river banks has not yet | For concreting. |
| | OR-P-15-0047 | April 14-17 | Clearing of the Right-of-Way (ROW), approximately 95 km. has not yet completed. | Clearing is on-going. |
| | OR-P-15-0048 | April 14-17 | Nursery program for the 133,050 trees seedlings has not yet completed. (based on MOA dated 1 August 2014) | On-going propagation of seedlings. Planting of the trees is targeted by EO June 2015 |
| | OR-P-15-0049 | April 14-17 | No 4'x8' billboard at all conspicuous place/exit points of the project sites (Sta. Rita, Basey, Marabut, Lawaan, Balangiga, | For posting. |
| MINDANAO | | | | |
| 1 | (MIN-PR-15-01) OR-P-15-0001 | February 11-13 | The contract for the expansion of Butuan & Placer S/S Project expired on October 4, 2014 and no approved Contract Time Extension (CTE) was issued. | The proposed CTE was already submitted to the Head Office in Diliman for evaluation. |
| 2 | OR-P-15-0002 | February 11-13 | Two (2) sets of 138 kV Power Circuit Breaker (PCB), 3150A, 40kA, live-tank, motor spring charged, suitable for 1+3 pole operation are still not installed at Bay 75 in Butuan S/S. | Support structures were already erected. Installations of PCBs are on-going. |
| 3 | OR-P-15-0003 | February 11-13 | Four (4) sets of 138 kV Disconnect Switch (DS), 3000A, 40kA, 3-phase, motor/manually group operated are still not installed at Bay 75 in Butuan S/S. | Support structures were already erected. Installations of DSs are on-going. |
| 4 | OR-P-15-0004 | February 11-13 | Twelve (12) units of 138 kV Current Transformers (CT), 3000:5A, multi-ratio, 7-cores are still not installed at Bay 75 & 75 in Butuan S/S. | Support structures were already erected. Installations of CTs are on-going. |
| 5 | OR-P-15-0005 | February 11-13 | Power Control & Instrumentation Cables are yet to be delivered at Butuan S/S. | For delivery. |
| 6 | OR-P-15-0006 | February 11-13 | Complete sets of Station AC & DC Auxiliary Distribution System, indoor type at Butuan S/S are not yet delivered. | Partially delivered. |
| 7 | OR-P-15-0007 | February 11-13 | Additional outdoor lighting for 138 kV expansion yard at Butuan S/S are not yet delivered. | For delivery. |
| 8 | OR-P-15-0008 | February 11-13 | The 138 kV Line Traps including support structures at Butuan S/S are yet to be decommissioned/dismantled. | Dismantling requires shutdown |
| 9 | OR-P-15-0009 | February 11-13 | Substation Protection System at Butuan S/S are not completely delivered. | For delivery. |
| 10 | OR-P-15-0010 | February 11-13 | Main 1 Differential Protection Panel at Butuan S/S is not yet delivered. | For delivery. |
| 11 | OR-P-15-0011 | February 11-13 | The Network Disturbance Monitoring Equipment at Butuan S/S are yet to be delivered. | For delivery. |

26th Status Report on EPIRA Implementation

| No. | Observation Report No. | Inspection Date/ Area | Description of Observation (TransCo) | Action Plan / Remarks (NGCP) |
|-----|-----------------------------|-----------------------|--|---|
| 12 | OR-P-15-0012 | February 11-13 | The Main Control Switchboard (MCSB) at Butuan S/S is not yet delivered. | For delivery. |
| 13 | OR-P-15-0013 | February 11-13 | The Fiber Optic Communication System at Butuan S/S is yet to be installed. | For installation. |
| 14 | OR-P-15-0014 | February 11-13 | Three (3) sets of 138 kV Disconnect Switch (DS), 3000A, 40kA, 3-phase, motor/manually group operated are still not installed in Placer S/S. | Support structures were already erected. Installations of DSs are on-going. |
| 15 | OR-P-15-0015 | February 11-13 | The existing RTU (Siemens TG5700 Station Manager), including the installation of required modules, devices, RTU interface wires/cables 7 other accessories at Butuan S/S are yet expanded/modified. | For modification. |
| 16 | OR-P-15-0016 | February 11-13 | Six (6) units out of the 15 138 kV Current Transformers (CT), 3000:5A, multi-ratio, 7-cores are still not installed in Placer S/S. | Support structures were already erected. Installations of CTs are dependent on the scheduled shutdown. |
| 17 | OR-P-15-0017 | February 11-13 | The 125 VDC Main Distribution Board is not yet delivered at Placer S/S. | For delivery. |
| 18 | OR-P-15-0018 | February 11-13 | Eleven (11) sets of manual & motorized operating mechanism for 138 kV DD for Placer S/S are not yet installed. | For installation. |
| 19 | OR-P-15-0019 | February 11-13 | 2 units of line traps for 138 kV S/S equipment are not yet decommissioned/ dismantled at Placer S/S. | Decommissioning of line traps needs the commissioning of the new fiber optics communication system of lines traps needs |
| 20 | OR-P-15-0020 | February 11-13 | The NGCP supplied 138 kV PCB, dead-tank type is yet installed at Placer S/S. | For installation. |
| 21 | OR-P-15-0021 | February 11-13 | Substation Protection System at Placer S/S are not completely delivered. | For delivery of the remaining substation protections. |
| 22 | OR-P-15-0022 | February 11-13 | Main 1 Differential Protection Panel at Placer S/S is not yet delivered. | For delivery. |
| 23 | OR-P-15-0023 | February 11-13 | The Network Disturbance Monitoring Equipment (NDME) at Placer S/S is not yet delivered. | For delivery. |
| 24 | OR-P-15-0024 | February 11-13 | The Protection Management System (PMS) at Placer S/S is not yet delivered. | For delivery. |
| 25 | OR-P-15-0025 | February 11-13 | The Substation Automation System (SAS) at Placer S/S is not yet delivered. | For delivery. |
| 26 | OR-P-15-0026 | February 11-13 | The existing Protection Panel at Placer S/S are yet to be modified. | For modification. |
| 27 | OR-P-15-0027 | February 11-13 | Environmental: Pending Environmental Management Plan (EMP) Measurements on the ff: a. Adherence to DOH prescription on radiation protection (operation); and b. Implementation of regular maintenance program to address possible exposure to occupation/public safety hazard (operation) | For compliance upon completion of the expansion project. |
| 28 | (SLR-PR-15-02) OR-P-15-0028 | March 10-13 | One (1) set of 125 VDC Sub-Distribution Panel, indoor-type, flushed-mounted, complete with main & branch circuit breakers & other accessories are still not delivered in Labo S/S. | For compliance of the contractor as per Meeting held on January 27, 2014. |
| 29 | OR-P-15-0029 | March 10-13 | The deficiencies noted in the Inspection Report No. IR/QSMD-13-91/JFS dated June 6, 2013 in Labo S/S were not yet closed. | For coordination with the QSMD, Contractor & O&M-District 3. |
| 30 | OR-P-15-0030 | March 10-13 | The approved As-built Drawings for Labo S/S were not yet submitted. | The As-built Drawing submitted to NGCP was returned to the contractor with comments. For follow-up. |
| 31 | OR-P-15-0031 | March 10-13 | The Certificate of Energization for the Labo S/S was not yet presented. | The Certificate of Energization is still for signature of the District Head (O&M). |
| 32 | OR-P-15-0032 | March 10-13 | Approved Implementation Schedule for Labo S/S was not presented. | For submission. |

26th Status Report on EPIRA Implementation

| No. | Observation Report No. | Inspection Date/ Area | Description of Observation (TransCo) | Action Plan / Remarks (NGCP) |
|-----|------------------------|-----------------------|---|---|
| 33 | OR-P-15-0033 | March 10-13 | One (1) set of 125 VDC Sub-Distribution Panel is not yet delivered. | For compliance of the contractor as per Meeting held on January 27, 2014. |
| 34 | OR-P-15-0034 | March 10-13 | The existing Control Switchboard at Gumaca S/S is not yet modified. | Proposed for deletion by the contractor |
| 35 | OR-P-15-0035 | March 10-13 | The approved As-built Drawings for Gumaca S/S were not yet submitted. | For preparation by the contractor. To follow-up with the contractor. |
| 36 | OR-P-15-0036 | March 10-13 | The Test Results/certificate for re-bars/steel were not yet presented. | For submission. |
| 37 | OR-P-15-0037 | March 10-13 | No copy of Certificate of Provisional Acceptance (CPA). | Coordination with the contractor & other concerned groups is on-going for the conduct of the Joint Final Inspection which is one of the requirements for the issuance of the CPA. |
| 38 | OR-P-15-0038 | March 10-13 | The Joint Final Inspection was not yet conducted at the Gumaca Substation. | For coordination with the QSMD, Contractor & O&M-District 2. |
| 39 | OR-P-15-0039 | March 10-13 | The construction/erection contract for the LPCBRP expired on October 12, 2012 and no approved Contract Time Extension (CTE) was issued. | The requested CTE was denied by the Management. The contractor will be charged with Liquidated Damages (LD). NOTE: The contractor, JRT, requested for termination of contract and the settlement for outstanding issues (contract items – for deletion, billing and delivery) of the contract is currently under preparation by P&E/ECD for JRT conformance. |

Source: TransCo

Annex 3. NGCP Related Petitions to ERC as of 30 April 2015

| ERC DECISION/CASE NO./ DATE OF FILING | NATURE OF PETITION | GROUNDS FOR FILING | STATUS | | | | | | | | | | | | | | |
|---------------------------------------|--|--|--|------|------|------|------|------|------|----------|------|------|------|------|------|------|--|
| 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 | <ul style="list-style-type: none"> 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. | <ul style="list-style-type: none"> Awaiting ERC Order/Notice of Hearing | | | | | | | | | | | | | | |
| 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 Issuance of a Provisional Authority | <ul style="list-style-type: none"> ISSUE, immediately upon filing of the Application, a Provisional Approval for the implementation of the Pagbilao EHV Substation Project; and APPROVE, after notice and hearing, the Application for the implementation of the Pagbilao EHV Substation Project and render judgment making provisional approval permanent). | <ul style="list-style-type: none"> Awaiting ERC Order/Notice of Hearing | | | | | | | | | | | | | | |
| ERC Case 2015-049 RC/12 March 2015 | 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 | <ul style="list-style-type: none"> 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). | <ul style="list-style-type: none"> Pursuant to ERC order dated April 20, 2015, the jurisdictional, expository, pre-trial and evidentiary hearing was set on June 2, 2015. | | | | | | | | | | | | | | |
| ERC Case 2015-005 RC/January 14, 2015 | 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 Rates, with Prayer for Provisional Authority | <ul style="list-style-type: none"> 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 border="1" data-bbox="1145 920 1214 1491"> <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 | Grid | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Mindanao | 0.18 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | <ul style="list-style-type: none"> Awaiting ERC Order/Notice of Hearing |
| Grid | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | | | | | | | | | | |
| Mindanao | 0.18 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | | | | | | | | | | | |

| ERC DECISION/CASE NO./ DATE OF FILING | NATURE OF PETITION | GROUNDS FOR FILING | STATUS |
|---|---|--|---|
| ERC Case 2014-183 RC/ December 15, 2014 | In the Matter of the Application for the Approval of the Balo-i - Kauswagan - Aurora 230 KV Transmission Line Project (Phase I), with Prayer for Provisional Authority | <ul style="list-style-type: none"> Exclude the proposed Pass-Through amount from the side constraint calculation. Immediately ISSUE an Order Provisionally authorizing the implementation of Balo-I – Kauswagan – Aurora 230kV Transmission Line (Phase I); and APPROVE, after notice and hearing, the Application for the implementation of the Balo-i - Kauswagan - Aurora 230 KV Transmission Line (Phase I). | <ul style="list-style-type: none"> On February 10, 2015, ERC posted on its website an order dated February 9, 2015 setting the jurisdictional, expository, pre-trial and evidentiary hearing on March 4, 2015. On March 4, 2015, the jurisdictional, expository, pre-trial and evidentiary hearing were conducted. NGCP was directed to file its Formal Offer of Evidence within ten (10) days. |
| ERC Case 2014-181 RC/ December 12, 2014 | In the Matter of the Application for the Approval of the Upgrading of Panitan-Nabas 138 KV Transmission Line, with Prayer for the Issuance of a Provisional Authority | <ul style="list-style-type: none"> ISSUE, immediately upon filing of the Application, a Provisional Approval for the implementation of the Panitan-Nabas 138 KV Transmission Line Project; and APPROVE, after notice and hearing, the Application for the implementation of the Panitan-Nabas 138 KV Transmission Line Project and render judgment making provisional approval permanent. | <ul style="list-style-type: none"> On January 28, 2015, NGCP filed a Motion to set hearing. As per ERC order dated March 16, 2015, the jurisdictional, expository, pre-trial and evidentiary hearing was set on May 26, 2015. |
| ERC Case 2014-180 RC/ December 12, 2014 | In the Matter of the Application for the Approval of the Upgrading of Ormoc/Tongonan - Isabel 138 KV Transmission Line, with Prayer for the Issuance of a Provisional Authority | <ul style="list-style-type: none"> ISSUE, immediately upon filing of the Application, a Provisional Approval for the implementation of the Ormoc/Tongonan - Isabel 138 KV Transmission Line Project; and APPROVE, after notice and hearing, the Application for the implementation of the Ormoc/Tongonan - Isabel 138 KV Transmission Line Project and render judgment making provisional approval permanent. | <ul style="list-style-type: none"> On February 10, 2015, ERC posted on its website an order dated February 3, 2015 setting the jurisdictional, expository, pre-trial and evidentiary hearing on April 7, 2015. On April 7, 2015, jurisdictional, expository, pre-trial and evidentiary were conducted. |
| ERC Case 2014-166 RC/ November 7, 2014 | In the Matter of the Application for the Approval of the Manila/Navotas - Doña Imelda 230 KV Transmission Line Project with Prayer for the Issuance of a Provisional Authority | <ul style="list-style-type: none"> ISSUE, immediately upon filing of the Application, a Provisional Approval for the implementation of the Manila/Navotas- Dona Imelda 230kV Transmission Line Project; and APPROVE, after notice and hearing, the Application for the implementation of the Manila/Navotas - Dona Imelda 230KV Transmission Line Project and render judgment making provisional approval permanent. | <ul style="list-style-type: none"> On February 4, 2015, ERC posted on its website an order dated February 2, 2015 setting the jurisdictional, expository, pre-trial and evidentiary hearing on February 27, 2015. |
| ERC Case 2014-165 RC/ November 7, 2014 | In the Matter of the Application for the Approval of the Agus 2 Switchyard Upgrading Project with Prayer for the Issuance of a Provisional Authority | <ul style="list-style-type: none"> Immediately ISSUE an Order provisionally approving the implementation of the Agus 2 Switchyard Rehabilitation Project pending final approval; and APPROVE, after notice and hearing, the Application for the implementation of the Agus 2 Switchyard Rehabilitation Project. | <ul style="list-style-type: none"> On February 27, 2015, the jurisdictional, expository, pre-trial and evidentiary hearing were conducted. NGCP was directed to file its Formal Offer of Evidence within ten (10) days. |

| ERC DECISION/CASE NO./ DATE OF FILING | NATURE OF PETITION | GROUNDS FOR FILING | STATUS |
|--|--|---|--|
| ERC Case 2014 - 163 RC/ November 5, 2014 | In the Matter of the Application of the National Grid Corporation of the Philippines 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 | <ul style="list-style-type: none"> 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; 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. | <ul style="list-style-type: none"> On March 18, 2015, the jurisdictional, expository, pre-trial and evidentiary hearing were conducted. On January 28, 2015, NGCP filed a Motion to set hearing. Based on ERC Order dated March 9, 2015, hearing scheduled are as follows: <ul style="list-style-type: none"> April 22, 2015 – Jurisdictional and expository hearing in ERC Visayas Field Office. May 13-14, 2015 – Pretrial and Evidentiary hearing in ERC Pasig City. On April 22, 2015, Jurisdictional and expository presentation were conducted at the ERC Visayas Field office. TransCo participated as Intervenor. |
| ERC Case 2014 - 155 RC/ October 17, 2014 | 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 | <ul style="list-style-type: none"> 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; | <ul style="list-style-type: none"> On Nov. 10, 2014, ERC posted on its website an order dated November 3, 2014, setting the Jurisdictional hearing & expository presentation for Luzon on Dec. 11, 2014; Expository for Mindanao and Visayas on January 21 & 28, 2015 respectively; and pre-trial conference and evidentiary hearing on February 3, 2015 On December 11, 2014, the jurisdictional and expository presentation for Luzon were conducted. On January 21 & 28, 2015, expository for Davao and Visayas were conducted On January 29, 2015, ERC posted on its website an order dated |

| ERC DECISION/CASE NO./ DATE OF FILING | NATURE OF PETITION | GROUNDS FOR FILING | STATUS | | | | | | | | | |
|--|---|--|---|------|------|-------|--------|--------|----------|--------|--------|---|
| ERC Case 2014 - 134 RC/ September 10, 2014 | In the Matter of the application for the approval of the Taguig Extra High-Voltage substation project, with prayer for the issuance of a Provisional Authority | | <ul style="list-style-type: none"> December 18, 2014 granting NGCP a provisional Authority. On February 3, 2015, NASECORE continued with its clarificatory questions relative to the expository presentation. Pre-trial conference was conducted. The Commission will issue an order to consolidate the various issues presented and to set the next hearing. | | | | | | | | | |
| ERC Case 2014 - 127 RC/ 29 August 2014 | 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. | <ul style="list-style-type: none"> Immediately ISSUE an Order provisionally approving the implementation of the Taguig EHV Substation project; and APPROVE, after notice and hearing, the Application for the implementation of the Taguig EHV Substation Project. 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 border="1" data-bbox="1043 1039 1150 1451"> <thead> <tr> <th>Grid</th> <th>2014</th> <th>2015</th> </tr> </thead> <tbody> <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> </tbody> </table> APPROVE and ALLOW the recovery of the Net Fixed Asset Value of the transmission assets and other related facilities damaged by the sabotage incidents and landslide due to continuous heavy rains in Mindanao, and Typhoon Santi and Vinta in Luzon, as FMEs during the fourth (4th) Regulatory Period given that the said transmission assets and other related facilities have not been damaged or destroyed by said FMEs; EXCLUDE the proposed Pass-Through Amount from the side constraint calculation. | Grid | 2014 | 2015 | Luzon | 0.0338 | 0.0083 | Mindanao | 0.2830 | 0.0703 | <ul style="list-style-type: none"> On January 28, 2015, NGCP filed a Motion to set hearing. On March 3, 2015, the jurisdictional, expository, pre-trial and evidentiary hearing were conducted. Pursuant to ERC Order dated March 9, 2015 the hearing was scheduled as follows: <ul style="list-style-type: none"> April 22, 2015 at ERC Pasig (jurisdictional and expository) April 29, 2015 at ERC Mindanao Field Office (Expository Presentation) May 6-7, 2015 at ERC Pasig (Pre-trial and Evidentiary) As scheduled, the jurisdictional and expository presentation were conducted at: <ul style="list-style-type: none"> ERC - Pasig office on April 22, 2015 for Luzon stakeholders ERC Mindanao field Office on April 29, 2015 for Mindanao stakeholders |
| Grid | 2014 | 2015 | | | | | | | | | | |
| Luzon | 0.0338 | 0.0083 | | | | | | | | | | |
| Mindanao | 0.2830 | 0.0703 | | | | | | | | | | |

Source: Transco

Annex 4. ERC's Decision/Actions on Transmission Charges and Adjustments filed by NGCP as of 28 February 2015

| ERC DECISION/CASE NO./DATE FILED/APPROVED | NATURE OF PETITION | GROUNDS FOR FILING | STATUS |
|---|--|--|---|
| ERC Case No. 2013-202 RC/ October 17, 2013/December 9, 2014 | In the matter of the application for the Maximum Allowable Revenue (MAR) for Calendar Year (CY) 2014 and the Performance Incentive Scheme (PIS) for the 2013 under the Rules for Setting the Transmission Wheeling Rates, by National Grid Corporation of the Philippines, with prayer for provisional authority was made permanent and approved with a MAR of PhP42,506.68 million for CY 2014 and a PIS reward claim of PhP754.69 million. | <p>It prayed that:</p> <ol style="list-style-type: none"> a. provisional authority to implement the collection of the MAR2014 in the amount of PhP42,506.87 Million and the PIS2013 of PhP754.69 Million and the SO and the MSP Charges beginning the billing period of December 26, 2013 - January 25, 2014 be immediately granted; b. the authority to collect the MAR2014 in the amount of PhP42,506.87 Million, the PIS2013 of PhP754.69 Million and the SO and the MSP Charges be approved; c. the fifty % (500/0) of PhP24.30 Million or the equivalent of PhP12.15 Million as RBRT from colocation and rental of equipment be approved; and d. the setting of the ASAI parameters until the end of the Third Regulatory Period be deferred. | <ul style="list-style-type: none"> Approved with a MAR of PhP42,506.68 million for CY 2014 and a PIS reward claim of PhP754.69 million. |
| ERC Case 2014-032 MC/ May 7, 2014/ October 15, 2014/ | In The Matter Of The Application For Authority To Develop, Own, And Operate Dedicated Point-To-Point Limited Facilities For The Proposed San Lorenzo Wind Farm Project Of Trans-Asia Renewable Energy Corporation (TAREC) To Connect To The Visayas Grid Through The Transmission System Of The National Grid Corporation Of The Philippines (NGCP), With Prayer For The Issuance Of Provisional Authority | <ol style="list-style-type: none"> a. TAREC is hereby authorized to DEVELOP and OWN a dedicated point-to-point transmission facilities to connect to the transmission system of NGCP; b. The Connection Assets shall be used solely by TAREC and should not be used directly to serve the end-users. In the event that the said facilities or any portion thereof will be used/required for competitive purposes or to connect any other user, ownership of the same shall be transferred to the National Transmission Corporation (TRANSCO)/NGCP; c. NGCP shall OPERATE the dedicated point-to-point transmission facilities subject to applicable charges; and | <ul style="list-style-type: none"> TAREC is hereby directed to pay a permit fee in the amount of Seven Million Two Hundred Seventy-Six Thousand Seven Hundred Fifty-Nine Pesos (PhP7,276,759.00), within ten (10) days from receipt hereof, computed as follows: $\frac{\text{PhP}970,234,606.00}{\text{PhP}100} \times \text{PhP}0.75 = \text{PhP}7,276,759.00$ |

| ERC DECISION/CASE NO./ DATE FILED/APPROVED | NATURE OF PETITION | GROUNDS FOR FILING | STATUS |
|---|---|---|---|
| ERC Case 2014 -155 RC/ October 17, 2014/December 18, 2014 | 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 | <p>d. The said dedicated point-to-point facilities shall be developed and constructed in accordance with the System Impact Study (SIS) requirements so as not to result in the degradation of NGCP's transmission system</p> <p>a. Immediately GRANT provisional authority to implement the collection of the MAR2015 in the amount of PhP43.1 billion, the PIS2014 of PhP923 million, and the corresponding System Operator and Metering Service Provider Charges beginning the billing period of 26 December 2014 to 25 January 2015;</p> <p>b. APPROVE, after notice and hearing, the collection of the MAR2015 in the amount of PhP43.1 billion, the PIS2014 of PhP923 million and the corresponding System Operator and Metering Service Provider Charges; and</p> <p>c. APPROVE the fifty % (50%) of PhP15.1 million or the equivalent of PhP7.54 million as RBRT from co- location and rental of equipment</p> | As of this report, ERC's Order on 03 November 2014 set for jurisdictional hearing, pre-trial conference, expository presentation and evidentiary hearing |
| ERC case 2014 -016 MC/19 February 2014 /22 October 2014 | In the Matter of the Application for Authority to Develop, Own and/or Operate Dedicated Point-to-Point Facilities to Connect Nabas Wind Power Plant to the 69 kV Nabas Substation - Caticlan Substation Overhead Transmission Line of the National Grid Corporation of the Philippines (NGCP), with Prayer for Provisional Authority, Pertowind Energy, Inc. (PWEI), applicant: | <p>The application filed by Petrowind Energy, Inc. (PWEI) for authority to develop, own and/or operate dedicated point-to-point facilities to connect Nabas Wind Power Plant to the 69 kV Nabas Substation - Caticlan Substation Overhead Transmission Line of the National Grid Corporation of the Philippines (NGCP), with prayer for provisional authority, is hereby APPROVED subject to the following conditions:</p> <p>a. The National Grid Corporation of the Philippines (NGCP) shall operate the subject dedicated point to point transmission facilities subject to applicable charges;</p> <p>b. The subject facilities shall be developed and constructed in accordance with the System Impact Study (SIS) requirements;</p> | <p>• Relative thereto, PWEI was directed to remit to the Commission, within fifteen (15) days from receipt hereof, a total permit fee in the amount of One Million Ninety-Nine Thousand Five Hundred Eighteen Pesos (PhP1 ,099,518.00), computed as follows:</p> <p style="text-align: center;"><u>PhP146,602,414.00</u> x PhP0.75 = PhP1,099,518.00 PhP100</p> |

| ERC DECISION/CASE NO./ DATE FILED/APPROVED | NATURE OF PETITION | GROUNDS FOR FILING | STATUS |
|--|--------------------|--|--------|
| | | <ul style="list-style-type: none"> c. The subject facilities shall be used solely by the generating facility; and d. Any portion thereof required for competitive purposes or to connect any other user, ownership of the same shall be transferred to TransCo/NGCP. | |

Source: ERC website

Annex 5. WESM Metered Quantity, Spot Quantity, Bilateral Quantity (MWh)

| Billing Month | Metered Quantity (Load), MWh | Spot Quantity (Load), MWh | % | Bilateral Contract Quantity, MWh | % | |
|---------------|------------------------------|---------------------------|--------------|----------------------------------|--------------|-----|
| 1 | Jul-2006 | 3,094,164.95 | 1,355,434.37 | 44% | 1,738,730.58 | 56% |
| 2 | Aug-2006 | 3,147,800.36 | 1,159,428.23 | 37% | 1,988,372.13 | 63% |
| 3 | Sep-2006 | 3,314,855.13 | 1,291,334.84 | 39% | 2,023,520.30 | 61% |
| 4 | Oct-2006 | 2,873,285.25 | 1,224,467.60 | 43% | 1,648,817.65 | 57% |
| 5 | Nov-2006 | 3,234,958.03 | 1,069,288.10 | 33% | 2,165,669.93 | 67% |
| 6 | Dec-2006 | 2,972,091.65 | 519,152.06 | 17% | 2,452,939.59 | 83% |
| 7 | Jan-2007 | 3,035,805.04 | 589,925.05 | 19% | 2,445,879.99 | 81% |
| 8 | Feb-2007 | 3,102,610.89 | 510,281.30 | 16% | 2,592,329.59 | 84% |
| 9 | Mar-2007 | 2,980,658.77 | 536,155.65 | 18% | 2,444,503.12 | 82% |
| 10 | Apr-2007 | 3,407,504.68 | 698,602.96 | 21% | 2,708,901.72 | 79% |
| 11 | May-2007 | 3,460,944.49 | 503,878.03 | 15% | 2,957,066.46 | 85% |
| 12 | Jun-2007 | 3,561,655.99 | 805,535.91 | 23% | 2,756,120.08 | 77% |
| 13 | Jul-2007 | 3,408,973.90 | 531,237.60 | 16% | 2,877,736.29 | 84% |
| 14 | Aug-2007 | 3,286,050.22 | 460,225.65 | 14% | 2,825,824.57 | 86% |
| 15 | Sep-2007 | 3,362,494.13 | 358,578.07 | 11% | 3,003,916.06 | 89% |
| 16 | Oct-2007 | 3,229,031.96 | 247,585.19 | 8% | 2,981,446.77 | 92% |
| 17 | Nov-2007 | 3,204,655.78 | 346,596.90 | 11% | 2,858,058.88 | 89% |
| 18 | Dec-2007 | 3,083,441.24 | 371,343.26 | 12% | 2,712,097.98 | 88% |
| 19 | Jan-2008 | 3,131,009.80 | 411,372.54 | 13% | 2,719,637.26 | 87% |
| 20 | Feb-2008 | 3,212,635.82 | 454,532.74 | 14% | 2,758,103.08 | 86% |
| 21 | Mar-2008 | 3,041,008.30 | 354,398.37 | 12% | 2,686,609.93 | 88% |
| 22 | Apr-2008 | 3,634,855.57 | 634,329.07 | 17% | 3,000,526.50 | 83% |
| 23 | May-2008 | 3,323,367.13 | 356,234.23 | 11% | 2,967,132.90 | 89% |
| 24 | Jun-2008 | 3,538,106.32 | 400,132.11 | 11% | 3,137,974.21 | 89% |
| 25 | Jul-2008 | 3,435,104.78 | 408,863.87 | 12% | 3,026,240.91 | 88% |
| 26 | Aug-2008 | 3,399,912.16 | 372,803.00 | 11% | 3,027,109.16 | 89% |
| 27 | Sep-2008 | 3,530,050.75 | 511,447.58 | 14% | 3,018,603.17 | 86% |
| 28 | Oct-2008 | 3,421,671.57 | 466,154.42 | 13.6% | 2,955,517.15 | 86% |
| 29 | Nov-2008 | 3,447,266.38 | 535,759.02 | 15.5% | 2,911,507.37 | 84% |
| 30 | Dec-2008 | 3,151,245.74 | 545,175.13 | 17.3% | 2,606,070.61 | 83% |
| 31 | Jan-2009 | 2,906,720.56 | 604,622.65 | 20.8% | 2,302,097.92 | 79% |
| 32 | Feb-2009 | 3,358,810.66 | 766,465.14 | 22.8% | 2,592,345.53 | 77% |
| 33 | Mar-2009 | 3,222,969.29 | 537,701.69 | 16.7% | 2,685,267.60 | 83% |
| 34 | Apr-2009 | 3,503,547.55 | 414,910.72 | 11.8% | 3,088,636.83 | 88% |
| 35 | May-2009 | 3,463,438.29 | 516,030.34 | 14.9% | 2,947,407.95 | 85% |
| 36 | Jun-2009 | 3,608,313.89 | 475,456.08 | 13.2% | 3,132,857.82 | 87% |
| 37 | Jul-2009 | 3,538,571.31 | 357,675.26 | 10.1% | 3,180,896.05 | 90% |
| 38 | Aug-2009 | 3,671,459.51 | 586,189.83 | 16.0% | 3,085,269.69 | 84% |
| 39 | Sep-2009 | 3,652,903.81 | 486,078.85 | 13.3% | 3,166,824.96 | 87% |
| 40 | Oct-2009 | 3,347,101.84 | 512,979.44 | 15.3% | 2,834,122.40 | 85% |
| 41 | Nov-2009 | 3,575,986.76 | 474,059.82 | 13.3% | 3,101,926.94 | 87% |
| 42 | Dec-2009 | 3,381,576.00 | 447,970.83 | 13.2% | 2,933,605.16 | 87% |
| 43 | Jan-2010 | 3,391,691.08 | 464,968.76 | 13.7% | 2,926,722.32 | 86% |
| 44 | Feb-2010 | 3,709,258.54 | 678,908.20 | 18.3% | 3,030,350.34 | 82% |
| 45 | Mar-2010 | 3,496,870.27 | 479,469.01 | 13.7% | 3,017,401.26 | 86% |
| 46 | Apr-2010 | 3,785,877.48 | 587,784.31 | 15.5% | 3,198,093.17 | 84% |
| 47 | May-2010 | 4,025,236.25 | 632,741.76 | 15.7% | 3,392,494.49 | 84% |
| 48 | Jun-2010 | 4,120,067.20 | 711,151.61 | 17.3% | 3,408,915.59 | 83% |
| 49 | Jul-2010 | 3,705,460.47 | 594,644.27 | 16.0% | 3,110,816.20 | 84% |
| 50 | Aug-2010 | 3,900,844.43 | 462,747.56 | 11.9% | 3,438,096.86 | 88% |
| 51 | Sep-2010 | 3,893,171.32 | 321,815.88 | 8.3% | 3,571,355.44 | 92% |

Annex 5. WESM Metered Quantity, Spot Quantity, Bilateral Quantity (MWh)

| Billing Month | Metered Quantity (Load), MWh | Spot Quantity (Load), MWh | % | Bilateral Contract Quantity, MWh | % | |
|---------------|------------------------------|---------------------------|------------|----------------------------------|--------------|-----|
| 52 | Oct-2010 | 3,721,843.57 | 363,704.17 | 9.8% | 3,358,139.40 | 90% |
| 53 | Nov-2010 | 3,791,123.99 | 448,742.73 | 11.8% | 3,342,381.26 | 88% |
| 54 | Dec-2010 | 3,618,918.64 | 403,623.82 | 11.2% | 3,215,294.82 | 89% |
| 55 | Jan-2011 | 4,065,400.56 | 272,481.78 | 6.7% | 3,792,918.77 | 93% |
| 56 | Feb-2011 | 4,405,384.21 | 470,203.49 | 10.7% | 3,935,180.72 | 89% |
| 57 | Mar-2011 | 4,072,738.35 | 263,789.55 | 6.5% | 3,808,948.79 | 94% |
| 58 | Apr-2011 | 4,313,514.71 | 202,777.98 | 5% | 4,110,736.73 | 95% |
| 59 | May-2011 | 4,675,217.40 | 399,466.39 | 9% | 4,275,751.00 | 91% |
| 60 | Jun-2011 | 4,665,692.14 | 453,082.12 | 10% | 4,212,610.01 | 90% |
| 61 | Jul-2011 | 4,496,424.04 | 358,118.31 | 8% | 4,138,305.73 | 92% |
| 62 | Aug-2011 | 4,588,527.67 | 280,049.63 | 6% | 4,308,478.03 | 94% |
| 63 | Sep-2011 | 4,591,257.49 | 364,979.67 | 8% | 4,226,277.81 | 92% |
| 64 | Oct-2011 | 4,359,048.50 | 435,802.47 | 10% | 3,923,246.03 | 90% |
| 65 | Nov-2011 | 4,597,790.37 | 460,942.12 | 10% | 4,136,848.25 | 90% |
| 66 | Dec-2011 | 4,386,874.52 | 524,084.49 | 12% | 3,862,790.03 | 88% |
| 67 | Jan-2012 | 4,335,207.47 | 261,447.91 | 6% | 4,073,759.57 | 94% |
| 68 | Feb-2012 | 4,519,990.57 | 251,555.63 | 6% | 4,268,434.94 | 94% |
| 69 | Mar-2012 | 4,416,326.59 | 389,036.20 | 9% | 4,027,290.40 | 91% |
| 70 | Apr-2012 | 4,724,661.49 | 303,929.41 | 6% | 4,420,732.08 | 94% |
| 71 | May-2012 | 4,980,881.89 | 373,513.98 | 7% | 4,607,367.91 | 93% |
| 72 | Jun-2012 | 5,080,154.44 | 513,897.32 | 10% | 4,566,257.12 | 90% |
| 73 | Jul-2012 | 4,756,271.85 | 686,471.55 | 14% | 4,069,800.30 | 86% |
| 74 | Aug-2012 | 4,502,480.50 | 288,702.16 | 6% | 4,213,766.33 | 94% |
| 75 | Sep-2012 | 4,745,836.69 | 391,723.48 | 8% | 4,354,113.21 | 92% |
| 76 | Oct-2012 | 4,656,469.61 | 382,553.20 | 8% | 4,273,916.41 | 92% |
| 77 | Nov-2012 | 4,744,798.66 | 405,825.13 | 9% | 4,338,973.53 | 91% |
| 78 | Dec-2012 | 4,607,806.64 | 425,066.37 | 9% | 4,182,740.26 | 91% |
| 79 | Jan-2013 | 4,414,305.72 | 389,527.57 | 9% | 4,024,778.15 | 91% |
| 80 | Feb-2013 | 4,621,906.41 | 436,075.11 | 9% | 4,185,831.30 | 91% |
| 81 | Mar-2013 | 4,440,321.96 | 489,406.63 | 11% | 3,950,915.33 | 89% |
| 82 | Apr-2013 | 5,165,108.01 | 690,301.91 | 13% | 4,474,806.09 | 87% |
| 83 | May-13 | 5,164,987.79 | 649,414.99 | 13% | 4,515,572.80 | 87% |
| 84 | June-13 | 5,216,803.55 | 462,431.41 | 9% | 4,754,372.14 | 91% |
| 85 | July-13 | 4,987,292.11 | 372,992.40 | 7% | 4,614,299.70 | 93% |
| 86 | Aug-13 | 4,849,001.48 | 298,890.93 | 6% | 4,550,110.55 | 94% |
| 87 | Sep-13 | 4,987,626.49 | 376,226.02 | 8% | 4,611,400.47 | 92% |
| 88 | Oct-13 | 4,766,261.63 | 512,972.96 | 11% | 4,253,288.67 | 89% |
| 89 | Nov-13 | 4,677,500.80 | 528,864.25 | 11% | 4,148,636.54 | 89% |
| 90 | Dec-13 | 4,609,734.84 | 596,725.33 | 13% | 4,013,009.51 | 87% |
| 91 | Jan-14 | 4,312,799.83 | 237,572.21 | 6% | 4,075,227.62 | 94% |
| 92 | Feb-14 | 4,567,631.21 | 381,847.63 | 8% | 4,185,783.58 | 92% |
| 93 | Mar-14 | 4,377,185.09 | 363,153.84 | 8% | 4,014,031.24 | 92% |
| 94 | Apr-14 | 5,127,579.02 | 365,717.19 | 7% | 4,761,861.83 | 93% |
| 95 | May-14 | 5,398,330.57 | 311,115.95 | 6% | 5,087,214.61 | 94% |
| 96 | Jun-14 | 5,529,234.27 | 392,073.55 | 7% | 5,137,160.72 | 93% |
| 97 | Jul-14 | 4,838,209.25 | 405,791.36 | 8% | 4,432,417.88 | 92% |
| 98 | Aug-14 | 5,142,299.09 | 269,169.24 | 5% | 4,873,129.84 | 95% |
| 99 | Sep-14 | 5,114,897.88 | 327,069.32 | 6% | 4,787,828.56 | 94% |
| 100 | Oct-14 | 5,038,319.29 | 402,860.62 | 8% | 4,635,458.47 | 92% |
| 101 | Nov-14 | 5,198,478.23 | 362,334.42 | 7% | 4,836,143.75 | 93% |
| 102 | Dec-14 | 4,829,185.14 | 367,714.59 | 8% | 4,461,470.55 | 92% |
| 103 | Jan-15 | 4,469,259.37 | 246,913.22 | 6% | 4,222,346.15 | 94% |



Annex 5. WESM Metered Quantity, Spot Quantity, Bilateral Quantity (MWh)

| Billing Month | | Metered Quantity (Load), MWh | Spot Quantity (Load), MWh | % | Bilateral Contract Quantity, MWh | % |
|---------------|--------|------------------------------|---------------------------|-----|----------------------------------|-----|
| 104 | Feb-15 | 4,835,678.33 | 336,871.03 | 7% | 4,498,807.30 | 93% |
| 105 | Mar-15 | 4,611,516.38 | 443,965.04 | 10% | 4,167,551.34 | 90% |
| 106 | Apr-15 | 5,287,255.85 | 500,743.87 | 9% | 4,786,511.98 | 91% |

Source: PEMC



Annex 6. WESM Demand and Energy Offers (MW) (Luzon)

| Billing Month | Peak Demand | Coincidental Energy Offers | Average Demand | Average Energy Offers | Average Capacity on Outage | |
|---------------|-------------|----------------------------|----------------|-----------------------|----------------------------|-------|
| 1 | Jul-2006 | 6,111 | 7,185 | 4,778 | 6,242 | 2,634 |
| 2 | Aug-2006 | 5,888 | 5,950 | 4,634 | 6,027 | 2,094 |
| 3 | Sep-2006 | 6,113 | 6,705 | 4,887 | 6,446 | 1,743 |
| 4 | Oct-2006 | 5,895 | 6,653 | 4,323 | 5,818 | 1,866 |
| 5 | Nov-2006 | 5,894 | 5,808 | 4,715 | 5,769 | 2,223 |
| 6 | Dec-2006 | 5,869 | 5,925 | 4,468 | 5,257 | 3,188 |
| 7 | Jan-2007 | 5,739 | 5,794 | 4,407 | 5,250 | 1,815 |
| 8 | Feb-2007 | 6,021 | 5,965 | 4,529 | 5,371 | 1,737 |
| 9 | Mar-2007 | 6,108 | 5,747 | 4,845 | 5,362 | 1,846 |
| 10 | Apr-2007 | 6,559 | 6,268 | 4,991 | 5,284 | 1,769 |
| 11 | May-2007 | 6,590 | 6,831 | 5,249 | 5,766 | 770 |
| 12 | Jun-2007 | 6,547 | 6,308 | 5,187 | 5,631 | 1,137 |
| 13 | Jul-2007 | 6,413 | 5,384 | 5,124 | 5,099 | 1,454 |
| 14 | Aug-2007 | 6,339 | 6,015 | 4,880 | 5,675 | 953 |
| 15 | Sep-2007 | 6,376 | 6,073 | 4,894 | 5,568 | 1,440 |
| 16 | Oct-2007 | 6,103 | 6,260 | 4,872 | 5,723 | 1,725 |
| 17 | Nov-2007 | 6,088 | 5,964 | 4,659 | 5,833 | 1,608 |
| 18 | Dec-2007 | 6,092 | 5,989 | 4,645 | 5,529 | 1,106 |
| 19 | Jan-2008 | 5,949 | 6,495 | 4,564 | 5,594 | 1,166 |
| 20 | Feb-2008 | 6,034 | 5,880 | 4,676 | 5,410 | 1,618 |
| 21 | Mar-2008 | 6,205 | 5,664 | 4,725 | 5,337 | 1,800 |
| 22 | Apr-2008 | 6,619 | 6,584 | 5,301 | 5,949 | 1,149 |
| 23 | May-2008 | 6,590 | 7,141 | 5,035 | 6,344 | 967 |
| 24 | Jun-2008 | 6,681 | 6,733 | 5,159 | 6,639 | 860 |
| 25 | Jul-2008 | 6,512 | 6,401 | 5,164 | 5,909 | 1,168 |
| 26 | Aug-2008 | 6,373 | 6,795 | 4,948 | 6,189 | 1,459 |
| 27 | Sep-2008 | 6,448 | 6,516 | 5,120 | 6,534 | 1,300 |
| 28 | Oct-2008 | 6,520 | 6,316 | 5,124 | 5,825 | 1,845 |
| 29 | Nov-2008 | 6,395 | 6,361 | 4,986 | 5,828 | 1,204 |
| 30 | Dec-2008 | 6,338 | 6,826 | 4,711 | 6,327 | 946 |
| 31 | Jan-2009 | 6,050 | 6,512 | 4,191 | 5,603 | 1,472 |
| 32 | Feb-2009 | 6,421 | 6,240 | 4,853 | 5,969 | 1,281 |
| 33 | Mar-2009 | 6,638 | 6,721 | 5,167 | 6,315 | 1,104 |
| 34 | Apr-2009 | 6,810 | 7,220 | 5,068 | 6,374 | 1,383 |
| 35 | May-2009 | 6,842 | 7,493 | 5,157 | 6,788 | 1,250 |
| 36 | Jun-2009 | 6,932 | 7,374 | 5,203 | 6,876 | 1,432 |
| 37 | Jul-2009 | 6,819 | 7,482 | 5,258 | 6,875 | 980 |
| 38 | Aug-2009 | 6,833 | 7,263 | 5,255 | 6,692 | 1,577 |
| 39 | Sep-2009 | 6,870 | 7,044 | 5,228 | 7,007 | 1,592 |
| 40 | Oct-2009 | 6,501 | 6,532 | 4,935 | 6,511 | 2,427 |
| 41 | Nov-2009 | 6,585 | 7,474 | 5,141 | 6,912 | 1,024 |
| 42 | Dec-2009 | 6,564 | 7,195 | 5,070 | 6,720 | 1,176 |
| 43 | Jan-2010 | 6,391 | 6,266 | 4,902 | 5,813 | 2,071 |
| 44 | Feb-2010 | 6,877 | 6,783 | 5,435 | 5,592 | 2,520 |
| 45 | Mar-2010 | 7,037 | 6,347 | 5,683 | 5,864 | 1,867 |
| 46 | Apr-2010 | 7,296 | 7,169 | 5,574 | 6,079 | 1,696 |
| 47 | May-2010 | 7,558 | 7,152 | 6,101 | 6,932 | 631 |
| 48 | Jun-2010 | 7,643 | 7,791 | 6,027 | 6,618 | 1,245 |
| 49 | Jul-2010 | 7,242 | 7,447 | 5,605 | 6,247 | 1,712 |
| 50 | Aug-2010 | 7,042 | 7,049 | 5,699 | 6,780 | 1,737 |
| 51 | Sep-2010 | 7,039 | 7,170 | 5,656 | 6,480 | 2,193 |
| 52 | Oct-2010 | 7,044 | 6,731 | 5,576 | 5,986 | 2,445 |
| 53 | Nov-2010 | 6,842 | 6,857 | 5,512 | 6,229 | 2,214 |
| 54 | Dec-2010 | 6,902 | 7,028 | 5,543 | 6,354 | 2,121 |
| 55 | Jan-2011 | 6,587 | 6,778 | 5,035 | 6,299 | |
| 56 | Feb-2011 | 6,864 | 7,161 | 5,366 | 6,796 | |
| 57 | Mar-2011 | 6,973 | 7,655 | 5,484 | 7,279 | |
| 58 | Apr-2011 | 7,037 | 7,419 | 5,384 | 6,953 | |
| 59 | May-2011 | 7,507 | 7,326 | 6,059 | 6,892 | |
| 60 | Jun-2011 | 7,530 | 7,338 | 5,828 | 6,964 | |
| 61 | Jul-2011 | 7,404 | 7,742 | 5,814 | 6,722 | |
| 62 | Aug-2011 | 7,188 | 7,394 | 5,699 | 6,847 | |
| 63 | Sep-2011 | 7,099 | 7,039 | 5,686 | 6,789 | |
| 64 | Oct-2011 | 7,219 | 7,252 | 5,594 | 6,552 | |
| 65 | Nov-2011 | 7,193 | 7,157 | 5,713 | 7,015 | |
| 66 | Dec-2011 | 7,137 | 7,154 | 5,610 | 6,896 | |
| 67 | Jan-2012 | 7,034 | 6,978 | 5,395 | 6,622 | |

| Billing Month | | Peak Demand | Coincidental Energy Offers | Average Demand | Average Energy Offers | Average Capacity on Outage |
|---------------|----------|-------------|----------------------------|----------------|-----------------------|----------------------------|
| 68 | Feb-2012 | 7,164 | 7,635 | 5,650 | 7,183 | |
| 69 | Mar-2012 | 7,500 | 7,935 | 5,942 | 7,289 | |
| 70 | Apr-12 | 7,894 | 7,590 | 5,939 | 7,251 | |
| 71 | May-12 | 7,898 | 7,660 | 6,484 | 6,985 | |
| 72 | Jun-12 | 7,685 | 6,987 | 6,220 | 6,710 | |
| 73 | Jul-12 | 7,564 | 7,098 | 5,976 | 6,700 | |
| 74 | Aug-12 | 7,244 | 7,895 | 5,488 | 7,667 | |
| 75 | Sep-12 | 7,298 | 7,244 | 5,849 | 7,345 | |
| 76 | Oct-12 | 7,394 | 7,426 | 5,949 | 7,220 | |
| 77 | Nov-12 | 7,434 | 7,071 | 5,878 | 7,239 | |
| 78 | Dec-12 | 7,362 | 7,002 | 5,958 | 7,044 | |
| 79 | Jan-13 | 7,031 | 7,746 | 5,461 | 7,048 | |
| 80 | Feb-13 | 7,242 | 7,831 | 5,797 | 7,349 | |
| 81 | Mar-13 | 7,684 | 7,440 | 6,147 | 7,387 | |
| 82 | Apr-13 | 8,232 | 7,674 | 6,469 | 7,270 | |
| 83 | May-13 | 8,237 | 7,642 | 6,674 | 7,536 | |
| 84 | June-13 | 8,178 | 8,253 | 6,543 | 7,774 | |
| 85 | July-13 | 8,017 | 8,474 | 6,461 | 8,448 | |
| 86 | Aug-13 | 7,764 | 8,560 | 5,969 | 7,892 | |
| 87 | Sep-13 | 7,918 | 8,980 | 6,125 | 8,099 | |
| 88 | Oct-13 | 7,582 | 7,777 | 6,072 | 7,170 | |
| 89 | Nov-13 | 7,495 | 7,622 | 5,960 | 7,110 | |
| 90 | Dec-13 | 7,606 | 8,384 | 6,044 | 7,227 | |
| 91 | Jan-14 | 7,066 | 8,160 | 5,418 | 7,933 | |
| 92 | Feb-14 | 7,475 | 8,604 | 5,788 | 8,031 | |
| 93 | Mar-14 | 7,639 | 7,798 | 6,077 | 7,018 | |
| 94 | Apr-14 | 8,203 | 7,792 | 6,425 | 6,975 | |
| 95 | May-14 | 8,671 | 8,388 | 6,985 | 7,734 | |
| 96 | Jun-14 | 8,589 | 8,120 | 6,866 | 7,506 | |
| 97 | Jul-14 | 8,254 | 6,995 | 6,171 | 6,499 | |
| 98 | Aug-14 | 8,180 | 7,894 | 6,361 | 7,514 | |
| 99 | Sep-14 | 7,955 | 8,364 | 6,328 | 7,667 | |
| 100 | Oct-14 | 7,952 | 7,840 | 6,452 | 7,968 | |
| 101 | Nov-14 | 7,974 | 8,656 | 6,386 | 8,085 | |
| 102 | Dec-14 | 7,985 | 8,474 | 6,143 | 8,204 | |
| 103 | Jan-15 | 7,306 | 7,524 | 5,496 | 7,225 | |
| 104 | Feb-15 | 7,514 | 8,004 | 5,995 | 7,167 | |
| 105 | Mar-15 | 7,822 | 8,484 | 6,351 | 7,567 | |
| 106 | Apr-15 | 8,673 | 8,624 | 6,579 | 7,961 | |

Source: PEMC



Annex 7. WESM Demand and Energy Offers (MW) (Visayas)

| Billing Month | Peak Demand | Coincidental Energy Offers | Average Demand | Average Energy Offers | Average Capacity on Outage |
|---------------|-------------|----------------------------|----------------|-----------------------|----------------------------|
| 55 | Jan-2011 | 1,264 | 1,305 | 948 | 1,243 |
| 56 | Feb-2011 | 1,282 | 1,272 | 968 | 1,207 |
| 57 | Mar-2011 | 1,309 | 1,389 | 999 | 1,277 |
| 58 | Apr-2011 | 1,346 | 1,511 | 1,004 | 1,363 |
| 59 | May-2011 | 1,383 | 1,493 | 1,087 | 1,434 |
| 60 | Jun-2011 | 1,356 | 1,490 | 1,069 | 1,446 |
| 61 | Jul-2011 | 1,381 | 1,560 | 1,071 | 1,490 |
| 62 | Aug-2011 | 1,355 | 1,587 | 1,051 | 1,509 |
| 63 | Sep-2011 | 1,405 | 1,511 | 1,085 | 1,559 |
| 64 | Oct-2011 | 1,377 | 1,532 | 1,064 | 1,494 |
| 65 | Nov-2011 | 1,407 | 1,669 | 1,076 | 1,460 |
| 66 | Dec-2011 | 1,447 | 1,618 | 1,084 | 1,527 |
| 67 | Jan-2012 | 1,369 | 1,586 | 1,020 | 1,527 |
| 68 | Feb-2012 | 1,348 | 1,605 | 1,024 | 1,531 |
| 69 | Mar-2012 | 1,369 | 1,600 | 1,069 | 1,532 |
| 70 | Apr-12 | 1,460 | 1,710 | 1,085 | 1,603 |
| 71 | May-12 | 1,444 | 1,647 | 1,153 | 1,600 |
| 72 | Jun-12 | 1,423 | 1,728 | 1,118 | 1,618 |
| 73 | Jul-12 | 1,436 | 1,539 | 1,100 | 1,519 |
| 74 | Aug-12 | 1,462 | 1,623 | 1,130 | 1,547 |
| 75 | Sep-12 | 1,448 | 1,651 | 1,119 | 1,531 |
| 76 | Oct-12 | 1,425 | 1,488 | 1,123 | 1,482 |
| 77 | Nov-12 | 1,467 | 1,503 | 1,125 | 1,496 |
| 78 | Dec-12 | 1,486 | 1,703 | 1,113 | 1,541 |
| 79 | Jan-13 | 1,417 | 1,729 | 1,087 | 1,607 |
| 80 | Feb-13 | 1,408 | 1,706 | 1,075 | 1,584 |
| 81 | Mar-13 | 1,475 | 1,754 | 1,153 | 1,641 |
| 82 | Apr-13 | 1,484 | 1,598 | 1,176 | 1,552 |
| 83 | May-13 | 1,572 | 1,557 | 1,249 | 1,625 |
| 84 | June-13 | 1,526 | 1,671 | 1,187 | 1,575 |
| 85 | July-13 | 1,510 | 1,660 | 1,176 | 1,585 |
| 86 | Aug-13 | 1,499 | 1,622 | 1,148 | 1,565 |
| 87 | Sep-13 | 1,528 | 1,692 | 1,194 | 1,575 |
| 88 | Oct-13 | 1,458 | 1,664 | 1,140 | 1,466 |
| 89 | Nov-13 | 1,489 | 1,611 | 936 | 1,487 |
| 90 | Dec-13 | 1,260 | 1,247 | 953 | 1,190 |
| 91 | Jan-14 | 1,294 | 1,346 | 942 | 1,312 |
| 92 | Feb-14 | 1,307 | 1,463 | 971 | 1,370 |
| 93 | Mar-14 | 1,367 | 1,565 | 1,068 | 1,511 |
| 94 | Apr-14 | 1,472 | 1,604 | 1,127 | 1,545 |
| 95 | May-14 | 1,512 | 1,586 | 1,235 | 1,514 |
| 96 | Jun-14 | 1,535 | 1,524 | 1,239 | 1,481 |
| 97 | Jul-14 | 1,453 | 1,478 | 1,158 | 1,420 |
| 98 | Aug-14 | 1,532 | 1,540 | 1,187 | 1,450 |
| 99 | Sep-14 | 1,487 | 1,555 | 1,159 | 1,477 |
| 100 | Oct-14 | 1,462 | 1,476 | 1,131 | 1,392 |
| 101 | Nov-14 | 1,550 | 1,505 | 1,172 | 1,419 |
| 102 | Dec-14 | 1,487 | 1,475 | 1,095 | 1,447 |
| 103 | Jan-15 | 1,373 | 1,487 | 1,032 | 1,364 |
| 104 | Feb-15 | 1,349 | 1,459 | 1,051 | 1,330 |
| 105 | Mar-15 | 1,468 | 1,510 | 1,107 | 1,334 |
| 106 | Apr-15 | 1,518 | 1,535 | 1,157 | 1,478 |

Source: PEMC

Annex 8. WESM Generation Mix (%)

| Billing Month | Hydro | Geo | Coal | Nat Gas | Diesel/Oil | Wind | Biofuel | Solar |
|---------------|--------|--------|--------|---------|------------|--------|---------|--------|
| 1 | Jul-06 | 12.53% | 9.28% | 33.67% | 43.16% | 1.27% | 0.09% | |
| 2 | Aug-06 | 21.78% | 8.89% | 24.27% | 44.91% | 0.08% | 0.07% | |
| 3 | Sep-06 | 18.37% | 9.29% | 29.71% | 42.49% | 0.09% | 0.04% | |
| 4 | Oct-06 | 13.81% | 6.34% | 28.65% | 49.74% | 1.25% | 0.21% | |
| 5 | Nov-06 | 15.72% | 7.03% | 26.93% | 47.25% | 2.90% | 0.17% | |
| 6 | Dec-06 | 17.15% | 6.58% | 30.53% | 35.12% | 10.24% | 0.38% | |
| 7 | Jan-07 | 11.72% | 6.61% | 30.30% | 50.47% | 0.61% | 0.30% | |
| 8 | Feb-07 | 10.76% | 9.57% | 28.08% | 49.97% | 1.46% | 0.15% | |
| 9 | Mar-07 | 8.62% | 9.46% | 33.48% | 45.65% | 2.66% | 0.14% | |
| 10 | Apr-07 | 6.67% | 8.83% | 31.52% | 46.03% | 6.84% | 0.11% | |
| 11 | May-07 | 5.12% | 7.47% | 36.34% | 48.21% | 2.80% | 0.06% | |
| 12 | Jun-07 | 9.29% | 8.88% | 32.39% | 44.63% | 4.80% | 0.02% | |
| 13 | Jul-07 | 8.93% | 9.57% | 32.21% | 39.69% | 9.56% | 0.04% | |
| 14 | Aug-07 | 9.29% | 10.14% | 33.72% | 44.87% | 1.88% | 0.09% | |
| 15 | Sep-07 | 11.80% | 10.62% | 29.68% | 47.24% | 0.61% | 0.04% | |
| 16 | Oct-07 | 16.15% | 11.26% | 31.15% | 39.86% | 1.35% | 0.23% | |
| 17 | Nov-07 | 17.07% | 11.54% | 31.76% | 38.46% | 0.91% | 0.28% | |
| 18 | Dec-07 | 16.09% | 11.71% | 30.97% | 37.42% | 3.61% | 0.20% | |
| 19 | Jan-08 | 11.32% | 11.60% | 31.77% | 43.24% | 1.83% | 0.25% | |
| 20 | Feb-08 | 11.76% | 11.48% | 29.86% | 43.77% | 2.86% | 0.26% | |
| 21 | Mar-08 | 11.92% | 10.85% | 21.28% | 52.86% | 2.88% | 0.21% | |
| 22 | Apr-08 | 7.68% | 9.93% | 29.26% | 48.43% | 4.63% | 0.07% | |
| 23 | May-08 | 12.08% | 10.07% | 27.65% | 49.28% | 0.85% | 0.08% | |
| 24 | Jun-08 | 14.92% | 10.23% | 28.65% | 45.09% | 1.09% | 0.03% | |
| 25 | Jul-08 | 12.88% | 9.40% | 29.65% | 42.99% | 5.04% | 0.04% | |
| 26 | Aug-08 | 15.07% | 11.42% | 21.23% | 47.02% | 5.18% | 0.08% | |
| 27 | Sep-08 | 14.91% | 10.41% | 24.68% | 45.40% | 4.54% | 0.05% | |
| 28 | Oct-08 | 15.37% | 9.31% | 32.54% | 39.82% | 2.84% | 0.12% | |
| 29 | Nov-08 | 10.92% | 9.59% | 36.02% | 40.69% | 2.61% | 0.18% | |
| 30 | Dec-08 | 11.44% | 9.28% | 33.34% | 45.08% | 0.57% | 0.29% | |
| 31 | Jan-09 | 11.61% | 12.99% | 36.68% | 37.97% | 0.34% | 0.40% | |
| 32 | Feb-09 | 10.16% | 10.24% | 35.38% | 42.23% | 1.81% | 0.17% | |
| 33 | Mar-09 | 7.77% | 10.10% | 32.95% | 46.79% | 2.31% | 0.09% | |
| 34 | Apr-09 | 6.17% | 9.72% | 32.54% | 46.65% | 4.76% | 0.15% | |
| 35 | May-09 | 11.42% | 8.92% | 29.58% | 44.95% | 4.95% | 0.17% | |
| 36 | Jun-09 | 14.27% | 8.46% | 26.88% | 45.88% | 4.44% | 0.08% | |
| 37 | Jul-09 | 13.85% | 8.33% | 30.58% | 45.82% | 1.38% | 0.04% | |
| 38 | Aug-09 | 17.95% | 7.75% | 26.92% | 43.92% | 3.42% | 0.04% | |
| 39 | Sep-09 | 17.01% | 7.12% | 24.69% | 47.59% | 3.56% | 0.04% | |
| 40 | Oct-09 | 21.46% | 8.08% | 20.64% | 46.80% | 2.92% | 0.11% | |
| 41 | Nov-09 | 11.41% | 8.84% | 30.12% | 46.82% | 2.62% | 0.19% | |
| 42 | Dec-09 | 9.76% | 8.91% | 30.80% | 48.50% | 1.79% | 0.24% | |
| 43 | Jan-10 | 9.58% | 9.76% | 30.48% | 45.93% | 3.97% | 0.28% | |
| 44 | Feb-10 | 8.19% | 8.04% | 42.71% | 32.69% | 8.27% | 0.10% | |
| 45 | Mar-10 | 6.45% | 8.56% | 46.90% | 28.70% | 9.30% | 0.08% | |
| 46 | Apr-10 | 4.53% | 7.46% | 43.11% | 37.75% | 7.00% | 0.15% | |
| 47 | May-10 | 3.86% | 6.51% | 44.52% | 40.50% | 4.57% | 0.04% | |
| 48 | Jun-10 | 4.69% | 6.46% | 42.54% | 40.69% | 5.58% | 0.04% | |
| 49 | Jul-10 | 8.75% | 6.47% | 35.74% | 41.20% | 7.81% | 0.02% | |
| 50 | Aug-10 | 11.25% | 6.51% | 35.38% | 41.44% | 5.28% | 0.14% | |
| 51 | Sep-10 | 11.36% | 6.56% | 33.22% | 44.17% | 4.62% | 0.06% | |
| 52 | Oct-10 | 9.87% | 7.46% | 33.21% | 43.92% | 5.46% | 0.08% | |
| 53 | Nov-10 | 12.15% | 7.51% | 34.93% | 42.51% | 2.64% | 0.26% | |
| 54 | Dec-10 | 9.70% | 7.70% | 37.60% | 42.70% | 2.00% | 0.30% | |
| 55 | Jan-11 | 8.30% | 18.00% | 39.10% | 33.10% | 1.10% | 0.30% | 0.006% |
| 56 | Feb-11 | 7.66% | 16.58% | 34.94% | 39.66% | 0.93% | 0.22% | 0.009% |
| 57 | Mar-11 | 7.07% | 15.25% | 38.49% | 38.16% | 0.72% | 0.25% | 0.071% |
| 58 | Apr-11 | 8.3% | 18.0% | 39.8% | 32.9% | 0.7% | 0.312% | 0.013% |
| 59 | May-11 | 7.6% | 16.7% | 35.0% | 39.4% | 1.0% | 0.218% | 0.023% |
| 60 | Jun-11 | 7.1% | 15.2% | 38.4% | 38.0% | 1.1% | 0.239% | 0.050% |
| 61 | Jul-11 | 5.6% | 15.9% | 39.8% | 37.6% | 0.8% | 0.219% | 0.122% |
| 62 | Aug-11 | 4.4% | 14.6% | 42.2% | 35.7% | 2.9% | 0.056% | 0.036% |
| 63 | Sep-11 | 5.8% | 15.1% | 41.1% | 36.9% | 1.0% | 0.049% | 0.000% |
| 64 | Oct-11 | 13.7% | 14.3% | 34.6% | 34.3% | 3.1% | 0.100% | 0.006% |

Annex 8. WESM Generation Mix (%)

| Billing Month | Hydro | Geo | Coal | Nat Gas | Diesel/Oil | Wind | Biofuel | Solar |
|---------------|---------|--------|--------|---------|------------|-------|---------|--------|
| 65 | Nov-11 | 10.7% | 14.5% | 36.5% | 36.6% | 1.4% | 0.196% | 0.059% |
| 66 | Dec-11 | 10.2% | 15.5% | 37.6% | 34.9% | 1.4% | 0.294% | 0.086% |
| 67 | Jan-12 | 9.0% | 16.2% | 36.0% | 37.0% | 1.4% | 0.285% | 0.089% |
| 68 | Feb-12 | 8.0% | 15.8% | 39.0% | 35.8% | 1.1% | 0.167% | 0.115% |
| 69 | Mar-12 | 6.8% | 16.1% | 40.1% | 35.3% | 1.6% | 0.128% | 0.088% |
| 70 | Apr-12 | 6.0% | 15.7% | 42.5% | 33.4% | 2.1% | 0.118% | 0.065% |
| 71 | May-12 | 5.5% | 14.4% | 42.9% | 33.3% | 4.0% | 0.018% | 0.012% |
| 72 | Jun-12 | 7.00% | 14.86% | 41.28% | 32.86% | 3.87% | 0.10% | 0.01% |
| 73 | Jul-12 | 8.99% | 15.52% | 41.23% | 31.17% | 3.06% | 0.03% | 0.01% |
| 74 | Aug-12 | 16.22% | 15.53% | 35.17% | 32.30% | 0.63% | 0.14% | 0.00% |
| 75 | Sep-12 | 14.78% | 14.56% | 35.95% | 33.03% | 1.61% | 0.07% | 0.00% |
| 76 | Oct-12 | 9.59% | 14.74% | 40.85% | 32.29% | 2.29% | 0.19% | 0.04% |
| 77 | Nov-12 | 8.63% | 14.98% | 44.72% | 29.34% | 2.08% | 0.14% | 0.10% |
| 78 | Dec-12 | 7.6% | 14.7% | 45.2% | 28.4% | 3.9% | 0.2% | 0.1% |
| 79 | Jan-13 | 8.0% | 16.1% | 38.8% | 36.2% | 0.5% | 0.2% | 0.1% |
| 80 | Feb-13 | 7.0% | 16.2% | 43.3% | 32.8% | 0.4% | 0.2% | 0.2% |
| 81 | Mar-13 | 6.3% | 14.4% | 45.6% | 32.2% | 1.3% | 0.1% | 0.2% |
| 82 | Apr-13 | 5.6% | 14.3% | 45.4% | 31.1% | 3.3% | 0.1% | 0.1% |
| 83 | May-13 | 5.8% | 13.7% | 46.3% | 31.5% | 2.5% | 0.0% | 0.0% |
| 84 | June-13 | 6.7% | 13.5% | 48.8% | 29.4% | 1.6% | 0.019% | 0.021% |
| 85 | July-13 | 7.6% | 13.2% | 49.9% | 28.8% | 0.5% | 0.029% | 0.009% |
| 86 | Aug-13 | 11.0% | 14.6% | 43.0% | 30.3% | 1.0% | 0.077% | 0.002% |
| 87 | Sep-13 | 15.5% | 14.7% | 40.3% | 28.6% | 0.9% | 0.057% | 0.011% |
| 88 | Oct-13 | 12.6% | 14.6% | 37.1% | 32.4% | 3.0% | 0.110% | 0.106% |
| 89 | Nov-13 | 9.9% | 10.7% | 48.9% | 25.7% | 4.5% | 0.194% | 0.129% |
| 90 | Dec-13 | 10.2% | 10.0% | 48.3% | 24.8% | 6.2% | 0.208% | 0.188% |
| 91 | Jan-14 | 8.5% | 12.9% | 44.3% | 33.0% | 0.9% | 0.220% | 0.154% |
| 92 | Feb-14 | 7.7% | 14.3% | 44.8% | 32.0% | 0.9% | 0.154% | 0.237% |
| 93 | Mar-14 | 5.9% | 15.2% | 47.3% | 27.7% | 3.5% | 0.151% | 0.277% |
| 94 | Apr-14 | 4.5% | 14.3% | 45.6% | 27.9% | 7.4% | 0.06% | 0.19% |
| 95 | May-14 | 4.0% | 14.4% | 47.4% | 28.0% | 6.0% | 0.04% | 0.12% |
| 96 | Jun-14 | 6.1% | 15.1% | 44.8% | 28.2% | 5.7% | 0.06% | 0.06% |
| 97 | Jul-14 | 6.3% | 15.2% | 42.0% | 27.5% | 8.9% | 0.07% | 0.04% |
| 98 | Aug-14 | 7.5% | 13.4% | 45.3% | 30.8% | 2.9% | 0.10% | 0.08% |
| 99 | Sep-14 | 10.4% | 13.9% | 44.0% | 29.0% | 2.6% | 0.05% | 0.11% |
| 100 | Oct-14 | 10.0% | 14.5% | 43.2% | 30.2% | 1.9% | 0.14% | 0.12% |
| 101 | Nov-14 | 6.3% | 15.0% | 47.7% | 28.5% | 1.3% | 0.91% | 0.29% |
| 102 | Dec-14 | 6.9% | 14.8% | 46.4% | 29.5% | 0.8% | 1.36% | .30% |
| 103 | Jan-15 | 8.0% | 16.1% | 44.2% | 28.7% | 1.1% | 1.58% | 0.32% |
| 104 | Feb-15 | 6.6% | 15.5% | 43.1% | 30.7% | 2.3% | 1.32% | 0.44% |
| 105 | Mar-15 | 5.7% | 15.1% | 46.9% | 27.9% | 3.0% | 0.91% | 0.47% |
| 106 | Apr-15 | 4.3% | 14.7% | 53.4% | 24.2% | 1.9% | 1.00% | 0.28% |

Source: PEMC

Annex 9. WESM Effective Settlement Prices (PhP/MWh)

| Billing Month | ESP (w/ Surplus) | ESP (w/o Surplus) | Cumulative Average ESP | |
|---------------|------------------|-------------------|------------------------|-------|
| 1 | Jul-06 | 3,255.36 | 3,094.12 | 3,152 |
| 2 | Aug-06 | 3,767.94 | 3,577.67 | 3,373 |
| 3 | Sep-06 | 4,129.05 | 4,129.05 | 3,624 |
| 4 | Oct-06 | 4,159.09 | 4,159.09 | 3,750 |
| 5 | Nov-06 | 6,092.03 | 5,746.92 | 4,115 |
| 6 | Dec-06 | 9,807.99 | 8,731.92 | 4,542 |
| 7 | Jan-07 | 3,981.62 | 3,791.67 | 4,481 |
| 8 | Feb-07 | 4,932.45 | 4,810.36 | 4,501 |
| 9 | Mar-07 | 5,936.19 | 5,370.34 | 4,560 |
| 10 | Apr-07 | 8,738.61 | 8,592.97 | 4,871 |
| 11 | May-07 | 7,555.25 | 6,484.51 | 4,962 |
| 12 | Jun-07 | 7,164.04 | 6,031.63 | 5,062 |
| 13 | Jul-07 | 8,768.71 | 8,350.31 | 5,223 |
| 14 | Aug-07 | 4,626.97 | 4,348.65 | 5,196 |
| 15 | Sep-07 | 4,309.14 | 3,538.37 | 5,147 |
| 16 | Oct-07 | 6,244.44 | 3,599.09 | 5,119 |
| 17 | Nov-07 | 5,276.00 | 2,618.23 | 5,056 |
| 18 | Dec-07 | 6,793.73 | 6,425.61 | 5,098 |
| 19 | Jan-08 | 2,551.23 | 2,278.66 | 5,010 |
| 20 | Feb-08 | 5,729.20 | 5,389.93 | 5,024 |
| 21 | Mar-08 | 6,723.81 | 6,373.18 | 5,060 |
| 22 | Apr-08 | 6,006.01 | 5,545.63 | 5,085 |
| 23 | May-08 | 2,315.63 | 1,734.50 | 5,005 |
| 24 | Jun-08 | 3,370.16 | 2,100.68 | 4,933 |
| 25 | Jul-08 | 16,600.93 | 7,872.34 | 5,037 |
| 26 | Aug-08 | 4,124.77 | 4,124.77 | 5,016 |
| 27 | Sep-08 | 3,911.62 | 3,911.62 | 4,981 |
| 28 | Oct-08 | 4,009.38 | 4,009.38 | 4,955 |
| 29 | Nov-08 | 5,520.95 | 4,833.61 | 4,954 |
| 30 | Dec-08 | 1,244.97 | 786.69 | 4,831 |
| 31 | Jan-09 | 1,881.33 | 1,797.76 | 4,733 |
| 32 | Feb-09 | 3,062.87 | 2,893.06 | 4,662 |
| 33 | Mar-09 | 3,395.09 | 2,774.35 | 4,614 |
| 34 | Apr-09 | 4,350.10 | 3,798.38 | 4,598 |
| 35 | May-09 | 2,871.07 | 2,516.38 | 4,548 |
| 36 | Jun-09 | 2,519.61 | 2,207.39 | 4,497 |
| 37 | Jul-09 | 3,294.88 | 2,041.02 | 4,459 |
| 38 | Aug-09 | 2,291.13 | 1,986.39 | 4,395 |
| 39 | Sep-09 | 2,080.29 | 1,148.78 | 4,328 |
| 40 | Oct-09 | 1,445.37 | 1,396.63 | 4,264 |
| 41 | Nov-09 | 2,287.51 | 2,089.83 | 4,221 |
| 42 | Dec-09 | 3,656.20 | 3,304.74 | 4,205 |
| 43 | Jan-10 | 4,559.03 | 4,425.10 | 4,209 |
| 44 | Feb-10 | 11,286.94 | 10,999.48 | 4,393 |
| 45 | Mar-10 | 13,383.73 | 12,253.53 | 4,541 |
| 46 | Apr-10 | 8,873.98 | 8,725.72 | 4,635 |
| 47 | May-10 | 8,467.56 | 7,933.40 | 4,714 |
| 48 | Jun-10 | 8,737.16 | 8,265.95 | 4,807 |
| 49 | Jul-10 | 10,542.92 | 9,089.57 | 4,902 |
| 50 | Aug-10 | 5,952.68 | 5,034.90 | 4,906 |
| 51 | Sep-10 | 8,980.91 | 7,508.47 | 4,936 |
| 52 | Oct-10 | 10,276.10 | 9,543.00 | 4,993 |
| 53 | Nov-10 | 7,492.27 | 7,011.72 | 5,024 |
| 54 | Dec-10 | 6,824.19 | 6,394.00 | 5,043 |
| 55 | Jan-11 | 3,388 | | |
| 56 | Feb-11 | 3,453 | | |
| 57 | Mar-11 | 2,554 | | |
| 58 | Apr-11 | 3,404 | | |
| 59 | May-11 | 6,408 | | |
| 60 | Jun-11 | 4,189 | | |
| 61 | Jul-11 | 5,179 | | |
| 62 | Aug-11 | 4,395 | | |
| 63 | Sep-11 | 5,035 | | |
| 64 | Oct-11 | 8,192 | | |
| 65 | Nov-11 | 6,050 | | |
| 66 | Dec-11 | 5,548 | | |
| 67 | Jan-12 | 6,321 | | |
| 68 | Feb-12 | 4,122 | | |
| 69 | Mar-12 | 5,405 | | |



| Billing Month | ESP (w/ Surplus) | ESP (w/o Surplus) | Cumulative Average ESP |
|---------------|------------------|-------------------|------------------------|
| 70 | Apr-12 | 4,300 | |
| 71 | May-12 | 8,914 | |
| 72 | Jun-12 | 12,667 | |
| 73 | Jul-12 | 10,725 | |
| 74 | Aug-12 | 3,572 | |
| 75 | Sep-12 | 5,806 | |
| 76 | Oct-12 | 7,543 | |
| 77 | Nov-12 | 7,015 | |
| 78 | Dec-12 | 8,057 | |
| 79 | Jan-13 | 3,262 | |
| 80 | Feb-13 | 3,163 | |
| 81 | Mar-13 | 5,719 | |
| 82 | Apr-13 | 7,740 | |
| 83 | May-13 | 6,838 | |
| 84 | June-13 | 5,780 | |
| 85 | July-13 | 3,737 | |
| 86 | Aug-13 | 4,439 | |
| 87 | Sep-13 | 3,726 | |
| 88 | Oct-13 | 8,253 | |
| 89 | Nov-13 | 16,895 | |
| 90 | Dec-13 | 25,667 | |
| 91 | Jan-14 | 2,655 | |
| 92 | Feb-14 | 2,853 | |
| 93 | Mar-14 | 9,123 | |
| 94 | Apr-14 | 12,297 | |
| 95 | May-14 | 4,677 | |
| 96 | Jun-14 | 6,716 | |
| 97 | Jul-14 | 7,971 | |
| 98 | Aug-14 | 5,541 | |
| 99 | Sep-14 | 5,581 | |
| 100 | Oct-14 | 3,661 | |
| 101 | Nov-14 | 3,532 | |
| 102 | Dec-14 | 2,314 | |
| 103 | Jan-15 | 3,883 | |
| 104 | Feb-15 | 6,446 | |
| 105 | Mar-15 | 5,531 | |
| 106 | Apr-15 | 3,092 | |

Source: PEMC



Annex 10. Private Sector Initiated Power Projects in Luzon (COMMITTED) as of 31 March 2015

| Name of the Project/Project Proponent/Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|--|---------------------|--|--------------------------------|--|
| COAL | 1,372.00 | | | |
| 135 MW Puting Bato Coal Fired Power Plant Phase II/ South Luzon Thermal Energy Corp. (SLTEC)/ Brgy. Puting Bato West, Calaca, Batangas | 135 | <ul style="list-style-type: none"> ▪ Financial Arrangement Secured on 28 October 2014; ▪ GIS approved by NGCP on 17 May 2013; ▪ Started Construction on December 2011; ▪ Construction Duration - 32 Months; ▪ 230kV Salong Switching Station owned by NGCP is tied up with SLTEC; 230 kV Salong Switching Station energized Bay 1; ▪ All test are made for the 230kV switchyard; Generator is for final alignment; All materials for the project is for installation; Hydro test and thermal insulation in boiler completed; On-going air ducting and insulation for ESP; ▪ EPC works as of 31 August 2014- 98.88% completed; ▪ Construction Progress: Commissioning of installed equipments; On-going commissioning of steam blowing, water treatment and saltwater intake; All materials need are installed; On-going air ducting and insulation for ESP; ▪ Ash Management Facility Completion - 30 April 2014; ▪ Ground breaking - February 2012; ▪ Project cost is Php12.9B | January 2015 | February 2015 |
| 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 | <ul style="list-style-type: none"> ▪ 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 31 of construction or approximately 94% 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 | February 2015 | Unit 1 - 30 June, 2015 Unit 2 - 31 March 2015 |
| 2 X 100 MW Southern Mindanao Coal Fired Power Station/ Sarangani Energy Corporation/ Brgy. Kamanga, Maasim, Sarangani | 200 | <ul style="list-style-type: none"> ▪ 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.; ▪ 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), | Phase 1 - June 2015 (100MW) | Phase 1 - October 2015 |

| | | | |
|---|--|--|--|
| <p>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;</p> <ul style="list-style-type: none"> ▪ 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 Corporation (CHC) and Alsons Consolidated Resources(ACR); ▪ On-going Civil Works; ▪ Phase 2: Notice to proceed construction is yet to be issued this 2015 (most likely 2nd Quarter) ▪ Project cost \$450M; | | | <p>1st Unit -June 2016 2nd Unit -September 2016 3rd Unit -December 2016</p> |
| <p>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 Certificate 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 Locational Clearance from Villanueva;Negotiation for Foreshore Lease was completed;-Off-taker;Contracted approximately 98 % of the net output of the first three units of the project (As of 20 October 2014);On-going electric power purchase agreement negotiation 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 anchor 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, and steel structures;Ongoing 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;</p> <ul style="list-style-type: none"> ▪ On-going securing of necessary permits and clearances; On-going construction/installation-Project Status as of 17 October 2014; 17.52% completed;-Project cost PHP 30.019B; | <p>1st Unit - December 2015 2nd Unit - March 2016 3rd Unit - June 2016</p> | <p>Unit 1 - February 2016 Unit 2 -August 2016 (subject for validation with EPC Contractor)</p> | <p>1st Unit -June 2016 2nd Unit -September 2016 3rd Unit -December 2016</p> |
| <p>3 X 135 MW FDC- Misamis Circulating Fluidized Bed (CFB) Coal-Fired Power Plant Project/ FDC Utilities, Inc./ Phividec Industrial Estate, Villanueva, Misamis Oriental</p> | <p>405</p> | <p>On-going construction; Project Status (over-all) as of 26 September 2014 -92.37%;</p> <ul style="list-style-type: none"> ▪ On-going construction; Project Status (over-all) as of 26 September 2014 -92.37%; ▪ Groundbreaking held last 15 July 2013; ▪ Land acquisition completed; Groundbreaking was 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 26 September 2014 is 92.37%; Construction Activities of Unit 1&2 x 150MW Power Plant - 9.95%; Design and Construction of Pier and Jetty Structure is 73.41%; Engineering Design & Manufacturing of Parts - 83.02%;Right-of-Way Acquisition Status-20.01%;; Ash Dump Design and Construction - 100% | <p>Unit 1 - February 2016 Unit 2 -August 2016 (subject for validation with EPC Contractor)</p> |
| <p>300 MW SMC Davao Power Plant Project Phase I 2x150MW/ San Miguel Consolidated Power Corporation/ Brgy. Culaman, Malita, Davao del Sur</p> | <p>300</p> | <p>On-going construction; Project Status (over-all) as of 26 September 2014 -92.37%;</p> <ul style="list-style-type: none"> ▪ On-going construction; Project Status (over-all) as of 26 September 2014 -92.37%; ▪ Groundbreaking held last 15 July 2013; ▪ Land acquisition completed; Groundbreaking was 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 26 September 2014 is 92.37%; Construction Activities of Unit 1&2 x 150MW Power Plant - 9.95%; Design and Construction of Pier and Jetty Structure is 73.41%; Engineering Design & Manufacturing of Parts - 83.02%;Right-of-Way Acquisition Status-20.01%;; Ash Dump Design and Construction - 100% | <p>Unit 1 - February 2016 Unit 2 -August 2016 (subject for validation with EPC Contractor)</p> |

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|---|------------|--|----------------------|----------------------|
| <p>GNPower Kauswagan Ltd. 540MW Clean Coal-Fired Power Plant/ GN Power Kauswagan Ltd. Co./ Kauswagan, Lanao del Norte</p> | <p>540</p> | <ul style="list-style-type: none"> ▪ 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 Undertake GIS from DOE issued on 29 August 2011; ▪ On-going civil works construction/installation; ▪ Target Completion Date of Transmission Connection on March 2016; ▪ Project cost is \$630M / Php25.8B | <p>February 2017</p> | <p>December 2017</p> |
| <p>GNPower Kauswagan Ltd. 540MW Clean Coal-Fired Power Plant/ GN Power Kauswagan Ltd. Co./ Kauswagan, Lanao del Norte</p> | <p>540</p> | <ul style="list-style-type: none"> ▪ 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 Undertake GIS from DOE issued on 28 June 2013.; NGCP has completed the System Impact Study for 4x150MW (gross capacity); Facility study to be performed next; ▪ 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 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 GNPower Ltd. Co (Permits assigned from GNPower Ltd.Co. to GNPower Kauswagan Ltd.Co., DENR Environmental Compliance Certificate, CAAP Height Clearance,DOE Clearance to undertake SIS for 3x125MW, DOE Certificate of Endorsement for NCIP Application for Certificate of Non-Overlap, Mindanao Development Authority Endorsement, LGU Endorsements); Other permits obtained for the project: Clearance to Develop Port Facility;Permit to Drill) were transferred and assigned to the Project Company, GN Power Kauswagan Ltd. Co. by virtue of a Project Assignment/Agreement; ▪ 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 to be issued to the EPC contractor by November 2014; ▪ Total Project Cost - US\$740 Million | <p>February 2017</p> | <p>December 2017</p> |
| <p>GNPower Kauswagan Ltd. 540MW Clean Coal-Fired Power Plant/ GN Power Kauswagan Ltd. Co./ Kauswagan, Lanao del Norte</p> | <p>540</p> | <ul style="list-style-type: none"> ▪ 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 Undertake GIS from DOE issued on 28 June 2013.; NGCP has completed the System Impact Study for 4x150MW (gross capacity); Facility study to be performed next; ▪ 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 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; | <p>February 2017</p> | <p>December 2017</p> |

| | | | |
|--|--|---|---|
| | <p>01 dated 6 January 2014 (Brgy. San Isidro); 18th Sangguniang Bayan Resolution No.2014-24 dated 29 January 2014 (Municipality of San Francisco); Bureau of Customs, Certi. of Accreditation: CAR No.106851112-13; Bureau of Customs, Cert. of Registration: CNN: IM0006371299;</p> <ul style="list-style-type: none"> ▪ PSFI will build the plants and connect directly to the substation of the Offtaker and the potential output of the plant will fed directly to ASELCO franchise area; ▪ Engineering, Installation, Construction and Completion Contract with Power Manufacturing and Machine Works, Inc. dated 29 November 2013; ▪ Clearance to Undertake GIS from DOE issued on 24 January 2014; ▪ Commencement of Construction: January 2014; Project Status as of 15 September 2014:57.41% completed;Experienced delay in work schedule due to bad weather; ▪ Project cost is Php509.15M | <p>15 August 2015</p> | <p>16 August 2015 (Target Date of Testing & Commissioning)</p> |
| <p>11.9 MW Koronadal Diesel Power Plant (7 x 1.7MW)/ Supreme Power Corporation/ Purok Garfin, Barangay Paraiso, Koronadal City</p> | <p>11.9</p> | | |
| <p>HYDROPOWER</p> | <p>64.00</p> | | |
| <p>Puyo Hydroelectric Power Project/ First Gen Mindanao Hydropower Corp./ Jabonga, Agusan del Norte</p> | <p>30</p> | <p>July 2017</p> | <p>July 2017 (Target Testing and Commissioning)</p> |
| <p>Limbatangon Hydroelectric Power Project/ Turbines Resource & Development Corp./ Cagayan de Oro City, Misamis Oriental</p> | <p>9</p> | <p>January 2017 - January 2018 (Target Testing and Commissioning)</p> | <p>January 2017 - January 2018 (Target Testing and Commissioning)</p> |
| <p>Lake Mainit/ Agusan Power Corporation/ Jabonga, Agusan del Norte</p> | <p>25.0</p> | <p>March 1, 2016</p> | <p>March 2016 (Target Testing and Commissioning)</p> |

| | | | | |
|---|--------------|--|--|---|
| Asiga/ Asiga Green Energy Corp./ Santiago, Agusan del Norte | 8 | <ul style="list-style-type: none"> ▪ Financial Arrangement Secured; ▪ Issued Confirmation of Commerciality on 1 August 2014; ▪ Submission of lacking requirements e.g. permits in progress; ▪ Ongoing construction | TBD | TBD |
| BIOMASS | 20.60 | | | |
| 10 MW Malaybalay Bio-Energy Corporation Multi Feedstock Power Generating Facility/ Malaybalay Bioenergy Corporation/ FIBECO, Anahawan, Maramag, Bukidnon | 9.00 | <ul style="list-style-type: none"> ▪ Financial Arrangement Secured; ▪ On-going construction; ▪ On-going Processing of Requirements; Permits obtained LGU Endorsement, Land Use Permit, etc.) ▪ Has EPC. | 2016 (Target Testing and Commissioning) | |
| 15 MW LPC Biomass Power Plant Project/ Lamsan Power Corporation/ Sultan Kudarat, Maguindanao | 10.00 | <ul style="list-style-type: none"> ▪ Financial Arrangement Secured; ▪ On-going construction; ▪ Secured Clearance from DOE for the conduct of GIS on 28 February 2014; | December 2015 | December 2015 (Target Testing & Commissioning) |
| 3 MW Biomass Cogeneration Facility/ Philippine Trade Center, Inc./ Sultan Kudarat, Maguindanao | 1.60 | <ul style="list-style-type: none"> ▪ Financial Arrangement Secured; ▪ Operating for Own-Use; ▪ Secured Clearance from DOE for the conduct of GIS on 13 March 2014; | TBD | TBD |

Total Committed Rated Capacity: 2,733.73

Source: DOE

Annex 11. Private Sector Initiated Power Projects in Luzon (INDICATIVE) as of 31 March 2015

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|----------------------------|---|--|--|
| <p>COAL</p> <p>4 X 150 MW Coal Fired Thermal Power Plant/ JG Summit Holdings, Inc./ Brgy. Pinamukan Ibaba, Batangas City</p> | <p>6,200.00</p> <p>600</p> | <p>-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;</p> <p>- Conduct of public Scoping with Stakeholder representatives - 10 October 2013;</p> <p>-Conduct of Technical Scoping with EMB and EIA Rev Com - 6 November 2013;</p> <p>-Conduct of EIA Study and Preparation of EIS - November 2013 to February 2014;</p> <p>-Draft EIS Submission and Preliminary Review - Middle of 2014;</p> <p>-Public Hearing - 1 month after submission of EIS;</p> <p>-EMB Review - 55 days;</p> <p>-ECC Decision - Target before end of 2014;</p> <p>-Secured Clearance from DOE for the conduct of GIS on 21 February 2014;</p> <p>-Secured Endorsement from DOE for Certificate of CNO from NCIP on 14 July 2014;</p> <p>-On-going negotiations for the financing arrangements and other permits;</p> <p>-On-going securing of regulatory requirements;</p> | <p>Unit 1 - June 2018 Unit 2 - Dec 2018 Unit 3 - June 2019 Unit 4 - Dec 2019 (Target Testing & Commissioning Date)</p> | <p>Unit 1 - June 2018 Unit 2 - Dec 2018 Unit 3 - June 2019 Unit 4 - Dec 2019 (Target Testing & Commissioning Date)</p> |
| <p>2 X 20 MW FDC Camarines CFB Coal Power Plant/ FDC Utilities, Inc./ Camarines Sur</p> | <p>40</p> | <p>-Completed technical and financial study;</p> <p>-Acquisition of project site ongoing;</p> <p>-Signed supply contract with franchised electric cooperative;</p> <p>-On-going negotiations for the financing arrangements and other permits;</p> <p>-Selection of EPC Contractor to commence after award of EPC contract for Danao;</p> <p>-Clearance to Undertake GIS from DOE issued on 29 December 2011;</p> <p>-On-going feasibility study and plant site evaluation;</p> <p>-On-going securing of regulatory requirements;</p> <p>-Other required permits and endorsement to be secured upon completion of pre-con activities;</p> | <p>March 2016</p> | <p>TBA</p> |
| <p>2 X 300 MW Coal-Fired Power Plant/ Redondo Peninsula Energy, Inc./ Sito Naglatore, Cawag, Subic Bay Freeport Zone</p> | <p>600</p> | <p>-Feasibility study completed;</p> <p>-Project Site is leased from the Subic Bay Metropolitan Authority; Amended ECC (3rd Amendment) secured last 15 November 2012;</p> <p>-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;</p> <p>-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;</p> <p>-Revised System Impact GIS review by NGCP completed 10 May 2012;</p> <p>-Any further development dependent on Supreme Court decision on Writ of Kalikasan case;</p> | <p>Unit I - October 2016 Unit II - December 2016 (Target Commencement of Construction will be dependent on Supreme Court</p> | <p>Target Commercial Operation will be Dependent on Supreme Court decision on Writ of Kalikasan Case;</p> |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|--|---------------------------|--|---|--|
| 2 X 150 MW SLPGC Coal-Fired Power Plant Phase II/ Southwest Luzon Power Generation Corporation (Project Company)/ Brgy. San Rafael, Calaca, Batangas | 300 | <ul style="list-style-type: none"> -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 Commencement of Construction will be Dependent on Supreme Court decision on Writ of Kalikasan Case; -Project cost Pnp50B / \$1.2B -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; -Project cost for Phase II is Pnp19.864B | <p>decision on Writ of Kalikasan Case.)</p> <p>Unit I - 2016 Unit II - 2016</p> | 2017 |
| 2 X 300 MW Masinloc Expansion/ AES Masinloc Power Partners Co., Inc./ Zambales | 600 | <ul style="list-style-type: none"> -Feasibility studies completed Feb 2011; -Grid Impact Studies obtained on 7 January 2011; -No additional land will be acquired as the expansion will be inside the existing Masinloc Power Plant Complex. NPC/PSALM, however, is still continuing the titling process and land registration for some parcels of land;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; -Project cost is Pnp49.45B | <p>Unit 3 (300 MW) - October 2017 Unit 4 (300 MW) - October 2017</p> | 3rd Quarter of 2017 (Target Testing and Commissioning) |
| 1x300 MW Coal Power Plant/ Lucidum Energy, Inc./ Silianguin Bay, Zambales | 300 | <ul style="list-style-type: none"> -The target date for the feasibility study is set by the end of October; -Arrangement to 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; -Marketing 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 compiled; 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; -Financing Arrangements: Financing arrangements are currently negotiating with two lenders and they're | June 2017 | June 2017 (Target Testing & Commissioning) |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|--|---------------------------|--|-----------------------------------|-----------------------------------|
| San Buenaventura Power Ltd. Co. (SBPL) Project/ San Buenaventura Power Ltd. Co. (SBPL)/ Mauban, Quezon | 460 | <p>waiting for the completion of the feasibility study for their validation; Initial talks have been geared towards a 60-40 debt-equity ratio;</p> <ul style="list-style-type: none"> -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; <p>Project Cost is US\$ 600,000,000.00</p> <p>-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 Undertake GIS from DOE issued on 7 March 2013; - 20 years + 5-year extension PSA with Meralco as off-taker; 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; Request for Amendment to upgraded technology submitted to EMB on 18 June 2013; Additional information requested by EMB on 31 July 2013; 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; -Owner's Engineer selected; EPC bids received in November 2013; EPC Contract signed October 2014;</p> <p>-Project cost is Pphp37.8B</p> | March 2018 | June 2018 |
| 2 X 600 MW Mariveles Expansion Project/ GNPower Mariveles Coal Plant Ltd. Co./ Mariveles, Bataan | 1200 | <ul style="list-style-type: none"> -On-going presentation/proposal submissions to potential customers; -Clearance to Undertake 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; Arrangements for securing the required land will be acquired by an affiliate Filipino company of GNP power; -On-going negotiation with tenders; -On-going finalization of EPC Contract; Commercial operation by 2018; -Project cost is \$1B | 2018 | 2018 |
| 2 x 600 MW (net) Coal- Fired Power Plant/ Meralco PowerGen Corporation (Project Company: Atimanan One Energy/ Atimanan, Quezon | 1,200 | <ul style="list-style-type: none"> -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 Atimanan, Quezon is on-going (expanding); -Financing discussion on-going -Clearance to Undertake GIS from DOE issued on June 2014; GIS on-going -Ongoing discussion with LGU and there was no violent reaction from them on this proposed changes. -Discussion of PSA with potential off-takers on-going; Informal discussions have begun with several banks with | 2019 | 2019 |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|--|---|---|
| <p>300 MW Limay Power Plant Project Phase II (2x150MW)/ SMC Consolidated Power Corporation/ Brgy. Lamao, Limay, Bataan</p> | <p>300</p> | <p>respect to the financing of the project; Engineer has been appointed; EPC pre-qualification process on-going -On-site works targeted to start in 2016 -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;</p> <p>-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 and other 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;</p> | <p>Unit 1 - December 2016 Unit II - May 2017 (Target Testing & Commissioning)</p> | |
| <p>600 MW Limay Power Plant Project Phase III (2x300MW)/ SMC Consolidated Power Corporation/ Brgy. Lamao, Limay, Bataan</p> | <p>600</p> | <p>-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;</p> | <p>Unit 1 - October 2017 Unit II - December 2017</p> | <p>Unit 1 - October 2017 Unit II - December 2017 (Target Testing & Commissioning)</p> |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|--|-------------------------------------|---|---|---|
| <p>OIL</p> <p>Aero Derivative Combined Cycle Power Plant/ Calamba Aero Power Corporation/ Calamba, Laguna</p> | <p>150.00</p> | <p>-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; -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;</p> | <p>TBA</p> | <p>TBA</p> |
| <p>NATURAL GAS</p> <p>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)</p> | <p>3,715.00</p> <p>2,400</p> | <p>-On-going securing of permits and other regulatory requirements; -Granted clearance by DOE for the conduct of GIS; -Project cost is Php5.67B</p> | <p>Unit 1 - March 2017 Unit II - March 2018</p> | <p>Unit 1 - October 2017; Unit 2: October 2018;</p> |
| <p>415 MW San Isidro Combined Cycle Gas Turbine Plant Project/ Trans Asia Oil and Energy Development Corporation (TAOil)/ Pilipinas Shell Petroleum Co.'s Tabangao Refinery, Brgy. San Isidro and Tabangao-Ambulong, Batangas City</p> | <p>415</p> | <p>-Development of the LNG Import Terminal shall be done by Shell; - Work on the CCGT development by TAOil is proceeding; -TAOil and its Consultants is performing a Feasibility and Pre-Engineering Study; -Clearance to Undertake GIS from DOE issued on 24 September 2013; -The process to obtain an Environmental Compliance Certificate from the DENR, and a Grid Impact Study is currently underway; -Will operate as both a Merchant and Contracted power facility. Hence, electricity produced will be sold to both to the WESM and thru long term bilateral contracts. TAOil will be the sole marketer of electricity generated from this power facility;</p> | <p>September 2017</p> | <p>Third Quarter of 2017</p> |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|--|---------------------------|--|-----------------------------------|--|
| 2x450 Sta. Maria Power Plant (Phase II)/ 2x450 San Gabriel Power Plant (Phase II)/ First Gen Ecopower Solutions Inc./ Santa Rita, Batangas | 900 | -On-going Feasibility Study; -Secured Clearance from DOE for the conduct of GIS on 18 February 2013 ; | 1st Unit-2017 2nd Unit-2019 | 1st Unit-2017 2nd Unit-2019 (Target Testing and Commissioning) |
| GEOTHERMAL | 120.00 | | | |
| Bacman 3 (Tanawon) Geothermal Project/ Energy Development Corporation/ Guinlajan, Sorsogon | 40 | -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; - 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; -Project cost estimated \$200M | December 2016 | December 2016 (Target Testing and Commissioning) |
| 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 subject to the result of the feasibility study; | June 2017 | June 2017 (Target Testing and Commissioning) |
| Kayabon Geothermal Project/ Energy Development Corporation/ Manito, Albay | 40 | -On-going Feasibility Study; 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 Undertake GIS from DOE issued on 7 October 2011; -Project cost is subject to the result of feasibility study; | December 2019 | December 2019 (Target Testing and Commissioning) |
| HYDROPOWER | 152.66 | | | |
| Ibulao Hydroelectric Power Project/ Hydrocore, Inc./ | 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 Undertake GIS from DOE issued on 17 October 2011; -On-going construction (Pre-construction - 100%, Construction-0%, Interconnection-0%) completed as of 30 September 2014; | May 2015 | May 2015 (Target Testing and Commissioning) |
| Dupinga Hydroelectric Power Project/ Constellation Energy Corporation/ | 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; | October 2015 | October 2015 (Target Testing and Commissioning) |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|---|-----------------------------------|---|
| Gabaldon, Nueva Ecija | | -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 activities such as permittings; issued confirmation of Commerciality on 26 June 2013 e.g. permits in progress | | |
| Main Aklan/ Sunwest Water & Electric Co., Inc./ Libacao, Albay | 15.0 | -Issued Confirmation of Commerciality on 19 September 2013; -Clearance to Undertake GIS from DOE issued on 25 March 2013; -Submission of lacking requirements e.g. permits in progress; -Construction Progress (Pre-construction - 0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014 ; | July 2016 | July 2016 (Target Testing and Commissioning) |
| Tinoc 1/ Quadraver Energy Corp./ Tinoc, Ifugao | 4.1 | -Issued Confirmation of Commerciality on 09 August 2013; -Already secured LGU Endorsement, DENR ECC, NWRB Permit and NCIP Clearance. Submitted Feasibility Study, Detailed Engineering Design and 5-Yr Work Plan; -Clearance to Undertake GIS from DOE issued on 11 July 2011; -Construction Progress (Pre-construction - 0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014 ; | August 2018 | August 2018 (Target Testing and Commissioning) |
| 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 Undertake GIS from DOE issued on 11 July 2011; -Construction Progress (Pre-construction - 0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014 ; | December 2016 | December 2016 (Target Testing and Commissioning) |
| Tinoc 3/ Quadraver 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 Undertake GIS from DOE issued on 11 July 2011; -Construction Progress (Pre-construction - on-going, Construction-0%, Interconnection-0%) completed as of 30 September 2014 ; | June 2017 | June 2017 (Target Testing and Commissioning) |
| 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 Undertake 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 2018 | August 2018 (Target Testing and Commissioning) |
| Tinoc 5/ Philnew Hydro Power Corporation/ Tinoc, Ifugao | 6.9 | -Ongoing pre-construction activities -Submission of lacking requirements e.g. permits in progress; | TBD | TBD |
| Tinoc 6/ Philnew Hydro Power Corporation/ Tinoc, Ifugao | 8.0 | -Ongoing pre-construction activities -Submission of lacking requirements e.g. permits in progress; | TBD | TBD |
| Philnew Hydro Power Corporation/ Alliem/ Pinacanaun/ Sunwest Water & Electric Co., Inc./ | 16.2 | -Ongoing pre-construction activities -Submission of lacking requirements e.g. permits in progress; | TBD | TBD |
| Pinacanaun/ Sunwest Water & Electric Co., Inc./ | 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; | July 2017 | July 2017 (Target Testing) |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation and Commissioning) |
|--|---------------------------|--|-----------------------------------|--|
| Peñablanca, Cagayan | | -Clearance to Undertake GIS from DOE issued on 25 March 2013; -Construction Progress (Pre-construction - 0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014 ; | | |
| 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 Undertake GIS from DOE issued on 3 December 2012; | February 2019 | February 2019 (Target Testing and Commissioning) |
| 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 (Target Testing and Commissioning) |
| AV Garcia Power Systems Corp./ Balaban, 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 | TBD | TBD |
| Kapangan HEP/ Cordillera Hydro Electric Power Corporation (COHECO)/ Kapangan & Kibungan, Benguet | 60.0 | -Issued Confirmation of Commerciality on 13 February 2014; -Submission of Lacking requirements e.g. permits in progress; -Clearance to Undertake GIS from DOE issued on 3 December 2012; -On-going construction (Pre-construction -0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014 ; | TBD | TBD |
| Abdao HEP/ AV Garcia Power Systems Corp./ Tabaan Sur, Tuba, Benguet | 1.0 | -Issued Confirmation of Commerciality on 5 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 ; | TBD | TBD |
| Barit (Irrigation Discharge) Hydroelectric Power Project/ NASCENT Technologies Corporation/ Buhí, Camarines Sur | 0.4 | -Issued Confirmation of Commerciality on 24 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 ; | TBD | TBD |
| 2.6 MW Maapon River Mini-Hydro Power Project (MHP)/ Renosons Energy Corporation/ Brgy. Pliis, Lucban, Quezon | 2.6 | -DOE issued Certificate of Endorsement for CoC on May 2014; | TBA | TBA |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|--|-----------------------------------|---|
| Tumauini (Lower Cascade)/ Quadraver Energy Corp./ Tumauini, Isabela | 7.8 | -On-going pre-construction activities; -Submission of Lacking requirements e.g. permits in progress; | TBD | TBD |
| Tumauini (Upper Cascade)/ Quadraver Energy Corp./ Tumauini, Isabela | 14.0 | -On-going pre-construction activities; -Submission of Lacking requirements e.g. permits in progress; | TBD | TBD |
| SOLAR | 54.10 | | | |
| 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 2014; -Pre-construction stage 25 % completed as of 31 March 2014; -On-going negotiations for project financing; -Total project cost is US\$51.9Million; | July 2015 | July 2015 (Target Testing and Commissioning) |
| Burgos Solar Power Project/ Energy Development Corporation/ Burgos, Ilocos Norte | 4.1 | -Awarded with Solar Energy Service Contract (SESC No. 2014-07-088) on 06 August 2014; -Filed Declaration of Commerciality on 29 August 2014 (under evaluation); | March 2015 | March 2015 (Target Testing and Commissioning) |
| Macabud Solar Photovoltaic Power Project/ ATN Philippines Solar Energy Group, Inc./ Brgy. Macabud, Rodriguez, Rizal | 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 Undertake GIS from DOE issued on 17 October 2011; -On-going negotiations for 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; -Total project cost is US\$70.0 Million; | February 2016 | February 2016 (Target Testing and Commissioning) |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|--|-----------------------------------|--|
| <p>WIND</p> <p>Balaoi Wind Power Project/ Northern Luzon UPC Asia Corporation/ Brgy. Balaoi, Pagudpud, Ilocos Norte</p> | <p>249.00</p> <p>45</p> | <p>-Awarded with Wind Energy Service Contract (WESC No. 2010-02-038) on 1 Feb 2010; Conducted detailed wind resource assessment;</p> <p>-Completed detailed feasibility study;</p> <p>-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;</p> <p>-Final Report of SIS and Connection Agreement with NGCP secured on 4 Jan 2011; BOI Registered on 23 Jun 2011;</p> <p>-Submitted proofs of negotiations/certifications from banks for project financing;</p> <p>- Acquired DOE Certificate of Confirmation of Commerciality on 02 December 2013;</p> <p>-On-going construction - 17.33% as of 30 September 2014; Construction Stage as of 30 September 2014(Pre-Construction - 52% completed, Construction of Wind Farm-0%, Interconnection Facilities - 0%); Construction shall commence upon completion of Caparispisan Project;</p> <p>-Development works shall commence upon completion of Caparispisan Project;</p> <p>-Acquired DOE Certificate of Confirmation of Commerciality on 02 December 2013;</p> <p>-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);</p> <p>-EPC, O&M, Owner's Engineer Contract/Agreement: 30% completed as of December 2014 (detailed Design Complete, Environmental Studies Complete);</p> <p>-Connection Agreement:NGCP is conducting SIS prior to signing of Connection Agreement;</p> <p>-Land Rights Acquisition for WTG or PV, Access Road, and TL:12% completed as of December 2014 (all land rights secured through Flags and private agreements; TL ROW permitting on going);</p> <p>-Overall Accomplishments: 17.33% completed as of 31 December 2014;</p> <p>-Total project cost is US\$139.5Million;</p> | <p>September 2015</p> | <p>September 2015 (Target Testing and Commissioning)</p> |
| <p>Phase 1: Pasauquin East Wind Power Project/ Energy Logics Philippines, Inc./ Pasauquin, Ilocos Norte</p> | <p>48</p> | <p>-Awarded with Wind Energy Service Contract (WESC No. 2009-09-001) on 14 Sept 2009;</p> <p>- Acquired Forest Land-Use Agreement with DENR;</p> <p>-On-going wind resource assessment; Completed the feasibility study; Acquired various LGU permits and resolutions of support;</p> <p>- ECC secured 15 Jun 2010;</p> <p>- GIS secured Dec 2010; On-going negotiation with the Dept. of National Defense for the clearance to construct wind farm within the vicinity of Pasauquin Radar Station;</p> <p>- Equity Investors commitment secured; Selected Preferred EPC Turn-key Tenderer for both the wind energy farm and the connection assets; Submitted the Declaration of Commerciality (DOC) with incomplete documentary requirements;</p> <p>-The DOE is waiting for the final Work Plan of the project for further evaluation;</p> <p>-On-going negotiations for project financing and acquisition of TL-ROW as per Workplan;</p> <p>- Acquired DOE Certificate of Confirmation of Commerciality on 02 December 2013;</p> <p>-Negotiation for financial closing is on-going</p> <p>-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;</p> <p>- Project cost is Php6.048B;</p> | <p>October 2015</p> | <p>October 2015 (Target Testing and Commissioning)</p> |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|---|-----------------------------------|---|
| Sembrano Wind Power Project (Formerly: Phase 2: Mabitac Wind Power Project/ Alternergy Sembrano Wind Corporation/ Mt. Sembrano, Mabitac, Laguna | 72 | <ul style="list-style-type: none"> -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 (Target Testing and Commissioning) |
| Pagudpud Wind Power Project/ EDC Pagudpud Wind Power Corporation/ Brgy. Balaoi and Caunayan, Pagudpud, Ilocos Norte | 84 | <ul style="list-style-type: none"> -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 (Target Testing and Commissioning) |
| BIOMASS | 18.00 | | | |
| 20 MW Waste-to- Energy Project using Thermal Gasifier Conversion/ CJ Global Green Energy Philippine Corp./ Camarines Sur | 18 | <ul style="list-style-type: none"> -Financially Closed; -For construction; | December 2015 | December 2015 (Target Testing and Commissioning) |
| 2 MW ACNPC WTE Biomass Power Plant Project/ Asian Carbon Neutral Power Corporation/ Tarlac | 1.5 | <ul style="list-style-type: none"> -For construction; | 2017 | 2017 |
| 12 MW Rice Husk-Fired Biomass Power Plant Project/ | 10.8 | <ul style="list-style-type: none"> -For construction; | 2017 | 2017 |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|--|---------------------------|----------------|-----------------------------------|-----------------------------------|
| Grass Gold Renewable Energy Corp/ Nueva Ecija | | | | |

Total Indicative Rated Capacity: 10,658.76

Source: DOE

Annex 12. Private Sector Initiated Power Projects in Visayas (COMMITTED) as of 31 March 2015

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|--|---|--|
| COAL TPC Coal-Fired Power Plant Expansion Project (1 x 82 MW Coal-Fired Power Plant/ Toledo Power Company/ Toledo City, Cebu | 352.00 82 | -Financial Arrangement Secured: Loan agreement with Banks in place, financial close on 07 March 2013 (70% Loan / 30% Equity) ; -Secured Clearance from DOE for the conduct of GIS on 3 March 2011 ; -ECC issued last 28 August 2012; -BOI-Certificate of Registration No. 2012-225 last 23 October 2012; -On-going construction (as of April 2014 - 90.2% completed); -Groundbreaking on 11 November 2012; -Project fee is Php10.17B | October 2014 | December 2014 |
| 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 | 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; -Secured the Appraisal report for the PPAMA/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 firm 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; Protection for 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, PECCO(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 firm 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 -DOE Endorsement for NCIP for Unit 1 issued on 3 June 2014; -Project cost is Php26.356B | 1st Unit - June 2015 2nd Unit - May 2016 to September 2016 (specific dates for the 2nd unit will still be firm up after 1st unit's commencement of construction) | 1st Unit - September 2015 2nd Unit - November 2016 (specific dates for the 2nd unit will still be firm up after 1st unit's commencement of construction) |
| GEOTHERMAL HYDROPOWER | - 8.00 | | | |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|--|---------------------------|---|---|---|
| Quadraver Energy Corp./ Danao, Bohol | 8.00 | <ul style="list-style-type: none"> -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 1, 2017 | June 1, 2017 |
| SOLAR | 104.00 | | | |
| Nabas Wind Power Project Phase I - 34 Phase II-16/PetroWind Energy Corporation/ Brgy. Pawa, Nabas, Aklan | 50 | <p>Financial Arrangement Secured: Submitted a certification dated 31 August 2012 from its Lead Arranger, ensuring the required financing is already available if needed;</p> <ul style="list-style-type: none"> -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; | <p>Phase 1 (36 MW) - January 2015</p> <p>Phase 2 (14 MW) - 3rd Quarter 2015</p> | <p>Phase 1 (36 MW) - January 2015</p> <p>Phase 2 (14 MW) - 3rd Quarter 2015</p> <p>(Target Testing and Commissioning)</p> |
| 54 MW San Lorenzo Wind Power Project (8 MW & 46 MW)/ Trans-Asia Renewable Energy Corporation/ San Lorenzo, Guimaras Island | 54 | <ul style="list-style-type: none"> -Financial Arrangement Secured on 12 December 2012 (30% equity and 70% debt); -Awarded with Wind Energy Service Contract (WESC No. 2009-10-009) on 23 Oct 2009; -Conducted detailed wind resource assessment; -Completed feasibility study; -Secured various LGU permits and Resolution of Support; Secured ECC permit for the wind farm on 19 February 2010;Secured NCIP Certificate of Non-Overlap on 23 July 2010;Secured System Impact Study Final Report from NGCP;Secured ECC for the construction of overhead T/L on 14 May 2012;Secured ECC for the upgrading of Iloilo-Guimaras Submarine Cable on 14 May 2012; Secured CAAP Height Clearance for 27 Wind Turbine Generators; Secured DPWH Right-of-Way permit for overhead T/L;Secured Contract to Lease/Sell from land owners;Turnkey EPC Contract awarded to Kanetmatsu in November 2012;- -Acquired DOE Certificate of Confirmation of Commerciality on 16 May 2013; -Conducted Groundbreaking Ceremony on 30 June 2013; -On-going construction as of 30 September 2014 (Pre-Construction - 100% complete, Construction - 33% complete, Interconnection -77% complete; - Installation of Wind Turbine Generator (WTG) sets: 20%; On-going land rights acquisition for WTG Foundations, access roads, and civil works on access roads; Erected 350 out of 383 poles for overhead TL; On-going testing of Iloilo-Guimaras Submarine Cable;On-going stringing of overhead TL; -Major Activities: WTG Tower Erection -13.3%; Installation of Nacelle and Rotor Hub -17.8%; Cabling and Interconnection to Switchyard - 3.2% | December 2014? | December 2014 (Target Testing and Commissioning) |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|--|---|--|
| BIOMASS | | | | |
| 46 MW Universal Robina Corporation Bagasse Cogeneration Facility/ Universal Robina Corporation/ Kabankalan, Negros Occidental | 55.00 31.00 | <ul style="list-style-type: none"> -Wind Farm already contributing to the grid during testing and commissioning stage -Total project cost is US\$140.9million; -On-going construction -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 House Structural and Civil Works; d. Cooling Tower Foundation Works; e. Transmission Facility -Clearance to Undertake GIS from DOE issued on18 October 2013; | Phase 1 (16MW) - January 2015 Phase 2 (30 MW) - January 2015 (Target Testing and Commissioning) | Phase 1 (16MW) - January 2015 Phase 2 (30 MW) - January 2015 (Target Testing and Commissioning) |
| 20 MW SCBiopower Bagasse-Fired Power Generation Project/ San Carlos Biopower Inc./ Negros Occidental | 18.00 | <ul style="list-style-type: none"> -Financial Arrangement Secured; -On-going site development; -Various permits obtained (ECC,LGU Endorsement, Land Use Perfit, etc); -Has EPC; -SEC secured 29 July 2009; -ECC secured 28 June 2011; -Secured Clearance from DOE for the conduct of GIS on 22 June 2011 ; -GIS completed 4 June 2012; -EPC signed 10 Aug. 2012; -Commencement of construction on Dec. 2012; -Scope of Work completion: - Admin Building -46.48%; Construction of Temporary access road- 24.56%;Site Development for Warehouse, electrical & machine shop - 87.14%;Site Development for Fuel Shed No.2 - 27.56%; Installation of Wind Turbine Generator-20%; -Project cost is \$3.5B | December 2015 | December 2015 (Target Testing & Commissioning) |
| 12 MW HPCo Bagasse Cogeneration Plant/ Hawaiian Philippines Company/ Silay City, Negros Occidental | 3.00 | <ul style="list-style-type: none"> -Financial Arrangement Secured; -BREOC No. 2013-02-029; -Issued Certificate Confirmation of Commerciality on 22 January 2014; -Constructing sub-station and transmission line going to NGCP; -Secured Clearance from DOE for the conduct of GIS on 25 March 2013 ; -Declared Capacity is 8MW but will be exporting 3 MW to the grid; -Issued Declaration of Commerciality on 22 January 2014; -100% Constructed (Operating for Own-Use); -Project Status as of 30 September 2014: Pre-construction 100%, Interconnection-15%; -Construction of Interconnection Facility is targeted at 3rd week of September 2014; -Completion fate of Transmission Line still depends on the issuance of SIS from NGCP; Will only start construction upon the release/issuance of the SIS; -Increased capacity from 8MW to 12MW as per amendment of BREOC No. 2013-02-029 which took effect on 9 June 2014; -Operating for Own-Use on October 2013; | December 2014 | December 2014 (Target Testing and Commissioning) |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|--|-----------------------------------|-----------------------------------|
| 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; | - | - |

Total Committed Rated Capacity: 519.00

Source: DOE

Annex 13. Private Sector Initiated Power Projects in Visayas (INDICATIVE) as of 31 March 2015

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|--|--------------------------------------|--|
| COAL | 470.00 | | | |
| PEDC Expansion Project Former report (1x150 MW Circulating Fluidized Bed (CFB) Coal-Fired Power Plant)/ Panay Energy Development Corp. (Global Business Power Corp.)/ Brgy. Ingore, La Paz, Iloilo | 150 | -Estimated Net Capacity: 130MW, Estimated Household: 120MW; -The target date for the start of the expansion project will be 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; -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 site 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; -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; -Major Activities: (Piling owrks - 84.3%; b. Foundation works -16.7%; Steel Structure -0.5%; d. Grounding - 7.3%); -Project cost.is Php6.199B. | Dec 2015 - July 2016 | August 2016 |
| 1 X 20 MW FDC Danao CFB Coal Power Plant/ FDC Utilities, Inc./ Danao City, Cebu | 20 | -Clearance to Undertake GIS from DOE issued on 17 October 2011; -Grid Impact Studies completed; -Technical and Financial Study completed; -Completed Lease Agreement with land owner signed;Signed supply contract with franchised electric cooperatives; -On-going securing of regulatory requirements and ECC; -Other required permits and endorsement to be secured upon completion of pre-con activities; -Other permits under process; EPC Contractor: Formosa Heavy Industries (FHI); Coal Supply - Semirara & Indonesian Coal; -Ongoing financing arrangements;Selection of EPC Contractor Ongoing; -Project cost.is Php1.512B | 2016 | 2016 (Target Testing and Commissioning) |
| 300 MW Therna Visayas Energy Project/ Therna Visayas Inc./ Brgy. Bato, Toledo City, Cebu | 300 | -Site feasibility tests to be completed by September 2012; -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; -EPC Contract awarded to Hyundai Engineering Co., Ltd. and Galing Power & Energy Co., Inc. last May 30, 2014 -Clearance to Undertake GIS from DOE issued on 16 June 2012; -Site development works to start by November 2014; -Project cost.is Php23B | March 2017 | June 2017 |
| OIL | 18.90 | | | |
| 18.9MW Calumangan Diesel Power Plant | 18.9 | -Feasibility Study:(1) Topographic Survey-June 2012;(2)Soil Boring Test-July 2012;Environmental Impact Assessment Study-Sept.2012; | December 2014 | 10MW-26 Dec. 2014 |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|---|--------------------------------------|---|
| GEOTHERMAL 49 MW Biliran Geothermal Plant Project | 89.00 49 | <ul style="list-style-type: none"> -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. Calumanggan Endorsement per Brgy. Reso No. 2012-12 dated 1 September 2012; -Financing Arrangements: 65% Debt and 35% Equity; -Construction Contracts for Plants and Equipment: Supplier of main equipment will be an established HFO Power Plant supplier from China; Energreen's owner engineer would be ENGeon 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 to 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; | December 2015 | 11MW-26 Jan.2015 6MW-26 Feb.2015 |
| Dauin Geothermal Project | 40 | <ul style="list-style-type: none"> -On-going feasibility studies; -F15On-going processing of requirements such as GIS, LGU endorsement, DENR-ECC. | December 2015 | December 2015 (Target Testing and Commissioning) |
| Southern Leyte Geothermal Plant Geothermal Project (formerly known as Mt. Cabalian Geothermal) | TBA | <ul style="list-style-type: none"> -On-going feasibility studies; -On public land but portions of access road leading to Site sits on private land; Land-use permits for areas on public land obtained; -Ongoing negotiations with lot owners for access road; DOE Service Contract 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; - On-going commercial and technical studies -Radon gas survey in November 2013; -On public land; Land-Use permits obtained; -DOE Service Contract Mt. Cabalian GSC; Obtained DENR-ECC; Obtained LGU Endorsement; SLUP Obtained; TCP Obtained; RRW Obtained Water Rights for application; -On-going Negotiations with Financing Institutions; -Target Construction and Commissioning Date not yet finalized. | December 2021 | December 2021 (Target Testing and Commissioning) |
| HYDROPOWER | 72.20 | | | |
| Igbulo (Bais) Hydroelectric Power Project | 5.1 | <ul style="list-style-type: none"> -Issued Confirmation of Commerciality on 26 June 2013; -Clearance to Undertake GIS from DOE issued on 14 August 2013; -Submission of lacking requirements e.g. permits in progress; | April 2016 | April 2016 (Target Testing) |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation and Commissioning) |
|--|---------------------------|---|--------------------------------------|--|
| | | -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 well; | | |
| Hilabangan (Upper Cascade) | 4.8 | -Issued Confirmation of Commerciality on 02 October 2013; -Clearance to Undertake 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 ; | November 2015 | November 2015 (Target Testing and Commissioning) |
| Hilabangan (Lower Cascade) | 3.0 | -Issued Confirmation of Commerciality on 02 October 2013; -Clearance to Undertake GIS from DOE issued on August 2013; -Submission of lacking requirements e.g. permits in progress. | October 2015 | November 2015 (Target Testing and Commissioning) |
| Maninila (Lower Cascade) | 4.5 | -Issued Confirmation of Commerciality on 02 October 2013; -Clearance to Undertake 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 2016 | October 2016 (Target Testing and Commissioning) |
| Maninila (Upper Cascade) | 3.1 | -Issued Confirmation of Commerciality on 02 October 2013; -Clearance to Undertake 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 2016 | October 2016 (Target Testing and Commissioning) |
| Sibalom (Upper Cascade) | 4.2 | -Issued Confirmation of Commerciality on 02 October 2013; -Clearance to Undertake 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 2016 | October 2016 (Target Testing and Commissioning) |
| Sibalom (Middle Cascade) | 4.0 | -Issued Confirmation of Commerciality on 02 October 2013; -Clearance to Undertake GIS from DOE issued on August 2013; -Submission of lacking requirements e.g. permits in progress. | October 2016 | October 2016 (Target Testing and Commissioning) |
| Sibalom (Lower Cascade) | 3.3 | -Issued Confirmation of Commerciality on 02 October 2013; -Clearance to Undertake 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 2016 | October 2016 (Target Testing and Commissioning) |
| Basak II | 0.5 | -Issued Confirmation of Commerciality on 30 April 2014; -Submission of lacking requirements e.g. permits in progress; -Groundbreaking held on 16 February 2013; | April 2017 | April 2017 (Target Testing and Commissioning) |
| Timbaban Hydroelectric Power Project | 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 (Target Testing and Commissioning) |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|---|--------------------------------------|---|
| Loboc Hydroelectric Power Project | 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; | TBD | TBD |
| Main Aklan River Hydroelectric Power Project | 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; | TBD | TBD |
| Amlan (Plant A) | 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; | TBD | TBD |
| Amlan (Plant B) | 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; | TBD | TBD |
| Amlan (Plant C) | 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; | TBD | TBD |
| Malugo | 6 | -On-going pre construction activities -Submission of lacking requirements e.g. permits in progress; | TBD | TBD |
| SOLAR | 165.67 | | | |
| Leyte Solar Photovoltaic Power Project | 30 | -Awarded with Solar Energy Service Contract (SESC No. 2012-08-019) on 19 Sept 2012; Conducted Third Party SIS, currently under review by NGCP; Acquired ECC from DENR, CNO from NCIP, Provincial, Municipal and Barangay Resolutions of Support, Lease Agreements with land owners, EPC Contract with DS Steel Com. Ltd., and proofs of negotiations/certifications with financial institutions for project financing; -Clearance to Undertake GIS from DOE issued on 12 October 2012; -On-going negotiations for Project Financing; -Total project cost is US\$72.0Million; -Acquired the DOE Certificate of Confirmation of Commerciality on 31 May 2013; -On-going construction; Construction Stage as of 30 September 2014(Pre-Construction - 30% completed, Construction-0%, Interconnection-0%);On-going negotiations for project financing;Filed a request for endorsement to avail the duty-free importation; | January 2015 | January 2015 (Target Testing and Commissioning) |
| San Carlos Solar Power Project Phase C-10 Phase D-13 | 30 | -Covered by Solar Energy Service Contract (SESC No. 2013-09-037) on 30 October 2013; -Filed declaration of Commerciality on 28 August 2014 (under evaluation); -Acquired DOE Certificate of Confirmation of Commerciality on 11 December 2014 | February 2015 | February 2015 (Target Testing and Commissioning) |
| Cadiz Solar Power Project | 100 | -Awarded with Solar Energy Services (SESC No. 2013-06-035) on 3 July 2013; -Filed declaration of Commerciality on 2 September 2014 (under evaluation); | July 2015 | July 2015 (Target Testing and Commissioning) |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|--|---------------------------------|---|--------------------------------------|--|
| <p>Mag-ao Solar Power Project</p> <p>WIND</p> | <p>5.67</p> <p>50.00</p> | <p>-Covered by Solar Energy Services (SESC No. 2013-09-036) on 31 October 2013; -Filed declaration of Commerciality on 26 September 2014 (under evaluation);</p> | <p>April 2015</p> | <p>April 2015</p> |
| <p>Pulupandan Wind Power Project</p> | <p>50</p> | <p>-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 January 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; - Project cost is \$124,475,000.00;</p> | <p>September 2015</p> | <p>September 2015 (Target Testing and Commissioning)</p> |
| <p>BIOMASS</p> | <p>54.37</p> | <p>-Assessment of Target Site: Considering Biomass 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 started; Facility will start on 2nd Qtr 2016 -Clearance to Undertake GIS from DOE issued on 5 February 2014;</p> | <p>2016</p> | <p>2016 (Target Testing and Commissioning)</p> |
| <p>South Negros 25 MW Biomass Power Plant</p> <p>22.37MW - Grid 2.63MW - Own use</p> | <p>22.37</p> | <p>-For construction;</p> | <p>TBA</p> | <p>TBA</p> |
| <p>35.0 MW Mina Multi-Fuel Biomass Power Generation Facility</p> <p>BATTERY</p> | <p>32</p> <p>40.00</p> | <p>-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;</p> | <p>October 2016</p> | <p>December 2016 (Target Testing and Commissioning)</p> |
| <p>40 MW Battery Storage Project</p> | <p>40</p> | <p>-For construction;</p> | <p>TBA</p> | <p>TBA</p> |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|--|---------------------------|---|--------------------------------------|-----------------------------------|
| | | -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 Undertake GIS from DOE issued on 31 January 2013; -Target Commencement of Construction: May 2014; | | |

Total Indicative Rated Capacity: 960.14

Source: DOE

Annex 14. Private Sector Initiated Power Projects in Mindanao (COMMITTED) as of 31 March 2015

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|--|----------------------------|--|--|---|
| <p>COAL</p> <p>2 X 150 MW Coal-Fired Therna South Energy Project/ Therna South Inc./ Brgy. Binugao, Toril, Davao City and Brgy. Inawayan, Sta. Cruz, Davao Del Sur</p> | <p>1,855.00</p> <p>300</p> | <p>-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 Therna 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 (ZANECCO), Bukidnon 2 EC is 2MW (BUSECO), Surigao del Sur I is 3MW (SURSECO I), Surigao del Norte is 5MW (SURNECCO), 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 31 of construction or approximately 94% 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</p> | <p>February 2015</p> | <p>Unit 1 - 30 June, 2015 Unit 2 - 31 March 2015</p> |
| <p>2 X 100 MW Southern Mindanao Coal Fired Power Station/ Sarangani Energy Corporation/ Brgy. Kamanga, Maasim, Sarangani</p> | <p>200</p> | <p>-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. ; -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 (DANECCO), Agusan del Norte is 10MW (ANECCO), and Agusan del Sur is 10MW (ASELCO) was executed 2011-2012; Please note that except for SOCOTECO1, all these oftakers 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 ANECCO have provisional approvals. Still working on DANECCO; 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; -Phase 2: Notice to proceed construction is yet to be issued this 2015 (most likely 2nd Quarter) -Project cost \$450M;</p> | <p>Phase 1 - June 2015 (100MW)</p> | <p>Phase 1 - October 2015</p> |
| <p>3 X 135 MW FDC-Misamis Circulating Fluidized Bed (CFB) Coal-Fired Power Plant Project/</p> | <p>405</p> | <p>-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 Maccajalar Bay to be issued in May 2014;NCIP Certificate of Non-Overlap issued on Feb. 2014;Secured LGU endorsements from</p> | <p>1st Unit - December 2015 2nd Unit - March 2016 3rd Unit - June 2016</p> | <p>1st Unit -June 2016 2nd Unit - September 2016 3rd Unit - December 2016</p> |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|--|---------------------------|---|--|---|
| <p>FDC Utilities, Inc./ Phividec Industrial Estate, Villanueva, Misamis Oriental</p> | | <p>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); Registered with the BOI on August 2013; secured Locational Clearance from Villanueva;Negotiation for Foreshore Lease was completed; -Off-taker:Contracted approximately 98 % of the net output of the first three units of the project (As of 20 October 2014);On-going electric power purchase agreement negotiation with off-takers 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 anchor 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, arm steel structures;Ongoing 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-Project Status as of 17 October 2014: 17.52% completed;-Project cost Php 30.019B; -Financial Arrangement Secured from various banks on 12 May 2014; -On-going construction; Project Status (over-all) as of 26 September 2014 -92.37%; -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 26 September 2014 is 92.37%; Construction Activities of Unit 1&2 2 x 150MW Power Plant - 9.95%; Design and Construction of Pier and Jetty Structure is 73.41%; 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 Undertake GIS from DOE issued on 29 August 2011; -On-going civil works construction/installation; -Target Completion Date of Transmission Connection on March 2016; -Project cost is \$630M / Php25.8B - 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 Undertake GIS from DOE issued on 28 June 2013;; NGCP has completed the System Impact Study for 4x150MW (gross capacity); Facility study to be performed next; - GNPk and the land owners of the Project site are in the final stages of satisfying their respective obligations</p> | | |
| <p>300 MW SMC Davao Power Plant Project Phase I 2x150MW/ San Miguel Consolidated Power Corporation/ Brgy. Culaman, Malita, Davao del Sur</p> | <p>300</p> | <p>-On-going construction; Project Status (over-all) as of 26 September 2014 -92.37%; -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 26 September 2014 is 92.37%; Construction Activities of Unit 1&2 2 x 150MW Power Plant - 9.95%; Design and Construction of Pier and Jetty Structure is 73.41%; 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 Undertake GIS from DOE issued on 29 August 2011; -On-going civil works construction/installation; -Target Completion Date of Transmission Connection on March 2016; -Project cost is \$630M / Php25.8B - 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 Undertake GIS from DOE issued on 28 June 2013;; NGCP has completed the System Impact Study for 4x150MW (gross capacity); Facility study to be performed next; - GNPk and the land owners of the Project site are in the final stages of satisfying their respective obligations</p> | <p>Unit 1 - December 2015 Unit 2 -May 2016 *Note: remaining 900 MW still understudy</p> | <p>Unit 1 - February 2016 Unit 2 -August 2016 (subject for validation with EPC Contractor)</p> |
| <p>GNPower Kauswagan Ltd. 540MW Clean Coal-Fired Power Plant/</p> | <p>540</p> | <p>-On-going construction; Project Status (over-all) as of 26 September 2014 -92.37%; -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 26 September 2014 is 92.37%; Construction Activities of Unit 1&2 2 x 150MW Power Plant - 9.95%; Design and Construction of Pier and Jetty Structure is 73.41%; 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 Undertake GIS from DOE issued on 29 August 2011; -On-going civil works construction/installation; -Target Completion Date of Transmission Connection on March 2016; -Project cost is \$630M / Php25.8B - 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 Undertake GIS from DOE issued on 28 June 2013;; NGCP has completed the System Impact Study for 4x150MW (gross capacity); Facility study to be performed next; - GNPk and the land owners of the Project site are in the final stages of satisfying their respective obligations</p> | <p>February 2017</p> | <p>December 2017</p> |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|---|--|-----------------------------------|
| GN Power Kauswagan Ltd. Co./ Kauswagan, Lanao del Norte | | <p>under the land purchase agreements;</p> <ul style="list-style-type: none"> - 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 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 GNPower Ltd. Co (Permits assigned from GNPower Ltd.Co. to GNPower Kauswagan Ltd.Co., DENR Environmental Compliance Certificate, CAAP Height Clearance,DOE Clearance to undertake SIS for 3x125MW, DOE Certificate of Endorsement for NCIP Application for Certificate of Non-Overlap, Mindanao Development Authority Endorsement, LGU Endorsements); Other permits obtained for the project: Clearance to Develop Port Facility;Permit to Drill) were transferred and assigned to the Project Company, GN Power Kauswagan Ltd. Co. by virtue of a Project Assignment/Agreement; -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 to be issued to the EPC contractor by November 2014; - Total Project Cost - US\$740 Million | | |
| <p>3x55 MW Balingasag Thermal Power Plant (Circulating Fluidized Bed Combustion (CFBC) Coal-Fired Power Plant Plant)/ Minergy Coal Corporation/ Brgy. Mandangoa, Balingasag, Misamis Oriental</p> | 110 | <ul style="list-style-type: none"> - 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 Certificate of Incorporation-18 February 2013;DOE Certificate of Endorsement for ERC (No. 2013-07-007)-1 August 2013;DPWH Excavation Permit-3 September 2013;Balingasag SB Endorsement-7 October 2013;Building permit (Access Road)-13 November 2013;Permit to cut coconut trees-17 November 2013;DENR-ECC- 17 November 2013;Zoning certification-25 November 2013;BOI Registration-4 December 2013;Barangay Clearance-15 January 2014;Mayor's Permit-16 January 2014;BOC COR & Certification of Accreditation - 6 February 2014;Building Permit (Power Plant)-19 June 2014;Locational Clearance - 1 July 2014;PPA Permit to construct private port facility--16 September 2014; Plumbing permit/Sanitary permit (power plant)-2014; - 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); -Total project cost - P23.9B | <p>Unit 1: February 2017 Unit 2: April 2017 Unit 3: June 2017 (Target Testing and Commissioning)</p> | |
| OIL | 17.10 | | | |
| 1x5.2 MW Bunker-Fired Power Plant/ | 5.2 | -Financial Arrangement Secured:The Project was financed by 30% equity and 70% debt via peso-denominated loan from a bank granted on 4 February 2014; | September 2014 | October 2014 |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|---|--|--|
| Peak Power San Francisco (PSFI)/ ASELCO Compound, Brgy. San Isidro, San Francisco, Agusan del Sur | | <ul style="list-style-type: none"> -Clearance to Undertake GIS issued on 24 September 2013; Geotechnical Foundations and Geohazard Risk Investigation by Construction & Drilling Specialists, Inc. on October 2013; Geohazards Assessment by Construction & Drilling Specialists, Inc. on November 2013; -Leased Agreement with Offtaker (ASELCO) signed on 3 January 2014; -The technical review for the proposals is ongoing; -Environmental Impact Study was conducted on the area which was submitted to the DENR- EMB for the application of ECC (ECC -R13-1401-009) granted on 19 February 2014; -Endorsement from LGU: Sangguniang Barangay Resolution No. 2013-18 dated 15 July 2013 (Brgy. Karaos); Sangguniang Barangay Resolution No. 2013-21-dated 5 July 2013 (Brgy. San Isidro); Sangguniang Barangay Resolution No. 2014-01 dated 6 January 2014 (Brgy. San Isidro); 18th Sangguniang Bayan Resolution No.2014-24 dated 29 January 2014 (Municipality of San Francisco); Bureau of Customs, Certi. of Accreditation: CAR No.106851112-13; Bureau of Customs, Cert. of Registration: CNN: IM0006371299; -PSFI will build the plants and connect directly to the substation of the Offtaker and the potential output of the plant will feed directly to ASELCO franchise area; -Engineering, Installation, Construction and Completion Contract with Power Manufacturing and Machine Works, Inc. dated 29 November 2013; -Clearance to Undertake GIS from DOE issued on 24 January 2014; -Commencement of Construction: January 2014; Project Status as of 15 September 2014:57.41% completed; Experienced delay in work schedule due to bad weather; -Project cost is Php509.15M | 15 August 2015 | 16 August 2015 (Target Date of Testing & Commissioning) |
| 11.9 MW Koronadal Diesel Power Plant (7 x 1.7MW)/ Supreme Power Corporation/ Purok Garfin, Barangay Paraiso, Koronadal City | 11.9 | <ul style="list-style-type: none"> -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 site 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 | | |
| HYDROPOWER Puyo Hydroelectric Power Project/ First Gen Mindanao Hydropower Corp./ Jabonga, Agusan del Norte | 64.00 30 | <ul style="list-style-type: none"> -Financial Arrangement Secured; -Ground breaking held on 17 April 2013; -Issued Confirmation of Commerciality on 12 July 2013; -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) -Groundbreaking held on 17 April 2013; -Project implementation on hold due to security threat in the area; -Financial Arrangement Secured; -On-going construction; - Issued Confirmation of Commerciality on 12 July 2013; - Already secured LGU Endorsements, DENR ECC, and NCIP Certificate; | July 2017 (Target Testing and Commissioning) | July 2017 (Target Testing and Commissioning) |
| Limbatangan Hydroelectric Power Project/ | 9 | | January 2017 - January 2018 (Target Testing) | January 2017 - January 2018 (Target Testing) |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning and Commissioning) | Target Commercial Operation and Commissioning) |
|--|---------------------------|--|--|--|
| Turbines Resource & Development Corp./ Cagayan de Oro City, Misamis Oriental Lake Mainit/ | | -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. | Commissioning) | Commissioning) |
| Agusan Power Corporation/ Jabonga, Agusan del Norte | 25.0 | -Financial Arrangement Secured; -Clearance to Undertake 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) |
| Asiga/ Asiga Green Energy Corp./ Santiago, Agusan del Norte | 8 | -Financial Arrangement Secured; -Issued Confirmation of Commerciality on 1 August 2014; - Submission of lacking requirements e.g. permits in progress; -Ongoing construction | TBD | TBD |
| BIOMASS | 20.60 | | | |
| 10 MW Malaybalay Bio-Energy Corporation Multi Feedstock Power Generating Facility/ Malaybalay Bioenergy Corp./ FIBECO, Anahawan, Maramag, Bukidnon | 9.00 | -Financial Arrangement Secured; -On-going construction; -On-going Processing of Requirements;Permits obtained LGU Endorsement, Land Use Permit, etc.) -Has EPC. | 2016 | 2016 (Target Testing and Commissioning) |
| 15 MW LPC Biomass Power Plant Project/ Lamsan Power Corp./ Sultan Kudarat, Maguindanao | 10.00 | -Financial Arrangement Secured; -On-going construction; -Secured Clearance from DOE for the conduct of GIS on 28 February 2014; | December 2015 | December 2015 (Target Testing & Commissioning) |
| 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; | TBD | TBD |

Total Committed Rated Capacity: 1,965.70

Source: DOE

Annex 15. Private Sector Initiated Power Projects in Mindanao (INDICATIVE) as of 31 March 2015

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|---|--|---|
| COAL | 1,120.00 | | | |
| Davao del Norte 20 MW Circulating Fluidized Bed Biomass-Coal Fired Thermal Power Plant/ FDC Utilities, Inc./ Maco, Davao del Norte | 20 | -Awaiting approval of sale from ERC on proposed plant connection at DANECO 69/13.2kV Canocotan Substation; -On-going of securing of permits; -Clearance to Undertake GIS from DOE issued on 7 June 2012; -Project cost is Php4.8B | March 2015 | March 2015 (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 | December 2015 | December 2015 |
| 600 MW SMC Davao Power Plant Project Phase III/ 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 (150MW) - June 2016(Testing and Commissioning) Phase II300 MW - Dec 2019 | Phase I Unit 1 (150MW) - January 2016Unit 2 (150MW) - June 2016(Testing and Commissioning) Phase II300 MW - Dec 2019 |
| 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; - Clearance to Undertake GIS from DOE issued on 14 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 | 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; | 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 |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|---|-----------------------------------|-----------------------------------|
| <p>Ozamiz Power Generation, Inc.</p> <p>Brgy. Pulot, Ozamiz City, Misamis Occidental</p> | | <p>- 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; -Securing of required land and conversion is 50% completed;</p> <p>-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;</p> <p>- 1st Public Scoping was already completed on 28 May 2014; Land acquisition and conversion is still on-going. 1st Phase Target Completion on August 2014; 2nd Phase and Land Conversion Target Completion October 2014;</p> <p>- 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 moving</p> <p>-Barangay and City Endorsement acquired last 7 March 2014 and 10 March 2014, respectively; SEC Registration obtained 11 Nov. 2013;</p> <p>- Target date of Ground breaking for site development works moved to January 2015;</p> <p>-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 contracts targeted to be complete by April to May 2015;</p> <p>-Negotiations with foreign partners for financing arrangements on-going; Detailed Site Development Plans ongoing; Detailed Engineering Plans ongoing</p> <p>-Geological Drilling on going; completing requirements for CAAP application; Completing requirements for BOI application;</p> <p>-release of Certificate of Non-Coverage from NCIP; consolidating requirements for NWRB</p> <p>-Selection of EPC Contractor on-going; Target awarding of EPC contract by December 2014;</p> | | |
| <p>300 MW SMC Davao Power Plant Project Phase II/ San Miguel Consolidated Power Corporation/ Brgy. Culaman, Malita, Davao del Sur</p> | 300 | <p>-Land acquisition completed;</p> <p>-On-going securing of permits and other regulatory requirements; -On-going negotiations for financing arrangements</p> | December 2018 | December 2018 |
| <p>OIL</p> <p>2.4 MW Fuel Power Plant Project/ Bukidnon Power Corporation/ Barangay Barandias, Municipality of Pangantucan, Province of Bukidnon</p> | - | <p>-Obtained SEC Endorsement from DOE on 16 September 2014;</p> <p>-Signed Power Supply Agreement with FIBECO</p> <p>-Secured Environmental Clearance Certificate (ECC) from EMB-DENR as of 8 October 2014</p> <p>-covered areas: Municipality of Maramag, Pangantucan, Kailiangnan, Wao</p> <p>-Off taker First Bukidnon Electric Cooperative, Inc. (FIBECO)</p> | March 2015 | March 2015 |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|---|-----------------------------------|---|
| GEOTHERMAL | 50.00 | | | |
| Mindanao 3 Geothermal Power Project/ Energy Development Corporation/ Kidapawan, North Cotabato | 50 | -Ongoing feasibility study, resource assessment and studies in optimal power plant capacity; -The project is within the DOE Service Contract -GRES# 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; Turnkey Contracts pending result of feasibility study; Target of commissioning on December 2017; -Clearance to Undertake GIS from DOE issued on 7 June 2012; -Project cost is subject to the result of the feasibility study; | December 2017 | December 2017 (Target Testing and Commissioning) |
| HYDROPOWER | 152.25 | | | |
| Tagoloan Hydropower/ First Gen Mindanao Hydropower Corp./ Impasugong & Sumilao, Bukidnon | 39 | -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) | January 2018 | January 2018 (Target Testing and Commissioning) |
| Bunawan 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 Undertake 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%, Interconnection-0%) completed as of 30 September 2014; | July 2016 | July 2016 (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 2015 | July 2015 (Target Testing and Commissioning) |
| Cabadbaran Hydroelectric Power Project/ First Gen Mindanao Hydropower Corp./ Cabadbaran, Agusan del Norte | 9.75 | - Issued Confirmation of Commerciality on 03 July 2013. - Already secured LGU Endorsements, DENR Certificate of Non-Coverage, NCIP Certificate and NWRB Permit; - Also submitted Feasibility Study and 5-Yr Work Plan; - Clearance to Undertake GIS from DOE issued on 28 September 2012; - On-going Pre-construction activities; Pre-Construction stage (20% completed as of 30 September 2014); - For improvement of existing access road (logging) | July 2018 | July 2018 (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%, Interconnection-0%) completed as of 30 September 2014; | January 2017 | January 2017 (Target Testing and Commissioning) |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|---|---------------------------|---|-----------------------------------|--|
| Pasonanca/ Philcarb, Inc./ Zamboanga City | 0.05 | - 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%, Interconnection-0%) completed as of 30 September 2014; | March 2017 | March 2017 (Target Testing and Commissioning) |
| Culaman Hydroelectric Power Project/ Oriental Energy and Power Generation Corporation/ Manolo Fortich, Bukidnon | 10 | - Issued Confirmation of Commerciality on 03 June 2013; - Clearance to Undertake 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) |
| Mangima Hydroelectric Power Project/ Philnew Hydro Power Corporation/ Manolo Fortich, Bukidnon | 10 | - Issued Confirmation of Commerciality on 03 September 2014; - Submission of lacking requirements e.g. permits in progress; - On-going Pre-construction activities; Pre-Construction stage (93% completed as of 30 September 2014) | TBD | TBD |
| Clarín/ Philnew Hydro Power Corporation/ Clarín, Misamis Occidental | 6.20 | - 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 | TBD | TBD |
| Puyo HEP/ FGEN Puyo Hydro Project/ Jabonga, Agusan del Norte | 30.00 | - Issued Confirmation of Commerciality on 12 July 2013; - Submission of lacking requirements e.g. permits in progress; - On-going Pre-construction activities; - On-going construction (Pre-construction -100%, Construction-10%, Interconnection-0%) completed as of 30 September 2014; - Groundbreaking held on 17 April 2013; - Project Implementation was on hold due to security threat in the area; - Already secured LGU Endorsements, DENR Certificate of Non-Coverage; NCIP Certificate and NWRB Permit. - Also submitted Feasibility study and 5-year work plan | July 2017 | July 2017 |
| Mat-i-1/ Philnew Hydro Power Corporation/ Claveria, Cagayan de Oro | 4.85 | - 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%, Interconnection-0%) completed as of 30 September 2014; | TBD | TBD |
| Mat-i-2/ Philnew Hydro Power Corporation/ Cagayan de Oro, Misamis Oriental | 4.00 | - 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; | TBD | TBD |
| Mat-i-3/ Philnew Hydro Power Corporation/ Cagayan de Oro, Misamis Oriental | 4.00 | - 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; | TBD | TBD |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|--|---------------------------|--|-----------------------------------|--|
| Manolo Fortich 1/ Hedcor Bukidnon, Inc./ Santiago, Bukidnon | 43.40 | - Submission of lacking requirements e.g. permits in progress; - On-going Pre-construction activities; | TBD | TBD |
| Manolo Fortich 2/ Hedcor Bukidnon, Inc./ Santiago, Bukidnon | 25.40 | - Submission of lacking requirements e.g. permits in progress; - On-going Pre-construction activities; | TBD | TBD |
| 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 |
| SOLAR | 28.75 | | | |
| Centralla Solar Power Project/ NV Vogt Philippines Solar Energy One, Inc./ Brgy. Centralla, Surallah, South Cotabato | 6.25 | - 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 ; | March 2015 | March 2015 (Target Testing and Commissioning) |
| 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 | May 2015 | May 2015 (Target Testing and Commissioning) |
| 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 Amendment Contract on 11 March 2014; - Clearance to Undertake 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; | October 2015 | October 2015 (Target Testing and Commissioning) |
| BIOMASS | 61.40 | | | |
| 12 MW Biomass Power Plant Project/ Misamis Oriental Bio- Energy Corporations/ Misamis Oriental | 10.80 | - For construction; - Clearance to Undertake GIS from DOE issued on 6 June 2014; | 2015 | 2015 |

| Name of the Project/ Project Proponent/ Location | Rated Capacity (MW) | Project Status | Target Testing & Commissioning | Target Commercial Operation |
|--|---------------------------|---|-----------------------------------|-----------------------------------|
| 10MW Kailiangan Bio-Energy Corporation Multi-Feedstock Power Generating Facility/ Kailiangan Bio-Energy Corporation/ Bukidnon | 9.00 | -For construction; -Clearance to Undertake GIS from DOE issued on 28 January 2014; | 2016 | 2016 |
| 10MW Don Carlos Bio-Energy Corporation Multi-Feedstock Power Generating Facility/ Don Carlos Bio-Energy Corporations/ Bukidnon | 9.00 | -For construction; | 2016 | 2016 |
| 10MW Malaybalay Bio-Energy Corporation Multi-Feedstock Generating Facility/ Malaybalay Energy Corporation/ Bukidnon | 9.00 | -For construction; | Dec-16 | Dec-16 |
| 23.5 MW EPC Woody Biomass Power Plant Project/ Agusan del Norte/ Eastern Petroleum Corporation | 21.00 | -For construction; | 2017 | 2017 |
| 3.5 MW Biomass Cogeneration System Green Earth Enersource Corporation Maguindanao | 2.60 | -For construction; | 2017 | 2017 |

Total Indicative Rated Capacity: 1,427.05

Source: DOE

Annex 16. ERC Approved Capital Expenditure Projects as of 31 March 2015

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (PhP) | DATE FILED/ APPROVED |
|---|--|--|----------------------|---|
| NETWORK PROJECTS | | | | |
| <p>Aklan Electric Cooperative, Inc. (AKELCO) ERC CASE NO. 2011-153 RC</p> | <p>Re-energization of the Caticlan 10 MVA Substation; and refurbishment and delivery in 2011 of donated 15 MVA Substation equipment to be installed and energized in 2015 at Union, Nabas, Aklan</p> | <p>To address the load growth in the coverage area of Boracay Substation.</p> | <p>7,500,000.00</p> | <p>10 November 2011/ 15 December 2014</p> |
| | <p>Acquisition, installation and commissioning of new 17.5kV switchgears and circuit breakers for the following substations: i. Atlavas; ii. Lezo; iii. Nabas; and iv. Caticlan ..</p> | <p>To protect the feeders of the aforementioned substations.</p> | <p>9,600,000.00</p> | |
| | <p>Acquisition of three sets of battery banks to power 69kV SF6 circuit breakers at Altavas, Lezo, and Nabas Substations</p> | <p>To replace the existing power supply sources of SF6 breakers.</p> | <p>600,000.00</p> | |
| | <p>Installation of One set sulfur hexafluoride (SF6) 69 kV circuit breaker at 10 MVA Caticlan Substation</p> | <p>To provide adequate protections to substation and to the transmission system against harmful impact of fault currents</p> | <p>3,169,956.28</p> | |
| | <p>SCADA set-up for real-time monitoring at AKELCO's Central Office of Boracay Substation's demand and energy sales</p> | <p>To promptly retrieve distribution system data for power supply planning, forecasting and nomination purposes.</p> | <p>3,045,000.00</p> | |
| | <p>7.62 kV single-phase primary line extension projects to different Barangays or Sitios wherein existing secondary lines are overloaded and already unsafe in the following locations: 1. Brgy. Jumarap, Banga, Aklan; 2. Brgy. Sambiray, Malay, Aklan; 3. Brgy. Feliciano, Balete Aklan; 4. Lazavima road, Poblacion New Washington, Aklan; 5. Brgy. Lalab, Batan, Aklan; 6. Brgy. Bay-ang, Batan, Aklan; 7. Brgy. Mobo, Kalibo, Aklan; 8. Brgy. Tambuan, Malinao Aklan; 9. Brgy. Nalook, Kalibo, Aklan; 10. Brgy. Libas Banga, Aklan; 11. Brgy. Bayang, Batan; 12. Brgy. Toralba, Banga, Aklan;</p> | <p>To adequately supply electricity to households in different locations without existing primary distribution lines.</p> | <p>46,253,288.41</p> | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED |
|-----------|--|-----------|--------------------|----------------------|
| | <p>13. Brgy. Libas, Banga, Aklan; 14. Brgy. Lilo-An, Malinao, Aklan; 15. Brgy. Lilo-An, Malinao, Aklan; 16. Brgy. Palay, Batan, Aklan; 17. Brgy. Pudiot, Tangalan, Aklan; 18. Brgy. Man-up, Batan, Aklan; 19. Poblacion, Malinao, Aklan; 20. Brgy. Daja Sur, Banga, Aklan; 21. Brgy. Laserna, Nabas, Aklan; 22. Brgy. Polo, New Washington, Aklan; 23. Campastor Martelino brgy. New Buswang; 24. Brgy. Estancia, Kalibo, Aklan; 25. Brgy. Laguinbanua East, Numancia, Aklan; 26. Brgy. Agluca, Makato, Aklan; 27. Brgy. Santander Buruanga, Aklan; 28. Brgy. Lupit, Batan, Aklan; 29. Brgy. Union, Nabas, Aklan; 30. Brgy. Dumaguit, New Washinton, Aklan; 31. Brgy. Dumaguit, New Washington, Aklan; 32. Brgy. Napti, Batan, Aklan 33. Brgy. Buruan a, Aklan; 34. Brgy. Habana, Buruanga, Aklan; 35. Brgy. Balusbos, Malay, Aklan; 36. Brgy. Cagubao, Altavas, Aklan; 37. Brgy. Balusbos, Malay, Aklan; 38. Brgy. Old Buswang, Kalibo Aklan; 39. Brgy. Union Nabas, Aklan; 40. Roxas Avenue Kalibo, Aklan; 41. Brgy. Napti Batan line section; 42. Brgy. Lablab lateral line section; 43. Brgy. Arcangel, Balete, Aklan; 44. Polocate, Banga, Aklan; 45. Brgy. Albasan, Numancia, Aklan; 46. Feliciano, Balete, Aklan; 47. Brgy. Jugas, New Washington, Aklan; 48. Brgy. Aranas, Balete, Aklan; 49. Brgy. Guinbaliwan, New Washington, Aklan; 50. Brgy. Arcangel, Balete, Aklan; 51. Brgy. Pook, Kalibo, Aklan; 52. Brgy. Mambuquiao, Batan, Aklan; 53. Brgy. Tigayon Kalibo Aklan; 54. Brgy. Linabuan Norte, Kalibo Aklan; 55. Brgy. Tagas, Tangalan, Aklan; 56. Brgy. Katipunan, Buruanga, Aklan; 57. Brgy. Aquino, IbaJay, Aklan;</p> | | | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED |
|-----------|---|---|--------------------|----------------------|
| | 58. Brgy. Agbalogo, Makato, Aklan; 59. Brgy. Gibon, Nabas, Aklan; 60. Brgy. Calizo Baleta, Aklan; 61. Brgy. Toledo, Nabas Aklan; 62. Daja Sur, Banga, Aklan; 63. Daja Sur, Banga, Aklan; 64. Lumaynay Altavas, Aklan; 65. Brgy. Sta Cruz Lezo, Aklan; 66. Brgy. Agfa, Tangalan Aklan; 67. Brgy. Antipolo, Ibejay, Aklan; 68. Brgy. Gibbon, Nabas Aklan; 69. Brgy. Lupit, Batan, Aklan; 70. Brgy. Zaidivar, Pandan, Antique; 71. Brgy. Patria, Pandan, Antique; 72. Brgy. Odiong Altavas, Aklan; 73. Brgy. Balusbos, Malay, Aklan; 74. Brgy. Calizo, Baleta, Aklan; 75. Brgy. Magpaong, Altavas, Aklan; 76. Brgy. Nalook, Kalibo Aklan; 77. Brgy. Bubog, Numancia, Aklan; 78. Cam. Sur Numancia, Aklan; 79. Brgy. Man-up, Altavas Aklan; 80. Brgy. Cubay Sur, Malay, Aklan; 81. Brgy. Songcolan, Batan, Aklan; 82. Brgy. Haban, Buruanga, Aklan; 83. Brgy. Fragante Pandan, Antique; 84. Brgy. Botbot, Pandan, Antique; 85. Brgy. Jinalinan, Pandan, Antique; 86. Brgy. Mambuquio, Batan, Aklan; 87. Brgy. Damayan, Sapián, Capiz; 88. Brgy. Cabangila, Altavas, Aklan; 89. Brgy. Cabangila, Altavas, Aklan; 90. Brgy. Alaminos, Madalag, Aklan; 91. Brgy. Rosario, Malinao, Aklan; and 92. Brgy. Dangcalan, Malinao, Aklan. | | | |
| | Conductor upgrading of three-phase primary line tap to Sitio Cagban, Manoc-manoc, Boracay, Malay, Aklan, 520 meters length | To address the capacity problem of the line section due to consumer increase and load growth | 229,946.61 | |
| | Conductor upgrading of three-phase primary line tap to Brgy. Manoc-manoc (PNP Headquarters), 80racay, Mala , Aklan, 260 meters length | To address the capacity problem of the line section due to consumer increase and load growth. | 124,351.63 | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED |
|-----------|--|---|--|----------------------|
| | Conductor upgrading of three-phase primary line tap to Brgy. Balabag (Regency Hotel), Boracay, Malay, Aklan, 198 meters length | To address the capacity problem of the line section due to consumer increase and load growth. | 119,804.77 | |
| | Single-phase to three-phase line conversion of 760 meters primary line from backbone line Brgy. Manoc-manoc to Sitio Tulubhan, Boracay, Malay, Aklan | To address the capacity problem of the line section due to consumer increase and load growth. | 643,504.75 | |
| | Conversion of 10 to 30 primary line ext. tap from 30 primary line section, Poblacion, Makato, Aklan to Pob. Makato, about 995 meters length | To address the capacity problem of the line section due to consumer increase and load growth. | 606,286.05 | |
| | Single-phase to three-phase line conversion of primary line from Poblacion to Brgy. Dongon, Numancia, 2,260 meters length | To address the capacity problem of the line section due to consumer increase and load growth. | 1,330,032.43 | |
| | Distribution transformers for operation maintenance and load growth | To address transformer overloading and to replace damaged units. | 22,319,537.50 | |
| | Acquiring and installing lightning arresters to protect distribution transformers from destructive effect of lightning strike | For the protection and safety of transformers, secondary lines and metering equipment | 1,600,000.00 | |
| | Re-conductoring of selected open secondary lines to duplex #2 and installation of polyethylene conductors as replacement to bare under-built secondary wires, as follows: i. Malinao Health Center, Malinao, 385 meters; ii. Sitio Sook, Pob. Lezo, 347 meters; iii. BJMP, Brgy. Nalook Kalibo, 340 meters; iv. Malingin, Brgy. Man-Up Batan, 1000 meters; v. Bobot, Interior Pandan, 150 meters; vi. Fragante Pandan, 200 meters; and vii. Jinalinan, Interior Pandan, 250 meters. | To improve capacity level of open secondary lines and to reduce system loss due to vegetation and pilferages in the under-built lines | 4,320,000.00 | |
| | Construction of subsidy funded primary line extension projects for Sitio Energization Enhancement Programs, as follows: i. Brgy. Cabugao, Altavas, Aklan; ii. Brgy. Agbalogo, Makato, Aklan; iii. Brgy. Fatima, New Washington, Aklan; iv. Brgy. Mina-a, Ibajay, Aklan; v. Brgy. Guinbaliwan, New Washington, Aklan; vi. Brgy. Mina-a, Ibajay, Aklan; vii. Brgy. Mina-a, Ibajay, Aklan; | To energize far-flung Sitios in consonance with government's energization program. | Government subsidy (DOE Sitio Electrification Program) | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|--------------------|----------------------|---|-------------------------------|---|---|---|---------|---|------------|----|--------------|---|------------|---|-----------------------------------|---|------------------|----|--------------|-----------|-----------------------------|---------------|--|
| | viii. Brgy. Man-up, Altavas, Aklan; ix. Pob. New Washington, Aklan; x. Brgy. Calimbajan, Makato, Aklan; xi. Brgy. Rizal, Nabas, Aklan; XII. Brgy. Odiong, Altavas, Aklan; XIII. Brgy. Jugas New Washington, Aklan; xiv. Brgy. Linayasan, Altavas, Aklan; xv. Brgy. Cayangwan, Makato Aklan; xvi. Brgy. Rosario, Malinao, Aklan; xvii. Brgy. San Dimas, Malinao Aklan; XVIII. Brgy. Navitas, Malinao, Aklan; xix. Brgy. Cogon, Malinao, Aklan; xx. Brgy. Bulabod Malinao, Aklan; XXI. Brgy. Navitas, Malinao, Aklan; XXII. Brgy. Kin Viejo, Malinao, Aklan; and XXIII. Brgy. Ferpecta, Panda, Antique | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Acquisitions of materials for new connections | OTHER NETWORK PROJECT | 12,546,222.39 | | | | | | | | | | | | | | | | | | | | | | | |
| | | Specifications: Single-phase, 240 Volts, 30 A, bottom Connected, Kilowatt-hour Meters | | | | | | | | | | | | | | | | | | | | | | | | |
| | This project involves procurement of the following: <table border="1" data-bbox="884 1346 1193 1794"> <thead> <tr> <th>Project Components</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>Utility Truck</td> <td>6</td> </tr> <tr> <td>Utility truck with winch boom</td> <td>5</td> </tr> <tr> <td>Utility truck with winch boom with bucket</td> <td>1</td> </tr> <tr> <td>Pick-Up</td> <td>4</td> </tr> <tr> <td>Motorcycle</td> <td>14</td> </tr> <tr> <td>Auger (Boom)</td> <td>2</td> </tr> <tr> <td>Line Truck</td> <td>3</td> </tr> <tr> <td>Utility Truck with boom for 69 kV</td> <td>4</td> </tr> <tr> <td>Service vehicles</td> <td>14</td> </tr> <tr> <td>Total</td> <td>53</td> </tr> </tbody> </table> | Project Components | Quantity | Utility Truck | 6 | Utility truck with winch boom | 5 | Utility truck with winch boom with bucket | 1 | Pick-Up | 4 | Motorcycle | 14 | Auger (Boom) | 2 | Line Truck | 3 | Utility Truck with boom for 69 kV | 4 | Service vehicles | 14 | Total | 53 | NON-NETWORK PROJECTS | 36,640,807.87 | |
| Project Components | Quantity | | | | | | | | | | | | | | | | | | | | | | | | | |
| Utility Truck | 6 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Utility truck with winch boom | 5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Utility truck with winch boom with bucket | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pick-Up | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Motorcycle | 14 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Auger (Boom) | 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Line Truck | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Utility Truck with boom for 69 kV | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Service vehicles | 14 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 53 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Various equipment for transformer Preventive Maintenance Servicing, kilowatt-hour meter maintenance and line testing | To effectively render maintenance works and services to member consumers. | | | | | | | | | | | | | | | | | | | | | | | | |
| | Construction of two storey office building with living quarters and erection of perimeter fence at EC owned lot in Boracay Island | For major Preventive Maintenance Servicing of substations without hiring outside services. | 4,886,104.83 | | | | | | | | | | | | | | | | | | | | | | | |
| | | To acquire a permanent office building in the tourist destination island and to secure equipment and stocked materials of EC. To provide convenience to member-consumers and to coop employees as well. | 5,589,918.24 | | | | | | | | | | | | | | | | | | | | | | | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED | | | | | | | | | | | | |
|--|---|--|----------------------|---|----|-----------------|----|------------|---|------------------|---|--------------|-----------|--|---|--|
| | <p>Maintenance repair of AKELCO offices and minor renovations, as follows: Andagao Sub-office, Main Office Building, Poblazo Sub-office and GM's Residence.</p> <p>Purchase of Computer Hardware and Communication Equipment:</p> <table border="1"> <thead> <tr> <th>Project Components</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>Hand Held Radio</td> <td>33</td> </tr> <tr> <td>Laptop Computer</td> <td>36</td> </tr> <tr> <td>Radio Base</td> <td>1</td> </tr> <tr> <td>Printer, Plotter</td> <td>1</td> </tr> <tr> <td>Total</td> <td>71</td> </tr> </tbody> </table> | Project Components | Quantity | Hand Held Radio | 33 | Laptop Computer | 36 | Radio Base | 1 | Printer, Plotter | 1 | Total | 71 | <p>To ensure that office building structures and interiors are sound and convenient for consumers and personnel use.</p> <p>Replacement of old computers and accessories, and radio communication equipment.</p> | <p>2,880,802.88</p> <p>2,424,500.00</p> | |
| Project Components | Quantity | | | | | | | | | | | | | | | |
| Hand Held Radio | 33 | | | | | | | | | | | | | | | |
| Laptop Computer | 36 | | | | | | | | | | | | | | | |
| Radio Base | 1 | | | | | | | | | | | | | | | |
| Printer, Plotter | 1 | | | | | | | | | | | | | | | |
| Total | 71 | | | | | | | | | | | | | | | |
| | <p>Acquisition of 75 KVA generator set for AKELCO Main Office use</p> | <p>To energize office equipment in case of NGCP/Power Supplier caused power interruptions.</p> | <p>453,635.90</p> | | | | | | | | | | | | | |
| NETWORK PROJECTS | | | | | | | | | | | | | | | | |
| Bohol II Electric Cooperative, Inc. (BOHECO II) ERC CASE NO. 2011-179 RC | <p>Construction of a new 5 MVA substation at Jagna, Bohol together with the installation of one (1) kilometer 69 KV sub-transmission line</p> | <p>As per application, the proposed capital project is intended to address the capacity problem of the existing 5 MVA Garcia Substation at BOHECO II. The 5 MVA power transformer at Garcia Substation is owned by NGCP/TransCo.</p> | <p>32,228,506.00</p> | <p>21 December 2011/ 15 December 2014</p> | | | | | | | | | | | | |
| | <p>Replacement of the existing 2.5 MVA power transformer of San Miguel Substation to a 5 MVA capacity transformer</p> | <p>As per application, the proposed capital project is intended to address the capacity problem of the existing 2.5 MVA San Miguel Substation of BOHECO II.</p> | <p>11,739,213.00</p> | | | | | | | | | | | | | |
| | <p>Replacement of rotten poles</p> | <p>To maintain a safe and reliable distribution system.</p> | <p>10,489,017.55</p> | | | | | | | | | | | | | |
| | <p>Procurement of conductors, insulators, and other pole dressing</p> | <p>To maintain a safe and reliable distribution system. For refurbishment of lines.</p> | <p>14,080,000.00</p> | | | | | | | | | | | | | |
| OTHER NETWORK PROJECTS | | | | | | | | | | | | | | | | |
| | <p>Replacement of defective kilowatt-hour meters</p> | <p>To provide accurate measurement of energy consumed by each member-consumers.</p> | <p>16,053,080.00</p> | | | | | | | | | | | | | |
| | <p>Replacement of aging/defective mechanical 3-phase kWh meters to electronic type meters and to accommodate new 3-phase customers</p> | <p>To provide accurate measurement of energy consumed by large load consumers.</p> | <p>1,073,127.38</p> | | | | | | | | | | | | | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED | |
|---|--|---|--------------------|--------------------------------------|--|
| Isabela II Electric Cooperative, Inc. (ISELCO II) ERC CASE NO. 2012-014 RC | Replacement and installation of distribution transformers | To accommodate the increasing demand of BOHECO II's system. | 21,790,477.69 | 1 February 2012/ 15 December 2014 | |
| | Installation of standard connection facilities (kWhr meters, service drop wires, etc. | To accommodate new customers of BOHECO II | 31,173,770.00 | | |
| | Installation of pre-paid kilowatt-hour meters | To accommodate consumers who are interested of availing the prepaid electric service of BOHECO II as provided under ERC Resolution No. 15, Series of 2009 (and its amendments ERC Resolution No. 17, Series of 2012), "A Resolution Adopting the Rules for Pre aid Retail Electric Service using a Pre aid Metering System". | 3,600,000.00 | | |
| | NON- NETWORK PROJECTS | | | | |
| | Construction of GM's quarter, multi-purpose hall, main office, and sub-office building | To improve service efficiency. | 20,000,000.00 | | |
| | Procurement of infrared thermal scanner, power megger, and kilowatt-hour meter standard | Infrared thermal scanner - use d to identify or locate hot spots or loose connections that are potential causes of failures on the distribution system. Power megger - needed to test and ensure the perfect performance of electrical apparatus such as distribution transformers, circuit breakers for its safe and reliable operation. Kilowatt-hour meter standard - to ensure that all electric kilowatt-hour meters are registering accurately. | 3,415,500.00 | | |
| | Procurement of boom trucks, service vehicles, four wheeled vehicles, and motorcycles | To improve service efficiency. | 7,245,000.00 | | |
| | Procurement of fiber glass ladder, bolt cutter, hot stick shot gun type, etc. | To improve service efficiency. | 465,750.00 | | |
| | Procurement of air-conditioning unit and office supplies | To improve service efficiency. | 414,000.00 | | |
| | NETWORK PROJECTS | | | | |
| | Construction of 1.15 km. 3-phase double circuit 13.2 kV line for Feeders 2 and 3 of the new San Rafael Substation; | To serve as distribution feeder lines for the newly constructed San Rafael Substation. | 1,130,844.69 | | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED |
|-----------|--|--|--------------------------|----------------------|
| | <p>Construction of 3.32 km. 3-phase underbuilt 13.2 kV line that will connect Feeder 3 of San Rafael Substation to the existing 3-phase line at Nueva Era, San Manuel; and</p> <p>Construction of 1.79 km. 3-phase underbuilt 13.2 kV line for Feeder 1 of San Rafael Substation to the existing line at Lanting, Roxas.</p> | | | |
| | <p>Installation of 69 kV SF6 circuit breaker at Cabagan Substation;</p> <p>Installation of 69 kV disconnect switch at Cabagan Substation; and</p> <p>Installation of feeder metering at Cabagan Substation.</p> | <p>To comply with the requirements of the Philippine Grid Code (PGC) for grid connection and to improve the monitoring of the distribution feeder network of the Cabagan Substation.</p> | <p>4,312,896.20</p> | |
| | <p>Installation of protective devices (such as reclosers, fault indicators, fuse link, fuse cut-out & arrester combination) on backbone and lateral lines</p> | <p>To provide a safe and reliable distribution network.</p> | <p>14,084,915.08</p> | |
| | <p>Construction of a 4.08 km. 3-phase 13.2 kV line double circuit feeder lines for San Manuel Substation</p> | <p>To serve as distribution feeder lines for the newly constructed San Manuel Substation.</p> | <p>1,371,094.50</p> | |
| | <p>Repair of Oil Circuit Breaker (OCB) to be installed at Naguilian Substation;</p> <p>Installation of cooling fans for the power transformer at Naguilian Substation; and</p> <p>Installation of feeder metering at Naguilian Substation.</p> | <p>To comply with the requirements of the PGC for grid connection; to provide additional capacity and to avoid overheating of equipment; and to improve the monitoring of the distribution feeder network of the Naguilian Substation.</p> | <p>1,219,930.80</p> | |
| | <p>Replacement of rotten poles, defective or broken hardware, materials and equipment</p> | <p>To maintain a safe and reliable distribution system.</p> | <p>53,725,015.59</p> | |
| | <p>Rural electrification project</p> | <p>To comply with its mandate to provide total electrification to every remote barangays/sitios within its coverage area.</p> | <p>Subsidy (NEA/LGU)</p> | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED |
|-------------------------------|---|---|--------------------|----------------------|
| OTHER NETWORK PROJECTS | | | | |
| | Replacement of overloaded distribution transformers | To address the increasing demand of ISELCO II. | 36,416,304.21 | |
| | Replacement of defective kilowatt-hour meters | To provide accurate measurement of energy consumed by each member-consumers. | 15,875,652.39 | |
| | Installation of feeder metering at San Manuel Substation | To monitor each feeders consumption and other parameters for overall planning and management operation. | 1,502,896.20 | |
| | Procurement of distribution transformers, service drop wires, and metering equipment | To cater the needs of new customers. | 46,535,956.34 | |
| NON-NETWORK PROJECTS | | | | |
| | Procurement of load logger and thermal scanner | Thermal scanner - used to identify or locate hot spots or loose connections that are potential causes of failures on the distribution system. Load logger - a device that records data overtime to monitor the loading condition of the distribution lines or distribution transformer for proper management and identification of the distribution utility. | 5,146,261.45 | |
| | Procurement of engineering software and AM/FM (Automated Mapping/Facilities Management) | To improve service efficiency and the overall planning preparation for its capital expenditures. | 4,684,708.20 | |
| | Installation of SCADA (Supervisory Control and Data Acquisition) system at San Rafael and San revised to Manuel Substations | To improve ISELCO II's control and monitoring of its substations. | 6,226,650.00 | |
| | Renovation/refurbishment of headquarters and extension of engineering building | To improve service efficiency. | 13,051,529.95 | |
| | Procurement of vehicles such as boom trucks, service vehicles, and motorcycle | To improve service efficiency. | 43,771,685.70 | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED |
|--|--|--|--------------------|------------------------------------|
| Gagayan I Electric Cooperative, Inc. (CAGELCO I) ERC CASE NO. 2014-031 RC | Procurement of clamp tester, voltmeter, megger, etc. | For the proper monitoring and maintenance of metering facilities and distribution network. | 3,345,422.45 | |
| | Procurement of accounting software, meter reading device, computers, hand held radio, etc. | To improve service efficiency. | 7,461,084.77 | |
| Cebu I Electric Cooperative, Inc. (CEBECO I) ERC CASE NO. 2011-004 RC | FORCE MAJEURE CAPITAL PROJECTS | | | |
| | Rehabilitation of lines and equipment damaged by Typhoon Vinta | CAGELCO I has to restore its damaged distribution lines and equipment in order to maintain safe, reliable, secure and efficient operation of the power system. | 9,293,384.33 | 1 April 2014/ 15 December 2014 |
| | NETWORK PROJECTS | | | |
| | Installation of 630A, Automatic Recloser within several backbone lines of the entire system. These devices shall be installed along the mid-range part of the primary distribution lines | Based on the result of CEBECO I's short circuit simulation study, there is a need to install 3-phase reclosers along several identified feeders in order to maintain a safe electric power system and service. | 7,000,000.00 | 7 January 2011/ 1 December 2014 |
| | The project will require forty two (42) units of 50kVAR capacitors and fifteen (15) units of AVR. Six (6) units of capacitors, which are accompanied by a timer switch, and three (3) units of AVR to be installed in each feeder. | CEBECO I proposed the installation of capacitors and Automatic Voltage Regulator (AVR) and balancing of loads within these feeders in order to address the power quality problem within the distribution system. | 11,501,849.32 | |
| | It also includes load balancing or transferring of loads from one phase to another. | | | |
| The following are the required specifications of the proposed DTs, to wit: | | | | |
| a) The transformer ratings are 15, 25, 37.5 and 50 KVA; | | | | |
| b) All transformers are of conventional type, oil immersed and pole-mounted; | | | | |
| c) With primary voltage of 13.2/7.62 KV; and | | | | |
| d) And secondary voltage of 120/240 or 240/480 V. | | | | |
| The following are the required specifications of the projects, to wit: | | | | |
| a) The low voltage distribution lines are line to ground system with the nominal voltage of 240 volts; | | | | |
| b) Open secondary lines are to be installed with 30 or 35 footer steel poles; and | | | | |
| | | | 21,562,121.75 | |
| | | | 23,094,220.51 | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED |
|-----------|---|---|--------------------|----------------------|
| | <p>c) The secondary lines will be installed with either bare or insulated conductors.</p> | | | |
| | OTHER NETWORK PROJECTS | | | |
| | <p>The following are the required specifications of the projects, to wit:</p> <p>a) The service drop wire is a twisted bare and insulated duplex AWG #6 ACSR conductor. Consumers at low voltage have the same service drop wire size;</p> <p>b) The single phase KWH meters are rated 60A and 1 OOA at 240V which are either bottom or socket connected type. The meters are either solid state or electromechanical with infrared communicator for specified meters; and</p> <p>c) Three-phase KWH meters are rated 20 up to 200A at 120-480V, bottom-connected type, with load profile and power quality monitoring features.</p> <p>The project intends to replace the existing protection equipment of both Dumanjug and Carcar1 Substations from power fuse to power circuit breakers. The said equipment shall include protection relays and monitoring equipment.</p> <p>The project also includes replacement and upgrading the existing Reclosers. The said protective devices shall be installed along the midrange part of the primary distribution of the feeder.</p> <p>The project also includes replacement of the existing aged AVR.</p> <p>The said Reclosers and AVRs shall have the following specifications:</p> <p>a) Reclosers are three-phase at different ratings and a rated voltage of 13.2 kV with digital monitoring and controls;</p> <p>b) AVRs are rated 167 KVA single-phase at a rated voltage of 7.62 kV complete with digital control and monitoring; and</p> | <p>The DU is mandated to provide its customers the distribution services and connections in its distribution system consistent with the distribution code. As load growth dictates the addition of new equipment and assets, it is therefore necessary to forecast the number of new connections to determine the quantity of metering equipment and other materials the cooperative needs to re are.</p> | 68,785,160.33 | |
| | <p>The project also includes replacement and upgrading the existing Reclosers. The said protective devices shall be installed along the midrange part of the primary distribution of the feeder.</p> <p>The project also includes replacement of the existing aged AVR.</p> <p>The said Reclosers and AVRs shall have the following specifications:</p> <p>a) Reclosers are three-phase at different ratings and a rated voltage of 13.2 kV with digital monitoring and controls;</p> <p>b) AVRs are rated 167 KVA single-phase at a rated voltage of 7.62 kV complete with digital control and monitoring; and</p> | <p>The installation of power circuit breaker shall comply with the safety standards required by the Philippine Grid and Distribution Codes.</p> <p>The replacement of the existing installed Reclosers and AVRs shall maintain a safe, reliable and efficient electric power service considering that these equipment are already beyond its standard asset life.</p> | 27,244,054.00 | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (PhP) | DATE FILED/ APPROVED |
|-----------------------------|--|--|--------------------|----------------------|
| | <p>c) The digital controls for the AVRs are universal with digital monitor.</p> <p>The following are the required specifications of the proposed projects, to wit:</p> <p>a) The single phase KWH meters are rated 60A and 1 OOA at 240V which are either bottom or socket connected type. The meters are either solid state or electromechanical with infrared communicator for specified meters; and</p> <p>b) Three-phase KWH meters are rated up to 50A at 120-480V, bottom-connected type, with load profile and power quality monitoring.</p> <p>Aging wood poles shall be replaced with the following specifications, to wit:</p> <p>a) New steel poles with length varying from 30 to 40 feet; and</p> <p>b) New concrete poles with length varying from 35 up to 55 feet.</p> <p>CEBECO I will construct secondary distribution line extension in far-flung areas within its franchise. A potential 313 locations with approximately 3, 178 customers are expected to be served through this project.</p> | | | |
| | | CEBECO I intends to replace the existing old and dilapidated KWh meters of various specifications in order to improve the efficiency of the distribution s stem. | 23,955,664.38 | |
| | | CEBECO I intends to replace its existing old and damaged poles in order to maintain a safe, efficient and reliable distribution s stem. | 11,670,227.65 | |
| | | The construction of distribution line extension to energize customers located at far-flung areas or Sitios is a mandate of the cooperative. | 91,397,000.00 | |
| NON-NETWORK PROJECTS | | | | |
| | | The communication system is one of the key factors in providing the best consumer services. Acquisition of equipment to create said system shall speed up the coordination of field personnel that lead to prompt actions to consumer requests, complaints and line services, thus, enhancing the EC's existing communication system. Generally, the communication system makes the DU's operation more efficient. | 862,500.00 | |
| | CEBECO I intends to acquire a new communication equipment and installation of two (2) radio communication repeater facilities. | Considering that the DU's distribution lines are extended even on mountainous part of its franchise area, additional radio equipment are needed to communicate with the field personnel. And the installations of the two radio repeater facilities will ensure that there is communication coverage in the entire franchise area. | | |
| | CEBECO I intends to acquire computer software and equipment specifically 10 units of GPS portable units. | Automated Mapping/Facilities Management (AM/FM) is a subset of Geographic Information System (GIS) software which allows utility users to manage and analyze the network system. The data is stored in GIS database which maintains the associations between the graphical entities and the attributes. | 300,000.00 | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED | | | | | | | | |
|-----------------------------|---|---|----------------------|---|-------------------|---|---------------------------|---|-----------------------------|--|---------------------|--|
| | <p>CEBECO I intends to acquire new equipment for its meter reading, billing and collection system.</p> | <p>The data and information is being gathered through a hardware called Global Positioning System (GPS) portable units which is then being transferred to the said GIS software.</p> <p>The software contributes in distribution system planning and other potential information and engineering applications can also be identified. The data gathered will be utilized by the engineering software to provide a better and wider view of the distribution system. This will help the DU to further understand and analyze the system efficiently.</p> <p>The acquisition of this software will give the cooperative an opportunity to improve accurate gathering of data, create automated system map and real time computation of its distribution system loss.</p> <p>CEBECO I deems it appropriate to acquire additional and upgrade its existing meter reading, billing, collection and management information system in order to meet the fast growing demand of consumers with regard to its customer services. Considering the availability of modern day technology, the cooperative would likewise take the opportunity to utilize such in order to provide its customers adequate services it rightfully deserves.</p> <p>The upgraded new system will significantly improve the performance of the meter readers' capability. Posting and printing of materials for billing will take less time thus, ensuring a timely billing of its consumers. Moreover, the technology includes interfacing the entire devices which eventually transforms into fast, reliable and efficient way of collecting the payment.</p> <p>The project is essential in order to improve the DU's performance in terms of efficiency, reliability while maintaining a safe distribution system. The proposed procurements are categorized as follows:</p> <table border="1" data-bbox="986 548 1380 1317"> <tr> <td data-bbox="986 1160 1058 1317">Line Tools</td> <td data-bbox="986 548 1058 1160">The addition of line maintenance tools for line personnel is crucial in order to meet the demand with regard to customer service.</td> </tr> <tr> <td data-bbox="1058 1160 1182 1317">Testing Equipment</td> <td data-bbox="1058 548 1182 1160">The equipment shall be used for the testing, commissioning and maintaining the network assets of CEBECO I as a compliance to the monitoring and technical standard requirements of the Philippine Grid and Distribution Codes (PGDC).</td> </tr> <tr> <td data-bbox="1182 1160 1283 1317">Line Monitoring Equipment</td> <td data-bbox="1182 548 1283 1160">The equipment shall be used as a tool to monitor and gather essential data within the distribution system in order to construct technical planning and ensure the best electric service to its customers.</td> </tr> <tr> <td data-bbox="1283 1160 1380 1317">Consumer Services Equipment</td> <td data-bbox="1283 548 1380 1160">The equipment shall be used as a tool to communicate information to the member consumers in a more presentable way. Documentation of important events will be easier. Relaying of important information and messages through</td> </tr> </table> | Line Tools | The addition of line maintenance tools for line personnel is crucial in order to meet the demand with regard to customer service. | Testing Equipment | The equipment shall be used for the testing, commissioning and maintaining the network assets of CEBECO I as a compliance to the monitoring and technical standard requirements of the Philippine Grid and Distribution Codes (PGDC). | Line Monitoring Equipment | The equipment shall be used as a tool to monitor and gather essential data within the distribution system in order to construct technical planning and ensure the best electric service to its customers. | Consumer Services Equipment | The equipment shall be used as a tool to communicate information to the member consumers in a more presentable way. Documentation of important events will be easier. Relaying of important information and messages through | <p>7,838,000.00</p> | |
| Line Tools | The addition of line maintenance tools for line personnel is crucial in order to meet the demand with regard to customer service. | | | | | | | | | | | |
| Testing Equipment | The equipment shall be used for the testing, commissioning and maintaining the network assets of CEBECO I as a compliance to the monitoring and technical standard requirements of the Philippine Grid and Distribution Codes (PGDC). | | | | | | | | | | | |
| Line Monitoring Equipment | The equipment shall be used as a tool to monitor and gather essential data within the distribution system in order to construct technical planning and ensure the best electric service to its customers. | | | | | | | | | | | |
| Consumer Services Equipment | The equipment shall be used as a tool to communicate information to the member consumers in a more presentable way. Documentation of important events will be easier. Relaying of important information and messages through | | | | | | | | | | | |
| | <p>CEBECO I proposed the acquisition of several tools, devices and equipment, as detailed in the cost analysis.</p> | | <p>24,368,260.20</p> | | | | | | | | | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED | | | | |
|---|--|-----------------------------------|---|----------------------|---|---|--|--|
| | <p>audio-visuals will be the most efficient and presentable way in providing better services to consumers.</p> <table border="1" data-bbox="339 548 467 1317"> <tr> <td data-bbox="339 1167 411 1317">Engineering Software and Training</td> <td data-bbox="339 548 411 1167">The software shall serve as a tool to aid the engineers in solving and analyzing distribution system while the training shall enhance their technical capabilities.</td> </tr> <tr> <td data-bbox="411 1167 467 1317">Motor Pool Equipment</td> <td data-bbox="411 548 467 1167">Acquisition of new motor pool equipment shall shorten the repair time of vehicles during maintenance operation.</td> </tr> </table> | Engineering Software and Training | The software shall serve as a tool to aid the engineers in solving and analyzing distribution system while the training shall enhance their technical capabilities. | Motor Pool Equipment | Acquisition of new motor pool equipment shall shorten the repair time of vehicles during maintenance operation. | <p>The Commission, on the other hand, believes that the customer services equipment and trainings should form part of CEBECO I's operations and maintenance O&M expenditures.</p> <p>CEBECO I 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.</p> | | |
| Engineering Software and Training | The software shall serve as a tool to aid the engineers in solving and analyzing distribution system while the training shall enhance their technical capabilities. | | | | | | | |
| Motor Pool Equipment | Acquisition of new motor pool equipment shall shorten the repair time of vehicles during maintenance operation. | | | | | | | |
| <p>The project consists of replacing some of the existing computer set-up of the cooperative with brand new computers. The replacement shall be prioritized according to units with outdated systems and incapable of performing at its expected level.</p> | <p>Obsolete units shall be replaced with the latest unit in order for the personnel to cope up with the modern technology which in effect, achieves the goal of the cooperative as stated above.</p> <p>However, it failed to justify the proposed units of laptops to be acquired as well as its detailed designation to its personnel.</p> <p>The Commission, thereby, approved the reduction of laptop units to be procured. The Commission considered allotting the said devices to the existing number of head officials of CEBECO I considering that these personnel require additional tasks and field works.</p> | <p>1,390,000.00</p> | | | | | | |
| <p>The location of the proposed area office building shall be constructed at the municipalities of Carcar, Argao, Ginatilan and Moalboal. The said sub-offices shall serve as the collection and payment center and the headquarters for each specified area's technical crew intended for line maintenance routine and customer services.</p> <p>The project also includes the construction of covered storage and customer's assembly buildings/multipurpose building. The Multi-purpose building design shall have a capacity of 4,000 persons and will be constructed with a stage and comfort rooms.</p> | <p>The existing sub-offices in the municipalities of Carcar, Argao, Ginatilan and Moalboal are being rented by CEBECO I. These sub offices are generally where transactions take place such as customer payments, monetary and material collections, data processing, and other necessary customer services.</p> <p>The proposed construction of sub-offices and storage building in the main office shall address the following problems being encountered particularly by the customers with the existing conditions and location of the said sub-offices:</p> <ol style="list-style-type: none"> The location of Carcar and Argao sub-offices are within city proper wherein traffic is normally congested. The said situation provides difficulty for the customers during their billing payments as well as for the area crew during line and customer emergency responses; The location of Ginatilan and Moalboal sub-offices compromises safety considering that it is located near the highway road wherein collection activities inside the office can easily be seen from the outside; | <p>33,917,747.70</p> | | | | | | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED |
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| | | <p>c) The location of Ginatian and Moalboal sub-offices also provides physical difficulties for the customers, such as sun exposure and exhaustion, due to insufficient customer lounge;</p> <p>d) The parking space of these sub-offices are limited; and</p> <p>e) The storage area for the required materials and other significant equipment are very limited. It is crucial for the cooperative to have more than enough storage area considering that the demand for said materials is continuously increasing.</p> <p>It shall provide great positive impact for both the customers and the cooperative's staff and crew in terms of safe and conducive place for the necessary transactions. The DU shall also achieve its goal of providing a better service performance to its customers.</p> <p>The proposed multi-purpose building, located in the main office, shall be used as a place for annual general membership meetings, anniversaries and other programs of the cooperative.</p> | | |
| <p>Camarines Norte Electric Cooperative, Inc. (CANORECO) ERC CASE NO. 2011-040 RC</p> | <p>Installation of a new 5 MVA substation at Bagong Silang, Labo, Camarines Norte and a 25 kilometer single circuit 69 kV line from the existing 69 kV line in Tabatbat Substation.</p> <p>This 5 MVA Bagong Silang Substation will have two (2) feeders. One feeder will be located at the Municipality of Capalonga and the other feeder at the Municipality of Sta. Elena.</p> <p>The construction of a new 5 MVA substation with two (2) feeders. One feeder will supply the area going to the Larap line and the coastal area of Jose Panganiban while the other feeder will supply the area going to the Poblacion Osmena to the mining site of Jose Panganiban.</p> <p>Conversion of the single phase to three phase primary line at the Labo-Poblacion Feeder Tai-F2. The single phase line that starts from Barangay Buihao will be converted into a three phase line. The conversion will end at the Barangay Pinagbirayan Malaki with a total length of 10.20 kilometers. Included also in the conversion are the replacement of rotten poles and re-routing of some portions that crosses rice fields and private lots.</p> | <p align="center">NETWORK PROJECTS</p> <p>This project will relieve the Tabatbat Substation from its capacity problem. This project will also solve the power quality problem at feeder TaiF1 Labo- South road line of the said substation.</p> <p>This project will relieve the capacity problem of the Tawig Substation and will solve the power quality problem at feeder Taw F2 Jose Panganiban Line.</p> <p>To solve power quality problems and to meet the increasing demand for electricity.</p> | <p>77,301,092.50</p> <p>24,599,892.00</p> <p>5,211,584.00</p> | <p>17 March 2011/ 1 December 2014</p> |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED |
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| | The single phase line that starts from Poblacion of Capalonga will be converted into a three phase line with a total length of 10.26 kilometers. Included also in the conversion are the replacement of rotten poles and re-routing of some portions of distribution lines that cross rice fields and private lots. | To solve CANORECO's power quality problems and to meet its increasing demand for electricity. | 6,238,885.00 | |
| | Conversion of single phase to three phase line from Poblacion Jose Panganiban up to Barangay Larap of the same town. | | | |
| | Conversion of single phase to three phase line from Barangay Bagong Bayan, Jose Panganiban up to Barangay Lukiukan Sur Jose Panganiban up to Barangay Larap of the same town. | To serve the three phase demand of CANORECO's mining customers. | 12,944,159.00 | |
| | The combined total length for these two projects is 22.66 kilometers. Included also in the conversion are replacement of rotten poles and rerouting of some portions that crosses rice fields and private lots. | | | |
| | Conversion of single phase line to three phase line from Poblacion Basud up to Barangay Tuaca of the same Municipality with a total length of 10.18 kilometers. Included 2010 also in the conversion are the replacement of rotten poles and re-routing of lines. | To solve power quality problems and to meet the increasing demand for three phase service of factories. | 6,190,239.00 | |
| | Extension of CANORECO's primary distribution lines (backbone lines) | To accommodate its new customers, the extension of its primary distribution lines is necessary. | 3,268,665.00 | |
| | Purchase of new distribution transformers for new customers | To accommodate additional load. | 3,692,244.39 | |
| OTHER NETWORK PROJECTS | | | | |
| | The project involves procurement of materials and accessories which are necessary to accommodate new and incoming member-consumers | CANORECO has the obligation to all of its end users to provide distribution services and connections consistent with the Philippine Distribution Code (PDC). | 14,891,301.00 | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED |
|--|---|--|--------------------|-------------------------------------|
| | Construction/extension of open secondary lines | To accommodate new customers without existing secondary lines in far flung areas. | 2,067,495.00 | |
| <p>Misamis Oriental I Rural Electric Cooperative, Inc. (MORESCO I) ERC CASE NO. 2011-148 RC</p> | <p align="center">NETWORK PROJECTS</p> <p>Phase 1: Construction of 69 kV Line and 13.2 kV underbuilt, Pagawan Substation to Lumbo Substation (40 km 336.4 MCM 69 kV line with 336.4 MCM 13.2 kV line);</p> <p>Phase 2: Re-routing of 69 kV line at Henigdaan, El Salvador (0.8 km. 336.4 MCM 69 kV line);</p> <p>Phase 3: Construction of 69 kV line from Lumbo Substation to Ouibonbon Substation;</p> <p>Phase 4: Construction of 69 kV line from Ouibonbon Substation to Patag Substation;</p> <p>Phase 5: Construction of 69 kV line from Patag Substation to Canituan Substation;</p> <p>Phase 6: Canituan Substation to Lumbia ASS Interconnection; Lumbia ASS to Rio Verde Substation Interconnection; Lumbia ASS to Cabula Substation Interconnection;</p> <p>Phase 7: Cabula Substation to Mambuaya Substation interconnection;</p> <p>Phase 8: Mambuaya Substation to Talakag Substation interconnection;</p> <p>Phase 9: Manticao Substation Switch bay;</p> <p>Switchbays; and</p> <p>Optical Ground Wire overhead protection</p> | <p>The new power lines will interconnect all the substations of MORESCO I and will provide an N-1 contingency for its distribution s stem.</p> | 386,489,201.16 | 27 October 2011/ 1 December 2014 |
| | Procurement of and installation of pole mounted distribution transformers | The project is to purchase new pole mounted transformers of various capacities to address consumer load growth. A total of three hundred fifty-two (352) pole units mounted distribution transformer of various kVA capacity ratings is proposed to be procured in the next four 4 ears. | 13,220,733.10 | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED |
|-----------|--|--|--------------------|----------------------|
| | Purchase of new current transformers for HV customers metering application | To replace aged, deteriorated and inaccurate current transformers utilized in demand metering for HV customers. | 2,713,999.84 | |
| | Procurement and installation of automatic meter reading 3- phase meters including accessories | To reduce system loss as well as to comply with metering accuracy requirement. | 14,116,800.00 | |
| | Purchase and installation of primary and secondary metering for new large commercial and industrial customers | The expenditure aims to upgrade existing 3-phase electromechanical demand meters with consumption-sensitive automatic type meters. | 4,161,600.00 | |
| | Procurement of poles for 69 kV and 34.5 kV lines to be installed in the following sub-transmission line: a) Lugait to Alsons; b) Lugait to Ferrochem; c) Lugait to Inchrome; d) Hinigdaan to Lumbo; e) Talaba to Abi; f) Malanang to Patag, Opoi; and g) Carmen to Talakag. | Expenditure being pursued for the provision of electric service to potential large commercial and industrial customers. | | |
| | The project is for the procurement and installation of sixty four (64) units of poles for 69 kV lines and seventy two (72) unit of poles for 34.5 kV lines | To upgrade and replace the existing damaged and decaying poles to assure reliability and safety of the distribution system. | 4,115,967.19 | |
| | Procurement of conductors, hardware/materials for the distribution lines poles and line expansion | The proposed expenditures aim to address load growth particularly in rural areas. Expenditure will comply with the electric cooperative's mandate to provide electric distribution services even in less viable areas. | 31,015,600 | |
| | Upgrading of existing electro-mechanical meters to electronic type meters Project | To enhance existing single phase electro-mechanical kWh meters with more efficient electronic meters. | 81,640,000.00 | |
| | Procurement and installation of polymer insulators for 69 kV and 34.5 kV lines | The project is for the replacement of existing overhead suspension insulators for various 69 kV and 34.5 kV lines in several locations and feeders. | 8,689,800 | |
| | Construction of 16 km 69 kV line from Canituan Substation to Lumbia ABS; Construction of 8 km 69 kV line from Lumbia ABS to Rio Verde Substation; | To increase substation capacity, and attain substation reliability and efficiency | 140,798,771.02 | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED |
|-------------------------------|--|--|--------------------|----------------------|
| | Construction of 8 km 69 kV line from Lumbia ABS to Cabula Substation; | | | |
| | Construction of 8 km 69 kV line with 34.5 kV line underbuilt from Cabula Substation to Mambuaya Substation; and | | | |
| | Upgrading of Mambuaya Substation from 0.577 MVA 34.5/13.2 kV to 20 MVA 69/34.5-13.2 kV. | | | |
| | Construction of 12 km. 69 kV line with 34.5 kV line underbuilt from Mambuaya Substation to 2017 Talakag Substation; and | To address capacity problem of Talakag Substation | 10,600,115.00 | |
| | Upgrading of Talakag Substation (1.5 MVA to 3.75 MVA. | | | |
| OTHER NETWORK PROJECTS | | | | |
| | Purchase and installation of kWh meters and accessories | The new revenue meters are intended for the registration of power consumption requirements of residential customers. The applicant intends to buy a total of 12,790 units of electronic kWh meters for the next three (3) years. | 32,684,034.60 | |
| NON-NETWORK PROJECTS | | | | |
| | Purchase of various software programs, hardware, accessories for various distribution operations and office applications | To increase operations efficiency through system automation of office activities utilizing various computer programs. | 10,156,600.00 | |
| | Acquisition of 4 units of 4x4 Utility Trucks, Canter | To improve employees' mobility and response time in doing assigned tasks. | 6,000,000.00 | |
| | Purchase of vehicles, tools for safety gadget and powered operated equipment. | The proposed expenditures aim to enhance the manpower services and assure the reliability of the power supply. | 16,543,279.83 | |
| | Procurement of instruments/equipment for distribution operations | To increase operations efficiency and increase the level of accuracy of monitoring and data gathering of electrical distribution parameters. | 12,851,570.40 | |
| | Construction, conversion and renovation, rehabilitation of several structures | The proposed expenditures aim to provide a decent and aesthetically-enhanced office and existing structures of the applicant. | 20,190,000.00 | |
| | Procurement of communication facilities and accessories | To modernize its communication system which include dispatch and relaying of status of over-all distribution operations. | 9,250,000.00 | |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (Php) | DATE FILED/ APPROVED |
|--|---|--|--|---|
| | <p>Acquisition of Fire Hydrant</p> <p>Purchase of SCADA system for various power substations</p> <p>Purchase of Automated Load Break Switches</p> | <p>Compliance of Building Code Requirements.</p> <p>To increase operations efficiency through system automation and centralized data gathering.</p> | <p>522,000.00</p> <p>22,547,724.00</p> | |
| EMERGENCY CAPITAL EXPENDITURE PROJECTS | | | | |
| <p>Isabela II Electric Cooperative, Inc. (ISELCO II) ERC CASE NO. 2012-013 RC</p> | <p>Installation of a new 10 MVA substation at Barangay San Rafael, Roxas and construction of 5.63 km. 69 kV sub-transmission lines</p> | <p>ISELCO II constructed a new 10 MVA capacity substation at Barangay San Rafael, Roxas, Isabela to augment the capacity buildup of its 10 MVA Munoz Substation which was relocated to San Manuel, Isabela. Simultaneous to this is the construction of a 5.63 km. 69 kV sub-transmission line for the said substation. The proposal was implemented prior to the relocation of the Munoz Substation in order to mitigate power interruption within its franchise area during the transfer. The project was implemented on November 15, 2011 and was completed on October 11, 2012.</p> | 44,852,645.00 | <p>1 February 2012/ 1 December 2014</p> |
| | <p>Relocation of the 10 MVA substation from Munoz, Roxas to San Manuel and construction of 10.53 km. 69 kV sub-transmission lines</p> | <p>The 69 kV subtransmission line supplying power to the 10 MVA Munoz Substation is perennially affected by flooding thereby eroding the foundation of some supporting structures along the Siffo River and thus, the relocation of the 69 kV sub-transmission line is necessary. ISELCO II proposed to retire its 10 MVA substation facility at Barangay Munoz, Roxas, Isabela to address the problem and relocate the existing equipment to San Manuel, Isabela. The project will also require the construction of a 10.53 km. of 69 kV sub-transmission line. The project was implemented on November 15, 2011 and was completed on March 21, 2013.</p> | 34,518,807.00 | |
| EMERGENCY CAPITAL EXPENDITURE PROJECTS | | | | |
| <p>Siargao Electric Cooperative, Inc. (SIARELCO) ERC CASE NO. 2010-123 RC</p> | <p>Immediate acquisition of new 5 MVA Power Transformer 69 kV/13.2 kV</p> | <p>SIARELCO conducted a Preventive Maintenance Service (PMS) of its existing 5 MVA 69 kV/13.2 kV Power Transformer. Test results of the PMS revealed serious defect in the transformer turn's ratio causing significant voltage variation in the load ends of the lines. This condition is a violation of the Philippine Distribution Code (PDC).</p> | 22,998,948.18 | <p>11 October 2010/ 17 November 2014</p> |
| | <p>Immediate rehabilitation and repair of damaged existing submarine cable</p> | <p>The entire Island of Siargao has experienced a total blackout for about twelve (12) days when the submarine cable connecting the Island and mainland (Surigao) accidentally damaged sometime in April 2, 2010.</p> | 2,930,156.25 | |
| EMERGENCY CAPITAL EXPENDITURE PROJECT | | | | |
| <p>Siargao Electric Cooperative, Inc. (SIARELCO) ERC CASE NO. 2011-125 RC</p> | <p>Repair of the existing damaged 5 MVA 69 kV/34.5 kV power transformer located at Cagdianao, Claver, Surigao del Norte</p> | <p>The existing 5 MVA 69 kV/34.5 kV power transformer was damaged due to lightning. Thus, the repair of the said transformer has to be done since the new 5 MVA 69 kV/13.2 kV power transformer is just a backup.</p> | 8,964,656.80 | <p>5 September 2011/ 17 November 2014</p> |

| APPLICANT | PROJECT DESCRIPTION | RATIONALE | PROJECT COST (PhP) | DATE FILED/ APPROVED |
|---|--|---|----------------------|---|
| <p>Cagayan II Electric Cooperative, Inc. (CAGELCO II) ERC CASE NO. 2014-006 RC</p> | <p>Rehabilitation and Restoration of Typhoon-Damaged Distribution Lines and Equipment by Typhoon Vinta</p> | <p>FORCE MAJEURE PROJECT</p> <p>The rehabilitation and restoration of CAGELCO II's distribution system was necessary to address the safety, reliability, and efficiency of its system and to restore power to the affected localities pursuant to Section 1.2.1 of the Commission's Resolution No. 12, Series of 2006 (Guidelines for Monitoring of Reliability Standards for Distribution Utilities) and Section 3.3 of Resolution No. 26, Series of 2009 (A Resolution Amending the Rules for Approval of Regulated Entities' Capital Expenditure Projects), which state that:</p> <ul style="list-style-type: none"> a. Resolution No. 1 2, Series of 2006 "Each Distribution Utility shall make reasonable efforts to avoid and prevent Interruptions of service. However, when Interruptions occur, service shall be reestablished within the shortest time practicable." b. Resolution No. 26, Series of 2009 "If a Force Majeure 1or Fortuitous event, as the case may be, occurs, the affected Regulated Entity shall seek the ERC's confirmation of the implementation of capital expenditure projects arising from such event xxx <p>The affected Regulated Entity shall file a formal application within thirty (30) days from the submission of the Force Majeure, or Fortuitous Event Notice. XXX."</p> | <p>15,667,629.32</p> | <p>24 January 2014/ 17 November 2014</p> |

Source: ERC website

Annex 17. 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 |
| January-09 | 47,806,643.10 | 62,542,055.24 | 110,348,698.34 | 47,015,229.93 | 55,007,710.33 | 212,371,638.60 |
| February-09 | 42,273,187.20 | 64,217,843.86 | 106,491,031.06 | 50,088,622.44 | 58,532,264.35 | 215,111,917.85 |
| March-09 | 44,040,781.71 | 72,167,723.34 | 16,208,505.05 | 40,353,083.65 | 45,253,008.77 | 201,814,597.47 |
| April-09 | 53,118,020.70 | 72,821,969.18 | 125,939,989.88 | 54,326,480.12 | 59,947,414.10 | 240,213,884.10 |
| May-09 | 64,030,998.00 | 98,241,624.26 | 162,272,622.26 | 51,704,193.10 | 59,122,138.86 | 273,098,954.22 |
| June-09 | 68,204,346.90 | 56,650,477.52 | 124,854,824.42 | 51,278,066.68 | 58,609,301.03 | 234,742,192.13 |
| July-09 | 63,628,967.70 | 65,161,685.28 | 128,790,652.98 | 48,742,591.72 | 54,649,917.21 | 232,183,161.91 |
| August-09 | 58,986,725.10 | 61,356,596.29 | 120,343,321.39 | 48,943,598.40 | 57,173,785.23 | 226,460,705.02 |
| September-09 | 50,732,551.80 | 69,253,355.08 | 119,985,906.88 | 49,727,759.66 | 61,284,765.87 | 230,998,432.41 |
| October-09 | 38,966,161.50 | 55,868,121.86 | 94,834,283.36 | 50,266,616.81 | 58,345,501.27 | 203,446,401.44 |
| November-09 | 31,832,086.00 | 19,908,900.00 | 51,740,986.00 | 37,384,175.00 | 60,168,998.00 | 149,294,159.00 |
| December-09 | 24,530,890.00 | 7,880,404.00 | 32,411,294.00 | 37,104,752.00 | 61,082,278.00 | 130,598,323.00 |
| January-10 | 23,572,436.00 | 5,680,029.00 | 29,252,465.00 | 35,947,500.00 | 61,143,896.00 | 126,343,861.00 |
| February-10 | 16,988,494.00 | 7,383,173.00 | 24,371,667.00 | 35,584,880.00 | 57,003,485.00 | 116,960,032.00 |
| March-11 | 30,078,723.00 | 7,188,075.00 | 37,266,798.00 | 32,586,053.00 | 44,935,288.00 | 114,788,139.00 |
| April-10 | 27,989,214.10 | 6,994,305.08 | 34,983,519.18 | 33,097,892.60 | 55,781,074.41 | 123,862,486.19 |
| May-10 | 26,945,954.12 | 8,335,549.24 | 35,281,503.36 | 46,852,306.73 | 58,602,559.43 | 140,736,369.52 |
| June-10 | 25,829,411.99 | 7,667,101.81 | 33,496,513.80 | 38,496,958.90 | 66,213,086.12 | 138,206,558.82 |
| July-10 | 7,577,968.93 | 9,467,995.19 | 17,045,964.12 | 37,035,208.59 | 56,583,928.26 | 110,665,100.97 |
| August-10 | 8,449,485.54 | 8,726,414.90 | 17,175,900.44 | 33,892,800.66 | 57,451,146.62 | 108,519,847.72 |
| September-10 | 8,625,603.24 | 6,891,672.75 | 15,517,275.99 | 35,104,382.96 | 57,349,652.55 | 107,971,311.50 |
| October-10 | 9,210,107.25 | 6,795,056.53 | 16,005,163.78 | 33,663,960.20 | 58,237,764.61 | 107,906,888.59 |
| November-10 | 8,996,042.05 | 6,614,179.19 | 15,610,221.24 | 32,882,418.91 | 62,022,299.56 | 110,454,939.71 |
| December-10 | 7,929,051.20 | 1,951,050.19 | 9,880,101.39 | 32,407,720.28 | 78,841,735.75 | 121,129,557.42 |
| January-11 | 12,866,368.66 | 4,279,707.63 | 17,146,076.29 | 30,440,344.80 | 65,272,213.70 | 112,858,634.79 |
| February-11 | 11,901,724.80 | 4,185,132.98 | 16,086,857.78 | 26,155,577.14 | 57,774,813.96 | 100,017,248.88 |
| March-11 | 9,768,215.70 | 3,969,708.66 | 13,737,924.36 | 23,742,284.14 | 51,874,251.31 | 89,354,459.81 |
| April-11 | 5,172,690.30 | 4,263,910.08 | 9,436,600.38 | 20,084,581.86 | 58,855,190.04 | 88,376,372.28 |
| May-11 | 8,387,174.86 | 4,784,938.17 | 13,172,113.03 | 20,529,433.51 | 68,402,330.52 | 102,103,877.06 |
| June-11 | 11,310,086.13 | 4,973,382.86 | 16,283,468.99 | 22,250,391.59 | 62,851,407.75 | 101,385,268.33 |
| July-11 | 10,547,112.05 | 4,653,784.10 | 15,200,896.15 | 22,352,448.64 | 60,225,893.67 | 97,809,238.46 |
| August-11 | 9,207,207.46 | 4,691,365.50 | 13,898,572.96 | 20,978,035.54 | 62,271,564.88 | 97,148,173.38 |
| September-11 | 7,076,107.39 | 4,610,040.19 | 11,686,147.58 | 20,868,424.70 | 62,829,132.99 | 95,383,705.27 |
| October-11 | 5,551,114.71 | 4,515,770.27 | 10,066,884.98 | 21,339,283.45 | 62,856,303.08 | 94,262,471.51 |
| November-11 | 3,969,132.06 | 4,583,955.34 | 9,126,664.00 | 20,614,468.60 | 64,639,733.34 | 94,380,865.94 |
| December-11 | 5,463,569.37 | 4,143,157.34 | 9,606,726.71 | 19,708,235.60 | 64,896,365.46 | 94,211,327.77 |
| January-12 | 934,471.58 | 1,868,028.00 | 2,802,499.58 | 18,851,497.97 | 64,076,315.36 | 85,730,312.91 |
| February-12 | 1,311,195.54 | 1,839,662.40 | 3,150,857.94 | 19,181,446.72 | 60,517,280.85 | 82,849,585.51 |
| March-12 | 1,392,820.86 | 1,853,163.30 | 3,245,984.16 | 18,412,336.44 | 54,976,695.50 | 76,635,016.10 |
| April-12 | 1,555,958.33 | 2,111,709.30 | 3,667,667.63 | 17,061,517.71 | 57,238,872.87 | 77,968,058.21 |
| May-12 | 1,554,330.71 | 2,111,281.50 | 3,665,612.21 | 18,500,897.45 | 61,089,720.41 | 83,256,230.07 |
| June-12 | 1,615,760.64 | 1,958,480.10 | 3,574,240.74 | 20,209,017.40 | 65,117,974.74 | 88,901,232.88 |
| July-12 | 1,496,653.14 | 1,913,728.50 | 3,410,381.64 | 19,926,688.18 | 56,887,839.01 | 80,224,908.83 |
| August-12 | 1,527,035.72 | 1,707,646.50 | 3,234,682.22 | 18,564,718.00 | 60,684,395.62 | 82,483,795.84 |
| September-12 | 1,475,938.50 | 1,784,565.90 | 3,260,504.40 | 18,843,080.75 | 60,119,644.27 | 82,223,229.42 |
| October-12 | 1,445,567.31 | - | 1,445,567.31 | 19,489,295.83 | 57,886,442.12 | 78,821,305.26 |
| November-12 | 1,532,946.47 | - | 1,532,946.47 | 18,408,963.30 | 57,957,528.10 | 77,899,437.87 |
| December-12 | 1,246,604.82 | - | 1,246,604.82 | 18,870,037.99 | 57,979,575.82 | 78,096,218.63 |
| January-13 | 1,007,519.67 | - | 1,007,519.67 | 19,039,165.16 | 62,591,536.19 | 82,638,221.02 |
| February-13 | 881,888.40 | - | 881,888.40 | 19,295,027.19 | 61,232,145.13 | 81,409,060.72 |
| March-13 | 1,098,789.00 | - | 1,098,789.00 | 18,295,974.54 | 45,672,696.54 | 65,067,460.08 |
| April-13 | 1,343,510.00 | - | 1,343,510.00 | 16,843,335.83 | 64,181,388.54 | 82,368,234.37 |
| May-13 | 1,377,485.01 | - | 1,377,485.01 | 19,753,397.40 | 62,236,657.34 | 83,367,539.75 |
| June-13 | - | - | - | 20,699,689.30 | 62,463,877.66 | 83,163,566.96 |
| July-13 | - | - | - | 19,681,740.89 | 59,494,873.07 | 79,176,613.96 |
| August-13 | - | - | - | 18,639,343.98 | 54,104,257.05 | 72,743,601.03 |
| September-13 | - | - | - | 18,137,267.00 | 52,477,631.87 | 70,614,898.87 |
| October-13 | - | - | - | 18,065,812.58 | 56,117,216.45 | 74,183,029.03 |
| November-13 | - | - | - | 15,699,537.12 | 60,366,832.88 | 76,066,370.00 |
| December-13 | - | - | - | 8,865,660.13 | 58,993,632.09 | 67,859,292.22 |
| January-14 | - | - | - | 10,328,236.47 | 58,427,707.49 | 68,755,943.96 |
| February-14 | - | - | - | 13,025,567.47 | 59,216,823.01 | 72,242,390.48 |
| March-14 | - | - | - | 11,644,535.68 | 39,262,265.51 | 50,906,801.19 |
| April-14 | - | - | - | 12,527,922.91 | 72,062,522.04 | 84,590,444.95 |
| May-14 | - | - | - | 17,180,571.12 | 64,643,993.68 | 81,824,564.80 |

| | | | | | | |
|--------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|
| June-14 | - | - | - | 17,537,406.82 | 82,586,954.68 | 100,124,361.50 |
| July-14 | - | - | - | 4,293,714.11 | 56,873,580.48 | 61,167,294.59 |
| August-14 | - | - | - | 17,321,316.66 | 61,838,659.72 | 79,159,976.38 |
| September-14 | - | - | - | 16,845,371.92 | 68,043,039.88 | 84,888,411.80 |
| October-14 | - | - | - | 15,655,586.49 | 55,887,807.86 | 71,543,394.35 |
| November-14 | - | - | - | 17,215,487.69 | 60,209,308.05 | 77,424,795.74 |
| December-14 | - | - | - | 16,470,924.85 | 59,228,322.12 | 75,699,246.97 |
| TOTAL | 1,700,442,292.18 | 1,692,886,152.26 | 3,293,902,021.04 | 2,434,052,220.47 | 4,933,971,829.15 | 30,757,216,069.66 |

Source: NPC