# 23<sup>rd</sup> Electric Power Industry Reform Act Implementation Status Report

(Period Covering May 2013 to October 2013)

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 23<sup>rd</sup> Status Report on the Implementation of Republic Act No. 9136, otherwise known as the Electric Power Industry Reform Act (EPIRA) of 2001 contains various developments in the energy sector's evolving transformation to the restructured electricity industry covering the period May to October 2013.

The EPIRA mandated the Department of Energy (DOE) to supervise the restructuring of the electricity industry to ensure that the reform process will take place towards the ultimate vision of having a power industry characterized by higher efficiency, a level playing field, reasonably pricedelectricity rates and stable and secure supply of power. Following are the highlights of the latest developments:

- Privatization activities for Angat, Unified Leyte, Power Barges 101, 102, 103 and 104,
   Naga Power Plant Complex and Sucat Thermal Power Plant;
- National Transmission Corporation (TransCo) and Power Sector Assets and Liabilities Management (PSALM) Corporation joint report on their monitoring of National Grid Corporation of the Philippines (NGCP) compliances to the Concession Agreement;
- Updates on the turn-over of sub-transmission assets (STAs) to qualified distribution utilities (DUs);
- Latest summary information on electricity prices;
- Updates on the operation and governance of the Wholesale Electricity Spot Market (WESM), Retail Competition and Open Access (RCOA), and the implementation of Interim Mindanao Electricity Market (IMEM);
- Power supply and demand situation for the report period; and
- Status of electrification.

#### II. PRIVATIZATION

As of the report period, the privatization level for NPC's generating capacity remained at 79.56 percent in Luzon and Visayas with a total capacity of 3,222 MW. This is expected to reach 86.5 percent once the in-progress turn-over of Angat HEPP to Korean Water Resources, Inc. (K-Water) shall be completed. For the transfer of IPP contracts,the level remained likewise at 76.85 percent of the total NPC contracted energy output in Luzon and Visayas. PSALM continuously undertake activities relative to privatization of generating assets and transfer of NPC-IPP contracts to IPP Administrators with the following status:

## A. Privatization of Generating Assets

Based on the latest privatization schedule by PSALM, it targets to complete the sale of remaining assets in Luzon and Visayas by 2014 while for Mindanao, specifically on the Agus-Pulangui hydro power complexes, it proposes a bid schedule of 2017 subject to approval by Congress. Summarized in Table 1 are the list of the power plants and the indicative schedule of bids as identified by PSALM.

*Table 1. Schedule of Privatization for Generating Assets as of 310ctober 2013* 

| Asset Type        | Plant Name                           | Rated Capacity (MW) | Bid Date  | Turn Over Date                   |  |
|-------------------|--------------------------------------|---------------------|---|----------------------------------|--|
|                   | Luzon Grid                           |                     |   |                                  |  |
|                   | Angat Hydro                          | 218.00              | April 2010  | 1 <sup>st</sup> semester<br>2014 |  |
|                   | Malaya Thermal                       | 650.00              | Privatization is subject to DOE instruction                         |                                  |  |
|                   | Sub-total Luzon                      | 868.00              |   |                                  |  |
| Owned             | Visayas Grid                         |                     |   |                                  |  |
| Generating Plants | PB 101 (Diesel/Bunker)               | 32.00               |   |                                  |  |
|                   | PB 102 (Diesel/Bunker)               | 32.00               | October 2013  | 1st Quarter 2014                 |  |
|                   | PB 103 (Diesel/Bunker)               | 32.00               |   |                                  |  |
|                   | Cebu Thermal 1 & 2 (Naga<br>Complex) | 109.30              | October 2013  | 1st Quarter 2014                 |  |
|                   | Cebu Diesel (1-6) (Naga<br>Complex)  | 43.80               |   |                                  |  |
|                   | Sub-total Visayas                    | 249.10              |   |                                  |  |
|                   | Mindanao Grid                        |                     |   |                                  |  |
|                   | PB 104 (Diesel/Bunker)               | 32.00               | October 2013  | 1st Quarter 2014                 |  |
|                   | Agus 1 & 2 Hydro                     | 260.00              | _   | 017                              |  |
|                   | Agus 4 & 5 Hydro                     | 213.10              | ,   | nsultation with                  |  |
|                   | Agus 6 & 7 Hydro                     | 254.00              | •   | ovided under the<br>PIRA         |  |
|                   | Pulangui Hydro                       | 255.00              | E   | TIKA                             |  |
|                   | Sub-total Mindanao                   | 1,014.10            |   |                                  |  |
|                   | GRAND TOTAL                          | 2,131.20            |   |                                  |  |
| Decommissioned    | Bataan Thermal                       | -                   | Sale/disposal is subject to resolution of cases involving the asset |                                  |  |
| Plants            |                                      |                     |   |                                  |  |
|                   | Sucat Thermal                        | -                   | 2014  | 2014                             |  |

Source: PSALM

## **Angat Hydro Electric Power Plant (HEPP)**

The winning bidder Korea Water Resources Corporation (Kwater) renewed its Bid Security held by PSALM effectively extending the validity period until November 2013. PSALM issued the Certificate of Effectivity (CoE) of the Asset Purchase Agreement (APA) to the winning

bidder, KWater on 02 September 2013. The certificate commenced the Effective Date of the Transaction Documents on the sale of Angat HEPP.

Pursuant to the APA, the CoE obliges KWater to fully comply and complete all conditions precedent for the closing of the Angat HEPP sale. On 12 September 2013, KWater delivered its performance bond in the amount of US\$8,817,600.00.

## Power Barges (PB) 101, 102, 103 and 104

On 18 July 2013, PSALM commenced the sale process for PBs 101, 102, 103, and 104 through the publication of the Invitation to Bid (ITB). Interested parties were required to comply with the initial requirements consisting of the submission of a Letter of Interest (LOI), payment of a non-refundable Participation Fee of PhP120,000.00, and the execution of a Confidentiality Agreement and Undertaking.

Eight (8) prospective bidders, consisting of one (1) foreign and seven (7) local companies, complied with the initial requirements. The lone foreign bidder is the American Capital Energy and Infrastructure, while the local firms consist of D. M. Wenceslao & Associates, Inc., Filinvest Development Corporation Utilities, Inc.; S.L. Development Construction Corporation; SPC Island Power Corporation; Therma Power Visayas, Inc.; Trans-Asia Oil and Energy Development Corporation; and Vivant Corporation.

On 07 August 2013, PSALM conducted the Pre-Bid Conference for the privatization of PBs 101 102 103 and 104. All eight (8) firms attended the Conference.

On 12 September 2013, seven (7) prospective bidders submitted the Documentary Deliverables. On 30 October 2013, SPC Island Power Corporation emerged as the highest bidder with a bid of PhP546 million for Package 1 (composed of Power Barges 101-103) of the sale. Relatively, SPC will undergo post-qualification stage before being declared as the winning bidder to determine the accuracy, authenticity and completeness of all their documentary submissions, including the standby letter of credit and their full compliance with the Bidding Procedures. However, bidding for Package 2 (PB 104) was declared a failure since none of the bidders met the Reserve Price for the asset package.

#### Naga Power Plant Complex (NPPC)

On 15 July 2013, PSALM through its Privatization Bids and Awards Committee (PBAC) declared a failure of bidding after only one (1) bidder submitted Documentary Deliverables that were deemed compliant by the PBAC.

On 25 July 2013, the PSALM Board approved the conduct of a second round of bidding for the sale of the Plant. On 27 August 2013, PSALM commenced the second round of bidding through the publication of the ITB.

PSALM conducted the pre-bid conference for the sale of NPPC on 12 September 2013. Three (3) investor groups attended the said conference namely: SPC Power Corporation, Therma Power Visayas Inc., and RD Corporation. Said bidders complied with the submission of documentary deliverables within the deadline set last 24 September 2013. The deadline for the submission of bids is scheduled on 07 November 2013 at 12:00 noon.

#### **Sucat Thermal Power Plant (STPP)**

On 12 August 2013, PSALM Board approved the commencement of the sale of the structures, plant equipment, auxiliaries and accessories of the 850 MW Sucat Thermal Power Plant.

The Technical Working Group (TWG) will present the Bidding Procedures and the draft APA to the PSALM Privatization, Bids and Awards Committee (PBAC) on November 2013 for its approval.

The Invitation to Bid (ITB) is targeted to be issued by 1st quarter of 2014.

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

There are nine (9) NPC-IPP contracts yet to be bid by PSALM with indicative schedule up to 2016. These have an aggregate capacity of 1,900 MW, the largest of which is for the 728 MW aggregate energy contract for Caliraya-Botocan-Kalayaan Hydro. Table 2 shows the indicative schedule for the appointment of IPP Administrators in the remaining NPC-IPP contracts in Luzon, Visayas and Mindanao Grids as of 30 October 2013.

Table 2. Indicative Schedule for Appointment of IPP Administrators as of 310ctober 2013

| 1 66510 27 1716110610170 | utive schedule for Appointment of 111 Administrators as of 510 ctober 2015 |                                    |  |                   |  |
|--------------------------|--|------------------------------------|--|-------------------|--|
| Grid                     | Plant Name   | Contract<br>ed<br>Capacity<br>(MW) | Bid Date   | Turn Over<br>Date |  |
|                          | Casecnan Multi-Purpose Hydro   | 140.00                             | 2014   | 2014              |  |
| Luzon Grid               | Benguet Mini Hydro   | 30.75                              | IPP contract to expire i<br>privatization to be revi | ,                 |  |
|                          | Caliraya-Botocan-Kalayaan<br>Hydro   | 728.00                             | 2016   | 2016              |  |
|                          | Sub-total Luzon  | 898.75                             |  |                   |  |
|                          | Unified Leyte  | 559.00                             | October 2013   | December 2013     |  |
| Visayas Grid             | Sub-total Visayas  | 559.00                             |  |                   |  |
|                          | SPPC Diesel  | 50.00                              | WMPC and SPPC contra                                 | acts to expire in |  |
|                          | WMPC Diesel  | 100.00                             | 2015 and 2016, respe                                 |                   |  |
| Mindanao Grid            |  |                                    | privatization of said plants to be revie<br>by PSALM |                   |  |
|                          | Mindanao Coal-Fired  | 200.00                             | 2015   | 2015              |  |
|                          | Mt. Apo 1 Geothermal   | 44.52                              |  |                   |  |
|                          | Mt. Apo 2 Geothermal   | 48.00                              | 2014   | 2014              |  |
|                          | Sub-total Mindanao   | 442.52                             |  |                   |  |
|                          | GRAND TOTAL  | 1,900.27                           |  |                   |  |

Source: PSALM

#### **Unified Levte Geothermal Power Plant (ULGPP)**

PSALM commenced the selection process for the Independent Power Producer Administrators (IPPAs) for the ULGPP through the publication of the ITB on 31 July 2013, 01 and 02 August 2013. Interested parties are required to submit their LOI by 12 August 2013. To acquire the Bidding Package, they also need to execute a Confidentiality Agreement and an Undertaking with PSALM, and pay a nonrefundable Participation Fee of PhP200,000.00 for the bulk energy and PhP50,000.00 for the strips of energy on or before 14 August 2013.

Ten (10) prospective bidders for the IPPA for the bulk energy complied with the initial requirements namely: Aboitiz Renewables Inc.; DMCI Power Corporation; FDC Utilities Inc.; FDCUI Global Business Power Corporation; Marubeni Corporation; Philippine Associated Smelting and Refining Corporation; PASAR PowerOne Ventures Energy Inc.; TransAsia Oil and Energy Development Corporation; Unified Leyte Geothermal Energy Inc.; and Vivant Energy Corporation.

Twenty one (21) interested parties are participating in the IPPA selection for the strips of energy. These are Aboitiz Energy Solutions Inc.; AC Energy Holdings Inc.; APO Cement Corporation; DMCI Power Corporation; Emerging Power Resource Holding Corporation; FDCUI Global Business Power Corporation; Good Friends Hydro Resources Corporation; Leyte II Electric Cooperative Inc.; LIDE Management Corporation; LIDE PASAR Power Corporation; Marubeni Corporation; Negros Occidental Electric Cooperative Inc.; PASAR Philippine Phosphate Fertilizer Corporation; PowerOne Ventures Energy Inc.; Renagmec Power Corporation Inc.; Trans Asia Oil and Energy Development Corporation; Unified Leyte Geothermal Energy Inc.; Vivant Energy Corporation; and Waterfront Airport Hotel & Casino.

On 07 November 2013, seven (7) bidders passed the preliminary evaluation in the IPPA selection for the strips energy. These are FDC Utilities, Inc.; Good Friends Hydro Resources Corporation; Unified Leyte Geothermal Energy Inc.; Vivant Energy Corporation; Waterfront Mactan Casino Hotel, Inc.; Trans Asia Oil and Energy Development Corporation; and Aboitiz Energy Solutions Inc.

An IPPA can win the rights to "strips of energy" that range from one (1) megawatt (MW) up to a maximum of 40 MW. Out of the 240 MW sum of strips, only 200 MW will be offered to IPPAs. The 40 MW, which will remain with PSALM, will serve as security capacity.

The IPPA for the bulk energy will have the rights to the capacity in excess of the 240-MW sum of strips. The obligation to trade ULGPP's total output (bulk and sum of strips), as well as the necessary registration applications required by the Wholesale Electricity Spot Market (WESM), shall lie solely with the IPPA for the bulk energy.

#### C. Privatization Proceeds

As of the report period, PSALM generated total proceeds of US\$20.983 Billion while actual collection amounted to US\$8.124 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 4.

| Table 3  | Generated and | Callected Proces | eds of Privatization  | as of 31 October | 2013. (In US\$Billion) |
|----------|---------------|------------------|-----------------------|------------------|------------------------|
| Tuble 5. | denerated and | Collected I Loce | sus of LitvullZulloft | us oi si occobei | 4013. HIL 034DHHUHH    |

| Privatization Assets                       | Generated | Collected | Balance |
|--|-----------|-----------|---------|
| Generating Assets <sup>1/</sup>            | 3.064     | 3.064     | 0.000   |
| Decommissioned Plants <sup>2</sup> /       | 0.004     | 0.004     | 0.000   |
| Transmission Asset (TransCo) <sup>3/</sup> | 7.108     | 3.664     | 3.444   |
| Appointment of IPPAs <sup>4/</sup>         | 10.807    | 1.392     | 9.415   |
| TOTAL                                      | 20.983    | 8.124     | 12.859  |

<sup>1/</sup> Amounts generated include financial bid based on Schedule C of the Asset Purchase Agreement (APA) and interest on deferred payment.

<sup>2/</sup> Amounts generated include financial bid based on Schedule C of the Asset Purchase Agreement (APA).

<sup>3/</sup> Inclusive of interest with a rate based on 10year PDSTF plus 2.30%. Concession Fee bid of US\$3,950,000.00 was reduced by US\$117,050,119.37 representing adjustments for the Projects under Construction and Initial Working Capital as approved by the PSALM Board in July 2013), pursuant to Section 6.04 of the Concession Agreement (CA).

<sup>4/</sup> Consistent with the amount and schedule I of the IPP Administration Agreement (AA).

Table 4. Utilization of Privatization Proceeds as of 31 October 2013

| Privatization Proceeds Utilized | In US\$ Billion |
|---------------------------------|-----------------|
| Debt Prepayment                 | 1.298           |
| Regular Debt Service            | 3.717           |
| Lease Obligations               | 1.625           |
| Others                          | 0.052           |
| TRANSCO Opex                    | 0.001           |
| TOTAL                           | 6.693           |

USD: PhP= 43.1790(BSP Guiding Rate dated 31 October 2013)

Source: PSALM

#### D. Concession of the National Transmission Network

PSALM and TransCo resumed the conduct of assessment on NGCP's compliance to the Concession Agreement (CA), with the reconstitution of the Joint PSALM-TransCo Annual Technical, Financial and Legal Assessment Team (TFLAT).

The Sub-Teams namely: Technical. Regulatory, Financial, and Legal Team (TRFLAT) conducted a series of meetings on 08, 16, and 21 October 2013 to discuss the assessment report of each team: Technical. Regulatory, Financial, and Legal Team (TRFLAT) on the compliance of NGCP with the CA for CY 2012.

On 21 October 2013, the TFLAT's Preliminary Assessment was transmitted to NGCP for their review and comments. Likewise, NGCP's representatives were invited to attend the meeting scheduled on 18 November 2013 to discuss said assessment report.

In summary of the TFLAT's assessment pursuant to the provisions of the Concession Agreement, it noted that NGCP has 10 non-compliance items for the year 2011 as summarized in Table 6 below.

Table 5. Summary of TRFLAT Findings on CA Assessment

| FINDINGS                         | 2010 | 2011 |
|----------------------------------|------|------|
| 1. Complied                      | 52   | 51   |
| 2. Partially Complied            | 15   | 14   |
| 3. Not Complied                  | 9    | 10   |
| 4. Not Applicable                | 4    | 5    |
| 5. No Basis to Assess Compliance | 16   | 16   |
| Total                            | 96   | 96   |

Meanwhile, TransCo's inspection of the assets condition and Project Under Construction (PUC) accomplishments is shown in *Annex* 1. Further, the summary inspection report of PUC is shown in *Annex* 2.

Table 6. Summary of Non-Compliance Findings on CA Assessment

| CA Provisions  | Findings  |
|--|---|
| 4.01(e) On or before Commencement Date, TransCo shall notify, in writing of any receivables under the Transferred Contracts (the "Excluded Receivables") that are to be retained by TransCo for its own account and TransCo shall be entitled to collect and retain the Excluded Receivables | NGCP refused to remit outstanding power receivables and revenue claims of TransCo. Letters of TransCo on excluded receivables (CC/RSTC 2007) dated: January 4, 2010 |

| 4.06(c) TransCo shall be responsible for collecting, and shall be entitled to the proceeds of all receivablesbut the Concessionaire shall provide such reasonable assistance as TransCo may require to collect them.  | February 2, 2010<br>February 15, 2010<br>February 22, 2010<br>April 19, 2010<br>September 20, 2010<br>December 16, 2010   |
|---|---|
| 5.01 c) TransCo shall be responsibl  i. all of the transmission assets, Intellectual property rights  ii. All assets comprising Projects Under Construction or New Projects, and  iii. All easements, rights of way or other real estate interests, including Documented Property Rights acquired by the Concessionairea  | The documents submitted by NGCP still do not provide sufficient basis for TransCo to make any verification/ validation of NGCP's compliance with these provisions of the Concession Agreement   |
| 5.08 ocuments submitted by NGCP still do not provide sufficient basis for TransCo to make any verification/ validation of NGCP's compliance with these provisions of the Concession Agreementequire to collect  | This pertains to the ERC approved expenditures of TransCo on the 3rd Regulatory Final Determination (2011-2015) particularly on: (1) CAPEX for the settlement of ROW and (2) OPEX for the management of settlement of ROW claims and for selling residual subtransmission assets. To date, despite the ERC approval and collections made, NGCP fails to remit to TransCo the said expenditures. |
| 9.03(a) within 30 days of the establishment or renewal of each policy, NGCP shall: (i) provide PSALM & TransCo with certificate of insurance  | Copy of policies (for 2010 & 2011) were provided on   |
| (ii) provide PSALM and TransCo with copies of all such policies (including the endorsements thereto);   | July 5, 2012  |
| 10.01 The Concessionaire shall maintain complete and accurate books and records in which it shall make full, true and correct entries of all its transactions in accordance with Philippine GAAP, including records of operating and financial history and condition of the Transmission Assets. The Concessionaire shall maintain a complete and updated copy of such books and records both at its office in Metro Manila area and at another appropriately secure location | A document center at another secure location was not yet established (as of December 31, 2011).   |

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

The sale of TransCo's STAs involved 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 6,200 ckt-km of mostly 69 kV transmission lines and 1,600 MVA of substation capacity. TransCo in 2012 signed four (4) sale contracts with DUs amounting to about PhP 428.5 Million. This is on top of the six Distribution Utilities' waivers¹ on the acquisition of subtransmission assets amounting to PhP 316.2 Million.

As of October 31, 2013, TransCo has signed one hundred seven (107) sale contracts with seventy six (76) DUs/ECs/consortia amounting to about PhP5.77 billion. These sales cover an aggregate length of about 3,980 ckt-kms of sub-transmission lines (STLs) and about 35,800 sub-transmission structures and 865 MVA of substationcapacity. Of the one

*May* 2013 - *October* 2013

<sup>&</sup>lt;sup>1</sup>Waiver of rights by Distribution Utilities (DUs) to acquire subtransmission assets already consider TransCo in compliance with its obligation to divest its subtransmission assets under Rule 6 Sec. 8(e) of the Implementing Rules and Regulations of the EPIRA

hundered seven (107) sale contracts, forty nine (49) contracts with total sale price of PhP2.7billion have been approved and one (1) contract amounting to PhP 10.8 million was disapproved by the Energy Regulatory Commission (ERC). Fifty seven (57) sale contracts are for ERC filing, evaluation or 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 hundred six (106) sale contracts already signed, sixty six (66) are under lease purchase agreements with fifty eight (58) ECs/consortia, valued at about PhP3.8billion. The remaining forty (40) involved sales to private DUs/consortia. The remaining forty one (41) involved sales to private DUs/consortia. TransCo is looking forward to the sale of about 710 ckt-km of STLs and about 485 MVA of substation equipment among nineteen (19) interested DUs/consortia for the next three (3) years.

Table 7 below shows the summary of the sale as of the report period.

Table 7. Summary Table of STAs Sale Per Region as of 31 October 2013

| ·           | DUs | Sale Amount in PhP<br>(Original Contract) | СКМ      |
|-------------|-----|---|----------|
| North Luzon | 33  | 1,658,373,435.27                          | 1,271.48 |
| South Luzon | 17  | 1,120,511,843.37                          | 467.04   |
| Visayas     | 27  | 1,168,202,902.00                          | 683.21   |
| Mindanao    | 30  | 1,827,564,957.83                          | 1,557.12 |
| TOTAL       | 107 | 5,774,653,138.47                          | 3,978.85 |

Source: Transco

#### III. ELECTRICITY RATES

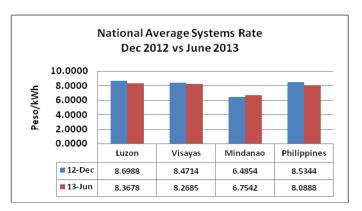
The following discussion provide updates on the electricity rates for the month of May to October 2013 as well as related developments on regulatory actions, with rate cases being under the exclusive jurisdiction of the ERC.

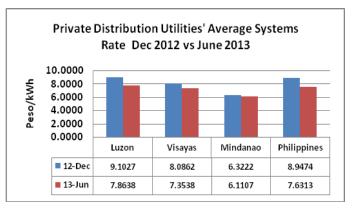
The country's average electricity rates as of June 2013 is PhP8.09/kWh, PhP0.45/kWh lower compared with the December 2012 average systems rate. Among the three major grids, Luzon has the highest rate at PhP8.37/kWh while Mindanao, despite posting an increase of PhP0.27/kWh compared to December 2012 rate, remains the lowest at PhP6.75/kWh for June 2013.

The national average systems rates of private distribution utilities (PDUs) also decreased by PhP1.3161/kWh from PhP8. 9474/kWh in December 2012 to PhP7.6313/kWh in June 2013.

The ECs' average systems rate for June 2013 is PhP8.5463/kWh, an increase of PhP0.4250/kWh from the December 2012 level. The largest increase in ECs' rates was noted in Mindanao grid at PhP6.6486/kWh in December 2012 to PhP7.3976/kWh in June 2013. However, Mindanao remained to have the lowest rate.

The ECs' national unbundled residential electricity rate for June 2013 is PhP 9.2908/kWh. Generation costs comprised 49 percent of ECs' national average effective electricity rates followed by distribution costs share of 19 percent of the total. Among the three grids, Mindanao remained to enjoy the lowest generation costs at PhP3.5026/kWh.





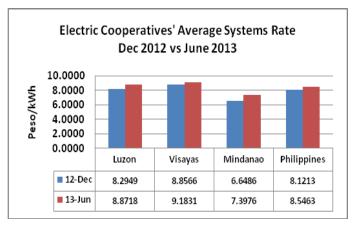


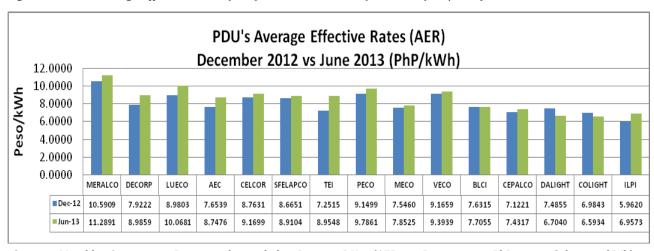
Table 8. EC's Unbundled Average Effective Residential Electricity Rates, June 2013 (PhP/kWh)

| Tuble 6. Be 5 onbunuled river age Bijective residential Bleeti telty rates, june 2010 (Fill / RWH) |             |                  |             |                  |             |                  |         |                  |
|--|-------------|------------------|-------------|------------------|-------------|------------------|---------|------------------|
|  | LU:         | ZON              | VIS         | AYAS             | MINI        | DANAO            | NATI(   | DNAL             |
| Bill<br>Subgroup   | PhP/kW<br>h | Percent<br>share | PhP/kW<br>h | Percent<br>share | PhP/kW<br>h | Percent<br>share | PhP/kWh | Percent<br>share |
| Generation   | 5.1202      | 51.17            | 5.1394      | 51.92            | 3.5026      | 43.96            | 4.5875  | 49.38            |
| Transmission   | 0.9480      | 9.47             | 0.8241      | 8.32             | 1.0366      | 13.01            | 0.9362  | 10.08            |
| System Loss  | 0.8840      | 8.83             | 0.8449      | 8.54             | 0.6292      | 7.90             | 0.7860  | 8.46             |
| DSM <sup>1</sup>   | 1.6875      | 16.87            | 1.8265      | 18.45            | 1.6734      | 20.99            | 1.7291  | 18.61            |
| RFSC <sup>2</sup>  | 0.3119      | 3.12             | 0.3502      | 3.54             | 0.4283      | 5.38             | 0.3634  | 3.91             |
| Other<br>Charges <sup>3</sup>  | (0.02)      | (0.16)           | 0.0000      | 0.00             | (0.28)      | (3.55)           | (0.10)  | (1.07)           |
| Subsidy<br>Charges <sup>4</sup>  | 0.0569      | 0.57             | 0.0192      | 0.19             | 0.0684      | 0.86             | 0.0482  | 0.52             |
| Universal<br>Charges <sup>5</sup>  | 0.2947      | 2.95             | 0.3099      | 3.13             | 0.3098      | 3.89             | 0.3049  | 3.28             |
| Other Taxes <sup>6</sup>   | 0.0627      | 0.63             | 0.0193      | 0.19             | 0.1059      | 1.33             | 0.0626  | 0.67             |
| VAT  | 0.6558      | 6.55             | 0.5658      | 5.72             | 0.4961      | 6.23             | 0.5726  | 6.16             |
| Total  | 10.0055     | 100.00           | 9.8993      | 100.00           | 7.9674      | 100.00           | 9.2908  | 59.08            |

Source: NEA

Among the PDUs, Manila Electric Company (MERALCO) has the highest average effective rate for the residential customers at PhP11.29/kWh for the billing period June 2013. On the other hand, Cotabato Light and Power Company (COLIGHT)has the lowest average effective residential rates at PhP6.5934/kWh for the same billing period.

Figure 1. PDU's Average Effective Rates (AER), December 2012vs June 2013(PhP/kWh)



Source: Monthly Operations Report submitted by Private DUs (AER = Revenue in PhP over Sales in kWh)

<sup>&</sup>lt;sup>1</sup> Distribution, Supply and Metering Charges

<sup>&</sup>lt;sup>2</sup> Reinvestment Fund for Sustainable CAPEX

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

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

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

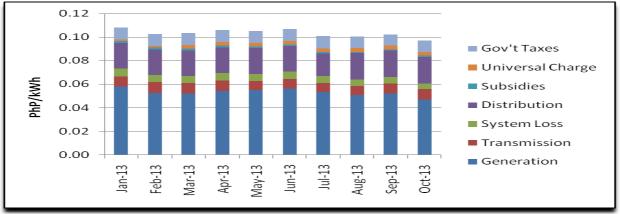
For October 2013 billing, MERALCO's effective residential rates for the different residential customer classes ranged from PhP9.6993/kWh to PhP10.7658/kWh of which the highest component was generation costs at PhP4.7146/kWh. Meanwhile, MERALCO distribution charges for its different residential customer classes comprised 23 percent to 29 percent of the total effective residential rates equivalent to PhP2.2334/kWh and PhP3.1484/kWh, respectively.

Table 9. Summary of MERALCO Residential Unbundled Power Rates, October 2013

| BILL<br>SUBGROUP    | 0 to 200 kWh<br>(P/kWh) | %   | 201 to 300<br>kWh<br>(P/kWh) | %   | 301 to 400<br>kWh<br>(P/kWh) | %   | Over 400kWh<br>(P/kWh) | %   |
|---------------------|-------------------------|-----|------------------------------|-----|------------------------------|-----|------------------------|-----|
| Generation          | 4.7146                  | 49  | 4.7146                       | 47  | 4.7146                       | 45  | 4.7146                 | 44  |
| Transmission        | 0.8652                  | 9   | 0.8652                       | 9   | 0.8652                       | 8   | 0.8652                 | 8   |
| System Loss         | 0.5050                  | 5   | 0.5050                       | 5   | 0.5050                       | 5   | 0.5050                 | 5   |
| Distribution        | 2.2334                  | 23  | 2.5907                       | 26  | 2.9279                       | 28  | 3.1484                 | 29  |
| Subsidies*          | 0.1139                  | 1   | 0.1139                       | 1   | 0.1139                       | 1   | 0.1139                 | 1   |
| Universal<br>Charge | 0.3126                  | 3   | 0.3126                       | 3   | 0.3126                       | 3   | 0.3126                 | 3   |
| Government          |                         |     |                              |     |                              |     |                        |     |
| Taxes               | 0.9546                  | 10  | 0.9943                       | 10  | 1.0339                       | 10  | 1.1061                 | 10  |
| TOTAL**             | 9.6993                  | 100 | 10.0963                      | 100 | 10.4731                      | 100 | 10.7658                | 100 |

Source: MERALCOWebsite

Figure 2. MERALCO Effective Unbundled Residential Rates, January to October 2013



Source: MERALCO

As shown in Figure 2, the October 2013 rate of MERALCO is at its lowest for the year at PhP9.6993/kWh for residential customers consuming 200 kW and below as a result of lower generation charge due to higher availability of hydroelectric power. It is also a result of the conclusion of the Incremental Currency Exchange Rate Adjustment (ICERA) collection by NPC.

With regard to regulatory actions on rate applications of PDUs, summarized in Annex 3 are the decisions issued by the ERC for the Regulatory Year 2013 in which most of the PDUs were allowed slight increases in the rates while MERALCO and CEPALCO were approvals for distribution rates were slightly lower. For MERALCO, the change was due to the flowback of fifty percent (50%) of its net income derived from related business undertakings and income from the sale of disposed assets. On the other hand, CEPALCO lower charges was to mitigate over/under recovery for its nect rate application.

With regard to Philippine Rural Electric Cooperatives Association's (PHILRECA) petition for the adoption of the proposed "Rules Governing the Collection from the Consumers of the Cost of Payment Guarantees for the Power Supply Contracts and Transmission Service Agreements

Entered into by Electric Cooperative" was subjected to public consultations in August to October of 2013 and PHILRECA is now awaiting final decision from the ERC. The petition is intended to address the cash flow problems of the ECs arising from the imposition of security deposit and prudential requirements, whereby a tariff mechanism will be adopted.

Relative to the transmission rates applications filed by the NGCP, following are updates and status:

- a. ERC Case 2013-171 RC, dated 07 August 2013, NGCP filed the application for the approval of Force Majeure (FM) Event regulated FM pass through for flooding caused by monsoon rains in Luzon, sabotage incidents in Mindanao, and typhoon Pablo in accordance with the Rules for Setting Transmission Wheeling Rates, with prayer for Provisional Authority. On 23 October 2013, the jurisdictional and expository presentations were conducted for the Luzon leg. The pre-trial and evidentiary hearing will be scheduled after the Visayas and Mindanao leg expository presentation.
- b. On17 June 2013, per ERC Case 2013-132 RC, NGCP filed the application for the approval of the Toril Substation Project, with prayer for Provisional Authority. On 19 August 2013, the jurisdictional hearing, pre-trial conference, expository presentation and evidentiary hearing were conducted. Another jurisdictional, expository, pre-trial and evidentiary hearing were conducted and this time, terminated on 26 September 2013, wherein NGCP was given five (5) days to submit its Formal Offer of Evidence and of the following documents:
  - i. Cost benefit analysis of the project;
  - ii. Detailed breakdown of the Cost Estimate of the project proposal; and
  - iii. Indicative Rate Impact of the project proposal
- c. On 27 August 2013, the ERC approved per ERC Case 2013-065 RC, the application of the NGCP on the Las Piñas (Zapote) Substation Expansion Project for provisional authority. The critical role of the Zapote substation necessarily requires the immediate installation of the 4th unit due to the following:
  - i. Zapote Substation has no provision for single-outage or "N-1" contingency which is a reliability standard provided under the Philippine Grid Code (PGC);
  - ii. In March 2012 to April 2012, the transformer at the Zapote Substation was damaged. The 115 kv network subsectorization measure resulted to reliability and under voltage problems; and
  - iii. Zapote transformers are among the subset of network elements in the Luzon Grid included in measuring Congestion Availability. The Commission noted in NGCP's Final Determination (FD) that the network elements included in this new performance indicator have been selected because they are deemed critical to the operation of the wholesale Electricity Spot Market (WESM). With the present 3 x 300 MVA capacity of the substation, pricing error notices were declared for some trading intervals in the market due to constraint violations at the Zapote Substation.

## A. Administration of Universal Charge (UC)

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

Total UC remittances to PSALM as of 31 October 2013 amounted to PhP38.8 billion. Of this amount, PhP32.4 billion was disbursed by PSALM to the NPC-SPUG for missionary electrification and watershed rehabilitation and management in accordance with the provisions of the EPIRA. Meanwhile, PhP5.8 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. As of the same period, total interest earnings from placements of UC funds amounted to PhP134.0million. This leaves the UC fund with a balance of PhP748.0 million.

Table 10. Universal Charge Remittances, Interests and Disbursements as of 31 October 2013 (In Billion PhP)

| Particulars                | Remittances | Interests | Disbursements | Balances |
|----------------------------|-------------|-----------|---------------|----------|
| Missionary Electrification | 31.673      | 0.043     | 31.690        | 0.026    |
| Environmental Charge       | 1.303       | 0.083     | 0.714         | 0.672    |
| Stranded Contract Cost     | 5.851 0.008 |           | 5.809         | 0.050    |
| Total:                     | 38.827      | 0.134     | 38.213        | 0.748    |

Source: PSALM

For the period May 2013 to October 2013, PSALM received a total of PhP3.7billion in UC remittances from collecting entities, and disbursed to NPC-SPUG the total amount of PhP3.6 billion for missionary electrification. The monthly breakdown of the collections and disbursements are provided in Table 11.

Table 11. UC Collections and Disbursements for May 2013 -October 2013(In Billion PhP)

|                | UC – ME | UC – EWR | UC-SCC | <b>Total</b><br>Month | UC-ME<br>Disbursements |
|----------------|---------|----------|--------|-----------------------|------------------------|
| May 2013       | 0.388   | 0.012    | 0.762  | 1.162                 | 0.372                  |
| June 2013      | 0.455   | 0.014    | 0.977  | 1.436                 | 0.434                  |
| July 2013      | 0.599   | 0.013    | 0.940  | 1.552                 | 0.616                  |
| August 2013    | 0.634   | 0.014    | 1.046  | 1.694                 | 0.632                  |
| September 2013 | 0.573   | 0.012    | 0.956  | 1.541                 | 0.587                  |
| October 2013   | 0.594   | 0.013    | 0.984  | 1.591                 | 0.588                  |
| Total          | 3.243   | 0.078    | 5.635  | 8.976                 | 3.229                  |

Source: PSALM

On 12 August 2013, ERC approved the National Power Corporation-Small Power Utilities Group (NPC-SPUG) in its petition for the approval (PA) of the following pursuant to ERC Resolution No. 21, Series of 2011:

- i. Availments from the universal charge of the share for missionary electrification (UCME) subsidy for the years 2012 to 2016;
- ii. Recovery from the universal charge of the shortfall in the missionary electrification subsidy for CY 2011and the corresponding adjustment of the UCME

The above petition was approved with the following modification and conditions:

- a. The proposed UCME for CYs 2012 to 2013 and 2015 to 2016 is denied without prejudice to the re-filing of the UCME for CY 2015 to 2016 based on updated data including the study and assessment of the existing Socially Acceptable Generation Rate (SAGR) for each SPUG area;
- b. NPC is authorized to implement the existing UCME rate of PhP0.054/kWh for CY 2014 plus the PhP0.0017/kwh representing the Cash Incentive for RE Developer, subject to the Commission's approval of the NPC-SPUG's true-up adjustment;
- c. The Generation-Based Incentive Rate equivalent to PhP1.1789/kWh for RE Developer operating in missionary areas pursuant to Republic Act No. 9513 (R.A. 9513) is approved; and
- d. The UCME true-up adjustments amounting to PhP4,650,702,389.76 to be recovered based on the existing rate PhP0.0709/kWh is approved.

Accordingly, PSALM was authorized to release to NPC-SPUG the amount of PhP4.65 billion pursuant to the True-up Mechanism Adjustment under Section 2 (b) of the Commission's Resolution No. 11 Series of 2005.

Relative thereto, all DUs and the NGCP were directed to (a) extend the collection of the UCME charges of PhP0.0709/kWh from the consumers, on top of the existing UC-ME rate of PhP0.0454/kWh, for a period of seven (7) months or until such time that the full amount shall have been collected, whichever comes earlier; and (b) collect the Cash Incentive for RE Developer of PhP0.0017/kWh, starting the next billing period and thereafter, remit the same to PSALM, on or before the 15th day of the succeeding month.

#### B. Assumption of Loans of Electric Cooperatives

As of 31 October 2013, PSALM has paid a total of PhP16.2 billion worth of financial obligations of ECs to National Electrification Administration (NEA) and other government agencies (OGAs) as well as local government units (LGUs) pursuant to Executive Order (EO) No. 119, s. 2002 and the Memorandum of Agreement between PSALM and NEA dated 03 October 2003. Table 12 shows a summary of PSALM's outstanding financial obligations to NEA and LGUs/OGAs.

Table 12. Status of Loan as of 31 October 2013(In PhP Billion)

|         | Total       | Actual Pa | yments | Balance         |       |  |
|---------|-------------|-----------|--------|-----------------|-------|--|
|         | Consumption | Amount    | %      | Amount          | %     |  |
| NEA     | 17.978      | 16.145 1/ | 89.81  | 1.832           | 10.19 |  |
| LGU/OGA | 0.096       | 0.077 2/  | 79.85  | 0.019           | 20.15 |  |
| TOTAL   | 18.074      | 16.222    | 89.76  | <b>1.851</b> 3/ | 10.24 |  |

<sup>1/</sup> Inclusive of PhP0.369 billion pertaining to NEA's double collection from ECs amounting to PhP2.215 billion for the period 2001-2003

Of the PhP16.2 billion total payments to NEA as of 30 April 2013, about 75.3% or PhP12.2 billion was used to pay the rural electrification loans incurred by the ECs, 15.5% or PhP2.5

<sup>2/</sup> Net of discount from the Provincial Government of Palawan amounting to PhP3,725,000.97

<sup>3/</sup> Balance covers the remaining amount to be paid to NEA and LGU/OGA, subject to submission of complete documents/requirements and compliance with the terms and conditions provided under Section 5 of EO 119 Source: PSALM

billion for Mini-hydro loans, and 9.2% or PhP1.5 billion for Dendro Thermal loans. Table 13 shows the summary of payments made by PSALM.

Table 13. PSALM Payments per Type of Loan as of 30 April 2013 (In PhP Billion)

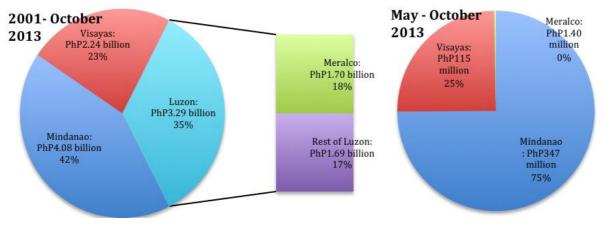
| Type of Payment            | Amount Paid | Percentage to Total |  |  |
|----------------------------|-------------|---------------------|--|--|
| Rural Electrification Loan | 12.158      | 75.30               |  |  |
| Mini-hydro                 | 2.496       | 15.46               |  |  |
| Dendro Thermal             | 1.479       | 9.16                |  |  |
| House wiring               | 0.012       | 0.08                |  |  |
| TOTAL                      | 16.145      | 100.00%             |  |  |

Source: PSALM

#### C. Mandatory Rate Reduction (MRR)

Pursuant to *Section 72 of the EPIRA*, NPC continuously grantsthe mandatory discount of 30-centavos/kWh to residential customers. Depending on the supply portfolio of a DU, the MRR may vary from DU to DU. For the period May to October 2013, total discounts granted by NPC amounted to PhP463.2million of which 75 percent were availed by residential customers in Mindanao and 25 percent in the Visayas. With the expiration of NPC's Transition Supply Contracts in Luzon due to continuing privatization,the amount of MRR in Luzon significantly reduced to PhP1.40 million benefitting only residential customers in the MERALCO franchise area. Since the MRR was granted in 2001, NPC has incurred a total of PhP29.7 billion of which, 42% was availed by Mindanao residential customers while 35% and 23% went to Luzon and Visayas, respectively. Data for MRR is summarized under Annex 17.

Figure 3: Summary of NPC's Mandatory Rate Reduction



## **IV. COMPETITION**

This section provides an update on key areas of competition to include the operation of the WESM, preparations and commercial operation of Retail Competition and Open Access (RCOA), implementation of the Interim Mindanao Electicity Market (IMEM) and monitoring of compliance to *Section 45 of the EPIRA*.

#### A. Wholesale Electricity Spot Market (WESM)

As of October 31, 2013, the integrated WESM (Luzon and Visayas) has a total of two hundred forty six (246) registered participants comprised of fifty four (54) generating companies and one hundred ninety two (192) customers comprised of sixteen (16) Private Distribution Utilities, 72 ECs, ninety seven (97) Bulk end-users, and seven (7) Wholesale Aggregators. There are twenty one (21) applications for registration being evaluated by the Philippine Electricity Market Corporation (PEMC) which comprised of eighteen (18) bulk users, three (3) DUs and two (2) generation companies.

Table 14. Registration Update as of 31 October 2013 (Luzon and Visayas)

|                                       |                                   |            |        |     | REGISTE     | ERED     |     |               | NEW | / ADDI I | CANT           | NOT REGISTERED |     |             |
|---------------------------------------|-----------------------------------|------------|--------|-----|-------------|----------|-----|---------------|-----|----------|----------------|----------------|-----|-------------|
| CATEGORY                              |                                   | EXPECTED   | DIRECT |     |             | INDIRECT |     | NEW APPLICANT |     |          | NOT REGISTERED |                |     |             |
|                                       |                                   | (Luz& Vis) | LUZ    | VIS | LUZ/<br>VIS | LUZ      | VIS | LUZ/<br>VIS   | LUZ | VIS      | LUZ/<br>VIS    | LUZ            | VIS | LUZ<br>/VIS |
| Generation Co                         | mpanies                           | 54         | 29     | 17  | 2           | 0        | 0   | 0             | 2   | 3        | 0              | 0              | 1   | 0           |
| Private DUs<br>& LGUs                 | 16                                | 5          | 3      | 0   | 4           | 0        | 0   | 2             | 0   | 0        | 1              | 1              | 0   |             |
| Customer<br>Trading                   | ECs                               | 72         | 26     | 25  | 0           | 17       | 3   | 0             | 1   | 0        | 0              | 0              | 0   | 0           |
| U                                     | Bulk users                        | 97         | 6      | 7   | 0           | 49       | 13  | 1             | 18  | 0        | 1              | 2              | 0   | 0           |
| Participants                          | Wholesale aggregators             | 7          | 0      | 0   | 7           | 0        | 0   | 0             | 0   | 0        | 0              | 0              | 0   | 0           |
| Total Customer Trading<br>Participant |                                   | 192        | 37     | 35  | 7           | 70       | 16  | 1             | 21  | 0        | 1              | 3              | 1   | 0           |
| TOTAL PARTIC                          | TOTAL PARTICIPANTS/<br>APPLICANTS |            | 66     | 52  | 9           | 70       | 16  | 1             | 23  | 3        | 1              | 3              | 2   | 0           |

Source: PEMC

Pursuant to the provisions of the WESM Rules, PEMC submitted to the DOE its proposed Market Operator Performance Standards (MOPS) for approval. The MOPS was developed to outline the performance measures that may serve as monitoring guide in assessing the PEMC as current Market Operator. It includes the descriptions and targets that have been established in line with the core functions of the Market Operator.

As provided in the MOPS, the PEMC shall be rated based on six (6) categories as follows:

- Availability of the IT systems which covers both the Market Management System and the WESM website:
- Market Reports and Data Publications which include publication of market reports and data in the WESM website as scheduled;
- Forecast Accuracy which include Real-Time Dispatch (RTD) Forecast and Day-Ahead (DAP) Forecast:
- Dispatch Scheduling and Pricing which include successful run of Real Time Dispatch (RTD) workflow, Real Time Ex-post (RTX) workflow, Timeliness of Market Re-run and Pricing Errors, and duration of Market Interventions attributable to the Market Operator;

- Billing, Settlement, and Accounts Management inlcudes Timeliness, Accuracy, and Frequency and Remittance Efficiency; and,
- Registration and Customer Relations which include timeliness and feedback on partcipant's trainings, timeliness on response to queries and data requests and timeliness of actions on customer complaints.

The DOE approved the MOPS with modification as follows:

- Inclusion of the Visayas Grid/WESM under the Forecast Accuracy performance of the MO since VIsayas WESM is already stable and Luzon and Visayas were integrated as a single market;
- Removal of the "sudden change in weather condition" as exemption in the MO's Forecast Accuracy performance;
- Inclusion of the Visayas Grid/WESM under the Dispatch Scheduling and Pricing performance of the MO, particularly on the Market Intervention;
- Inclusion of the DOE as one of the recipients of the MO performance monitoring reports;
- The performance monitoring report shall be evaluated and validated by the PEMC Audit Committee and/or its external auditor;
- Any updates/revisions on the MOPS shall be finally approved by the DOE for consistency with the WESM Rules; and
- Adjustments on the weights of the MO's performance category particularly on the Market Reports/Data Publication and Registration and Customer Relations.

For the rating period 26 September 2012 – 25 September 2013 and 26 September 2013 – 25 December 2013, PEMC reported an overall performance rating of Satisfactory and Very Satisfactory, respectively.

With regard to the PEMC's application for market fees which shall cover its operations, following are brief updates:

- a. For the recovery of the cost of the B2B System in the amounts of PhP132.9M (2010) and PhP53.723M (2011), as approved in PEMC's CY 2012 MF Application, PEMC complied to the directive of the ERC and submitted a mechanism to recover the same from retail market participants refund to the wholesale market generators/sellers. In its Compliance, PEMC proposed to recover the entire B2B project cost (PhP226.33 Million) from Suppliers, without deducting incidental costs attributed to enhancements in the wholesale market processes as a result of the integration of the wholesale and retail markets. Recovery/refund shall be levelised for a period of three (3) years beginning CY 2014.
- b. For the approval of the level of the market fees for the WESM for CY 2012, the ERC issued an Order on 03 June 2013 with details as follows:
  - 1. Denying PEMC's motion for reconsideration for the proposed PhP32.751M to cover the cost of hiring eight (8) personnel for the operation of the Visayas WESM and sixteen (16) personnel for the Luzon WESM;
  - 2. Granted PhP4.304M for Lease Improvement subject to the conduct of a bidding and submission of the contract with the winning bidder, within thirty (30) days from its execution; and
  - 3. Directed PEMC to include in its application for the approval of its 2014 budget the remaining 80% budget for the Market Research and

Development Platform (MRDP) and Market Design and Structural Feasibility (Forwards Market) projects equivalent to PhP18.505M.

- c. For the market fees for CY 2013, the ERC rendered its decision as received by PEMC on 08 July 2013 approving the latter's application with modification subject to the following conditions:
  - 1. PEMC is granted the budgetary requirements for CY 2013 in the amount of PhP670,561,722.00 broken down as follows:

Table 15. CY 2013 Budget (in Million PhP)

| Budget Components                           | Proposed | Approved |  |
|---|----------|----------|--|
| Personnel Services                          | 359.853  | 333.621  |  |
| Maintenance and Other Operating Expenses    | 348.580  | 250.613  |  |
| Capital Expenditures                        | 29.970   | 27.470   |  |
| Provision for DOE/ERC Monitoring Facilities | 14.768   | 13.148   |  |
| Sub-Total                                   | 753.171  | 624.853  |  |
| Market Development Projects                 | 45.709   | 45.709   |  |
| TOTAL BUDGET                                | 798.880  | 670.562  |  |

Source: PEMC

- 2. PEMC is directed to conduct a public bidding for the Market Operations and Metering Audits, CAPEX, and Market Development Projects and submit its contracts with the winning bidders within thirty (30) days from execution;
- 3. PEMC is directed to submit the updated report on the filled-up members of the PEM Board and its Committees within thirty (30) days upon receipt of the Decision; and
- 4. PEMC is directed to submit the programs and projects conducted with corresponding breakdown of cost for said awareness activities under Participant Development Cost at the end of CY 2013.

In compliance with the said ERC Decision, PEMC on 20 September 2013, submitted its Training Plan, CRSS Contract and Filled-up members of the PEM Board and Committees.

d. For the Market Management System (MMS) Loan Repayment, PEMC's Petition for review of the 7 March 2011 Order of the ERC is pending with the Court of Appeals. In the said ERC Order, the PEMC was directed to refund the total amount of PhP268,200.702.80 inclusive of carrying costs for the collection of funds for the migration of the MMS to a new hardware platform (hereafter MMS Migration). This was supposed to address the obsolescence issue of the MMS. These carrying costs were based on the Manila Reference Rate plus 3%. PEMC filed a motion for partial reconsideration, however the same was denied in the Order dated 6 June 2011. PEMC thereafter filed a Petition for Review under Rule 43 of the Rules of Court with the Court of Appeals.

e. New Market Management System (NMMS)

On 15 August 2013, PEMC received the 01 July 2013 Decision of the ERC approving PEMC's Application with modification subject to the following conditions:

- 1. PEMC is authorized to allocate the unutilized Market Transaction Fees (MTF) in CY 2010 amounting to PhP93.024M to fund part of the cost of the NMMS, the total cost of which is PhP841.050M;
- 2. PEMC is authorized to collect the residual amount of PhP748.026M for the procurement of the NMMS, as additional MTF, for a period of three (3) years starting CY 2013;
- 3. PEMC is directed to conduct a public bidding and submit its contract with the winning bidder to the Commission within thirty (30) days from execution; and
- 4. PEMC is directed to submit a periodic report on the status of the NMMS Project.

## B. Issuance of the Market Operator Performance Standards (MOPS)

In order to further improve its performance in the operation of the WESM, PEMC submitted a draft Market Operator Performance Standards (MOPS) which was approved by the PEM Board on 21 March 2013 and endorsed to the DOE for its review and approval. This is in order to comply with the provisions in the WESM Rules and provide an official documentation on the performance standards pursuant to the WESM Rules, the MOPS was developed to outline the performance measures that may serve as monitoring guide in assessing the PEMC as current Market Operator. It includes the descriptions and argets that have been established in line with the core functions of the market operator.

Upon thorough review, the Department came up with its own recommendations as follows:

- Inclusion of the Visayas Grid/WESM under the Forecast Accuracy performance of the MO since VIsayas WESM is already stable and Luzon and Visayas were integrated as a single market;
- Removal of the "sudden change in weather condition" as exemption in the MO's Forecast Accuracy performance;
- Inclusion of the Visayas Grid/WESM under the Dispatch Scheduling and Pricing performance of the MO, particularly on the Market Intervention;
- Inclusion of the DOE as one of the recipients of the MO performance monitoring reports;
- The performance monitoring report shall be evaluated and validated by the PEMC Audit Committee and/or its external auditor;
- Any updates/revisions on the MOPS shall be finally approved by the DOE for consistency with the WESM Rules; and
- Weights of the MO's performance category particularly on the Market Reports/Data Publication and Registration and Customer Relations were adjusted.

The MOPS shall solely apply to PEMC as the operator of the WESM.

As provided in the MOPS, PEMC shall be rated based on six (6) categories as follows:

• Availability of the IT systems which covers both Market management System and the WESM website;

- Market Reports and Data Publications which include publication of market reports and data in the WESM website as scheduled;
- Forecast Accuracy which include Reat Time Dispatch (RTD) Forecast and Day-Ahead (DAP) Forecast;
- Dispatch Schduling and Pricing includes successful rum of Real Time Dispatch (RTD) workflow, Real Time Ex-post (RTX) workflow, Timeliness of Market Re-run and Pricing Errors, and duration of Market Interventions attributable to the Market Operator;
- Billing, Settlement, and Accounts Management inlcudes Timeliness, Accuracy, and Frequency and Remittance Efficiency, and
- Registration and Customer Relations include timeliness and feedback on partcipant's trainings, timeliness on response to queries and data requests and timeliness of actions on customer complaints.

Relative to the above, templates for monitoring of the MO permances were included in the MOPS.

Following are highlights of the activities of the various WESM governance committees for the report period.

#### a. Market Surveillance Committee (MSC)

#### Review of the 35 Enforcement and Compliance Office (ECO) Investigation Cases

The MSC continued with its review and discussion of the 35 Investigation Cases submitted to the MSC by the ECO. The MSC discussed the breaches committed by the concerned trading participants (TPs) and the corresponding penalties for such breaches as defined in the Financial Penalty Manual. After due deliberation, the MSC completed its review of nineteen (19) of the thirty-five (35) ECO investigation cases, all related to subject TPs' alleged violation of dispatch schedules and instructions, and passed a resolution approving the MSC's report for submission to the PEM Board. The MSC submitted to the PEM Board the results of its review on 23 May 2013, and presented the same to the PEM Board during its meeting on 24 May 2013.

The remaining sixteen (16) ECO investigation cases are related to possible violations of subject TPs to the WESM Rules on the Submission of Offers. After due deliberation, the MSC resolved to submit to the PEM Board the result of its review of the ECO Investigation Report.

## Review of the Market Assessment Report for May - October 2013

As part of its regular monitoring function, the MSC reviewed the Market Assessment Reports from May to October 2013, which were prepared and submitted to the MSC by the Market Assessment Group (MAG). The MSC thereafter approved the said reports for adoption in full as part of the MSC's Monthly Monitoring Report for the period May to October 2013.

## Review and Discussion of the Proposed Revised Automatic Penalty Scheme (APS)

The MSC reviewed and discussed the proposed automatic penalty scheme presented by the MAG. The presentation by MAG initially covered penalty schemes for violations of the dispatch schedules and instructions.

The proposal intends to streamline the current processes on the monitoring of non-compliances to the Submission of Offers and dispatch schedules and instructions for greater market efficiency and likewise imposes penalties on the violations to said WESM Rules.

## • Review and Discussion of Procedure in Submitting Offers and the Pmin

The MSC reviewed and discussed the procedure in the submission of offers and Pmin, which was presented by the TOD. Such review emanated from the MSC's discussion of market price spikes on April 6 and 8, 2012, whereby the MSC recommended revisiting pertinent Rules on Pmin, particularly, on the current requirements to submit quantities for Pmin dispatch.

# • Review of the Financial Penalty Manual (FPM) with the Automatic Penalty Scheme (APS)

The MSC reviewed the Investigation Procedure and Penalty Imposition in relation to the ECO Investigation Reports and went on with the review of the proposed Automatic Penalty Scheme (APS). The MSC also agreed to prioritize the review of the FPM and created an MSC subcommittee focused on the same.

The MSC continued its review of the Financial Penalty Manual against the proposed Automatic Penalty Scheme (APS). The MSC discussed the initial proposed amendments on the FPM to incorporate the APS and the options on the possible categorization of the Penalty Table in the FPM.

# • Discussion with PIPPA on its concerns regarding the MSC's Processes in Monitoring

MSC and PIPPA discussed issues regarding the MSC's processes relating to the monitoring of TPs compliances with the Must Offer Rule and Real Time Dispatch Instructions. As result the following were agreed upon:

- a. To look into PIPPA's suggestions namely (a) to filter from the MSC's monitoring and assessment the intervals where evidences, as submitted by the TPs, come from the SO's discrepancy report on RTD non-compliances, which are also published in the WESM website; and (b) the publishing of the intra-hour dispatch instructions in the WESM website;
- b. To follow-up with the training group the status of the program that the MSC has developed and recommended in relation to the joint training of WESM Compliance Officers of TPs and generators; and
- C. To work out with the MAG, PIPPA's suggestion to create a TWG that will come up with some recommendations on how to improve the feedback mechanism between the TPs and the MSC.

## b. Technical Committee (TC)

During the report period, the TC conducted the following activities:

## • Study on Water Elevation of Hydroelectric Plants

The TC continued its discussions of matters related to its study on water elevation of hydroelectric plants. The TC noted and discussed the list of existing plants that are non-compliant to the Must-offer Rule and reasons submitted by each plant for a specific day. Further, for the purpose of drafting the guidelines that the Market Surveillance Committee can use to validate the capability of HEPs in Luzon grid, the TC agreed to use as reference the information on the details of the operation of some water reservoirs in Luzon grid. The TC also agreed to update the guidelines once the data from PAG-ASA such as water elevation become available.

#### • Report on Metering Arrangements Review

The TC conducted review of the External Auditor's report on Metering Arrangements Review as part of its committed work plan for the year. The TC agreed to studied and provided its comments and recommendations on the said Review and recommend rules change to the Rules Change Committee. The TC submitted its comments and recommendations to PAC on 26 July 2013.

## TC Study on Luzon Hydroelectric Plants

The TC conducted study on Luzon Hydroelectric Plants as requested by the Market Surveillance Committee (MSC). In the course of its study, the TC agreed to invite the Hydroelectric Power Plant (HEPP) Operators in Luzon Grid and their Traders for a meeting and presentation regarding the operation of each hydroelectric plant for the TC's better appreciation of and clarifications on the plant's operation. In relation to continuing the gathering of references and documents relevant to the study, the TC also requested PAG-ASA for historical data on the daily status of monitored major reservoir.

The TC identified specific documents that are useful to its on-going study. The TC prepared its report on the study and provide a copy of the same to the MSC once the TC has finalized its recommendations on the study of Luzon HEPPs.

#### Pending TC Proposal on the Inclusion of Maximum Threshold Capacities

The TC revisited/reviewed the pending rules change proposal submitted by the previous TC in 2009 on the inclusion of Maximum Threshold Capacities for RE Resources that will qualify for "Must Dispatch" and "Priority Dispatch" and resubmit the same to the RCC once revised.

# • Review of the RCC Proposed Amendment to WESM Rules on Business Continuity Plan and Disaster Recovery Procedures

The TC reviewed the proposed amendments to the WESM Rules in Chapter 6 to include the development and simulation of the Business Continuity Plan and Disaster Recovery Procedures of the Market Operator. The TC discussed the proposal and initially gave their comments on the proposed amendment. The TC submitted its comments and recommendations to the RCC on 11 September 2013

## Endorsement of NGCP-SO's Comments on the Constraint Violation Coefficients (CVC)

The TC conducted its review of the CVC Pricing including the SO Actions as indicated in the CVC Table. Noting the need to: a) review the basis of the one (1) hour duration limit of the allowable Marginal Loading specified in the CVC Table; and b) link the CVC Action with the MRU actions, the TC referred the CVC table to the SO for its comments, specifically, the applicability of the SO actions listed in the table vis-à-vis the MRU actions and other security-related actions currently done by the SO. The NGCP SO provided its comments/recommendation and was endorsed by the TC to the WESM Design Study-Technical Working Group (WDS-TWG) on 19 September 2013 for their information and consideration.

#### c. Dispute Resolution Administration (DRA)

- On 25 July 2013, the PEM Board approved the inclusion of the following former Dispute Resolution Group (DRG) members to the current PEM Board-accredited WESM Pool of Arbitrators/Mediators:
  - 1. Atty. Salvador S. Panga, Jr.
  - 2. Prof. Alfredo F. Tadiar
  - 3. Dean Rogelio M. Avenido
  - 4. Atty. Romulo R. Maristaza

Counting the four (4) newly-accredited Arbitrators/Mediators above, the pool of WESM-Accredited Mediators and Arbitrators now sum up to sixteen (16). To equip two (2) technical experts on the basics of arbitration, the DRA conducted a Basic WESM Arbitration Course for the said experts on 01 July 2013.

• From 25 to 27 September 2013, the DRA facilitated the successful conduct of the WESM Arbitration Seminar in coordination with PEMC and the Philippine Institute of Arbitrators (PIArb). The DRA, in coordination with the Philippine Institute of Arbitrators (PIArb) as PEMC's accredited third party provider, organized the activity, with PEMC as one of the resource providers for the training course on Basic WESM. The WESM Arbitration Seminar was intended to provide aspiring WESM Arbitrators and Mediators basic knowledge on WESM fundamentals and Market Trading and Operations. In the second and final part of the Course, the participants will be instructed about the fundamentals in arbitration as applied to WESM disputes.

#### d. Rules Change Committee (RCC)

Continuous improvement in the WESM operations are undertaken by the DOE through the RCC with the promulgation of various rules changes mostly designed to address inconsistencies and resolve implementation issues. These rules changes are as follows:

- Department Circular No. DC2013-06-0010 entitled "Adopting Further Amendments to the WESM Rules (Definition of "Financial Year" in the WESM Rules);
- Department Circular No. DC2013-07-0016 entitled "Adopting Further Amendments to the WESM Rules (Registration of Metering Service Provider)";

- Department Circular No. DC2013-07-0017 entitled "Adopting Further Amendments to the WESM Rules (Defining the Gross Ex-Post Energy Settlement Quantity for Market Trading Nodes)";
- Department Circular No. DC2013-07-0018 entitled "Adopting Further Amendments to the WESM Rules (Exceptions to Confidentiality), and
- Department Circular No. DC2013-10-0025 entitled "Adopting Further Amendments to the WESM Rules (Revision of Market Offers/Bids and Definitions of "Working Day")

During the report period, the RCC deliberated on the following:

#### a. Amendments to WESM Rules

- Amendment to Appendix A1 of the WESM Rules ("Information to be Supplied with Offers to Supply and to Buy Electricity") in order to require all generators to submit minimum ramp up and ramp down rates together with the ramp rate capability curve of each generation unit or aggregated generation units.
- **Proposal on the definition of Financial Year**. Approved by the RCC for endorsement to PEM Board having noted that there were no comments received from interested parties on the proposed amendment.
- **Proposed Additional clause 4.4.4 in the WESM Rules.** As submitted by PEMC, in order to address the condition when there is only one Metering Services Provider (MSP) to allow the NGCP to provide metering services for market trading nodes it is assigned to. It was discussed in the RCC that the NGCP has registered itself as a Customer Trading Participant in the WESM, trading its facilities at Itogon and Talavera Stations. The MSP for the said facilities is also NGCP.
- **Proposed Amendments to Clause 3.13.6 of the WESM Rules.** The Proposed amendments aimed to introduce a more solid basis for the netting of bidirectional energy flows in a trading interval recorded in the meter, PEMC submitted its proposal to amend Clause 3.13.6 of the WESM Rules. The RCC adopted the proposed amendments, incorporating PEMC's comments to further simplify and refine specific wordings in the proposal, while also taking into consideration the practicability of the proposed amendments.
- Proposed Amendments to the WESM Rules and the WESM Manual on Market Operator Information Disclosure and Confidentiality Issue 2.0. The RCC approved to the posting/publication of the proposal in the market information website as submitted in order to solicit comments from interested parties. Consistent with the rules change process, the RCC took cognizance of the proposed revisions by PEMC on the original proposal submitted by APC. The RCC then adopted the proposed amendments, as revised, incorporating PEMC's comments to further simplify and refine specific wordings in the proposed, while also taking into consideration the practicability of the proposed amendments.

- Proposed Amendments to the WESM Rules and Dispatch Protocol Manual on (i) Submission of Bids and Offers based on "Reasonable Estimate", and (ii) MDOM Performance Standards. Upon presentation of the proposed amendments to the WESM Rules and the Dispatch Protocol Manual on the submission of bids and offers based on "reasonable estimate", the RCC approved the posting/publication of the proposal, as revised, in the market information website in order to solicit comments from interested parties. In regards to the proposed amendment to delete the relevant portion in Clause 3.6.1.2 of the WESM Rules requiring the publication of the MDOM performance standards, the RCC concluded that PEMC should instead develop the MDOM performance standards rather than deleting the WESM Rules provision altogether prescribing the publication of the same. It was suggested that PEMC may also opt to subsume the MDOM performance as part of the MO Performance Standards (MOPS).
- Proposed Amendments to the WESM Rules in relation to the Implementation of the Market Operator of its Business Continuity Plan (BCP) and Disaster Recovery Procedure (DRP). The RCC discussed the above-mentioned proposal as submitted and presented by PEMC. The proposal sought to include/capture the following in the WESM Rules:
  - Obligation of the MO to maintain BCP and DRP;
  - Obligation to notify the Trading Participants and the System Operator prior to the conduct of simulations;
  - Obligation of the MO to do all measures to mitigate impact on WESM;
     and
  - Simulation of the BCP and DRP as grounds for Market Intervention (MI)

The RCC passed a Resolution approving the proposed amendments, as submitted and discussed by the RCC, noting that no comments have been received and further transmit to the PEM Board if no comments shall be received on or before the deadline set for its submission.

• **PEM Board Directive on Prudential Requirement (PR).** The RCC reviewed the provisions on PR through the presentation of PEMC, which discussed in detail and pointed to the pertinent provisions associated with the PEM Board directive to reduce the level of PR from the current 63 days to 35 days. The RCC created the Subcommittee on PR, for the purpose of the review and incorporation of the changes to the WESM Rules and Manuals as directed by the PEM Board. As part of the compliance with the directive issued by the PEM Board on 21 March 2013, the RCC Subcommittee tasked to review the pertinent provisions on prudential requirement, discussed/presented the proposed amendments to the WESM Rules and the Billing and Settlements Manual on the PR.

The RCC deemed that the comments, in general, ran counter with the PEM Board Directives on the 35-day basis for the Prudential Requirement coverage. Thus, the RCC in its 77th Meeting held on 07 August 2013 approved through a Resolution, the proposed amendments and the submission of the same to the PEM Board, with minor modifications following the RCC's discussion on the matter, subject to any additional comments. The RCC invited representatives Trading Participats to provide

clarification on the comments submitted on the proposal and responded to each of the issues raised by the TP. Noting that the issues and comments raised were sufficiently answered, and that some of which were determined to run counter with the PEM Board directive, the RCC passed the Resolution approving the proposed amendments and endorsing the same to the PEM Board.

#### b. Amendments to WESM Manuals

- Proposed Amendments in the WESM Manual on Metering Standards and Procedures Subsection 9.7. The PEMC, presented the proposed amendments to the RCC on Subsection 9.7 of the Metering Manual, to the RCC and explained that the proposal aims to expound the responsibilities of parties relative to the computation for the Site Specific Loss Adjustment (SSLA). The proposed changes include the update and submission to the WESM every six (6) months or earlier of the conductor and power transformer data by both the Network Service Provider and the Trading Participants. Having noted that there were no comments received from interested parties, and after due deliberation on the merits of the proposal, the RCC proceeded with its approval of the proposal as submitted by PEMC.
- Amendments to the WESM Dispatch Protocol Manual regarding Re-Dispatch Procedures based on the WESM Merit Order Table. The RCC took note of the update that the Dispatch Protocol Manual Issue 7.0 has been published in the WESM website on 26 March 2013. It was then agreed to wait for the 10 April 2013 effectivity date of the Manual before the deliberation on the proposed further amendments is re-opened to ensure that the RCC's further proposed amendment is based on the latest duly-approved/published issue of the Dispatch Protocol Manual.
- DOE Policy Directives on the Criteria and Guidelines for the Issuance of Pricing Error Notices (PEN) and Conduct of Market Re-Run (MRR) and Management of Must Run Units (MRU) Market Manuals. The RCC received the Policy Directives dated 04 April 2013 from the Department of Energy on the proposed amendments to the Market Manuals on PEN-MRR and MRU and resolved to set a timeline until the end of July 2013 to comply with the said directives. The RCC discussed the DOE's directives on the PEN-MRR Manual, as follows:
  - Simulation to further assess the proposed methodology's impact on WESM prices;
  - Justification on the merits of the proposal considering the criteria for effecting the WESM rules change;
  - Proposal on possible alternative methodology to resolve issues on pricing errors; and
  - o Corresponding proposed changes to the WESM Rules.

The RCC agreed to further simulate the implementation scenario on the proposed local PEN using market results for year 2012 in order to show the impact of the local PEN in terms of price increase/decrease; request for revised justification, which follows the "criteria for effecting a WESM rules change", provided in Clause 8.4.1 of the WESM Rules, which sets-out the RCC's consideration of proposed rules change; raised the option if the RCC

can present the matter to the ERC through the Grid Management Committee (GMC) since the alternative solution could well be addressed through revisiting the definition of the "N-1" criterion in the Philippine Grid Code (PGC).

Based on its discussion on the matter, the RCC agreed to maintain its initial recommendation to have a substitute price corresponding to the five nearest trading nodes instead of declaring a pricing error. Relative to the DOE directives, the RCC wrote a letter to the DOE informing the same that the first to third directives have already been complied with, while the fourth directive pertaining to RCC's recommendations on corresponding changes to the WESM Rules and the PEN Manual shall follow. The RCC discussed the result of additional simulation that it requested with the PEMC-Trading and Operations Department and adopted the original proposal on the Local PEN Price Substitution Methodology to use the weighted significance of the five (5) nearest trading nodes based on Transmission Loss Factor (TLF).

• DOE Policy Directives on the Proposed Amendments to the Market Manual on the Management of Must Run Units (MRU). Consistent with the DOE directive and in order to correct the distortion of market price by transferring the cost of MRU to the NGCP, which is the entity mandated to ensure the provision for ancillary services, the RCC agreed to explicitly provide under Section 9 on the Settlement of Must Run Units that the cost of MRU/MSU should be allocated/accounted under the Ancillary Service of the System Operator and not the WESM. The RCC agreed to request the NGCP to submit the proposed changes to the PGC via email, in compliance with the DOE directive to incorporate the RCC proposed amendments in the PGC for consistency, for possible submission of the same to GMC.

The RCC deliberated on the proposed amendments to the Philippine Grid Code relative to the MRU, as crafted by the MRU Sub-committee. The RCC changed the definition of the Must-Stop Unit, the change of which is to be incorporated in the PGC proposal. The RCC then approved the RCC's proposed amendments to the PGC, as discussed. The RCC is set to finalize the proposed amendments in the WESM Rules and affected Market Manuals based on the new developments on the matter.

#### c. Other Issues Discussed/Deliberated

• Discussion on the Issue on the Segregation of Line Rental. Pursuant to its objective to address ongoing issues on the matter through a possible rules change proposal, the RCC requested presentations on the computation of system loss and the Proposed Formula on the Segregation of Line Rental from the NGCP-Metering Services Division (MSP) and the PEMC-Billing and Settlements and Metering Division (BSMD), respectively. The RCC then agreed to request the inputs of the NGCP-MSP on the proposal through the participation of the NGCP-MSP in the formulation of the corresponding proposed rules change. The RCC has similarly taken note of the information that PEMC is currently developing an in-house software to facilitate the segregation of line rental, as promulgated by the ERC in its Order dated 15 April 2013.

- **PEMC-TOD Simulation on the Cancellation of Offers.** The RCC noted the information as well as the operational issues raised by PEMC-TOD as a result of its simulation on the proposal covering the September 2012 billing period. The RCC reiterated its previous agreement to defer any further discussion on the proposal in deference to the result of the WESM Design Study on Pmin, currently being undertaken by PEMC Consultant Intelligent Energy Systems (IES) as well as the action undertaken by the Market Surveillance Committee (MSC) to address the same issue on the uneconomic dispatch of expensive plants at Pmin.
- **Line Rental and SSLA**. The RCC deliberated upon the matter, taking off from the PEMC's response to RCC's requests, as follows:
  - Simulation on the proposed a) removal of negative BCQs covering two billing periods, and b) computation of SSLA in terms of the cost of energy loss (in Pesos) and not in kWh; and
  - Determination on the practicability and impact of a) a preliminary bill reflective of the segregation of line rental, per plant, per node, and b) finality of settlement within sixty (60) days.

Upon deliberation on the issue on the BCQ declaration, the RCC agreed that: a) nodal pricing cannot be done with lump declaration of the BCQ, and b) the accuracy of the Market Network Model (MNM) must be ensured through proper modeling. Relative to item b, the RCC wrote to the DOE requesting the same to compel MERALCO to submit its connection diagram and necessary information that would allow for the correct modeling of MERALCO network in the MNM of the Market Operator (MO). Based on the results of PEMC's simulation, as requested by the representative from the DU sector, the RCC agreed that Total Trading Amount results are the same for the kWh and PHP/kWh computations, based on which, it would be up to the Distribution Utilities to make a manifestation before the ERC for possible changes to the Price Determination Methodology.

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

For the report period, the following had been done:

• The PAC, through the MAG, continued its monitoring of the PEMC's pending action plans to address findings and recommendations of PA Consulting Group during the 3rd market operations audit. Following the conclusion of the 1st metering review by Isla Lipana & Co., Intelligent Energy Systems, Australia (IES) and Alliance of Power and Energy Xponents, Philippines (APEX), the PAC provided the Energy Regulatory Commission (ERC) with a copy of the auditor's metering review report and requested the support of the Commission, being the regulatory/oversight agency over the National Grid Corporation of the Philippines (NGCP), ensuring NGCP's commitment to address the findings and observations identified in the said Report. The PAC, upon receipt of NGCP's official approval, published the detailed and summary reports of the 1st metering review conducted by Isla Lipana & Co., Intelligent Energy Systems, Australia (IES) and Alliance of Power and Energy Xponents, Philippines (APEX) in the WESM Website.

In compliance to address findings and recommendations of PA Consulting Group during the 3rd market operations audit, the PEMC-Trading Operations Department (TOD) provided updates on the status of its activities to address the audit findings. In summary, the TOD has completed twelve (12) out of nineteen (19) committed deliverables. Other pending activities will be addressed with the deployment of the new Market Management System (MMS).

- In consultation with PEMC and DOE, the PAC approved the proposed scope of work for the 4th Market Operations Audit covering the period from 26 June 2012 to 25 June 2013 to be conducted by PA Consulting Group. The 4th MO Audit covers the audit of the market operations systems as well as system updates within the period covered and additional tasks which were not covered in the previous audits, as follows:
  - Bid-to-Bill Testing entails the conduct of a chronological testing of the market processes from the market participants' submission of offers up to invoicing and payment by the Market Operator;
  - Audit of the Bilateral Contract Quantity Declaration tool;
  - Full audit of Trading Operations Department's tools and spread sheets ;and
  - Targeted audit of Metering tools and spread sheets.
  - Audit of Metering tools and spread sheets.

The PA Consulting Group submitted the draft inception report on 27 August 2013 for the PAC's approval. The inception report sets the methodology, detailed task, and planned activities and timelines for the said audit. The PAC reviewed the draft inception report and consistent with the timelines set, PA submitted the following reports to the PAC, for its review and approval:

- Draft Market Documentation Report which provides the results of PA's review on the PEMC Market Manuals which have been changed or developed during the audit period; and
- Draft Process and Compliance Report which assesses the compliance of the Market Operator with selected obligations of the WESM Rules and Manuals and business processes during the covered period.

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

Pursuant to Section 31 of the Electric Power Industry Reform Act of 2001 (EPIRA), the operating and regulatory policies and guidelines for the implementation of Retail Competition and Open Access (RCOA) were put in place to guide the retail market participants and ensure their smooth transition to the Retail Market.

## 1. Policy Issuances:

In consultation with the industry participants, power sector agencies and the consumers, the DOE issued:

 DC No. DC2013-05-0006, which enjoined all generation companies, distribution utilities, suppliers and local suppliers to ensure an effective transition towards the implementation of the RCOA. This Circular imposed transparency requirements to all generators, RES, Local RES and DUs by requiring quarterly submission of relevant information such as contracted capacities, rates, contract duration, customers and sources of supply;

- DC No. D2013-07-0013, provided supplemental policies to empower the contestable customers under the RCOA regime and ensure greater competition in the generation and supply sectors. This Circular gave the contestable customers (CCs) a wider option with regard to their supply contracting by allowing the CCs to directly contract with prospective generators and removal of early termination clause in the Retail Supply Contracts (RSCs);
- DC No. DC2013-07-0014, promulgated the Retail Market Manuals for the implementation of RCOA and providing for the Transitory Arrangements in the implementation of RCOA. The said Retail Manuals include the following:
  - Retail Manual on Registration Criteria and Procedures
  - o Retail Manual on Market Transaction Procedures
  - Retail Manual on Disclosure and Confidentiality of Contestable Customer Information, and
  - Retail Manual on Metering Standards and Procedures
- Policy on Power Supply Procurement by Government Contestable Customers (Government CCs). As provided in Section 12 of the DOE Department Circular No. 2012-11-0010, the DOE in coordination with the Government Procurement Policy Board (GPPB) and the Department of Budget and Management (DBM) shall issue supplementary rules on the procurement of electricity supply by the Government CCs under the RCOA regime. The GPPB clarified applicable mode of procurement for Government CCs as follows:
  - The procurement of electricity involves the acquisition of goods;
  - The appropriate mode of procurement in areas where RCOA is being implemented is Competitive Bidding or Limited Source Bidding, which rules are provided for in RA 9184 and its IRR, including the corresponding Philippine Bidding Documents for Goods. In this regard, the preparation of new set of guidelines is no longer necessary. However in areas where RCOA is not yet implemented and exclusive franchises are still employed, Guidelines on Water, Telecommunications and Internet Service Providers shall govern the procurement, and
  - In determining the ABC, the CCs should consider the different cost components visà-vis the technical specifications

#### 2. Regulatory Updates/ERC Issuances

In support to the policies promulgated by the DOE, the ERC likewise issued various resolutions as follows:

Resolution No. 5, Series of 2013, a resolution on the disclosure of capacity and energy
allocation by the DUs and RES in the Luzon and Visayas grids. As required under the said
Resolution, all DUs in Luzon and Visayas shall submit to the ERC data pertaining to the
amount of capacity and energy that they have contracted with generators as well as the
capacity and energy they have allocated for their captive customers, to their supply

business segment which is their Local RES and SOLR. The same requirements were imposed upon the RES' while they have to disclose the number of their CCs and the capacity and energy they intend to allocate to them. This required submission by the ERC shall be updated every three (3) months;

- Resolution No. 11, Series of 2013, adopted the supplemental rules to the Transitory Rules for the implementation of RCOA. Specifically, this resolution gave some relief to the CCs by allowing them to stay with their franchised DUs until such time that they are able to find a RES;
- Resolution No. 12, Series of 2013, which adopted a pro-forma contract for the Supplier of Last Resort (SOLR) and CCs upon RCOA;
- Resolution No. 13, Series of 2013, which adopted a pro-forma connection agreement between a DU and a CC upon RCOA; and
- Resolution No. 14, Series of 2013, adopted a pro-forma Distribution Wheeling Supply Agreement (DWSA) between a DU and a RES upon RCOA.

Meanwhile, the ERC subjected for public consultations its proposed amendments on the Guidelines for RES Licensing. The proposed amendments cover the scope of coverage of the Rules, Qualifications, Criteria and Limitations of a RES, and Requirement and Procedures.

## 3. Highlights of RCOA Operations

The full commercial operation of RCOA commenced last 26 June 2013 with a total of 275 registered participants.

• As of October 2013, the number of participants increase to three hundred eight (308) to include fifteen (15) Retail Electricity Suppliers (RES), five (5) Local Retail Electricity Suppliers (Local RES), twenty three (23) Retail Metering Service Providers (RMSP), two hundred sixty three (263) Contestable Customers (CCs) and two (2) Suppliers of Last Resort (SOLR). Currently, fifty eight (58) applications from different categories are being evaluated by the Central Registration Body or PEMC.

Table 16. RCOA Registration Status as of 31 October 2013

| Participants                      | On-going Completion of<br>Requirements | Successfully<br>Registered | Total Applications<br>Received |
|-----------------------------------|--|----------------------------|--------------------------------|
| Retail Electricity Supplier       | 4                                      | 15                         | 19                             |
| Local Retail Electricity Supplier | 7                                      | 5                          | 12                             |
| Retail Metering Service Provider  | 4                                      | 23                         | 27                             |
| Contestable Customer              | 38                                     | 263                        | 301                            |
| Supplier of Last Resort           | 5                                      | 2                          | 7                              |
| Total                             | 58                                     | 308                        | 366                            |

Source: PEMC

Based on the number of customers, MPower (the Supplier unit of MERALCO) has the largest share at 60.31 percent followed by AES RES at 17.90 percent and Direct Power at 11.28 percent as shown in Table No. 17. Further, it also shows the Market Volume per RES. MPower took the largest share with 58.31 percent followed by AES RES at 23.95 percent and Direct Power at 7.98 percent.

Table 17. Contestable Customer Count and Market Volume per Supplier

| Supplier         | No. of CCs | Share (%) | Metered Quantity (GWh) | Share (%) |
|------------------|------------|-----------|------------------------|-----------|
| Advent Energy    | 5          | 1.95%     | 12.44                  | 0.92%     |
| AES RES          | 46         | 17.90%    | 323.94                 | 23.95%    |
| Direct Power     | 29         | 11.28%    | 107.94                 | 7.98%     |
| EPMI             | 12         | 4.67%     | 34.52                  | 2.55%     |
| FGen RES         | 1          | 0.39%     | 0                      | 0         |
| MPPCL            | 1          | 0.39%     | 42.48                  | 3.14%     |
| MPower           | 155        | 60.31%    | 788.70                 | 58.31%    |
| SMEC             | 1          | 0.39%     | 12.20                  | .90%      |
| TPEC             | 7          | 2.72%     | 25.72                  | 1.90%     |
| Direct Member CC |            |           | 4.70                   | 0.35%     |
| Total            | 257        | 100%      | 1,353.00               | 100%      |

Source: PEMC

- Table 18 shows that spot transaction levels in the WESM for the first three (3) months of the RCOA operations vary from six (6) percent to eight (8) percent. The market transactions levels of the Captive Market vary from six (6) percent to nine (9) percent where highest transaction was recorded in September 2013 at nine (9) percent.
- Market Transaction levels for Contestable Market were slightly lower than the captive
  market. These vary from four (4) percent to five (5) percent. As of September 2013,
  total spot transactions of contestable customers were at negative seven (7) percent
  which was a result of higher level of bilateral transactions compared with actual energy
  usage of the contestable customers. In this situation, this higher level of bilateral
  contracting enabled players in the retail market to sell their excess in the WESM.

Table 18. Market Transaction Volume (in GWh) from July to September 2013

|               | Captive Market |        | Contestabl | e Market | System   |        |  |
|---------------|----------------|--------|------------|----------|----------|--------|--|
| Billing Month | BCQ            | Spot   | BCQ        | Spot     | BCQ      | Spot   |  |
|               | 4,197.41       | 353.51 | 416.89     | 19.48    | 4,164.30 | 372.99 |  |
| Jul-2013      | 92%            | 8%     | 96%        | 4%       | 93%      | 7%     |  |
|               | 4,119.66       | 275.11 | 430.45     | 23.23    | 4,550.11 | 298.33 |  |
| Aug-2013      | 94%            | 6%     | 95%        | 5%       | 94%      | 6%     |  |
|               | 4,114.39       | 410.64 | 497.01     | (34.41)  | 4,611.40 | 376.23 |  |
| Sep-2013      | 91%            | 9%     | 107%       | (7%)     | 92%      | 8%     |  |

Source: PEMC

## 4. Compliance to reportorial requirements of DOE DC2013-05-0006

Compliance increased significantly from the thirty six (36) percent reported in July 2013 to the current compliance level of seventy two (72) percent as of August 2013. The reports were generated from Generation Companies (Gencos) on a per power plant basis, Retail Electricity Suppliers (RES), Local RES and DUs in the Luzon and Visayas Grid.

 Based on the info submitted, 7,921.38 MW have been contracted, and is broken down to: Private DUs with 5,682.19 MW, RES with 1,107.54 MW, Local RES with 1,021.15 MW; and ECs with 734.81 MW.

Table 19. Status of Compliance to DOE DC2013-05-0006

| Particular<br>Entity  | Total<br>No. | No. Of<br>Compliance | No. Of Non-<br>Compliance | Total Installed<br>Capacity (MW) | Total<br>Contracted<br>Demand | Uncontracted<br>Capacity (MW) | Capacity Of Power Plants Without Contract (MW) |
|-----------------------|--------------|----------------------|---------------------------|----------------------------------|-------------------------------|-------------------------------|--|
| Supply                |              |                      |                           |                                  |                               |                               |  |
| No. Of<br>Power Plant | 99           | 96                   | 3                         | 13,938.89                        | 7,921.00                      | 6,017.89                      | 1,576.74                                       |
| Demand                |              |                      |                           |                                  |                               |                               |  |

## 23<sup>rd</sup> Status Report on EPIRA Implementation

| Particular<br>Entity | Total<br>No. | No. Of<br>Compliance                   | No. Of Non-<br>Compliance | Total Installed<br>Capacity (MW)     | Total<br>Contracted<br>Demand  | Uncontracted<br>Capacity (MW) | Capacity Of Power Plants Without Contract (MW) |
|----------------------|--------------|--|---------------------------|--------------------------------------|--------------------------------|-------------------------------|--|
| Customers            | Total<br>No. | No. Of<br>Compliance                   | No. Of Non-<br>Compliance | Total<br>Contracted<br>Capacity (MW) | Capacity<br>Allocation<br>(MW) |                               |  |
| DU's                 | 14           | 6                                      | 8                         | 5,682.19                             | 5,542.56                       |                               |  |
| RES                  | 19           | 17                                     | 2                         | 1,107.54                             | 582.92                         |                               |  |
| LRES                 | 13           | 9                                      | 4                         | 1,021.15                             | 625.20                         |                               |  |
| EC's                 | 72           | 28                                     | 44                        | 734.46                               | 741.38                         |                               |  |
| Total<br>Customers   | 118          | 60                                     | 58                        | 8,545.33                             | 7,492.06                       |                               |  |
| Supply-Der           |              | nce (Generators mi<br>minus Local RES) | nus DUs' minus            | 5,393.56                             | 428.93                         |                               |  |

Source: DOE

- With regard to submission of requirements, generation companies and RES were highly compliant with ninety seven (97) percent and eighty nine (89) percent compliance level.
- The reported installed capacity was 13,939 MW of which 8,545.33 MW are contracted by DUs and RES while 7,921 MW was already allocated to captive and contestable customers while there are number power plants with a combined capacity of 1,577 MW did not enter in supply contracts.

Table 20. RES with Excess Contracted Capacity (as of October 2013)

| <b>RES/Local RES</b>                                    | <b>Contracted Capacity</b>    | Capacity Allocation to Customers | Remarks   |
|---|-------------------------------|----------------------------------|---|
| Ecozone Power<br>Management Inc.                        | 50 MW                         | No customer yet                  |   |
| Global Energy Supply<br>Corporation                     | 156.5 MW                      | 43 MW                            | Generator affiliate RES   |
| GNPower Mariveles Coal<br>Plant Ltd. Co.                | No contracted capacity report | 13.7 MW                          | Generator affiliate RES   |
| Masinloc Power Partners<br>Co., Ltd.                    | 100 MW                        | 31 MW                            | Generator affiliate RES   |
| Subic Enerzone<br>Corporation                           | 80 MW                         | 47.20 MW                         | Local RES   |
| TeaM (Philippines) Energy Corporation                   | 253 MW                        | 106.5 MW                         | Generator affiliate RES   |
| Trans-Asia Oil and<br>Energy Development<br>Corporation | 196.5 MW                      | 48 MW                            | Generator affiliate RES   |
| Visayas Electric<br>Company, Inc.                       | 392.097 MW                    | 106.846 MW                       | Need to determine if<br>the contracted<br>capacity includes the<br>requirement for<br>captive customers |

• It was noted the MERALCO Local RES capacity allocation are sourced from its recent portfolios as approved by the ERC. This may be the case also for VECO Local RES. Further verification will be conducted by the DOE, however this issue needs a thorough evaluation by the ERC pursuant to timelines to ensure no cross-subsidization.

### 5. Harmonization of RCOA Policy and Regulation

The DOE conducts regular coordination meetings with ERC to harmonize policies and regulations on RCOA. As of the report period, the DOE and the ERC have agreed on the following:

- The policy of allowing prospective generators to sign Retail Supply Contracts (RSC) pursuant to DOE DC2013-07-0013 will be considered by ERC in the amendments to the Guidelines on the Issuance of Licenses to Retail Electricity Suppliers;
- The Rules for Customer Switching will be recalled by the ERC in view of the Retail Rules issued by the DOE. However, ERC noted/requested DOE to consider issuing a circular for the reportorial requirements provided for in the earlier rules specifically Section 1 of Article II which provides for the DUs/TransCo/NGCP submission of monthly customer demand data for the ERC's determination of contestability. To maintain this provision, ERC views that it is the DOE which has the authority to make it operative through the issuance of a Department Circular. However, we view that since the issuance of the Certificate of Contestability is within the ERC's jurisdiction, the above provisions may appropriately be included under the Rules for Contestability. Further, since the concerned entities are regulated by the ERC, then the latter can effectively monitor them;
- It was noted that there was a need to harmonize Section 4.1 of DOE DC2012-05-0005, which mandates CCs to transact only with Licensed RES, DOE DC2013-07-0013, which now allows a CC to negotiate with a prospective Genco even if it is yet to secure a RES license. ERC emphasized that DOE DC2013-07-0013 may be contrary to EPIRA considering that the act of marketing electricity to end-users likewise requires a license from the ERC;
- The Rules for Customer Switching and the Code of Conduct will be recalled by the ERC in view of the Retail Rules issued by the DOE and the latter being in conflict with the policy that the Generation Companies may negotiate supply contracts with Contestable Customers as provided in DOE Circular No. 2013-07-0013; and
- ERC will study the parameters and guidelines for the determination of superior offers which may include posting of "suggested retail rates by the RES/Local RES" and the value-added services. In addition, further study will be undertaken to mitigate anti-competitive practices like "predatory pricing" which seems to be the initial strategy of RES/Local RES.

### 6. RCOA Concerns raised by Stakeholders

a) Direct Power Services Inc., AC Energy Holdings, Inc. and the Philippine Independent Power Producers Association (PIPPA) raised concerns on the RCOA policies specifically on the DOE DC2013-07-0013 as follows:

#### Section 2: Supply Contract and Customer Switching

• Whether or not the pre-termination provision being contemplated is a "no-cost" or "no-penalty".

The DOE clarified that, penalties may apply, subject to the ERC's issuance of a guideline on the determination of superior offer, which will be the justification

for switching. As of our latest coordination with ERC, they will still study the parameters and guidelines on the determination of superior offer.

• Whether this will apply to contracts entered into (1) between Generation Company and a RES, and 2) between a GenCo that has secured a Suppliers license from the ERC and a CC.

The DOE clarified that this provision only applies to contracts entered into between a Supplier (including a GenCo licensed as Supplier) and a CC.

• Whether or not this provision will retroactively applied to existing contracts already signed and executed by a RES or a CC, or it will apply prospectively to new contracts entered into after the effectivity date of the Circular.

The DOE clarified that the provision will apply retroactively to contracts signed and executed by a RES and a CC prior to the issuance of DOE DC2013-07-0013. Since the intent of EPIRA is Customer Choice and Empowerment, the RSC should provide flexibility for both the RES and CC to switch consistent with the implementing rules that the ERC will promulgate on the definition and parameters to be observed in determining "superiority of the offer". Meanwhile, the spirit of RCOA is for Suppliers to compete in providing better offers and services to the CCs.

### Section 3: Transparency of Electricity Rates Under RCOA Regime

• Whether or not a CC can remain with a DU even after December 25, 2013 and continue to be charged the DU captive rate.

The DOE clarified that the CC can remain with the DU even after said period. Recommended adoption of time-of-use pricing should be referred to ERC for consideration.

b) Issues on RCOA Registration as raised by PEMC

Further to the registration of RCOA participants, PEMC raised the following issues which require policy directions from the DOE:

- Requirement of ERC license for PEZA to register in the WESM as Supplier which may create a conflict between ERC and PEZA in view of their opposing views on regulatory authority emanating from EPIRA and PEZA Charter;
- Treatment of Directly Connected Customers as Contestable Customers. The issuances from DOE and ERC differ on the treatment of DCCs as Contestable Customers;
- Treatment of Contestable Customer embedded in the Directly Connected Customer substation. PEMC met with concerned CCs and advised them to coordinate with to determine its possible connection;
- DWSA of Direct Contestable Customers. MERALCO as MSP will file a petition with ERC to approve a forma DWSA between an MSP and Direct CC. PEMC met with the concerned CC and MSP and advised them to coordinate with ERC for the issuance of DWSA for Direct CCs, and

- Request of stakeholders for the execution of Confidentiality & Non-disclosure Agreement between PEMC & Supplier.
- c) Issue on Contestability as raised by Visayan Electric Company (VECO)

The Visayan Electric Company (VECO) raised its concern on the indefinite timeline for CCs to secure a retail supply contract. VECO noted that when their supply contract with PSALM expires in December 2013, they will not be contracting power for the CCs as their migration will result to stranded contract cost. The DOE is scheduled to discuss the matter with ERC considering the policy that CCs may remain in their franchised DU until such time that they are able to find a RES.

## 7. Implementation of Early Retail Aggregation in Economic Zones

As regard to the Philippine Economic Zone Authority's (PEZA) proposal to implement early aggregation in the economic zones, responded to PEZA's request and interposed no objections on the proposal, however, it emphasized that PEZA should address the possibilities of having CCs which may choose not to join the early aggregation program and decide to choose its own Supplier during the implementation of RCOA. The early aggregation maybe implemented in a manner that the freedom of choice shall still be rightfully accorded to Ecozone locators in accordance with the spirit of EPIRA.

### D. Interim Mindanao Electricity Market (IMEM)

For the report period, the development of the IMEM milestone of events proceeded with the review and finalization of the market rules during the whole month of May. A series of public consultations was held among the electric power industry participants including the members of the energy family. The DOE issued a Department Circular in  $24^{\rm th}$  of May that finally promulgated the IMEM Rules.

The month of June marked the start of IMEM registration among market participants. Participation in the IMEM covers the *mandatory* participants, and all *voluntary* participants. Mandatory members cover entities with generating facilities other than self-generating entities within the Mindanao power system. Also included in this category are the Mindanao Distribution utilities and grid-connected end-users. Entities that are identified as voluntary participants include self-generating facilities and all end-users or group of end-users that may register as an IMEM *Load Curtailment Resource*.

The Price Determination Methodology (PDM) was developed in accordance with the IMEM Implementing Rules promulgated by the DOE on 24 May 2013 through Department Circular No. DC2013-05-0008. The PDM describes the procedure for determining the: (1) settlement price applicable to IMEM Resources; (2) settlement price applicable to IMEM customers, and (3) the settlement amounts.

The ERC conducted three (3) public hearings before the final approval of IMEM PDM. The 1st ERC hearing was held last on July 9, 2013 in Davao City. A second ERC hearing was likewise held on July 23, 2013, also in Davao City, and this was followed by the 3rd hearing last August 06, 2013. During the hearing, deliberations covered Resource Price Determination principles and how settlement would be applied. The month of July was likewise capped with the start of the IMEM registration drive held in Zamboanga City, Cagayan de Oro City, Davao City, and Butuan City.

To complement the preparatory of the IMEM Rules, several key IMEM Manuals were likewise developed. These manuals include the Billing and Settlement, Dispute Resolution, Information Provision and Confidentiality, Investigation Procedures, Metering Standards and Procedures, and Registration Criteria and Procedures. In the development of these IMEM Manuals, the DOE initiated several coordination meetings IMEM stakeholders and energy agencies and Committees. Draft copies of these manuals were posted in the DOE website in August 12 aimed to solicit comments.

Another key milestone set for the month of August was the start of IMEM actual training which commenced last August 6 to 30. It was in August 26 when the start of the IMEM *Trial Operations Program* (TOP) was initiated which culminated in September 25<sup>th</sup>. The IMEM TOP was a series of preparatory activities to ensure the successful commercial operations of the IMEM. The program provides the interfaces, test cases and forms that will aid the IMEM Operator and the participants in simulating market transactions and information exchange. The TOP exercise aimed to provide the opportunity to identify process gaps and develop procedural improvements and system advancements.

The succeeding month of August set the *Initial Commercial Operation* last September 26<sup>th</sup>. This is another important date when the DOE issued Department Circular DC 2013-09-0023 that declared the official launch of the Interim Mindanao Electricity Market (IMEM) and terms and conditions for the Full Commercial Operations of the IMEM. Starting this day, all *Mandatory Participants* of IMEM were directed to register and submit the accomplished IMEM Membership Form, and the IMEM Participation Agreement until 02 October 2013.

There were other remarkable developments that were concluded in the month of September such as: (1) the Issuance of Department Circular DC 2013-09-0020 adopting the amendments to the Interim Mindanao Electricity Market (IMEM) Implementing Rules and promulgating the IMEM Manuals; (2) the publication of IMEM Offer Cap Discussion Paper in the DOE website for comments; (3) the end of Trial Operations Program; (4) the publication of the Department Circular DC No. 2013-09-0020 and IMEM Manuals in the DOE Website; and the (5) submission of Week Ahead information and Issuance of participant access details from 30 September up to 03 October. Other reference key milestone events are as follows:

Table 21. IMEM Milestones Dates for May 2013 to October 2013

| Date                      | Activities   |
|---------------------------|--|
| 06-10 May 2013 (Mon-Fri)  | DOE's review and comments to the IMEM Rules 26 April 2013 version  |
| 16 May 2013 (Thu)         | PEMC's issuance of IMEM Rules Final Draft  |
| 24 May 2013 (Fri)         | Issuance of DC2013-05-0008 – "Promulgating the IMEM Implementing Rules"                                  |
| 31 May 2013 (Fri)         | PEMC filed the application for the approval of the IMEM Price Determination Methodology (PDM) to the ERC |
| 03 June 2013 (Mon)        | Start of IMEM Registration   |
| 21 June 2013 (Fri)        | DOE IMEM Workshop with Energy Agencies at DOE (AVR conference room)                                      |
| 09 July 2013 (Tue)        | 1st ERC Hearing on the IMEM PDM in Davao   |
| 23 July 2013 (Tue)        | 2 <sup>nd</sup> ERC Hearing on the IMEM PDM in Davao<br>Registration Drive in Zamboanga City             |
| 25-26 July 2013 (Thu-Fri) | Registration Drive in Cagayan de Oro City  |
| 30 July 2013 (Tue)        | Registration Drive in Davao City   |

| Date                                   | Activities   |  |
|--|--|--|
| 01 August 2013 (Thu)                   | Registration Drive in Butuan City  |  |
| 06 August 2013 (Tue)                   | 3 <sup>rd</sup> ERC Hearing on the IMEM PDM  |  |
| 12 August 2013 (Mon)                   | Publication of Draft IMEM Manuals in the DOE website for comments (deadline of submission 16 August 2013)  |  |
| 06-30 August 2013 (Tue-Fri)            | Start of IMEM Actual Training  |  |
| 26 Aug 2013 - 25 Sep 2013<br>(Mon-Wed) | Start of Trial Operations Program  |  |
| 10 September 2013 (Tue)                | Issuance of DC 2013-09-0020 'Adopting amendments to the IMEM Implementing Rules and promulgating the IMEMManuals'  |  |
| 10-11 September 2013 (Tue-Wed)         | IMEM Training for GenCos and Customers at Grand Regal Hotel,<br>Davao  |  |
| 12 September 2013 (Thu)                | Publication of IMEM Offer Cap Discussion Paper in the DOE website for comments (Deadline of submission is 18 Sep 2013 until 5pm)   |  |
| 25 September 2013 (Wed)                | End of Trial Operations Program  |  |
| 25 September 2013 (Wed)                | IMEM Tripartite Meeting (DOE,ERC,PEMC) on IMEM Offer Cap Simulation  |  |
| 26 September 2013 (Thu)                | Initial Commercial Operation   |  |
| 26 September 2013 (Thu)                | Issuance of DC 2013-09-0023 - "Declaring the Launch of the Interim Mindanao Electricity Market (IMEM) and terms and conditions for the Full Commercial Operations of the IMEM" |  |
| 26 Sept. – 02 Oct. (Thu-Wed)           | Registration of All Mandatory participants;<br>submission of IMEM Membership Form and IMEM Participation<br>Agreement by Mandatory Participants                                |  |
| 27 September 2013 (Fri)                | IMEM Coordination Meeting with Energy Agencies at PEMC   |  |
| 27–29 September 2013 (Fri-Sun)         | Database clean up and registration population  |  |
| 27 September 2013 (Fri)                | Publication of the Department Circular DC No. 2013-09-0020 and IMEM Manuals in the DOE Website   |  |
| 30 Sept. 2013 – 03 Oct. (Mon-Thu)      | Submission of Week Ahead information and Issuance of participant access details  |  |
| 02 October 2013 (Wed)                  | IMEM Coordination Meeting with Energy Agencies and IMEM Participants at N hotel, Cagayan De Oro City   |  |
| 03 October 2013 (Thu)                  | Start of Central Dispatch and Scheduling   |  |
| 04 October 2013 (Fri)                  | Implementation of Central Dispatch and Scheduling  |  |
| 04 October 2013 (Fri)                  | Submission of PSALM to DOE their Position Paper regarding STEAG's registration Issue   |  |
| 07 October 2013 (Mon)                  | Issuance of the Joint Resolution on 'Setting the Offer Cap for the Commercial Operation of the Interim Mindanao Electricity Market'  |  |
| 16 October 2013 (Wed)                  | IMEM Meeting with Directly Connected Customers at PEMC,<br>Ortigas   |  |
| 25 October 2013 (Fri)                  | End of First Billing Cycle   |  |
| 28 October 2013 (Mon)                  | Submission of MQ data  |  |
| 12 November 2013 (Tue)                 | PEMC-NGCP Coordination Meeting   |  |
| 14 November 2013 (Thu)                 | IMEM Coordination Meeting with PSALM, NPC, NEA and PEMC  |  |

| Date                   | Activities  |  |
|------------------------|---|--|
| 15 November 2013 (Fri) | Submission of completion documentary requirements as a condition to participate in the Full Commercial Operations of the IMEM |  |
| 25 November 2013 (Mon) | End of Initial Commercial Operation transition period   |  |
| 26 November 2013 (Tue) | Full Commercial Operation<br>Approval of Offer Cap<br>Constitution of IMEM Governance Committee                               |  |

Source: DOE

# 1. IMEM Commences Initial Commercial Operations (26 September 2013)

The DOE, together with PEMC, has commenced the initial commercial operations of the IMEM on 26 September 2013 following the issuance of Department Circular No. DC 2013-09-023 that declared the launching of IMEM issued last September 24, 2013.

During the first week of the initial commercial operations, PEMC started the collection of data from submissions of all the IMEM mandatory participants of their respective membership forms and participation agreements. Subsequently, the implementation of central scheduling and dispatching of all contracted bilateral contract quantities was scheduled to start on 03 October 2013, until the declaration of full commercial operations by 26 November 2013.

IMEM as a provisional set-up to address the perennial power situation in Mindanao is expected to contribute to the overall supply of electricity in the Mindanao region until new power plants will come online by 2015. As a day-ahead market, it is expected to pool an estimated 200 megawatts from all available capacities, including all generation capacities from embedded generators and voluntary load curtailment resources in the Mindanao Grid.

Moreover, in support of IMEM's implementation, the ERC has approved a budget of Php 34.25 Million that were sourced from unutilized portions of Market Transaction Fees of the WESM collected in 2012.

Meanwhile, PEMC, as the designated IMEM Operator, shall ensure the smooth implementation of the initial commercial operations by closely coordinating with the Mindanao System Operator and IMEM Members.

#### 2. PEMC Ushers the Launch of IMEM Commercial Operations (20 September 2013)

PEMC as the designated IMEM Operator, steered the ceremonial launch of the IMEM commercial operations last 20 September 2013 at SMX Davao Convention Center, Davao City.

The event was graced by no less than the Chairman of the PEMC Board and Secretary of Energy, Hon. Carlos Jericho L. Petilla together with the presence of several officials from the ERC, heads of DOE-attached entities and stakeholders from the Mindanao power industry.

The ceremonial launch was capped by a symbolic signing of IMEM Participation Agreement with PSALM, NGCP, and Davao del Sur Electric Cooperative representing the IMEM Resources, IMEM Service Providers, and IMEM Customers.

# 3. Solicitation of Comments on the IMEM Offer Cap Discussion Paper (12 September 2013)

The Offer Cap for the IMEM is set pursuant to IMEM Rules Clause 3.3.1.10. The aforementioned clause provides that the *Offer Price* of an IMEM Resource shall not be greater than any limit that may be agreed upon by the DOE, the ERC, and the IMEM Operator.

Given this provision, the DOE and PEMC prepared a discussion paper to provide a reference on the methodology and analysis for the formulation of IMEM Offer Cap as set forth in the IMEM Rules. This was posted in both the DOE and PEMC websites to solicit comments among the electric power industry participants. The deadline for submission of comments was set on 18 September 2013.

The three (3) pages discussion paper include the proposed methodology, with a formula to be used in computing for the generation cost; identification of a benchmark facility; generation cost computation assumptions detailing variable and fixed cost with a plant capacity set at 1 MW; and an energy output simulation table with parameters and equivalent value. Based on the assumed values and simulated computations, the proposed IMEM Offer Cap was determined at PhP 36/kWh.

#### 4. Solicitation of Comments on the Draft IMEM Manuals (12 August 2013)

The DOE posted on its website a request soliciting the electric power industry participants for comments on the draft IMEM Manuals which were formulated by PEMC and reviewed by the DOE. These IMEM Manuals cover the following: (a) Registration Criteria and Procedures, (b) Metering Standards and Procedures, (c) Billing and Settlement, (d) Information Provision and Confidentiality, (e) Investigation Procedures, and (f) Dispute Resolution.

#### DOE Issuances

1. DOE Department Circular NO. DC 2013-09-0023 Promulgating the IMEM Implementing Rules Declaring the Launch of IMEM and Terms and Conditions for the Full Commercial Operations of IMEM (September 24, 2013)

With the promulgation of IMEM Implementing Rules and the IMEM Manuals last May 24 and September 17, coupled with the issuance of ERC with an order in August 12, 2013 that granted the provisional authority for the IMEM price determination methodology; PEMC commenced the *Trial Operations* of IMEM last August 26, 2013 for a period of one month. The trial operation program (TOP) provided IMEM participants to fully familiarize basic market trading processes in particular centralized scheduling and dispatch.

The issuance of DC 2013-09-0023 provided for the declaration of launching the IMEM and setting the initial target commercial operations date at September 26, 2013. It directed all participants to submit an accomplished IMEM membership form and market participant agreement. Compliance on the submission of documentary requirements also include all items mentioned in Section 2.5 of the IMEM Rules as a pre-requisite to the participation in the full commercial operation of IMEM.

The terms of the initial commercial operations likewise specified that starting October 3, 2013 and until the declaration of full commercial operations, all IMEM members shall comply with the provisions on central scheduling and dispatch of all contracted bilateral quantities.

As a final provision of this Department Circular, full commercial operations of the IMEM is scheduled on November 26, 2013 subject to the (1) approval of an offer cap by the Tripartite Committee (DOE-ERC-PSALM); and (b) constitution of the IMEM Governance Committee.

# 2. DOE Department Circular NO. DC 2013-09-0020 "Adopting Amendments to the Interim Mindanao Electricity Market (IMEM) Implementing Rules and Promulgating the IMEM Manuals" (10 September 2013)

The DOE issued Department Circular No. DC 2013-05-0008 on 24 May 2013 promulgating the Interim Mindanao Electricity Market (IMEM) Implementing Rules or the "IMEM Rules". A review of the said IMEM Rules by the DOE showed that there was a need to amend and provide additional safeguards against possible gaming in the market.

Specifically, Sections that were amended were as follows: (1) Section 1. Amendment of Clause 3.1.2.10 of the IMEM Rules. Clause 3.1.2.10 was amended to read as "Each day by 1500H, the IMEM Operator shall prepare and publish the Week-Ahead IMEM Demand Report"; (2) Clause 3.1.2.10 was renumbered to Clause 3.1.2.11 and Clause 3 1.2.11 renumbered to Clause 3.1.2.10; and (3) Approval and Adoption of the IMEM Manuals. The manuals and annexes were approved and adopted covering: (a) Annex" A" - Billing and Settlement; (b) Annex "B" - Dispute Resolution; (c) Annex "C" - Information Provision and Confidentiality; (d) Annex "D" - Investigation Procedures; (e) Annex "E" - Metering Standards and Procedures; (f) Annex "F" - Registration Criteria and Procedures; (g) Annex" G" - Dispatch Protocol.

# 3. DOE Department Circular NO. DC 2013-05-0008 "Promulgating the IMEM Implementing Rules" (May 24, 2013)

The DOE issued a Department Circular (DC 2013-01-0001) last January 9, 2013 directing the Philippine Electricity Market Corporation (PEMC) to develop and implement an interim market fitted for Mindanao as a measure to immediately address the perennial power supply issue. In compliance with this directive PEMC submitted to the DOE a draft IMEM implementing rules last March 25, 2013.

This draft IMEM Rules was posted in the DOE website last March 25, 2013 to solicit comments among the electric industry participants particularly among Mindanao stakeholders. A series of public consultations were held on April 3, 10, and 12 in Zamboanga, Cagayan de Oro, and Davao City.

After review and deliberations with no major objections to the establishment of an interim electricity market, the DOE formally adopted the IMEM implementing rules which would apply to all electric power industry participants in Mindanao. The Department Circular enjoined all electric power industry participants in Mindanao to participate in the IMEM together with the government energy family to extend full cooperation for the smooth implementation of IMEM.

#### • Tripartite Committee (DOE-ERC-PEMC) Joint Resolution

# 1. Joint Resolution of the Tripartite Committee Setting the Offer Cap for the Commercial Operation of IMEM (07 October 2013)

The DOE and PEMC posted in their websites a discussion paper soliciting comments in setting the IMEM Offer Cap in September 12, 2013. The DOE received several comments on the proposed cap from the electric power industry participants such as CEPALCO,

MORESCO 1, ZAMSURECO 1, SOCOTECO 1, ZAMCELCO, and TMI. It was agreed that the method for setting the IMEM Offer Cap shall be based on the generating cost of a benchmarked generating facility to enable adequate compensation for the participants to be encouraged to join the IMEM.

After review and evaluation, the *Tripartite Committee* which is composed of Secretary Carlos Jericho L. Petilla of the DOE, Chairperson Zenaida G. Cruz-Ducut of the ERC, and President Melinda L. Ocampo of PEMC issued a joint resolution setting the offer cap for the commercial operation of the IMEM. In accordance with the IMEM Rules, the offer cap for the IMEM was set at PhP32,000.00 per megawatt hour (equivalent to PhP32.00 per kilowatt hour). The joint resolution provides that this cap shall remain effective unless otherwise amended or revoked by the DOE, ERC, and PEMC. This shall likewise be reviewed three (3) months from the start of the full commercial operations of the IMEM and as may be often as necessary to determine whether an adjustment is necessary under prevailing circumstances.

#### • ERC Issuances

# 1. ERC No. 2013-116RC Provisional Approval of PEMC's Pricing Methodology for the Mindanao Market IMEM (12 August 2013)

In an Order docketed on 12 August 2013, the ERC granted Provisional Authority (PA) to PEMC regarding its application (docketed as ERC Case No. 2013-116 RC) for the approval of Pricing and Cost Recovery Methodology (PCRM) for the IMEM. With the grant of the provisional authority, PEMC could start the IMEM operations using the Price Determination Methodology (PDM) that it proposed to the ERC.

The IMEM PDM sets forth the specific principles and formula in determining the prices and settlement amounts for the IMEM. The IMEM aims to provide a venue for transparent and efficient use of excess energy to address the supply shortfall in Mindanao through a market driven environment.

The salient features of PEMC's PDM include: (1) an IMEM Day-Ahead Price (IDAP) for energy supply which is being determined day-ahead to provide certainty in pricing for the participants; (2) the IDAP that shall correspond to the highest offer price fully or partially scheduled for the particular IMEM trading interval; (3) a cap on offers in the market, with the cap to be agreed upon by the DOE and the ERC; (4) a small premium for IMEM Resources on changes in dispatch from the Day-Ahead IMEM Schedule; (5) penalties for trading participants deviating from the schedule beyond ±3% variation tolerance or dispatch instructions of the Mindanao System Operator; and (6) compensation for trading participants for their actual delivery, subject to premiums and penalties, if any.

#### 2. PEMC Application for the Approval of Market Fees (28 August 2013)

On 28 August 2013, PEMC filed an application for the approval of market fees for the IMEM for the year 2014 in the amount of PhP20 Million as well as the authority to collect the amount of PhP34 Million used for the establishment of the IMEM. The ERC has issued a notice of hearing scheduling the initial hearing on 08 October 2013 at the ERC Field Office in Davao City. Pre-trial and the evidentiary hearing is scheduled on 30 October 2013.

# 3. ERC No. 2013-116RC PEMC's Application for the Approval of the Pricing and Cost Recovery Methodology for the Issuance of Provisional Authority for IMEM (29 May 2013)

Sometime in 29 May 2013, PEMC filed an application with the Energy regulatory commission for the approval of the Price Determination Methodology (PDM) for the IMEM. This application prayed for the: (1) approval of the IMEM Price Determination Methodology (PDM), and (2) issuance of a provisional authority to allow the use of the IMEM PDM.

## 4. ERC Updates Interruptible Load Program (ILP) Rules (27 May 2013)

The ERC promulgated on 27 May 2013 the amendments to Resolution No. 8, Series of 2010 otherwise known as the Rules to Govern the Interruptible Load Program (ILP) of DUs for Visayas and Mindanao.

The ILP Rules were crafted and promulgated by the ERC to help address the power supply deficit in certain parts of the country. Under the ILP, a distribution utility (DU) and a Participating Customer can enter into an agreement wherein the latter may be requested by the DU to de-load. The ILP Rules aim to streamline the process of: (1) the activation of an ILP; (2) requesting for de-loading; (3) creating a dispatch protocol; (4) documentation; and (5) billing and compensation.

The ILP Rules amendments stemmed from a petition filed by Davao Light and Power Company, Inc. (DLPC) in February 2013 that was docketed as ERC Case No. 2013-004 RM. DLPC, in its petition, alleged that the existing ILP Rules do not provide for sufficient cost recovery by the Participating Customers. DLPC proposed to increase the fuel consumption cap from 0.28 liter per kWh to 0.34 liter per kWh to allow for a higher cost recovery for fuel for the Participating Customers. It sought also a provision for maintenance costs to compensate costs incurred in the operation of back-up generating sets, apart from the fuel costs allowed under the present ILP Rules.

The ERC approved the ILP Rules amendment which: (a) adjust the formula for the Deloading Compensation (in PhP Pesos) component to reflect the proposed fuel consumption efficiency rate of 0.34 liter per kWh; (b) provide an allocation for the maintenance of generating units used by a Participating Customer equivalent to PhP0.32/kWh but not to exceed PhP23,548.00 per month; and (c) reflect the use of the actual price of diesel fuel bought from Petron, Shell, and Caltex the previous month of the billing period as reference for calculating the allowable fuel cost to be recovered.

# 5. ERC Case No. 2013-011 RC Order – "Provisional Approval of the Level of Market Transaction Fees for the Establishment of IMEM" (25 February 2013)

On January 21, 2013, PEMC filed an application for the approval of the level of market transaction fees for the establishment of an IMEM. This is consistent with the Department Circular (DC2013-01-0001) directing PEMC to develop and implement an Interim Mindanao Electricity Market. Under this circular, PEMC was authorized to file the necessary application with the ERC to secure the necessary funding to operate IMEM.

Initial required budgetary requirements filed in ERC amounted to thirty-four million and two hundred sixty thousand pesos (PhP34.260 Million) covering the following: (1) preoperating expenses (PhP 5.980M); (2) CAPEX (PhP8.290); technical assistance (PhP34.260).

After due deliberations on February 25, 2013,the ERC provisionally approved with modification the application of PEMC for the approval of the level of market transaction fees for the establishment of IMEM. ERC authorized PEMC to use the unutilized portion of the market transaction fees for calendar year 2012 which should not exceed the amount of PhP24.260 million to finance the IMEM program. The details of the approved level of MTF cover the following: (1) pre-operating expense PhP5.980; (2) CAPEX PhP8.280; (3) technical assistance PhP10.00.

#### 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 May to October 2013.

### A. Installed and Dependable Capacity

The country's installed capacity as of 31 October 2013 stood at 17,037MW. Luzon grid totaled 12,528MW, Visayas at 2,448 MW and Mindanao at 2,061MW. Correspondingly, dependable capacity for the same period stood at 15,078MW or 88.50 percent of the total installed capacity. The only generating facility that was commissioned during the period was the 12 MW Modular Power Station by Mapalad Power Corp. in Koronadal, South Cotabato. It was commissioned on 28 September 2013.

Table 22. 2012 Installed and Dependable Capacity of Luzon Grid

|             | LUZON         |            |           |              |  |
|-------------|---------------|------------|-----------|--------------|--|
| FUEL TYPE   | Capacity (MW) |            | Percer    | nt Share (%) |  |
|             | Installed     | Dependable | Installed | Dependable   |  |
| Coal        | 4,531         | 4,219      | 36.16     | 37.18        |  |
| Oil Based   | 1,778         | 1,586      | 14.19     | 13.97        |  |
| Natural Gas | 2,861         | 2,759      | 22.84     | 24.31        |  |
| Geothermal  | 824           | 587        | 6.58      | 5.17         |  |
| Hydro       | 2,462         | 2,147      | 19.66     | 18.91        |  |
| Wind        | 33            | 17         | 0.26      | 0.15         |  |
| Biomass     | 38            | 34         | 0.31      | 0.30         |  |
| TOTAL       | 12,528        | 11,349     |           |              |  |

Table 23. 2012 Installed and Dependable Capacity of Visayas Grid

|             | VISAYAS   |            |           |                   |  |
|-------------|-----------|------------|-----------|-------------------|--|
| FUEL TYPE   | Сара      | acity (MW) | Percent   | Percent Share (%) |  |
|             | Installed | Dependable | Installed | Dependable        |  |
| Coal        | 806       | 777        | 32.91     | 36.93             |  |
| Oil Based   | 670       | 505        | 27.39     | 24.03             |  |
| Geothermal  | 915       | 777        | 37.39     | 36.94             |  |
| Hydro       | 11        | 11         | 0.47      | 0.51              |  |
| Biomass     | 44        | 32         | 1.81      | 1.54              |  |
| Natural Gas | 1         | 1          | 0.04      | 0.05              |  |
| TOTAL       | 2,448     | 2,103      |           |                   |  |

Table 24. 2012 Installed and Dependable Capacity of Mindanao Grid

|            | MINDANAO  |               |           |              |  |
|------------|-----------|---------------|-----------|--------------|--|
| FUEL TYPE  | Capa      | Capacity (MW) |           | nt Share (%) |  |
|            | Installed | Dependable    | Installed | Dependable   |  |
| Coal       | 232       | 210           | 11.25     | 12.91        |  |
| Oil Based  | 637       | 482           | 30.90     | 29.64        |  |
| Geothermal | 108       | 98            | 5.26      | 6.03         |  |
| Hydro      | 1,047     | 826           | 50.79     | 50.79        |  |
| Solar      | 1         | 0             | 0.05      | 0.02         |  |
| Biomass    | 36        | 10            | 1.74      | 0.61         |  |
| TOTAL      | 2,061     | 1,626         |           |              |  |

*Table 25. 2012 Installed and Dependable Capacity of the Philippines* 

|             | PHILIPPINES |               |           |              |  |
|-------------|-------------|---------------|-----------|--------------|--|
| FUEL TYPE   | Capa        | Capacity (MW) |           | nt Share (%) |  |
|             | Installed   | Dependable    | Installed | Dependable   |  |
| Coal        | 5,568       | 5,206         | 32.68     | 34.52        |  |
| Oil Based   | 3,086       | 2,573         | 18.11     | 17.07        |  |
| Natural Gas | 2,862       | 2,760         | 16.80     | 18.30        |  |
| Geothermal  | 1,848       | 1,462         | 10.85     | 9.70         |  |
| Hydro       | 3,521       | 2,983         | 20.67     | 19.79        |  |
| Wind        | 33          | 17            | 0.19      | 0.12         |  |
| Solar       | 1           | 0             | 0.01      | 0.00         |  |
| Biomass     | 119         | 76            | 0.70      | 0.51         |  |
| TOTAL       | 17,037      | 15,078        |           |              |  |

Source: DOE List of Existing Power Plant, Unofficial release November 2013

#### **B.** System Peak Demand

System peak demand in Luzon during the reference period was at 8,305 MW which occurred on 08 May 2013. It coincided the cascading outage of several power plants in Luzon that caused major blackout in the grid. It is 5.62 percent higher than the 2012 System Peak which was 7,863 MW that occurred on 25 April 2013.

For Visayas, the system peak demand was at 1,567 MW which occurred on 06 May 2013. This is 1.56 percent higher than system peak demand of Visayas during the same period which was at 1,543 MW.

In Mindanao, the highest curtailed demand was experienced on 21 May 2013 at 1,319 MW. It is 4.93 percent higher than the system peak demand which was 1,257 MW. Highest grid-wide curtailment level during the period was 350 MW, which occurred on 01 September 2013.

### C. Power Situation Highlights, May to October 2013

# **LUZON**

For the period of May to October 2013, the system peak demand was 8,305 MW which occurred on 08 May 2013. Following are the reports on the major plant outages that occurred during the report period:

#### Coal and Natural Gas

Cascading outage occurred on 08 May 2013 that involved Calaca Units 1 and 2 (2 x 300 MW), Ilijan Block 1 (3 x 204 MW), San Lorenzo module 50 and 60 (2 x 265 MW), Sta Rita module 10 to 40 (4 x 265 MW), Sual Unit 1 (647 MW). This caused major blackout to the Luzon grid.

- O GNPower Units 1 and 2 (2 x 325 MW) had several outages since its commercial operation on May 2013. Majority of those outages were caused by high vibration and boiler tube leak.
- Pagbilao Unit 2 (382 MW) had a planned outage from 31 August to 13 November 2013.
- San Lorenzo Unit 2 (265 MW) had a forced outage due to transformer trouble since 28 May 2013 and willreturn to operation on 16 March 2014.

#### Hydro

- $\circ$  Binga Uprating project was finished on July 2013, increasing the capacity of the plant from 4 x 25 MW (100 MW) to 4 x 33 MW (132 MW).
- Magat Unit 3 (95 MW) was on half-life refurbishment from 11 March to 13 August 2013.

#### Geothermal

o Bacman Unit 1 (55 MW) on maintenance outage since 12 September 2013.

#### Oil-Based

o Malaya Units 1 (300 MW) and 2 (350 MW) had no WESM dispatch schedule since June 2013.

#### **VISAYAS**

For the period of May to October 2013, the system peak demand for Visayas was 1,567 MW on 06 May 2013. Following are the reports on the major plant outages that occurred during the report period:

#### Coal

- Panay Energy Development Corporation (PEDC) Unit 2 (82 MW) on forced outage from 13 to 21 June 2013 due to steam leak at High Pressure Heater (HPH).
- o KSPC Unit 1 (103 MW) on major overhauling since 21 September 2013.

#### Geothermal

o Tongonan GPP U2 (37.5 MW) on planned outage since 05 September 2013.

#### Oil-Based

- o Most Oil- based power plants in Visayas run per Real-Time Dispatch (RTD).
- Nabas Unit 3 (5 MW) on forced outage since 18 May 2012 due to cut off connecting rod.

#### **MINDANAO**

The system peak demand for Mindanao was experienced on 21 May 2013 at 1,319 MW. Following are the reports on the major plant outages that occurred during the report period:

#### Coal

 Mindanao Coal-Fired Power Plant (MCFPP) Unit 1 (105 MW) on planned maintenance from 27 July to 14 August 2013. Unit 2 (105 MW) on unplanned outage due to generator protection problem from 29 July to 05 September 2013.

#### Hydro

 $\circ$  Agus IV Units 1 to 3 (3 x 52.7 MW) on planned maintenance from 15 August to 17 September 2013.

#### Geothermal

 Mt. Apo Geothermal Power Plant (MAGPP) Unit 1 on planned maintenance from 18 September to 23 October 2013.

#### Oil-Based

- Therma Marine Inc. (TMI) 1 Unit 1 (50 MW) concluded its forced outage due to relay trouble starting from 18 March until 04 May 2013.
- o Therma Marine Inc. (TMI) 2 Unit 1 (50 MW) on forced outage due to turbocharger problem from 21 to 29 July 2013.

#### C. Initiatives to Address the Mindanao Power Situation

#### 1. Modular Genset Program

The proposal involves the national government setting up a trust fund for the financing of the acquisition and/or rental of modular gensets for ECs in Mindanao. The following were the activities undertaken during the reference period:

- Bid Submission organized by AMRECO was conducted on 12 September 2013 with DOE and NEA as observer at Grand Caprice Restaurant and Convention Center, Limketkai, Cagayan de Oro City. Five (5) bidders were submitted for Genset acquisition, namely:
  - o Gendiesel Philippines Inc.
  - SC Megaworld Constrcution and Development Corporation
  - o Marix K. K. Victory Power Partnership
  - o Lin Man Power Technology, Inc.
  - Energetix

The electric cooperatives (ECs) that enrolled to the Modular Genset Program are as follows:

- o For Purchase Scheme
  - DANECO 3 x 1 MW
  - DORECO 2 x 1 MW
  - MORESCO 1 1 x 2 MW

- For Rental Scheme
  - ANECO 2 x 2.5 MW
  - ZANECO 4 x 1 MW
  - ZAMSURECO 1 3 x 1 MW
  - MORESCO 2 2 x 1 MW
- Evaluation of Bidding by AMRECO was conducted on 18 September 2013 at Grand City Hotel, Cagayan de Oro City. AMRECO BAC submitted the results of the bidding on 10 October 2013 to NEA.

Purchased through AMRECO will be 7 MW and 47 MW will be purchased directly by individual ECs.

• DOE requested DBM for the issuance of Special Allotment and Release Order (SARO) for Php 4.5 Billion funding for the program on 26 September 2013.

#### D. Agus VI HEPP Uprating Project

The Uprating Project for Agus VI HEPP commenced with the publication of the ITB on 16 July 2013.

On 30 July 2013, the Pre-Bid Conference was held to discuss the bidding procedures, as well as the technical specifications and requirements of the Project.

As of the report period, a total of nine (9) interested parties have purchased the Bidding Documents and are currently conducting their due diligence on the Project. These are Alstom Philippines Inc.; China International Water & Electric Corporation; Guangxi Hydroelectric Construction Bureau; HydroChina ZhongNan-HEC BSPJV; Kaltimex Energy Philippines Inc.; PHP Philippine Hydro Project Inc.; Sta Clara International Corporation; Vicente T. Lao Construction; and Zhejiang Fuchunjiang Hydropower Equipment Co. Ltd.

On 25 October 2013, the Joint Venture (JV) of Guangxi Hydroelectric Construction Bureau and ITP Construction Inc. was declared as the bidder with the lowest bid as read for the procurement of the Agus VI Uprating Project.

The JV of Guangxi offered the lowest bid of PhP1.59 billion (PhP1,590,559,270.68) while the JV among HydroChina ZhongNan, Harbin Electric Machinery Company Limited and BSP & Company Inc. submitted a bid PhP1.68 billion (PhP1,677,106,108.00). Both bids were within the Approved Budget for the Contract (ABC) of PhP2.6 billion (PhP2,598,170,000.00).

The submission will still be subject to detailed evaluation and post-qualification to determine whether the winning bidder, as read, is compliant with and responsive to the requirements and conditions in the bidding documents.

### E. Status of Transmission Projects

#### **LUZON**

Luzon Voltage Improvement Project 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 capacitor banks at Biñan and Dasmariñas substations were energized on 23 April 2013 and the capacitor bank at Mexico substation was energized on 03 May 2013.

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

Reinforcement Project

Parliqui Gumba Banga Banga Bulla Cannon Concepcion

TARLAC Guecon Talavera Cabanatuan Nueva Concepcion Six Ross Concepcion

dispatch of both CFPP and B-CCPP units. Likewise, this project also includes the replacement of PCBs at San Jose and Hermosa. The only remaining component to be completed is the BCCPP S/S expansion, at 92.78 % completed as of 30 September 2013, with target date of completion on 31 October 2014.

#### **VISAYAS**

The Southern Panay Backbone 138 kV Transmission Project is part of the Panay Power Transmission backbone which involves the installation/construction of a total of 97 kilometers of 138 kV and 69 kV overhead transmission lines which is aimed to accommodate the load growth and address the low voltage problem in Southern Panay. As of 30 September 2013, the transmission and substation components of the project are 98.71% and 84.09% complete respectively.

Figure 5. Southern Panay Backbone 138 kV Transmission Proiect



This project is scheduled for completion by December 2013.

The Bohol Backbone 138 kV Transmission Project involves the installation/construction of a total of 96 kilometers of 138 kV overhead transmission line utilizing steel tower structures and the installation of a 100 MVA power transformer at the new Corella Substation which is intended to provide a new delivery point. As of 30 September 2013 the transmission and substation components of the project are 99.14% and 84.79% complete respectively. This project is scheduled for completion by December 2013.

Figure 6. Bohol Backbone 138 Transmission Project



# 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

**Figure** 7. Balo-I (Abaga\_-Villanueva

Northern and Southern Mindanao. Both projects are designed at 230kV but will initially be energized at 138kV. As of 30 September 2012, the transmission and substation components of the Balo-I (Abaga)-Villanueva (Kirahon) 230kV Transmission Project, scheduled for completion by June 2014, are 96.59% and 94.6% complete while the Villanueva (Kirahon)-Maramag 230 kV Transmission Project, scheduled for completion by 31 December 2013, is about 97.5% complete.

The Aurora-Polanco 138 kV T/L Project, Figure 8. Aurora-Polanco 138 kV T/L 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 30 2013, the transmission and September substation components of the project are



30.47% and 27.97 % complete respectively. The contractor of the project, China National Electric Engineering Company Limited has backed out thus, the NGCP will rebid the remaining component of the project.

#### F. Distribution Infrastructure Projects

# **SERC-Approved Capital Expenditure (CAPEX) Projects**

During the report period, the ERC approved eight (8) Capital Expenditure (CAPEX) Projects applied by Dinagat Island Electric Cooperative, Inc. (DIELCO), Mactan Electric Company (MECO), Central Pangasinan Electric Cooperative, Inc. (CENPELCO), Sorsogon II Electric Cooperative, Inc. (SORECO II), two (2) from Visayan Electric Company (VECO), and two (2) from First Laguna Electric Cooperative, Inc. (FLECO). Annex 16 shows the said approved CAPEX projects as of the report period.

#### **❖** Private Sector Financing of CAPEX Projects on System Loss Reduction

For the period May to October 2013, there were loan availments from FICELCO and BUSECO, bringing to 17 those EC accounts booked under the ECPCG Program for a total loan amount of PhP2.2 billion. On the other hand, BOHECO II and AKELCO signed the loan and guarantee agreements on 27 June 2013 and 17 July 2013, respectively. The

signing of these agreements increased the number of committed accounts under the ECPCG Program to three (3) EC accounts. Overall, there are twenty (20) existing EC accounts under the Program representing total loan commitment of PhP2.745 billion from six (6) commercial banks.

Table 26. ECs Booked in EC-PCG Program

| Tuble                                 | i able 26. ECS Bookea in EC-PCG Program |          |  |  |                              |  |
|---------------------------------------|---|----------|--|--|------------------------------|--|
|                                       | EC Loan Amo<br>(PhP Milli               |          | Lender                                       | Signing Date of Loan and<br>Guarantee Agreements | Loan Tenor<br>(No. of Years) |  |
| A. Booked Accounts with Loan Releases |   |          |  |  |                              |  |
| 1                                     | MORESCO I                               | 115.00   | Security Bank                                | July 20, 2010                                    | 10                           |  |
| 2                                     | PANELCO I                               | 113.00   | Bank of the Philippine<br>Islands (BPI)      | September 15, 2010                               | 7                            |  |
| 3                                     | SOCOTECO I                              | 102.42   | BPI  | October 4, 2010                                  | 10                           |  |
| 4                                     | SURNECO                                 | 85.00    | United Coconut Planters<br>Bank (UCPB)       | March 3, 2011                                    | 10                           |  |
| 5                                     | BUSECO                                  | 135.90   | BPI  | February 7, 2011                                 | 10                           |  |
| 6                                     | FIBECO                                  | 143.00   | Allied Banking Corporation<br>(Allied Bank)  | May 10, 2011                                     | 10                           |  |
| 7                                     | BOHECO I                                | 109.62   | Development Bank of the<br>Philippines (DBP) | June 3, 2011                                     | 15                           |  |
| 8                                     | CANORECO                                | 133.25   | BPI  | July 12, 2011                                    | 10                           |  |
| 9                                     | DANECO                                  | 172.37   | UCPB   | September 20, 2011                               | 10                           |  |
| 10                                    | MORESCO II                              | 135.49   | BPI  | November 22, 2011                                | 10                           |  |
| 11                                    | MOELCI I                                | 167.73   | UCPB   | July 6, 2012                                     | 10                           |  |
| 12                                    | LUELCO                                  | 173.13   | Allied Bank                                  | December 7, 2012                                 | 10                           |  |
| 13                                    | CAMELCO                                 | 140.00   | BPI  | November 9, 2011                                 | 10                           |  |
| 14                                    | NEECO I                                 | 173.54   | Allied Bank                                  | June 6, 2012                                     | 10                           |  |
| 15                                    | BENECO                                  | 163.50   | BPI  | December 28, 2012                                | 10                           |  |
| 16                                    | BUSECO (additional)                     | 43.49    | PNB  | December 13, 2012                                | 10                           |  |
| 17                                    | FICELCO                                 | 106.10   | Security Bank                                | March 7, 2013                                    | 10                           |  |
| 17                                    | Sub-Total (A)                           | 2,212.53 |  |  |                              |  |
|                                       | ommitted Accounts (Bo                   |          |  |  |                              |  |
| 1                                     | PALECO                                  | 166.97   | Allied Bank                                  | December 19, 2012                                |                              |  |
| 2                                     | BOHECO II                               | 184.18   | Security Bank                                | June 27, 2013                                    |                              |  |
| 3                                     | AKELCO                                  | 181.72   | UCPB   | July 17, 2013                                    |                              |  |
| 3                                     | Sub-Total (B)                           | 532.87   |  |  |                              |  |
| 20                                    | Total (A+B)                             | 2,745.40 |  |  |                              |  |

Source: DOE, LGUGC

#### VI. TOTAL ELECTRIFICATION

In support of the Government's efforts to alleviate poverty, the DOE launched a massive and focused action to increase and accelerate access to electricity services by the country's unenergized communities.

To further strengthen and integrate efforts on rural electrification by both the Government and the private sector, and assist the DOE to develop innovative and sustained policies and strategies consistent with the power sector reforms embodied in the EPIRA, the Expanded Rural Electrification Program (ER Program)

Table 27. Electrification Targets Per Implementors

| DOE     | 6 |
|---------|---|
| BEP     | 1 |
| RAES    | 5 |
| ER 1-94 | 0 |
| MERALCO | 0 |
| AMORE   | 0 |
| Total   | 6 |

Source: DOE

was established, building around the basic concepts and objectives of its predecessors. The ER Program aims to achieve 100% barangays electrification by 2008 and 90% household electrification by 2017. As of 30 September 2013, the Program has already achieved 99.98 percent of the total potential barangay nationwide. The energization of 41,968 barangays was spearheaded by the DOE with assistance from the NEA, NPC-SPUG, and PNOC and its subsidiaries.

Table 28. Barangay Electrification Status as of September 2013

| Dogion                | Potential | Electrified | Unelectrified | Electrification Level |
|-----------------------|-----------|-------------|---------------|-----------------------|
| Region                | Barangays | Barangays   | Barangays     | (%)                   |
| CAR                   | 1,176     | 1,176       | 0             | 100.00                |
| I                     | 3,265     | 3,265       | 0             | 100.00                |
| II                    | 2,311     | 2,311       | 0             | 100.00                |
| III                   | 3,102     | 3,102       | 0             | 100.00                |
| IV-A                  | 4,010     | 4,010       | 0             | 100.00                |
| IV-B                  | 1,458     | 1,458       | 0             | 100.00                |
| V                     | 3,469     | 3,469       | 0             | 100.00                |
| NCR                   | 1,695     | 1,695       | 0             | 100.00                |
| SUB-TOTAL<br>LUZON    | 20,486    | 20,486      | 0             | 100.00                |
| VI                    | 4,050     | 4,050       | 0             | 100.00                |
| VII                   | 3,003     | 3,003       | 0             | 100.00                |
| VIII                  | 4,389     | 4,389       | 0             | 100.00                |
| SUB-TOTAL<br>VISAYAS  | 11,442    | 11,442      | 0             | 100.00                |
| IX                    | 1,904     | 1,904       | 0             | 100.00                |
| X                     | 2,020     | 2,020       | 0             | 100.00                |
| XI                    | 1,160     | 1,160       | 0             | 100.00                |
| XII                   | 1,194     | 1,194       | 0             | 100.00                |
| ARMM                  | 2,458     | 2,444       | 9             | 99.43                 |
| CARAGA                | 1,310     | 1,310       | 0             | 100.00                |
| SUB-TOTAL<br>MINDANAO | 10,046    | 10,040      | 6             | 99.94                 |
| TOTAL<br>PHILIPPINES  | 41,974    | 41,968      | 6             | 99.99                 |

Source: DOE

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

Under *Sec. 59 of EPIRA*, areas deemed unviable and waived by the DUs may be offered to QTPs as part of the missionary electrification program. To date, there is one (1) QTP operating (PowerSource) in Bgy. Rio-Tuba, Palawan Province. The two (2) current QTP applications under DOE's review are (i) Malapascua, Cebu Province by PowerSource; and, (ii) Semirara Island QTP Project, by Semirara Mining. In addition, the program

anticipates the future development of mini-grid and micro-grid electrification projects using biomass, wind and other renewable energy sources by other proponents that may also adopt QTP approach.

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

# a) PowerSource Philippines, Incorporated (PSPI) Rio Tuba QTP Project in Bataraza, Palawan

After the ERC's approval of the Full Cost Retail Rate (FCRR) of Php 24.49/kWh and the Subsidized and Approved Retail Rate (SARR) of Php 8.50/kWh for PSPI in the said area, PSPI sales and system load continue to rise, reaching 160,000 net kwhr sales in November 2012, a 100% jump in monthly sales within 1.5 years. Because of the continuous load growth, PSPI installed an additional 2 x 350kW Diesel generator sets and is being commissioned.

As of November 2012, PSPI reported that its current total connections in RioTuba area have increased to 1717 connections with 24-hour electricity services. In December 15, 2012, Powersource has installed and commissioned a biomass gasifier system and is currently operating 8 hours per day, to be steadily ramped up in the next month.

## b) PSPI Malapascua QTP Project in Bantayan, Cebu

PSPI and NPC finally executed the QTP Service Contract (QSC) last 19 July 2013, which provided for the components and calculations of Full Cost Recovery Rate (FCRR) as agreed by both parties. Upon review and evaluation of PSPI's Technical and Financial Proposal, the DOE issued Endorsement signed by the Secretary last 24 October 2013. Likewise, PSPI proposal along with the Endorsement of Secretary was already forwarded to Energy Regulatory Commission (ERC) for the issuance of final qualification and authorization as well as the issuance of all necessary permits and approval of tariffs to be passed on by PSPI to its end-users in Barangay Logon, Municipality of Daan Bantayan, Province of Cebu.

To date, five hundred twenty (520) households are connected to PSPI's generation and distribution utility at Malapascua.

#### c) PSPI Liminangcong QTP Project in Palawan

PSPI has already submitted their QTP documentary requirements for review of the DOE.

# d) Semirara Mining Corporation (SMC) or its affiliate QTP Project in Semirara Island, Antique

Last September 17, 2012, SMC expressed their intent to serve officially as a QTP for Semirara Island, Antique. SMC has been providing electricity to the island since 1999 thru ANTECO. DOE is awaiting for the submissions of the full technical and financial details of the proposal; and the creation of the company affiliated with SMC that will operate as QTP.

### 2. Household Electrification Development Plan

On July 19, 2013, Secretary Petilla has approved the overall implementation framework of the Household Electrification Development Plan (HEDP) 2013-2017. HEDP defines the overall policies, programs and activities of the Government to attain 90% household electrification by 2017. To implement the plan, a Department Circular has been drafted to establish the Household Unified Strategic Electrification (HOUSE) Team as a multiagency team composed of DOE, NEA, SPUG, DBM, DSWD and DILG to ensure a well-coordinated program in pursuing accelerated household electrification, among others.

#### 3. Philippine Rural Electrification Service (PRES) Project

The DOE conducted an Assessment Study together with a French Consulting Firm, Innovation Energie Developpment, in coordination with National Power Corporation (NPC). Said Assessment study, which was funded by the French Ministry of Finance, aims to strengthen and sustain the operation of the PRES Project prior to French Government's conduct of post-project audit pursuant to Article 9 of the Financial Protocol between the Governments of France and the Philippines. The draft Assessment Study was presented to concerned agencies during the 1st week of October 2013 to solicit their inputs and validate the findings of said study.

#### VII. BENEFITS TO HOST COMMUNITIES

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

DOE as fund administrator, had already established a total of six hundred ninety four (694) Trust Accounts for Electrification Fund (EF) Development and Livelihood Fund (DLF), Reforestation, Watershed Management, Health and/or Environment Enhancement Fund (RWMHEEF) from inception to October 2013.

The total accrued financial benefit from inception (*Year 1995*) to October 2013 is PhP8.87 Billion from which Php 5.87 Billion was obligated for the implementation of projects. This leaves an available fund at around 3 Billion.

*Table 29. Summary of Financial Benefits as of October 2013 (In PhP Billion)* 

| Particulars                   | EF   | DLF  | RWMHEEF | Total |
|-------------------------------|------|------|---------|-------|
| Accrued Financial Benefit     | 3.64 | 2.45 | 2.78    | 8.87  |
| Approved                      | 3.11 | 1.24 | 1.52    | 5.87  |
| Available/Collectible Balance | 0.53 | 1.21 | 1.26    | 3.00  |

Source: DOE

#### Project Approval

For electrification programs, the concerned Distribution Utility (DU) endorses the LGU's project proposal to the DOE. While for 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.

From May – October 2013, the DOE has approved a total amount of Php5.35 Million for 1 Electrification Project in the Province of Iloilo.

Various non-electrification projects have been approved, Php 29.57 Million for DL projects such as daycare centers, school buildings, streetlights, and road construction/concreting which will be implemented in Metro Manila, Provinces of Batangas, Albay, Quezon, Ifugao, Isabela, Misamis Oriental, Compostela Valley, and Lanao del Sur. While, Php 32.15 Million RWMHEE projects were approved for the implementation of reforestation, water system, health centers and solid waste management projects in the Provinces of Batangas, Quezon, Albay, Laguna, Ifugao, Bukidnon, Compostela Valley, and Lanao del Sur as shown in Table 30.

Table 30. Project Approval (In PhP Million) May 2013-October 2013

| Fund Source   | No. of Approved<br>Projects | Amount<br>(PhP in Million) |
|---|-----------------------------|----------------------------|
| Electrification Fund  | 1                           | 5.35                       |
| Development and Livelihood Fund   | 48                          | 29.57                      |
| Reforestation, Watershed Management, Health and/or Environment Enhancement Fund | 38                          | 32.15                      |

Source: DOE

#### Fund Releases

The concerned LGU submits a complete bidding documents and a bank certificate for an account/trust fund separately and exclusively opened for ER 1-94 projects, for DOE to commence with the preparation and processing of fund release. The project funds are transferred through a bank to bank transaction.

From May 2013 - October 2013, a series of fund releases was executed for the concerned DU's and Host LGU's for the implementation of their respective projects. The DOE was able to release a total amount of Php 320.82 Million from which Php 183.63 Million was sourced out from EF to energize twenty two (22) sitios and eleven (11) Barangays in the Provinces of Ifugao, Quezon, Cebu, Leyte, and Cagayan de Oro. The amount of Php 63.56 Million was released for the implementation of twenty one (21) various DL projects and a total amount of Php73.63 Million was released for the implementation of twenty two (22) RWMHEE projects.

Table 31. Fund Release (In PhP Million) May 2013-October 2013

| Fund Source   | No. of Projects          | Amount (PhP in Million) |
|---|--------------------------|-------------------------|
| Electrification Fund  | 22 sitios &<br>11 Brgys. | 183.63                  |
| Development and Livelihood Fund   | 21                       | 63.56                   |
| Reforestation, Watershed Management, Health and/or Environment Enhancement Fund | 22                       | 73.63                   |

Source: DOE

# • Conduct of Information And Education Campaign (IEC)

A series of IEC activities was conducted to orient and educate newly elected local officials of the host communities, familiarize and increase the level of understanding of the Community Relations Officers (COMRELs) of the newly incorporated generation facilities in the E.R. No. 1-94 Program and various NPC-SPUG facilities on pertinent activities/documents needed to access the E.R. No. 1-94 funds and the welfare gains that may be achieved from the said program. The IEC also served as venue to thresh out issues and concerns that affect the ER program as well as enhance collaboration and continuous coordination with Power Producers to facilitate the effective implementation of E.R. No. 1-94. The IEC was conducted nationwide in different areas in Luzon, Visayas and Mindanao, as follows:

| Area     | Venue                          | Date Conducted     |
|----------|--------------------------------|--------------------|
| Visayas  | Crown Regency Hotel, Cebu City | August 28-29, 2013 |
| Mindanao | Marco Polo Hotel, Davao City   | September 26, 2013 |
|          | N Hotel, Cagayan de Oro City   | October 17, 2013   |

#### 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 projects funds. From May 2013 – October 2013, the Department audited and validated an amount of Php53.82Million under EF, Php24.40Million under DLF, and 21.77 Million under RWMHEEF.

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.

Also, the DOE, together with our partners, LGU, Generation Company and Electric Cooperatives, conducted a joint technical inspection and evaluation of the completed projects to assess the quality, value and impact of the projects to the community, and a total of two hundred sixty three (263) completed projects were inspected from May 2013 to October 2013. (*Selected photos of projects are shown below*).

1. Electrification Projects in the Province of Biliran



2. DL and RWMHEE Projects in the Provinces of Batangas, Leyte, and Bukidnon







# **ANNEXES**

Annex 1.Transco Inspection Report Based on Concession Agreement as of 31October 2013

| No.  | Inspection Report No. | Location               | Name of Project/ Transmission Facilities  | Inspection Date        |
|------|-----------------------|------------------------|---|------------------------|
| LUZC | N                     |                        |   |                        |
| 1    | NLACC-13-15           | Benguet                | North Luzon Area Control Center   | May 6-7, 2013          |
| 2    | NL-MTDA-13-16         | Benguet                | North Luzon MTD-A   | May 8-9, 2013          |
| 3    | NLOMD6-13-17          | North Luzon District 6 | Mexico, Concepcion, Cabanatuan,<br>Pantabangan, Cruz na Daan  | May 6-10, 2013         |
| 4    | STACC-13-18           | Laguna                 | Southern Tagalog ACC  | May 21-22, 2013        |
| 5    | SL-MTDA-13-20         | Laguna                 | South Luzon MTD-A   | May 23-24, 2013        |
| 6    | SL-MTDB-13-21         | Bicol                  | South Luzon MTD-A   | June 4-5, 2013         |
| 7    | BACC-13-22            | Bicol                  | Bicol Area Control Center   | June 5-6, 2013         |
| 8    | SLRD1-13-23           | Luzon District 1       | Dasmariñas, Ternate, Rosario, Zapote,<br>Sucat, Binan, Calaca, Batangas                               | June 3-7, 2013         |
| 9    | NLOMD3-13-41          | District 3             | San Manuel, Bolo, Labrador, Kadampat,<br>Nagsaag, Mangaldan, Cuyapo                                   | Aug. 12-15, 2013       |
| 10   | NLRD7-13-44           | District 7             | San Jose, Doña Imelda (Araneta), Tay-<br>Tay (Dolores), Malaya, Quezon<br>(Balintawak)                | Sept. 2-6, 2013        |
| 11   | SLOMD2-13-45          | District 2             | Tayabas, Gumaca, Makban, Kalayaan,<br>Caliraya  | Sept. 16-20, 2013      |
| 12   | NP-13-01              | South Luzon            | Lumban – Bay 230 kV T/L Project   | Sept. 18-20, 2013      |
| 13   | NCC-13-49             | Diliman, Quezon City   | National Control Center   | October 16-18,2013     |
| 14   | NP-13-02              | North Luzon            | Luzon S/S Reliability Project (Botolan S/S)   | October 30-31,<br>2013 |
| VISA | YAS                   |                        |   |                        |
| 1    | VISD1-13-19           | Visayas District 1     | Ormoc City,Babatngon, Wright, Isabel,<br>Tabango,<br>Maasin, Bagolibas                                | May 20-23, 2013        |
| 2    | VIS-RCC-13-24         | Cebu                   | Visayas Regional Control Center   | June 17-21, 2013       |
| 3    | VIS-NACC-13-25        | Negros                 | Negros Area Control Center  | June 18-19, 2013       |
| 4    | VIS-MTDA-13-27        | Cebu                   | Visayas MTD-A, Talamban   | June 17-21, 2013       |
| 5    | VIS-MTDB-13-28        | Bacolod                | Visayas MTD-B   | June 19-20, 2013       |
| 6    | PUC-13-06             | Bohol                  | Bohol Backbone Transmission Project   | June 19-21, 2013       |
| 7    | VISD3-13-31           | Visayas District 3     | Bacolod, Cadiz, Kabankalan, Mabinay,<br>Amlan   | July 1-5, 2013         |
| 8    | VISD2-13-37           | Visayas District 2     | Banilad, Mandaue, Mactan, Compostela,<br>Quiot, Naga, BDPP, Ubay, Talisay                             | July 29-Aug 2, 2013    |
| 9    | VIS-BACC-13-39        | Visayas                | Bohol Area Control Center   | Aug. 5-8, 2013         |
| 10   | VIS-PACC-13-40        | Visayas                | Panay Area Control Center   | Aug. 12-16, 2013       |
| 11   | VIS-LACC-13-43        | Visayas                | Leyte Area Control Center   | Sept. 2-6, 2013        |
| 12   | VISD4-13-50           | Visayas District 4     | Sta. Barbara, Dingle, San Juan, Painit-an,<br>Baldoza   | October 21-25,<br>2013 |
| MIND | ANAO                  |                        | Aurora Cta Clara Casasti Ditara   |                        |
| 1    | MOMD1-13-26           | Mindanao District 1    | Aurora, Sta. Clara, Sangali, Pitogo,<br>Lunzuran  | June 17-21, 2013       |
| 2    | IACC-13-29            | Mindanao               | Iligan Area Control Center  | July 1-2, 2013         |
| 3    | MOMMTDA-13-30         | Mindanao               | Iligan, MTD-A   | July 3-4, 2013         |
| 4    | MOM-DACC-13-32        | Mindanao               | Davao Area Control Center   | July 15-16, 2013       |
| 5    | GSACC-13-33           | Mindanao               | GenSan Area Control Center  | July 16-17, 2013       |
| 6    | MOMMTDB-13-34         | Mindanao               | Davao MTD-B   | July 16-17, 2013       |
| 7    | MIND2-13-35           | Mindanao District 2    | Lugait, Iligan(Overton), Balo-i(Abaga),<br>Mindanao RCC, Metering Facilities<br>and Microwave Station | July 15-19, 2013       |

# 23<sup>rd</sup> Status Report on EPIRA Implementation

| No. | Inspection Report No. | Location            | Name of Project/ Transmission Facilities                        | Inspection Date          |
|-----|-----------------------|---------------------|---|--------------------------|
| 8   | MIN-BACC-13-38        | Mindanao            | Butuan Area Control Center                                      | Aug. 5-7, 2013           |
| 9   | MIND4-13-42           | Mindanao District 4 | Butuan City, Bislig, San Francisco, Nasipit, Placer (Anislagan) | Aug. 19-23, 2013         |
| 10  | MIND6-13-46           | Mindanao District 6 | Tacurong, Gen Santos City, Nuling                               | Sept. 23-27, 2013        |
| 11  | MIND5-13-47           | District 5          | Davao City, Bunawan, Matanao, Maco,<br>Nabunturan, Kidapawan    | Sept. 30-Oct. 3,<br>2013 |
| 12  | MIND3-13-48           | Mindanao District 4 | Carmen, Tagoloan, Aplaya, Kibawe,<br>Maramag                    | October 7-11, 2013       |

Source: Transco

Annex 2. Summary Inspection Report (PUC) as of 31October 2013

| Annex 2. Summary Inspection Report (PUC) as of 31October 2013  No. Observation Inspection Description of Observation (TransCo) Action Plan / Remark |                             |                       |  |   |  |  |  |  |
|---|-----------------------------|-----------------------|--|---|--|--|--|--|
| 110.  | Report No.                  | Date/ Area            | besonption of observation (Transco)  | (NGCP)  |  |  |  |  |
| LUZO  | N                           |                       |  |   |  |  |  |  |
| 1   | (PUC-13-07)<br>OR-PUC-13-25 | Sept. 18-<br>20, 2013 | The Lumban-Bay 230 kV T/LProject (implemented by TBEA Shenyang)is already delayed by more than 6 months.   | Affected by the ROW problems.<br>Expedite the filing of the expro<br>cases for the early release of<br>WOP.   |  |  |  |  |
| 2   | OR-PUC-13-26                | Sept. 18-<br>20, 2013 | The Materials Receiving Inspection Reports (MRIR)provided have no signature of the Head of South Luzon Project (SLP).  | The signed copies are filed at the Office of the Division Head in Binan, Laguna. To be submitted.   |  |  |  |  |
| 3   | OR-PUC-13-27                | Sept. 18-<br>20, 2013 | The MRIR No. LBTLUP-12-05 dated 31 December 2012 has Unsatisfactory Remarks with a Disposition/Recommendation of "Materials delivered with visible damage are not acceptable". | To be replaced by the contractor. Procurement is ongoing.   |  |  |  |  |
| 4   | OR-PUC-13-28                | Sept. 18-<br>20,2013  | The Substation portion (implemented by KEC International) is already delayed by almost 1-year.   | The contractor has already submitted a Catch-up plan.   |  |  |  |  |
| 5   | OR-PUC-13-29                | Sept. 18-<br>20, 2013 | No activity yet in the Bay Substation.   | Awaiting for the approval of the MOA between NGCP &Aboitiz Power for the construction 3 steel poles for the transposition ofLine 2 of the new Lumban-Bay 230 kV Line & Unit 1 of MakbanPlant A.   |  |  |  |  |
| VISA  | YAS                         |                       |  |   |  |  |  |  |
| 1   | PUC-13-06)<br>OR-PUC-13-19  | June 19-21,<br>2013   | The Ubay-Corella 138 kV T/L Project (implemented by XianElectric Eng'g.) is already delayed by almost 1-1/2 years.   | Instructed the contractor to expedite the ongoing correction of deficiencies/ punchlist.  Instructed the contractor to immediately start theconstruction/implementation for towers that need slopeprotection.  Constant follow-up with NGCP-EMD for the early issuance of SAPA for the remaining unworkable one(1) tower UC166. |  |  |  |  |
| 2   | OR-PUC-13-20                | June 19-21,<br>2013   | The contract (Sp10.BBTL.Vt-0049) for the Ubay-Corella T/L Project expired on January 25, 2012 and no contract time extension has been issued.                                  | Submitted to Visayas Project Division (VPD) for checking and further review.  |  |  |  |  |
| 3   | OR-PUC-13-21                | June 19-21,<br>2013   | One of the leg bracings of the bombed tower, UC-164, isdistorted.  | For immediate replacement/ correction.  |  |  |  |  |
| 4   | OR-PUC-13-22                | June 19-21,<br>2013   | The Punchlist of Inspection Report No. IR/QSMD-13-89/OJLD/CLE dated May 27, 2013 is yet to be completed.   | Ongoing correction of punchlist/deficiencies.   |  |  |  |  |
| 5   | OR-PUC-13-23                | June 19-21,<br>2013   | The Corella and Ubay Substation Projects, contracted byHyosung Corporation is already delayed by almost 1-1/2 years.   | Instructed the contractor to submit catch-up schedule and dateof project completion.  |  |  |  |  |
| 6   | OR-PUC-13-24                | June 19-21,<br>2013   | The contract (Sp10.BBSP.Vt-0045) for the Corella and Ubay Substation Projects expired on January 3, 2012 and no contracttime extension has been issued.                        | Submitted to Visayas Project Division (VPD) for checking and further review.  |  |  |  |  |

Source: TransCo

Annex 3. Status of Private Distribution Utilities' (PDUs) Rate Applications to Energy Regulatory Commission (ERC) as of October 2013

| Alliex .       | <u> 3. Status oi</u> | Private Distribut                    | ion ounties (        | PDUS) Rate i                                    |  | s ιο ⊏nergy Ի  | Regulatory Commission (ERC) as of Octobe  | 12013  |
|----------------|----------------------|--------------------------------------|----------------------|---|--|--|---|--|
| Entry<br>Group | DU                   | Case Number/<br>Date of Filing       | Regulatory<br>Period | Previous<br>Rates (RY<br>2013 Rate-<br>PhP/kWh) | ERC<br>Approved<br>(RY 2013<br>Rate-<br>PhP/kWh) | Increase/<br>Decrease<br>(RY 2013<br>Rate-<br>PhP/kWh) | Factors Contributory to Change  | Status   |
|                | MERALCO              | 2011-088 RC<br>21-Jun-2011           | 2011-2015            | 1.6464  | 1.6012   | (0.0452)   | Flowback of fifty percent (50%) of net income derived from related business undertakings and income from the sale of disposed assets. | Awaiting Final Decision by the ERC                 |
| 1st            | DECORP               | 2013-070 RC<br>April 8, 2013         | 2011-2015            | 1.7437  | 1.8083   | 0.0646   | Mitigation of any over/under-recovery in its next rate application.   | Final Decision issued by ERC on July 22, 2013      |
|                | CEPALCO              | 2013-061 RC/<br>April 2, 2013        | 2011-2015            | 1.2849  | 1.2014   | (0.0835)   | Mitigation of any over/under-recovery in its next rate application.   | Final Decision issued by ERC on July 22, 2013.     |
|                | CLPC                 | 2011-173 RC/<br>Dec. 15, 2011        | 2009-2013            | 1.6660  | 1.9071   | 0.2411   | Mitigation of any over/under-recovery in its next rate application.   | Final Decision issued by ERC on March 19, 2012.    |
| 2nd            | MECO                 | 2011-180 RC/<br>Dec. 21,2011         | 2009-2013            | 1.0839  | 1.1851   | 0.1012   | Net incentive performance reward  | Final Decision issued by ERC on April 2, 2012.     |
|                | ILPI                 | 2010-153 RC/<br>Dec. 21, 2010        | 2010-2013            | 1.1256  | 1.3669   | 0.2413   | Timely implementation of its Capital Expenditure<br>Program and its operating and maintenance<br>programs for RY 2012.                | Final Decision issued by ERC on June 21, 2011      |
|                | DLPC                 | 2013-040 RC/<br>Mar. 13, 2013        | 2010-2014            | 1.3611  | 1.4257   | 0.0646   | Mitigation of any over/under-recovery in its next rate application.   | Final Decision issued by ERC on June 24, 2013      |
|                | IEEC                 | 2012-055 RC/<br>March 30, 2012       | 2010-2014            | 1.6408  | 2.0420   | 0.4012   | Mitigation of any over or under-recovery in the succeeding regulatory years, taking into account the sales mix.                       | Final Decision issued by ERC on October 29, 2012.  |
| 3rd            | LUECO                | 2013-072 RC<br>April 10, 2013        | 2011-2014            | 1.5438  | 1.8896   | 0.3458   | Mitigation of any over or under-recovery in the succeeding regulatory years, taking into account the sales mix.                       | Final Decision issued by ERC on August 5, 2013.    |
| J. G.G.        | TEI                  | 2012-050 RC/<br>Mar. 29, 2012        | 2011-2014            | 1.4235  | 1.7305   | 0.3070   | Mitigation of any over or under-recovery in the succeeding regulatory years, taking into account the sales mix.                       | Final Decision issued by ERC on October 29, 2012.  |
|                | CELCOR               | 2013-074 RC/<br>April 16, 2013       | 2011-2014            | 1.6488  | 1.7845   | 0.1357   | Mitigation of any over or under-recovery in the succeeding regulatory years, taking into account the sales mix.                       | Final Decision issued by ERC on July 5, 2013.      |
|                | VECO                 | 2013-042 RC/<br>Mar. 14, 2013        | 2011-2014            | 1.4243  | 1.5992   | 0.1749   | Mitigation of any over or under-recovery in the succeeding regulatory years, taking into account the sales mix.                       | Final Decision issued by ERC on June 24, 2013.     |
| 4th            | SEZ                  | 2012-096 RC/<br>Aug. 3, 2012         | 2011-2015            | 1.4734  | 1.5007   | 0.0273   | Mitigation of any over or under-recovery in the succeeding regulatory years, taking into account the sales mix.                       | Final Decision issued by ERC on December 3, 2012.  |
| 401            | PECO                 | 2012-100 RC/<br>September 6,<br>2012 | 2011-2015            | 1.2223  | 1.2695   | 0.0472   | Mitigation of any over or under-recovery in the succeeding regulatory years, taking into account the sales mix.                       | Final Decision issued by ERC on December 10, 2012. |

# 23<sup>rd</sup> Status Report on EPIRA Implementation

| Entry<br>Group | DU   | Case Number/<br>Date of Filing | Regulatory<br>Period  | Previous<br>Rates (RY<br>2013 Rate-<br>PhP/kWh) | ERC<br>Approved<br>(RY 2013<br>Rate-<br>PhP/kWh) | Increase/<br>Decrease<br>(RY 2013<br>Rate-<br>PhP/kWh) | Factors Contributory to Change  | Status  |
|----------------|--|--------------------------------|---|---|--|--|---|---|
|                | CEDC   | 2012-099 RC/<br>Aug. 30, 2012  | 2011-2015   | 0.8527  | 0.8953   | 0.0426   | Mitigation of any over or under-recovery in the succeeding regulatory years, taking into account the sales mix. | Final Decision issued by ERC on December 17, 2012 |
|                | SFELAPCO   | 2012-092 RC/<br>July 18, 2012  | 2012-2015   | 1.5595  | 1.7227   | 0.1632   | Mitigation of any over or under-recovery in the succeeding regulatory years, taking into account the sales mix. | Final Decision issued by ERC on Feb. 11, 2013     |
|                | AEC   2012-089 RC/   2012-2015   1.3115   1.4991   0.1876   succ |                                | Mitigation of any over or under-recovery in the succeeding regulatory years, taking into account the sales mix. | Final Decision issued by ERC on Dec. 10, 2012.  |  |  |   |   |
|                | BLCI   | 2012-088 RC/<br>July 13, 2012  | 2012-2015   | 1.0181  | 1.0321   | 0.0140   | Mitigation of any over or under-recovery in the succeeding regulatory years, taking into account the sales mix. | Final Decision issued by ERC on December 3, 2012  |

Source: ERC website

Annex 4. NGCP Related Petitions to ERC as of 31 October 2013

|                              | nnex 4. NGCP Related Petitions to ERC as of 31 October 2013 |   |   |  |   |  |                                      |        |   |                            |  |  |
|------------------------------|---|---|---|--|---|--|--------------------------------------|--------|---|----------------------------|--|--|
| ERC<br>DECISION/<br>CASE NO. | DATE OF FILING  | NATURE OF PETITION  |   | GRC  | OUNDS FOR FILIN   | G  |                                      |        | STATUS  |                            |  |  |
| ERC Case<br>2013-171<br>RC   | August 7, 2013  | In the matter of the Application of the National Grid Corporation of the Philippines for the approval of ForceMajeure (FM) Event regulated FM pass through for flooding caused by monsoonrains in Luzon, sabotage incidents in Mindanao, and typhoon Pablo inaccordance with the Rules for Setting Transmission Wheeling Rates, with prayerfor Provisional Authority. | • | <ul> <li>Pass-ThroughAmounts to Luzon, Visayas and Mindanao customers starting September2013 billing month to December 2015 billing month or until such time thatthe amount incurred is fully recovered;</li> <li>DECLARE the flooding caused by monsoon rains in Luzon area, sabotageincidents in Mindanao area and Typhoon Pablo as Force Majeure Events;</li> <li>APPROVE the CAPEX incurred for the restoration, rehabilitation and repairof the damaged transmission assets and other related facilities for theFMEs flooding caused by monsoon rains in Luzon area, sabotage incidentsin Mindanao area and Typhoon Pablo as Force Majeure Events;</li> <li>APPROVE the proposed pass-through amount representing return oncapital, return of capital and taxes associated with the emergencyresponses and the repair and rehabilitation of facilities damaged due tothe said events, as shown in the table below;</li> </ul> |   |  |                                      |        | cober 23, 2013, the jurisc<br>ry presentationwere conduct<br>g. The pre-trial and evidential<br>eduled after the Visayas an<br>sitory presentation. | ted for the ryhearing will |  |  |
|                              |   |   |   | FME –<br>Peso/kW-mo.   | 2013  | 2014   |                                      | 2015   |   |                            |  |  |
|                              |   |   |   | Luzon  | 0.0134  | 0.0149   |                                      | 0.0149 |   |                            |  |  |
|                              |   |   |   | Visayas  | 0.0037  | 0.0067   |                                      | 0.0064 |   |                            |  |  |
|                              |   |   |   | Mindanao   | 0.7043  | 0.8778   | 0                                    | 0.8638 |   |                            |  |  |
|                              |   |   | • | APPROVE and ALI Value of thetransm damaged by FME Luzon area, sabor Typhoon Pablo du thatthe said amou NGCP if thesetrans have not been dam.   | nission assets and s floodingcaused otage incidents in ring the Fourth Rent would have be smission assets and aged ordestroyed by | other related facilit<br>by monsoon rains<br>in Mindanaoarea a<br>egulatory Period giv<br>en fully recovered<br>d other related facilit<br>by said FMEs; | ies<br>in<br>and<br>ven<br>by<br>ies |        |   |                            |  |  |
|                              |   |   | • |  | pposed Pass-Thro  | •  | the                                  |        |   |                            |  |  |

| ERC                        |                |  |  |  |
|----------------------------|----------------|--|--|--|
| DECISION/<br>CASE NO.      | DATE OF FILING | NATURE OF PETITION   | GROUNDS FOR FILING   | STATUS   |
| ERC Case<br>2013-132<br>RC | 17 June 2013   | In the Matter of the Application for the Approval of the Toril Substation Project, with Prayer for Provisional Authority   | <ul> <li>ISSUE, an Order provisionally authorizing the implementation of TorilSubstation project; and</li> <li>After notice and hearing, APPROVE the Application for the implementation of the Toril Substation Project.</li> </ul>  | <ul> <li>On July 12, 2013, the ER C issues an order, finding theapplication to be sufficient in form and in substance with therequired fees having been paid, the same is hereby set forjurisdictional hearing, pretrial conference, expository presentationand evidentiary hearing on August 19, 2013 (Monday) at 2:00 P.M.at the ERC hearing Room, 15th Floor, Pacific Center Building, SanMiguel Avenue, Pasig City.</li> <li>On September 26, 2013, the jurisdictional, expository, pre-trial andevidentiary hearing were conducted and terminated. NGCP wasgiven five (5) days to submit its Formal Offer of Evidence and the following documents:         <ul> <li>a. Cost benefit analysis of the project;</li> <li>b. Detailed breakdown of the Cost Estimate of the project proposal; and</li> <li>c. Indicative Rate Impact of the project proposal</li> </ul> </li> </ul> |
| ERC Case<br>2013-077<br>RC | 17 April 2013  | In the Matter of the<br>Application<br>for the Approval of the<br>Laoag – Bangui 230 kV<br>Transmission Line Project,<br>with<br>Prayer for the Issuance of a<br>Provisional Authority | <ul> <li>ISSUE, immediately upon filing of the Application, a Provisional Approvalfor the implementation of the Laoag – Bangui 230 kV Transmission LineProject; and</li> <li>APPROVE, after notice and hearing, the Application for theimplementation of the Laoag – Bangui 230 kV Transmission Line Projectand render judgement making provisional approval permanent.</li> </ul> | On July 10, 2013, the jurisdictional, expository, pre-<br>trial andevidentiary hearing were conducted and<br>terminated. NGCP wasgiven fifteen (15) days to<br>submit its Formal Offer of Evidence andother<br>documents requested by the commission.  |
| ERC Case<br>2013-065<br>RC | 05 April 2013  | In the Matter of the Application for the Approval of the Las Piñas (Zapote) Substation Expansion Project, with Prayer for the Issuance of a Provisional Authority                      | <ul> <li>ISSUE an Order Provisionally Approving the implementation of the LasPiñas (Zapote) Substation Expansion Project; and</li> <li>APPROVE, after notice and hearing, the Application for theimplementation of the Las Piñas (Zapote) Substation Expansion Project.</li> </ul>   | <ul> <li>On June 19, 2013, the jurisdictional, expository, pretrial andevidentiary hearing were conducted and terminated. NGCP wasgiven 10 days to submit its Formal Offer of Evidence and otherdocuments requested by the commission while Meralco (Intervenor)was given five (5) days to comment.</li> <li>On October 2, 2013, the ERC posted on its website a decisiondated August 27, 2013</li> <li>"WHEREFORE, the foregoing premises considered, theapplication filed by the National Grid Corporation of thePhilippines (NGCP) for the approval of the Las Piñas (Zapote)Substation Expansion Project is hereby APPROVED"</li> </ul>  |

| ERC<br>DECISION/<br>CASE NO. | DATE OF FILING   | NATURE OF PETITION   | GROUNDS FOR FILING  | STATUS  |
|------------------------------|------------------|--|---|---|
| ERC Case<br>2013-064<br>RC   | 05 April 2013    | In the Matter of the<br>Application for<br>the Approval of the<br>Tugeugarao-Lal-lo (Magapit)<br>230kV Transmission Line<br>Project, with Prayer for the<br>Issuance of a Provisional<br>Authority                   | <ul> <li>ISSUE, immediately upon filing of the Application, a Provisional Approval for the implementation of the Tuguegarao – Lal-lo (Magapit) 230kV T/L Project; and</li> <li>APPROVE, after notice and hearing, the Application the implementation of the Tuguegarao – Lal-lo (Magapit) 230 kV T/L Project and renderjudgment making the provisional approval permanent.</li> </ul> | On June 18, 2013, the jurisdictional, expository, pre-<br>trial andevidentiary hearing were conducted and<br>terminated. NGCP was given Ten (10) days to<br>submit its Formal Offer of Evidence andother<br>documents requested by the commission.  |
| ERC Case<br>2013-063<br>RC   | 05 April 2013    | In the Matter of the Application for the Approval of the Western Luzon 500kV Backbone Project (stage 1: Castillejos-Hermosa 500kV Transmission Line Project) with Prayer for the issuance of a Provisional Authority | <ul> <li>ISSUE an Order provisionally approving implementation of the WesternLuzon 500kV Backbone Project pending final approval; and</li> <li>APPROVE the Application for the implementation of the Western Luzon500kV Backbone Project (Stage 1: Castillejos-Hermosa 500kV T/L).</li> </ul>   | <ul> <li>On June 17, 2013, the Submission of jurisdictional Requirements &amp; expository Presentation were conducted.</li> <li>On July 16, 2013, the pre-trial and evidentiary hearing wereconducted and terminated. NGCP was given Five (5) days to submitits Formal Offer of Evidence and other documents requested by the ERC.</li> </ul>   |
| ERC Case<br>2013-024<br>RC   | 15 February 2013 | In the Matter of the<br>Application for Approval of<br>the Cebu-Negros-Panay<br>230 kV Backbone Project<br>(Stage 1), with prayer for the<br>issuance of a Provisional<br>Authority                                  | <ul> <li>ISSUE, immediately upon filing of the Application, a Provisional Approvalfor the implementation of the CNP 230 kV backbone Project (Stage 1); and</li> <li>APPROVE, after notice and hearing, the Application the implementation of the CNP 230 kV Backbone Project (Stage 1) and render judgmentmaking the provisional approval permanent.</li> </ul>                       | <ul> <li>On July 19, 2013, the ERC posted on its website the<br/>decision dated June 24, 2013, "WHEREFORE, the<br/>foregoing premisesconsidered, the application filed<br/>by the National Grid Corporation of the Philippines,<br/>Inc. (NGCP) for approval of its Cebu-Negros-<br/>Panay230 kV backbone project (stage 1) is hereby<br/>APPROVED."</li> </ul>   |
| ERC Case<br>2013-023<br>RC   | 15 February 2013 | In the Matter of the<br>Application for Approval of<br>the Calaca-Dasmariñas 230<br>kV Transmission Line<br>Project, with prayer for the<br>issuance of a Provisional<br>Authority                                   | <ul> <li>APPROVE The Application for the implementation of the Calaca-Dasmariñas 230kV Line Project; and</li> <li>ISSUE, a Provisional Authority for the implementation of the Calaca-Dasmariñas 230kV Line Project pending final approval.</li> </ul>  | • On August 27, 2013, the ERC posted on its website<br>a decisiondated July 5, 2013"WHEREFORE, the<br>foregoing premises considered, theapplication filed<br>by the National Grid Corporation of thePhilippines<br>(NGCP) for approval of its Calaca-Dasmariñas 230<br>kVtransmission line project is hereby APPROVED<br>withmodification.NGCP's proposed four (4) 230 kV<br>Compact Air-InsulatedSwitchgear (CAIS) to be<br>installed at Dasmariñas and Sta. Ritasubstations<br>amounting to Fifty-Three Million Five<br>HundredNinety- Eight Thousand Seven Hundred<br>Sixty-six and 84/100Pesos (PhP53, 598,766.84) are<br>DISAPPROVED." |
| ERC Case<br>2013-019<br>RC   | February 6, 2013 | In the Matter of the<br>Application of the National<br>Grid Corporation of the   | <ul> <li>GRANT provisional approval to implement and bill the FME<br/>Pass-Through Amount to Visayas customers starting April 2013<br/>billing month to December 2015 billing month or until such time</li> </ul>   | <ul> <li>The ERC issues an order dated March 18, 2013<br/>(docketedMarch 20, 2013), finding the application to<br/>be sufficient in form andin substance with the</li> </ul>  |

| ERC<br>DECISION/<br>CASE NO.    | DATE OF FILING | NATURE OF PETITION   | GROUNDS   | FOR FILING  |  | STATUS   |
|---------------------------------|----------------|--|---|---|--|--|
|                                 |                | Philippines for Approval of Force Majeure (FM) Event Regulated FM Pass Through for Earthquake, Flooding and Lightning incidents in Visayas in accordance with the Rules for setting Transmission Wheeling Rates, with prayer for Provisional Authority | that the amount incurred is ful  DECLARE the earthquake, flo Visayas area as Force Majeur  APPROVE the CAPEX in restoration, rehabilitation transmission assets and oth earthquake, flooding and light  APPROVE the proposed p return on capital, return of ca emergency responses and facilities damaged due to the below:  FME-Peso/kW 2013  Visayas 0.1407  APPROVE and ALLOW the Value of the transmission a damaged by FMEs earthqua in the Visayas are during the the said amount would have these transmission assets a been damaged or destroyed to EXCLUDE the proposed pa constraint calculation. | oding and lightning Events; icurred/to be it and repair of er related faciliting incidents in tass-through amountal and taxes as the repair and said events, as seeing 12014 0.0584  Tecovery of the sseets and other ice, flooding and life ourth Regulatory been fully recovery of other related y said FMEs; and | ncurred for the the damaged es for the FMEs he Visayas area; punt representing ssociated with the rehabilitation of shown in the table  2015 0.0547  Net Fixed Asset related facilities lightning incidents are Period given that the rered by NGCP if facilities had not define the result of the resul | required fees having been paid, The same ishereby set for jurisdictional hearing, expository presentation, pretrialconference and evidentiary hearing on May 7, 9, & 15, 2013,respectively.  On May 7, 2013, as scheduled, the jurisdictional and expositoryhearings were conducted in the Luzon Leg. Inasmuch as there was ascheduled expository hearing for the Visayas Stakeholders on May9, 2013 at the ERC Visayas Regional Office, the Pre-trial and Evidentiary Hearing was set on May 15, 2013 at the ERC Pasig.  On May 15, 2013, the Pre-Trial Brief was conducted at ERC, Pasig.The ERC adopted scheduled PTB Totalce there were nointerveners on the said case. The 0.2598nsel of NGCP was given fifteen(15) calendar days to submit their Formal Offer of Evidence. |
| ERC Case<br>No. 2011-<br>108 RC | August 2, 2011 | In the Matter of the<br>Application for the Approval<br>of the Batangas-Mindoro<br>Interconnection Project<br>(BMIP)   | ISSUE, immediately upon filing Authority for the implementation of the Project; and      APPROVE, after notice a theimplementation of the Project andrender judgment permanent.   | Batangas-Mindol  nd hearing, the Batangas-Mindoro   | On October 22, 2013, clarificatory hearing was conducted in orderfor NGCP to further explain the manifestation they submitted to ERC on October 3, 2013.   |  |

Source: Transco

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

|    | ng Month | Metered Quantity (Load),  MWh | Spot Quantity (Load), MWh | %     | Bilateral Contract Quantity,<br>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% |

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

|    | ng Month | Metered Quantity (Load),  MWh | Spot Quantity (Load), MWh | %     | Bilateral Contract Quantity,<br>MWh | %   |
|----|----------|-------------------------------|---------------------------|-------|-------------------------------------|-----|
| 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% |
| 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% |

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

|    | ng Month | Metered Quantity (Load),<br>MWh | Spot Quantity (Load), MWh | %   | Bilateral Contract Quantity,<br>MWh | %   |
|----|----------|---------------------------------|---------------------------|-----|-------------------------------------|-----|
| 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% |

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

|    | Billing Month | Peak Demand | Coincidental Energy<br>Offers | Average Demand | Average Energy Offers | Average Capacity on<br>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                         | 4,672          | 5,833                 |                               |
| 18 | Dec-2007      | 6,082       | 5,989                         | 4,639          | 5,633                 | 1,608<br>1,106                |
| 19 | Jan-2008      | 5,949       | 6,495                         | 4,645          | 5,529                 | 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                         |

|    | Billing Month | Peak Demand | Coincidental Energy<br>Offers | Average Demand | Average Energy Offers | Average Capacity on<br>Outage |
|----|---------------|-------------|-------------------------------|----------------|-----------------------|-------------------------------|
| 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                 |                               |

|    | Billing Month | Peak Demand | Coincidental Energy<br>Offers | Average Demand | Average Energy Offers | Average Capacity on<br>Outage |
|----|---------------|-------------|-------------------------------|----------------|-----------------------|-------------------------------|
| 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                 |                               |
| 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                 |                               |

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

|    | nand and Energy Offers (i<br>Billing Month | Peak Demand | Coincidental Energy<br>Offers | Average Demand | Average Energy Offers | Average Capacity on<br>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                 |                               |

| Billi | Billing Month Peak Demand |     | Coincidental Energy<br>Offers | Average Demand | Average Energy Offers | Average Capacity on<br>Outage |
|-------|---------------------------|-----|-------------------------------|----------------|-----------------------|-------------------------------|
| 85    | July-13                   | 1,5 | 10 1,660                      | 1,176          | 1,585                 |                               |
| 86    | Aug-13                    | 1,4 | 99 1,622                      | 1,148          | 1,565                 |                               |
| 87    | Sep-13                    | 1,5 | 28 1,692                      | 1,194          | 1,575                 |                               |
| 88    | Oct-13                    | 1,4 | 58 1,664                      | 1,140          | 1,466                 |                               |

Annex 8. Generation Mix (%)

| Billing | J Month  |        |        | Coal   | Nat Gas | Diesel/Oil | Wind  | Biofuel |
|---------|----------|--------|--------|--------|---------|------------|-------|---------|
| 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-2008 | 11.32% | 11.60% | 31.77% | 43.24%  | 1.83%      | 0.25% |         |
| 20      | Feb-2008 | 11.76% | 11.48% | 29.86% | 43.77%  | 2.86%      | 0.26% |         |
| 21      | Mar-2008 | 11.92% | 10.85% | 21.28% | 52.86%  | 2.88%      | 0.21% |         |
| 22      | Apr-2008 | 7.68%  | 9.93%  | 29.26% | 48.43%  | 4.63%      | 0.07% |         |
| 23      | May-2008 | 12.08% | 10.07% | 27.65% | 49.28%  | 0.85%      | 0.08% |         |
| 24      | Jun-2008 | 14.92% | 10.23% | 28.65% | 45.09%  | 1.09%      | 0.03% |         |
| 25      | Jul-2008 | 12.88% | 9.40%  | 29.65% | 42.99%  | 5.04%      | 0.04% |         |
| 26      | Aug-2008 | 15.07% | 11.42% | 21.23% | 47.02%  | 5.18%      | 0.08% |         |
| 27      | Sep-2008 | 14.91% | 10.41% | 24.68% | 45.40%  | 4.54%      | 0.05% |         |

| Billir | ng Month |        |        | Coal   | Nat Gas | Diesel/Oil | Wind  | Biofuel |
|--------|----------|--------|--------|--------|---------|------------|-------|---------|
| 28     | Oct-2008 | 15.37% | 9.31%  | 32.54% | 39.82%  | 2.84%      | 0.12% |         |
| 29     | Nov-2008 | 10.92% | 9.59%  | 36.02% | 40.69%  | 2.61%      | 0.18% |         |
| 30     | Dec-2008 | 11.44% | 9.28%  | 33.34% | 45.08%  | 0.57%      | 0.29% |         |
| 31     | Jan-2009 | 11.61% | 12.99% | 36.68% | 37.97%  | 0.34%      | 0.40% |         |
| 32     | Feb-2009 | 10.16% | 10.24% | 35.38% | 42.23%  | 1.81%      | 0.17% |         |
| 33     | Mar-2009 | 7.77%  | 10.10% | 32.95% | 46.79%  | 2.31%      | 0.09% |         |
| 34     | Apr-2009 | 6.17%  | 9.72%  | 32.54% | 46.65%  | 4.76%      | 0.15% |         |
| 35     | May-2009 | 11.42% | 8.92%  | 29.58% | 44.95%  | 4.95%      | 0.17% |         |
| 36     | Jun-2009 | 14.27% | 8.46%  | 26.88% | 45.88%  | 4.44%      | 0.08% |         |
| 37     | Jul-2009 | 13.85% | 8.33%  | 30.58% | 45.82%  | 1.38%      | 0.04% |         |
| 38     | Aug-2009 | 17.95% | 7.75%  | 26.92% | 43.92%  | 3.42%      | 0.04% |         |
| 39     | Sep-2009 | 17.01% | 7.12%  | 24.69% | 47.59%  | 3.56%      | 0.04% |         |
| 40     | Oct-2009 | 21.46% | 8.08%  | 20.64% | 46.80%  | 2.92%      | 0.11% |         |
| 41     | Nov-2009 | 11.41% | 8.84%  | 30.12% | 46.82%  | 2.62%      | 0.19% |         |
| 42     | Dec-2009 | 9.76%  | 8.91%  | 30.80% | 48.50%  | 1.79%      | 0.24% |         |
| 43     | Jan-2010 | 9.58%  | 9.76%  | 30.48% | 45.93%  | 3.97%      | 0.28% |         |
| 44     | Feb-2010 | 8.19%  | 8.04%  | 42.71% | 32.69%  | 8.27%      | 0.10% |         |
| 45     | Mar-2010 | 6.45%  | 8.56%  | 46.90% | 28.70%  | 9.30%      | 0.08% |         |
| 46     | Apr-2010 | 4.53%  | 7.46%  | 43.11% | 37.75%  | 7.00%      | 0.15% |         |
| 47     | May-2010 | 3.86%  | 6.51%  | 44.52% | 40.50%  | 4.57%      | 0.04% |         |
| 48     | Jun-2010 | 4.69%  | 6.46%  | 42.54% | 40.69%  | 5.58%      | 0.04% |         |
| 49     | Jul-2010 | 8.75%  | 6.47%  | 35.74% | 41.20%  | 7.81%      | 0.02% |         |
| 50     | Aug-2010 | 11.25% | 6.51%  | 35.38% | 41.44%  | 5.28%      | 0.14% |         |
| 51     | Sep-2010 | 11.36% | 6.56%  | 33.22% | 44.17%  | 4.62%      | 0.06% |         |
| 52     | Oct-2010 | 9.87%  | 7.46%  | 33.21% | 43.92%  | 5.46%      | 0.08% |         |
| 53     | Nov-2010 | 12.15% | 7.51%  | 34.93% | 42.51%  | 2.64%      | 0.26% |         |
| 54     | Dec-2010 | 9.70%  | 7.70%  | 37.60% | 42.70%  | 2.00%      | 0.30% |         |
| 55     | Jan-2011 | 8.30%  | 18.00% | 39.10% | 33.10%  | 1.10%      | 0.30% | 0.006%  |

| Billir | g Month  |        |        | Coal   | Nat Gas | Diesel/Oil | Wind   | Biofuel |
|--------|----------|--------|--------|--------|---------|------------|--------|---------|
| 56     | Feb-2011 | 7.66%  | 16.58% | 34.94% | 39.66%  | 0.93%      | 0.22%  | 0.009%  |
| 57     | Mar-2011 | 7.07%  | 15.25% | 38.49% | 38.16%  | 0.72%      | 0.25%  | 0.071%  |
| 58     | Apr-2011 | 8.3%   | 18.0%  | 39.8%  | 32.9%   | 0.7%       | 0.312% | 0.013%  |
| 59     | May-2011 | 7.6%   | 16.7%  | 35.0%  | 39.4%   | 1.0%       | 0.218% | 0.023%  |
| 60     | Jun-2011 | 7.1%   | 15.2%  | 38.4%  | 38.0%   | 1.1%       | 0.239% | 0.050%  |
| 61     | Jul-2011 | 5.6%   | 15.9%  | 39.8%  | 37.6%   | 0.8%       | 0.219% | 0.122%  |
| 62     | Aug-2011 | 4.4%   | 14.6%  | 42.2%  | 35.7%   | 2.9%       | 0.056% | 0.036%  |
| 63     | Sep-2011 | 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%  |
| 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%    |

| Billing | Month   |       |       | Coal  | Nat Gas | Diesel/Oil | Wind   | Biofuel |
|---------|---------|-------|-------|-------|---------|------------|--------|---------|
| 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%  |

Annex 9. WESM Effective Settlement Prices

|    |               | EFFECTIVE SETTLEMEN | NT PRICES (PhP/MWh) |                        |
|----|---------------|---------------------|---------------------|------------------------|
|    | Billing Month | ESP (w/ Surplus)    | ESP (w/o Surplus)   | Cumulative Average ESP |
| 1  | Jul-2006      | 3,255.36            | 3,094.12            | 3,152                  |
| 2  | Aug-2006      | 3,767.94            | 3,577.67            | 3,373                  |
| 3  | Sep-2006      | 4,129.05            | 4,129.05            | 3,624                  |
| 4  | Oct-2006      | 4,159.09            | 4,159.09            | 3,750                  |
| 5  | Nov-2006      | 6,092.03            | 5,746.92            | 4,115                  |
| 6  | Dec-2006      | 9,807.99            | 8,731.92            | 4,542                  |
| 7  | Jan-2007      | 3,981.62            | 3,791.67            | 4,481                  |
| 8  | Feb-2007      | 4,932.45            | 4,810.36            | 4,501                  |
| 9  | Mar-2007      | 5,936.19            | 5,370.34            | 4,560                  |
| 10 | Apr-2007      | 8,738.61            | 8,592.97            | 4,871                  |
| 11 | May-2007      | 7,555.25            | 6,484.51            | 4,962                  |
| 12 | Jun-2007      | 7,164.04            | 6,031.63            | 5,062                  |
| 13 | Jul-2007      | 8,768.71            | 8,350.31            | 5,223                  |
| 14 | Aug-2007      | 4,626.97            | 4,348.65            | 5,196                  |
| 15 | Sep-2007      | 4,309.14            | 3,538.37            | 5,147                  |
| 16 | Oct-2007      | 6,244.44            | 3,599.09            | 5,119                  |
| 17 | Nov-2007      | 5,276.00            | 2,618.23            | 5,056                  |
| 18 | Dec-2007      | 6,793.73            | 6,425.61            | 5,098                  |
| 19 | Jan-2008      | 2,551.23            | 2,278.66            | 5,010                  |
| 20 | Feb-2008      | 5,729.20            | 5,389.93            | 5,024                  |
| 21 | Mar-2008      | 6,723.81            | 6,373.18            | 5,060                  |
| 22 | Apr-2008      | 6,006.01            | 5,545.63            | 5,085                  |
| 23 | May-2008      | 2,315.63            | 1,734.50            | 5,005                  |
| 24 | Jun-2008      | 3,370.16            | 2,100.68            | 4,933                  |
| 25 | Jul-2008      | 16,600.93           | 7,872.34            | 5,037                  |
| 26 | Aug-2008      | 4,124.77            | 4,124.77            | 5,016                  |
| 27 | Sep-2008      | 3,911.62            | 3,911.62            | 4,981                  |

|    |               | EFFECTIVE SETTLEMEN | NT PRICES (PhP/MWh) |                        |
|----|---------------|---------------------|---------------------|------------------------|
|    | Billing Month | ESP (w/ Surplus)    | ESP (w/o Surplus)   | Cumulative Average ESP |
| 28 | Oct-2008      | 4,009.38            | 4,009.38            | 4,955                  |
| 29 | Nov-2008      | 5,520.95            | 4,833.61            | 4,954                  |
| 30 | Dec-2008      | 1,244.97            | 786.69              | 4,831                  |
| 31 | Jan-2009      | 1,881.33            | 1,797.76            | 4,733                  |
| 32 | Feb-2009      | 3,062.87            | 2,893.06            | 4,662                  |
| 33 | Mar-2009      | 3,395.09            | 2,774.35            | 4,614                  |
| 34 | Apr-2009      | 4,350.10            | 3,798.38            | 4,598                  |
| 35 | May-2009      | 2,871.07            | 2,516.38            | 4,548                  |
| 36 | Jun-2009      | 2,519.61            | 2,207.39            | 4,497                  |
| 37 | Jul-2009      | 3,294.88            | 2,041.02            | 4,459                  |
| 38 | Aug-2009      | 2,291.13            | 1,986.39            | 4,395                  |
| 39 | Sep-2009      | 2,080.29            | 1,148.78            | 4,328                  |
| 40 | Oct-2009      | 1,445.37            | 1,396.63            | 4,264                  |
| 41 | Nov-2009      | 2,287.51            | 2,089.83            | 4,221                  |
| 42 | Dec-2009      | 3,656.20            | 3,304.74            | 4,205                  |
| 43 | Jan-2010      | 4,559.03            | 4,425.10            | 4,209                  |
| 44 | Feb-2010      | 11,286.94           | 10,999.48           | 4,393                  |
| 45 | Mar-2010      | 13,383.73           | 12,253.53           | 4,541                  |
| 46 | Apr-2010      | 8,873.98            | 8,725.72            | 4,635                  |
| 47 | May-2010      | 8,467.56            | 7,933.40            | 4,714                  |
| 48 | Jun-2010      | 8,737.16            | 8,265.95            | 4,807                  |
| 49 | Jul-2010      | 10,542.92           | 9,089.57            | 4,902                  |
| 50 | Aug-2010      | 5,952.68            | 5,034.90            | 4,906                  |
| 51 | Sep-2010      | 8,980.91            | 7,508.47            | 4,936                  |
| 52 | Oct-2010      | 10,276.10           | 9,543.00            | 4,993                  |
| 53 | Nov-2010      | 7,492.27            | 7,011.72            | 5,024                  |
| 54 | Dec-2010      | 6,824.19            | 6,394.00            | 5,043                  |
| 55 | Jan-2011      | 3,388               |                     |                        |

|    |               | EFFECTIVE SETTLEMEN | NT PRICES (PhP/MWh) |                        |
|----|---------------|---------------------|---------------------|------------------------|
|    | Billing Month | ESP (w/ Surplus)    | ESP (w/o Surplus)   | Cumulative Average ESP |
| 56 | Feb-2011      | 3,453               |                     |                        |
| 57 | Mar-2011      | 2,554               |                     |                        |
| 58 | Apr-2011      | 3,404               |                     |                        |
| 59 | May-2011      | 6,408               |                     |                        |
| 60 | Jun-2011      | 4,189               |                     |                        |
| 61 | Jul-2011      | 5,179               |                     |                        |
| 62 | Aug-2011      | 4,395               |                     |                        |
| 63 | Sep-2011      | 5,035               |                     |                        |
| 64 | Oct-2011      | 8,192               |                     |                        |
| 65 | Nov-2011      | 6,050               |                     |                        |
| 66 | Dec-2011      | 5,548               |                     |                        |
| 67 | Jan-2012      | 6,321               |                     |                        |
| 68 | Feb-2012      | 4,122               |                     |                        |
| 69 | Mar-2012      | 5,405               |                     |                        |
| 70 | Apr-2012      | 4,300               |                     |                        |
| 71 | May-2012      | 8,914               |                     |                        |
| 72 | Jun-2012      | 12,667              |                     |                        |
| 73 | Jul-2012      | 10,725              |                     |                        |
| 74 | Aug-2012      | 3,572               |                     |                        |
| 75 | Sep-2012      | 5,806               |                     |                        |
| 76 | Oct-2012      | 7,543               |                     |                        |
| 77 | Nov-2012      | 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               |                     |                        |

|    | EFFECTIVE SETTLEMENT PRICES (PhP/MWh) |                  |                   |                        |  |  |  |  |  |
|----|---------------------------------------|------------------|-------------------|------------------------|--|--|--|--|--|
|    | Billing Month                         | ESP (w/ Surplus) | ESP (w/o Surplus) | Cumulative Average ESP |  |  |  |  |  |
| 84 | June-13                               | 5.780            |                   |                        |  |  |  |  |  |
| 86 | July-13                               | 3,737            |                   |                        |  |  |  |  |  |
| 87 | Aug-13                                | 4,439            |                   |                        |  |  |  |  |  |
| 88 | Sep-13                                | 3,726            |                   |                        |  |  |  |  |  |
| 89 | Oct-13                                | 8,253            |                   |                        |  |  |  |  |  |

Annex 10. Private Sector Initiated Power Projects in Luzon (COMMITTED) as of 31 October 2013

| Committed/<br>Indicative | Name of the Project                                  | Project Proponent  | Location                                       | Rated Capacity<br>(MW) |   | Target<br>Commissioning                 |
|--------------------------|--|--|--|------------------------|---|---|
|                          | COAL   |  |  | 652.00                 |   |   |
| Committed                | 135 MW Puting Bato Coal<br>Fired Power Plant Phase I | South Luzon Thermal Energy<br>Corp. (SLTEC)                          | Brgy. Puting Bato<br>West, Calaca,<br>Batangas | 135                    | 50-50 joint venture project of TAOIL and AC Energy Holdings, Inc.; Purchase of land signed on January 2010; EPC contractor was awarded to DMCI on 31 March 2011; DENR-ECC issued to TAOil for project on 30 April 2010, SEC issued on 29 July 2011 latest amendment of the AOI was on 10 June 2013; DENR-ECC for the Ash Handling Facility issued to SLTEC on 24 January 2012; DENR-ECC for the switching Station issued on 21 January 2013; LGU Endorsement issued on 14 February 2012;GIS issued on 17 May 2013; BOI Approved Certificate for Unit I issued on 20 June 2012;PPA between SLTEC and TAOil was signed on 28 Octtober 2011; BOC registration as importer issued on 2 December 2012; transfer of ECC to SLTEC on 14 Dec. 2011; GIS issued on 17 May 2012; financial close on 28 Oct. 2011; EPC Contract awarded to DMCI on 31 March 2011; Started Construction on December 2011;Construction Duration - 32 Months; Ground breaking - February 2012; Target Testing & Commissioning - May 2014; ;Done with the Feasibility Study & arrangement for securing the required land;Project cost is Php12.9B  | August 2014                             |
| Committed                | 2 X 150 MW SLPGC Coal-<br>Fired Power Plant Phase I  | Southwest Luzon Power<br>Generation Corporation<br>(Project Company) | Brgy. San Rafael,<br>Calaca, Batangas          | 300                    | Requested letter for the issuance of COE for ERC -COC on 25 June 2013; Issued COE for BOI on 23 September 2011 (amended from SEM-CALACA to SLPGC); Draft MOA for ER 1-94 on 16 July 2013; Issued COE for BOI under SEM-CALACA on 30 March 2013; Completed Feasibility Study; Property is currently under Land Lease Agreement (LLA) between Sem-Calaca Power Corporation (SCPC) with PSALM; Land-Sub-Lease Agreement between SCPC and SLPGC executed February 2012; On-going negotiations with prospective off-takes (DUs and those currently with PSAs and contestable market under Open Access Regime; ACQUIRED Permits: SEC registration approved 31 Aug. 2011; ECC application approved 21 Oct. 2011; GIS with NGCP approved 8 Nov. 2011; BOI registration June 2012; EPC signed March 2012; Loan agreement with Banks in place, financial close on 24 February 2012 (60% Loan / 40% Equity); Notice to Proceed (NTP) to contractor issued 5 May 2012; Site Mobilization / Commencement of Construction on May 2012; Groundbreaking - May 2012; Target Testing & Commissioning 1st Unit - Nov 2014/ 2nd Unit-Feb 2015; Project cost for Phase I is Php20.4B | Unit I - Nov 2014<br>Unit II - Feb 2015 |

| Committed/<br>Indicative | Name of the Project  | Project Proponent                           | Location                                       | Rated Capacity<br>(MW) | Project Status  | Target<br>Commissioning |
|--------------------------|--|---|--|------------------------|---|-------------------------|
| Committed                |  | South Luzon Thermal Energy<br>Corp. (SLTEC) | Brgy. Puting Bato<br>West, Calaca,<br>Batangas | 135                    | Ongoing feasibility study; SEC Registration Certificate issued July 29, 2011 latest amendment of the AOI was on 10 June 2013;DENR-Amendment of ECC for the Ash Handling Facility issued to SLTEC on 24 January 2012;DENR-ECC for the Switching situation issued on 21 January 2013;LGU Endorsement issued on 14 February 2012;GIS issued 17 May 2013; LGU Endorsement issued Feb. 14, 2012; BOI approved certificate for Unit 2 issued on 24 September 2012; BOI registration as importer issued on 23 Dec 2011. Land already acquired, ongoing Titling and Conversion of Land to industrial; PPA between SLTEC and TAOil was signed on 17 Aprilr 2013;Done with the Feasibility Study and arrangment for securing the required land;Financial Close with tenders on 1 July 2013; EPC Contract awarded to DMCI on 3 May 2013; Start Construction (Target) - August 2013; Construction Duration will be 28 months; Groundbreaking Target Date - August 2013; Traget Testing and Commissioning will be on June 2015; Target Commercial Operation - November 2015 Project cost is Php 9.6B | November 2015           |
|                          | Anda Power Corporation's 82<br>MW Ciculating Fluidized Bed<br>Coal Fired Power Plant | Anda Power Corporation                      | Brgy. Bundagul,<br>Mabalacat, Pampanga         | 82                     | On-going securing of CoE for BOI and ERC; MOA dated 25 April 2013 between APEC & ANDA has been executed wherein it was provided that APEC will proceed with its application for GIS and later assign to ANDA; APEC has already secured endorsement from the DOE for GIS nand is currently working with NGCP for the conduct of GIS; Lot is rented out from TIPCO Estates Corporation at lease reate of PhP1.4M per month; Target Market - Yokohama, Lafarge, PSPC (Supply Arrangements are still under negotiations between 5 & 10 MW) others such as customers located within TECO Special Ecozone, Retail Market Under Open Access, WESM; EPC already concluded; On-going securing of permits and other regulatory requirements; Already have financial closing with Formosa Heavy Industries, Corp (Taiwan/Republic of China) as per MOA dated 11 April 2013; Total Project Cost-\$196,246,837.63; Commencement of Construction: March 2014; Target Testing and Commissioning: September 2015  | March 2016              |
|                          | NATURAL GAS  |   |  | 600.00                 |   |                         |

| Committed/<br>Indicative | Name of the Project  | Project Proponent          | Location  | Rated Capacity<br>(MW) | Project Status   | Target<br>Commissioning  |
|--------------------------|--|----------------------------|---|------------------------|--|--|
| Committed                | Pagbilao 600 MW Combined<br>Cycle Gas Fired Power Plant<br>Proposed 3x200 MW CCGT<br>Power Plant | Energy World Corporation   | Brgy. Ibabang Polo,<br>Grande Island,<br>Pagbilao, Quezon | 600                    | Inc.) Entered into a Sale and Purchase Agreement last<br>October 2012 with Siemens Energy for two 200 MW gas   | 20141st Unit -<br>200MW,<br>2015:2nd Unit-<br>200MW<br>2016:3rd Unit-<br>200MW |
|                          | GEOTHERMAL   |                            |   | 20.00                  |  |  |
| Committed                | Maibarara Geothermal Power<br>Project  | Maibarara Geothermal, Inc. | Sitio Capuz, Brgy. San<br>Rafael, Sto. Tomas,<br>Batangas | 20                     | FCRS on-going since May 2013;On-going construction of power plant & facilities;Obtained Geothermal Service Contract with DOE; ECC obtained in August 2010; BOI Registration obtained in January 2011; Entered into an Electricity Suppy Agreement (ESA) with Trans-Asia Oil and Energy Development Corp. for the 100% offtake of generated electricity; Selected IEE Corp & Fuji Electric as main and subcontractors for the power plant EPC; Secured 70% project financing with RCBC and BPI Capital; GIS from NGCP completed in March 2011; Certificate of Confirmation of Commerciality from DOE obtained; Ground breaking of construction on 27 April 2012; Commercial Operation by October 2013; Project cost Php3.4B / \$79.4M | November 2013  |
|                          | WIND   |                            |   | 67.50                  |  |  |

| Committed/<br>Indicative | Name of the Project   | Project Proponent                     | Location                              | Rated Capacity<br>(MW) | Project Status   | Target<br>Commissioning        |
|--------------------------|---|---------------------------------------|---------------------------------------|------------------------|--|--------------------------------|
| Committed                | Phase 1:<br>Pililla Wind Power Project                                    | Alternergy Wind One<br>Corporation    | Brgy. Halayhayin,<br>Pililla, Rizal   | 67.5                   | Awarded with Wind Energy Service Contract (WESC No. 2009-09-018) on 23 Oct 2009; Conducted detailed wind resource assessment; Acquired various LGU permits and resolutions of support, DENR Environmental Compliance Certificate, NCIP Certificate of Non-Overlap, Contract to Buy with private land owners, and clearances from DAR, NIA, LRA, HLURB, and Laguna Lake Development Authority; Interconnection Agreement with MERALCO secured on 1 Mar 2012; EPC and O&M Contract with consortium of Nordex SE and McConnell Donnell secured on 11 Jul 2012; Project Finance Term Sheet with BDO Unibank, Inc. submitted 27 Jul 2012; NGCP Review of Third Party SIS secured on 31 Jul 2012; AWOC to finance the implementation of the project with 100% equity; Acquired DOE Certificate of Confirmation of Commerciality on 16 May 2013; Conducted Groundbreaking Ceremony on 18 Jun 2013; Total project cost is US\$177.9Million | September 2014                 |
|                          | BIOMASS   |                                       |                                       | 27.90                  |  |                                |
| Committed                | 9.9 MWe (net) SJCiPower<br>Rice Husk-Fired Biomass<br>power Plant Project | San Jose City I Power<br>Corporation  | Brgy. Tulat, San Jose,<br>Nueva Ecija | 9.9                    | On-going construction (60% completed); Permits obtained (ECC, LGU Endorsement, Land Use Permit, etc.) Has EPC and Financially Closed; subject to FIT; Signed EPC with Engcon of Singapore; Groundbreaking/Launching on 12 October 2013; Project cost is Php1.234B  | March 2015<br>(Subject to FIT) |
| Committed                | 20 MW IBEC Biomass Power<br>Plant   | Isabela Biomass Energy<br>Corporation | Isabela                               | 18                     | On-going construction (20% completed); Permits obtained (ECC, LGU Endorsement, Land Use Permit, etc.) Has EPC and Financially Closed; subject to FIT; Project cost is Php1.9B  | March 2015                     |

**Total Committed Rated Capacity:** Source: DOE

1,367.40

Annex 11. Private Sector Initiated Power Projects in Luzon (INDICATIVE) as of 31 October 2013

| Committed / Indicative | Name of the Project                             | Project Proponent                 | Location  | Rated Capacity (MW) | y Project Status  | Target Commissioning   |
|------------------------|---|-----------------------------------|---|---------------------|---|--|
|                        | COAL  |                                   |   | 4,140.00            |   |  |
| Indicative             | 2 X 20 MW FDC Camarines<br>CFB Coal Power Plant | FDC Utilities, Inc.               | Camarines Sur   | 40                  | Completed technical and financial study; Acquisition of projec site ongoing; Signed supply contract with franchised electric cooperative; On-going negotiations for the financing arrangements and other permits; Selection of EPC Contractor to commence after award of EPC contract for Danao; Ongoing feasibility study and plant site evaluation; On-going securing of regulatory requirements; Other required permits and endorsement to be secured upon completion of pre-con activities  |  |
| Indicative             | 2 X 300 MW Coal-Fired<br>Power Plant            | Redondo Peninsula Energy,<br>Inc. | Sitio Naglatore,<br>Cawag, Subic Bay<br>Freeport Zone | 600                 | Feasibility study completed; Project Site is leased from the Subic Bay Metropolitan Authority; Amended ECC (3rd Amendment) secured last 15 November 2012; The Connection Agreement has been finalized and initialed. Execution after completion of NGCP's review of the revised System Impact Study and Facilities Study prepared by RPE. NGCP's application to ERC for approval of Transmission Asset has been completed and is currently awaiting decision. RPE's application to the ERC for the Connection Asset has been deemed sufficient in form and substance. A pre-hearing conference is schedule before end of October 2013. Extended term sheet negotions substantially completed. Further progress dependent on Supreme Court decision on Wit of Kalikasan case. Engineering, Procurement and Construction (EPC) contract negotiations finazed. Dependent On Supreme Court decision on Writ of Kalikasan Case. Target Testing and Commissioning will be Dependent on Supreme Court decision on Writ of Kalikasan Case. Revised System Impact GIS review by NGCP completed 10 May 2012; Mandated Lead Arrangers (MLAs) have been selected; Any further development dependent on Supreme Court decision on Writ of Kalikasan case; Public consultations conducted in Subic on 29 June 2012; Engineering, Procurement and Construction (EPC) contract negotiations finalized; Site preparation construction on-going, construction to commence 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 Php50B / \$1.2B | Unit II - December 2016 (Target Commencement of Construction will be Dependent on Supreme Court decision on Writ of Kalikasan Case.) |
| Indicative             | 2 X 600 MW Mariveles                            | GNPower Mariveles Coal            | Mariveles, Bataan                                     | 1200                | On-going presentation/proposal submissions to potential   | 2018   |

| Committed / Indicative | Name of the Project                                      | Project Proponent  | Location                              | Rated Capacity (MW) | Project Status   | Target Commissioning   |
|------------------------|--|--|---------------------------------------|---------------------|--|--|
|                        | Expansion Project  | Plant Ltd. Co.   |                                       |                     | customers; 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 GNPower; Ongoing negotiation with tenders;On-going finalization of EPC Contract; Commercial operation by 2018; Project cost is \$1B   |  |
| Indicative             | 2 X 150 MW SLPGC Coal-<br>Fired Power Plant Phase II     | Southwest Luzon Power<br>Generation Corporation<br>(Project Company) | Brgy. San Rafael,<br>Calaca, Batangas | 300                 | Property is currently under Land Lease Agreement (LLA) between Sem-Calaca Power Corporation (SCPC) with PSALM;On-going negotiations with prospective off-takes (DUs and those currently with PSAs and contestable market under Open Access Regime; ACQUIRED Permits: SEC Registration - Aug 2011; ECC application approved 21 Oct. 2011; Issued COE for BOI on 11 March 2013 under the name of SLPGC; On-going securing necessary permits; On-going financing negotiations with prospective banks; Fr negotiation with prospective EPC;Target NTP - End of 2013; Target Testing & Commissioning - 2016; Target Commercial Operation - 2017;Project cost for Phase II is Php19.864B   | Unit I - 2016<br>Unit II - 2016  |
| Indicative             | 2 X 300 MW Masinloc<br>Expansion                         | AES Masinloc Power Partners<br>Co., Inc.                             | Zambales                              | 600                 | Feasibility studies completed 2011; Grid Impact Studies obtained on 7 January 2011; No additional land will be aquired as the expansion will be inside the existing Masinloc Power Plant Complex. NPC/PSALM, however, is still continuing the titling process and land registration for some parcels of land; ECC Amendment was released by DENR on April 23, 2012. The amended DOE Certificate of Endorsement for BOI was released on May 7, 2012; Secured CoE for ERC on September 2011; On-going processing of Certificate of Precondition from NCIP; SAPA amendment is still pending with DENR; Selection of EPC Contractor on going; Commencement of Construction: 2nd Qtr 2014; Undergoing consultation with international / local banks; Target Commissioning: 3rd Quarter of 2017; Project cost is Php49.45B | Unit 3 (300 MW) -<br>October 2017<br>Unit 4 (300 MW) -<br>October 2017 |
| Indicative             | 300 MW Limay Power Plant<br>Project Phase I<br>(2x150MW) | SMC Consolidated Power<br>Corporation                                | Brgy. Lamao, Limay,<br>Bataan         | 300                 | Completed Feasibility Study. Final review and drafting of ECC was done last 16 August 2013 and expected to receive by end of August 2013; Submitted System Impact Study last 12 July 2013, review of the report is still on-going; Requirements for BOI will be submitted once ECC is release; Expected submission on 1st week of September 2013; Agreement for the use of the land was entered between SMC Consolidated Power Corp and leasehold rights holder; On-going securing of other permits and other regulatory requirements; SEC issued last 19 August 2011; Land acquisition completed; On-going  | Unit 1 - 150 MW -<br>Feb. 2016<br>Unit 2 - 150 MW -<br>July 2016       |

| Committed / Indicative | Name of the Project                                   | Project Proponent                     | Location                      | Rated Capacity (MW) | Project Status  | Target Commissioning  |
|------------------------|---|---------------------------------------|-------------------------------|---------------------|---|---|
|                        |   |                                       |                               |                     | 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; Target Date of Ground Breaking: 3rd Week of September 2013;Project cost is \$622.15M / Php25.508B; Target Testing & Commissioning: Unit 1 - December 2015,   |   |
| Indicative             | Quezon Power Expansion<br>Project                     | Quezon Power Phils.                   | Mauban, Quezon                | 500                 | Completed Selection Study in 2012; Coal Sourcing Study completed in 2012; System Impact Study completed in 2007 and is being revalidated. Project will be located within the xisting site. Marketing of Generating Capacities under development; Permits and Other Regulatory Requirements: ECC (Ref.Code 0610-012-4021) issued on 4 June 2007; ECC extension of validity issued on 31 May 2012 and valid until 4 June 2015; Reguest for Amendment to upgraded technology submitted to EMB on 18 June 2013; Additional information requested by EMB on 31 July 2013;QPL is in the process of preparing the documents; Financing arrangements under development; Owner's Engineer selected; Invitation to bid for EPC contract sent out in third quarter of 2013. Bids expected to be received in 4th qtr 2013. SIS completed in 2007 and is being revalidated; ECC issued June 4, 2007; Municipal LGU endorsement issued April 19, 2005; Award EPC contract estimate September 2013; Target commencement of construction - July 2014. Target Testing and Commissioning July 2017. Target Commercial Operation July 2018. Design and construction to start June 2014; Project cost is Php37.8B | July 2017   |
| Indicative             | 300 MW Limay Power Plant<br>Project Phase II(2x150MW) | SMC Consolidated Power<br>Corporation | Brgy. Lamao, Limay,<br>Bataan | 300                 | Completed Feasibility Study. Final review and drafting of ECC was done last 16 August 2013 and expected to receive by end of August 2013; Submitted System Impact Study last 12 July 2013, review of the report is still on-going; Requirements for BOI will be submitted once ECC is release; Expected submission on 1st week of September 2013; Agreement for the use of the land was entered between SMC Consolidated Power Corp and leasehold rights holder; On-going securing of other permits and other regulatory requirements; SEC issued   | Unit 1 - 150 MW -<br>Jan. 2017Unit 2 -<br>150 MW - July<br>2017 |

| Committed / Indicative | Name of the Project                                       | Project Proponent                     | Location                      | Rated Capacity<br>(MW) | Project Status   | Target Commissioning |
|------------------------|---|---------------------------------------|-------------------------------|------------------------|--|----------------------|
|                        | Name of the Project                                       | Project Proponent                     | Location                      |                        | last 19 August 2011; 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; 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; Target Date of Ground Breaking: 3rd Week of September 2013; Project cost is Under Budget Review; Target Testing & Commissioning: Unit 1 - November 2016, Unit 2 - May 2017  Completed Feasibility Study. Final review and drafting of ECC was done last 16 August 2013 and expected to receive by end of August 2013; Submitted System Impact Study last 12 July 2013, review of the report is still on-going; Requirements for BOI will be submitted once ECC is release; Expected submission on 1st week of September 2013; Agreement for the use of the land was entered between SMC Consolidated Power Corp and leasehold rights holder; On-going securing of other permits and other regulatory requirements; SEC issued last 19 August 2011; Land acquisition completed; On-going | Commissioning        |
| Indicative             | 300 MW Limay Power Plant<br>Project Phase III<br>1x300MW) | SMC Consolidated Power<br>Corporation | Brgy. Lamao, Limay,<br>Bataan | 300                    | 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; Target Date of Ground Breaking: 3rd Week of September 2013;Project cost is Under Planning and Budget Review; Target Testing & Commissioning: 2019/2020  | 2019/2020            |
|                        | DIESEL  |                                       |                               | 150.00                 |  |                      |
| Indicative             | Aero Derivative Combined<br>Cycle Power Plant             | Calamba Aero Power<br>Corporation     | Calamba, Laguna               | 150                    | On-going securing of permits and other regulatory requirements; granted clearance by DOE for the conduct of  | TBA                  |

| Committed / Indicative | Name of the Project   | Project Proponent   | Location  | Rated Capacity (MW) | Project Status   | Target<br>Commissioning                           |
|------------------------|---|---|---|---------------------|--|---|
|                        | NATURAL CAS   |   |   | 5,415.00            | GIS; Project cost is Php5.67B  |   |
| Indicative             | NATURAL GAS  300 MW Batangas Mid-Merit Plant Project  | First Gen Corporation                                       | Batangas  | 3,413.00            | On-going securing of permits and other regulatory requirements; Acquisition of the parcels of the land in the target plant site is on-going; Discussion with target off-takers on-going; On-going negotiations for financing arrangements; Project cost is Php10B  | September 2014                                    |
| Indicative             | San Gabriel Power Plant   | First Gas Power Corp.                                       | San Gabriel, Batangas                               | 550                 | Various permits obtained; On-going negotiations for financing arrangements with target completion in 4Q 2012; Discussion with OEM and EPC providers ongoing; discussion of target off-takers targeted for the first half of 2012; Project cost is Php18.48B  | September 2015                                    |
| Indicative             | LNG-Fired Combined Cycle<br>Power Plant * Onshore<br>Regasification and Storage<br>Terminal | Meralco PowerGen<br>Corporation and Chubu<br>Electric Power | Atimonan, Quezon                                    | 1,750               | On-going Feasibility Study (Joint Study Agreement - Meralco PowerGen Corp. & Chubu Electric Power); Acquisition of the parcels of the land in the target plant site in Atimonan, Quezon is on-going (83 hectares); ECC and onshore regasification and storage terminal obtained last 25 April 2013; Foreshore Lease Application submitted to the DENR last March 2013; GIS is currently being conducted by NGCP.Discussion of PSA with potential off-takers on-going; Informal discussions have begun with several banks with respect to the financing of the project.;Applied Certificate of Non-Overlap with National Commission on Indigenous Peoples (NCIP);No cantracts have been awarded to date re: EPC; The parties have yet to agree on when construction will commence. Project cost Php50B Other Issues & Concerns: MPG presented to the DOE on 11 Oct 2013 and still awaiting for the results of a gas master plan being crafted jointly by the DOE and the World Bank before it continues developing the Project. | 2018-2019   |
| Indicative             | 2 x 1,200 MW Combined<br>Cycle Gas Turbine Power<br>Plant Project                           | Atlantic, Gulf and Pacific<br>Company of Manila, Inc        | Limay,<br>Bataan<br>(PNOC-AFC Industrial<br>Estate) | 2,400               | On-going Feasibility Study; Secured Clearance to Undertake GIS from DOE on 3 June 2013; Awaiting for review and approval of conversion of PNOC ECC from Petro Chemicals to LNG for Power; Start Testing & Commissioning Date: Unit 1 - October 2016; Unit 2: October 2018;AG&P has made major financial commitments to the development of the new power plant project at Bataan which includes expert third parties to provide: (i) market data for electricity; (ii) technical feasibility and initial design studies for the project development; (iii) environment support and permitting and (iv) market study on LNG supplies; Details of off-takers for electricity are still being considered;  | Unit 1 - March<br>2017<br>Unit II - March<br>2018 |

| Committed / Indicative | Name of the Project                    | Project Proponent   | Location  | Rated Capacity<br>(MW) | Project Status   | Target Commissioning |
|------------------------|--|---|---|------------------------|--|----------------------|
|                        |  | Trans Asia Oil and Energy<br>Development Corporation<br>(TAOil) | Pilipinas Shell<br>Petroleum Co.'s<br>Tabangao Refinery,<br>Brgy. San Isidro and<br>Tabangao-Ambulong,<br>Batangas City |                        | 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; 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; Commercial Operations by the Third Quarter of 2017 | September 2017       |
|                        | GEOTHERMAL                             |   |   | 120.00                 |  |                      |
| Indicative             | Tanawon Geothermal Project             | Energy Development<br>Corporation                               | Guinlajon, 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; project finance preparation on-going; Project cost estimated \$200M   | December 2018        |
| Indicative             |  | Energy Development<br>Corporation                               | Bacon District,<br>Sorsogon   | 40                     | On-going Feasibility Study; DOE Service Contract within GRESC # 2009-10-003; LGU endorsement, Land Use Permits, and DENR-ECC obtained; Turnkey Contract pending result of feasibility study; project finance pending result of feasibility study; Project cost is Php8.4B  | June 2019            |
| Indicative             | K 3V3non (-eofnermal Project           | Energy Development<br>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; Project cost is Php8.4B  | December 2019        |
|                        | HYDROPOWER                             |   |   | 7.50                   |  |                      |
|                        | Dupinga Hydroelectric Power<br>Project | Constellation Energy<br>Corporation                             | Gabaldon, Nueva<br>Ecija  | 3                      | Confirmed declaration 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.   | October 2015         |
| Indicative             | Ibulao Hydroelectric Power<br>Project  | Hydrocore, Inc.   | Lagawe, Ifugao  | 4.5                    | Confirmed declaration of commerciality on 26 May 2013;<br>Already secured LGU Endorsements, DENR Environmental<br>Compliance Certificate, NCIP Certificate of Precondition, and<br>NWRB Permit. Also submitted Feasibility Study, Detailed<br>Engineering Design and 5-Yr Work Plan.   | May 2015             |
|                        | SOLAR                                  |   |   | 50.00                  |  |                      |

| Committed / Indicative | Name of the Project                             | Project Proponent                           | Location                           | Rated Capacity<br>(MW) | Project Status   | Target Commissioning |
|------------------------|---|---|------------------------------------|------------------------|--|----------------------|
| Indicative             | Currimao Solar Photovoltaic<br>Power Project    | Mirae Asia Energy<br>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; Conducted Groundbreaking Ceremony on Nov 2012; Acquired the DOE Certificate of Confirmation of Commerciality on 12 Jul 2013; Total project cost is US\$51.9Million; | August 2014          |
| Indicative             | Macabud Solar Photovoltaic<br>Power Project     | ATN Philippines Solar Energy<br>Group, Inc. | Brgy. Macabud,<br>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; Total project cost is US\$70.0Million; Facility Study is under review by NGCP;  | February 2016        |
|                        | WIND  |   |                                    | 430.00                 |  |                      |
| Indicative             | Phase 2:<br>Mabitac Wind Power Project          | Alternergy Sembrano Wind<br>Corporation     | Mt. Sembrano,<br>Mabitac, Laguna   | 56                     | 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 BDO Unibank, Inc last 27 July 2012; Final review of GIS by NGCP last 31 July 2012; Project cost is Php7.056B;   | January 2017         |
| Indicative             | Phase 1:<br>Pasuquin East Wind Power<br>Project | Energy Logics Philippines,<br>Inc.          | Pasuquin, Ilocos Norte             | 48                     | Awarded with Wind Energy Service Contract (WESC No. 2009-09-001) on 14 Sept 2009; Acquired Forest Land-Use Agreement with DENR; On-going wind resource assessment; Completed the feasibility study; Acquired various LGU permits and resolutions of support; ECC secured 15 Jun 2010; GIS secured Dec 2010; On-going negotiation with the Dept. of National Defense for the clearance to construct wind farm within the vicinity of Pasuquin Radar Station; Equity Investors committment secured; Selected Preferred EPC Turn-key Tenderer for both the wind energy farm and the connection  | January 2017         |

| Committed / Indicative | Name of the Project                 | Project Proponent   | Location   | Rated Capacity<br>(MW) | Project Status  | Target Commissioning |
|------------------------|-------------------------------------|---|--|------------------------|---|----------------------|
|                        |                                     |   |  |                        | assets; Submitted the Declaration of Commerciality (DOC) with incomplete documentary requirements; The DOE is waiting for the final Work Plan of the project for further evaluation; Project cost is Php6.048B;   |                      |
| Indicative             | Burgos Wind Power Project           | EDC Burgos Wind Power<br>Corporation                        | Nagsurot-Saoit,<br>Burgos, Ilocos Norte  | 150                    | Awarded with Wind Energy Service Contract (WESC No. 2009-09-004) on 14 Sept 2009; Conducted detailed wind resource assessment; Acquired various LGU permits and resolutions of support, DENR Environmental Compliance Certificate, NCIP Certificate of Non-Overlap, Land Lease Agreement with private land owners, Forest Landuse Agreement with DENR for public land,DAR landuse conversion and exemption from CARP and CAAP Height Clearance permit; Final Report of SIS and Connection Agreement with NGCP secured; Supply, EPC and Service Energy Based Availability Agreement with the consortium of Vestas and First Balfuor secured;Submitted proofs of negotiations/certifications from various local and international banks for project financing; Issued certification that EDC, its parent company, has the capacity to finance the project; Acquired DOE Certificate of Confirmation of Commerciality on 16 May 2013; Conducted Groundbreaking Ceremony on 17 Apr 2013; Total project cost is US\$291Million; On-going construction of temporary facilities and mobilization of equipment; Declaration of Commercialty for the additional capacity of 63 MW is under the DOE evaluation; | October 2014         |
| Indicative             | Cavinti Wind Farm Project           | Alternergy Wind Cavinti<br>Corporation (Project<br>Company) | Cavinti, Laguna  | 50                     | Awarded with Wind Energy Service Contract (WESC No. 2009-10-019) on 23 Oct 2009; On-going wind resource assessment; Acquired various LGU permits and resolutions of support; Total project cost is Php7.0Billion; Submitted the Declaration of Commerciality (DOC) with incomplete documentary requirements on 22 Dec 2011; The DOE is waiting for the final Work Plan of the project for further evaluation; Project cost is Php7B;  | January 2017         |
| Indicative             | Caparispisan Wind Energy<br>Project | Northern Luzon UPC Asia<br>Corporation                      | Brgys. Caparispisan<br>and Balaoi,<br>Municipality of<br>Pagudpud, Province<br>of Ilocos Norte | 81                     | Awarded with Wind Energy Service Contract (WESC No. 2009-09-005) on 14 Sept 2009; Conducted detailed wind resource assessment; Conducted detailed wind resource assessment; Completed detailed feasibility atudy; Acquired various LGU permits and resolutions of support, NCIP Certificate of Non-Overlap on 10 Apr 2007, Forest Landuse Agreement with DENR on 20 May 2009, DENR Environmental Compliance Certificate on 23 Jul 2009, DPWH Road Right-of-Way for T/L construction, and CAAP Height Clearance permit; Final Report of SIS and Connection   | September 2014       |

| Committed / Indicative | Name of the Project   | Project Proponent                             | Location                                   | Rated Capacity (MW) | Project Status   | Target Commissioning |
|------------------------|---|---|--|---------------------|--|----------------------|
|                        |   |   |  |                     | Agreement with NGCP secured on 4 Jan 2011; BOI Registered on 23 Jun 2011; Submitted proofs of negotiations/certifications from banks for project financing; Acquired DOE Certificate of Confirmation of Commerciality on 2 Jul 2013; Total project cost is US\$255Million; On-going construction of temporary facilities and mobilization of equipment;  |                      |
| Indicative             | Balaoi Wind Power Project   | Northern Luzon UPC Asia<br>Corporation        | Brgy. Balaoi,<br>Pagudpud, Ilocos<br>Norte | 45                  | Awarded with Wind Energy Service Contract (WESC No. 2010-02-038) on 1 Feb 2010; Conducted detailed wind resource assessment; Completed detailed feasibility atudy; Acquired various LGU permits and resolutions of support, NCIP Certificate of Non-Overlap on 15 Jan 2007, Forest Landuse Agreement with DENR on 20 May 2009, DENR Environmental Compliance Certificate on 23 Jul 2009, DPWH Road Right-of-Way for T/L construction, and CAAP Height Clearance permit; Final Report of SIS and Connection Agreement with NGCP secured on 4 Jan 2011; BOI Registered on 23 Jun 2011; Total project cost is US\$139.5Million; Submitted proofs of negotiations/certifications from banks for project financing; Submitted the Declaration of Commerciality (DOC) with documentary requirements, currently under evaluation by REMB; | August 2015          |
|                        | BIOMASS   |   |  | 30.00               |  |                      |
|                        | 20 MW Waste-to-Energy<br>Project using Thermal<br>Gasifier Conversion | CJ Global Green Energy<br>Philippine Corp.    | Camarines Sur                              | 18                  | On-going construction; (permits obtained (ECC, LGU<br>Endorsement, Land Use Permit, etc)   | June 2015            |
| Indicative             | 12 MW Rice Husk-Fired<br>Biomass Power Plant                          | Green Innovations for<br>Tomorrow Corporation | Bacal 2, Talavera,<br>Nueva Ecija          | 12                  | On-going processing of requirements such as BREOC and Certificate of Registration; (permits obtained (ECC, LGU Endorsement, Land Use Permit, etc), Groundbreaking Ceremony held last 29-30 October 2013;   | October 2015         |

**Total Indicative Rated Capacity: 10,342.50** *Source: DOE* 

Annex 12. Private Sector Initiated Power Projects in Visayas (COMMITTED) as of 31 October 2013

| Committed /<br>Indicative | Name of the Project  | Project Proponent                              | Location                          | Rated Capacity<br>(MW) | Project Status   | Target<br>Commissioning  |
|---------------------------|--|--|-----------------------------------|------------------------|--|--|
|                           | COAL   |  |                                   | 352.00                 |  |  |
| Committed                 | 2 X 135 MW<br>Concepcion Coal-fired<br>Power Plant<br>Phase 1-135MW<br>(1st Unit)<br>Phase 2-135MW<br>(2nd Unit) | Palm Thermal<br>Consolidated Holdings<br>Corp. | Brgy. Nipa, Concepcion,<br>Iloilo | 270                    | Reg. No. CS201018744 on 22 Nov. 2010; DENR ECC: 0606-006-4021 on 27 May 2007 amended 4 Nov 2010/28 June 2012 & amendment for increase in capacity from 100-135MW approved 12 Oct. 2012; DAR Conversion Order No. CON-0809-413 dated Sept 2008; Endorsements from LGUs;BOI Certificate of Registration (2012-114) on 27 June 2012 and amended due to change of ownership/increase in capacity from 100-135MW on 2 October 2012; Connection Agreement with NGCP on 1 Oct. 2012 | Target Testing and<br>Commissioning 1st<br>Unit - 3rd Quarter of<br>2015/ 2nd Unit - May<br>2016 to September<br>2016 (specific dates<br>for the 2nd unit will<br>still be firmed up after<br>1st unit's<br>commencement of<br>construction) |

| Committed /<br>Indicative | Name of the Project | Project Proponent       | Location          | Rated Capacity<br>(MW) | Project Status   | Target<br>Commissioning |
|---------------------------|---------------------|-------------------------|-------------------|------------------------|--|-------------------------|
|                           |                     |                         |                   |                        | Purchase Agreements (EPPA) with VRESCO (5MW) - 14 Nov. 2012, NOCECO (10MW)- 31 Jan. 2013, NORECO(1 MW)- 13 Feb. 2013, CENECO (22.6MW) on 11 March 2013, PECO(10MW) on 20 May 2013, AKELCO (12MW) on 22 Aug. 2013, and CAPELCO (2MW) on 5 Sep. 2013.Negotiations with other offtakers are ongoing.PCPC already have a Power Purchase Agreement with customers from Negros Occidental. Acquired land on Nov. 2010; Feasibility Study completed on March 2006. Environmental Impact Statement secured on June 2006. Secured Hydrology and Flood Relase Analyses and Geotechnical Earthquake Risk Analysis on June 2011. Secured Geotechnical Foundation & Engineering Geological Investigations on June 2011. Secured Geotechnical Foundation Foundation & Geohazards Risk Investigations on August 2011. Completed Market Study of the Power Requirements in the Visayas. Completed Plan and Profiling Works for the Associated Transmission. Final System Impact Study (SIS) Report from NGCP received on 17 July 2012; Ground breaking was held on 15 Jan. 2013; Senior Project Manager of the Owner (SNC-Lavalin) was mobilized at site on 15 July 2013. Commencement date of EPC contract was officially declared on 18 July 2013; Ongoing construction of temporary fence and access road provision for power plant. Commencement of construction for 1st Unit on 18 July 2013; 2nd Unit on Septmbe 2014 (specific dates for the 2nd unit will still firmed up after 1st unit's commencement of construction). Target Commercial Operation 1st Unit - 4th Quarter of 2015/ 2nd Unit - November 2016; Project cost is Php26.356B |                         |
| Committed                 |                     | Toledo Power<br>Company | Toledo City, Cebu | 82                     | On-going securing of permits and other regulatory requirements; secured clearance from DOE for the conduct of GIS and DOE Endorsement for a CNO from NCIP; ECC issued last 28 August 2012; BOI-Certificate of Registration No. 2012-225 last 23 October 2012; Groundbreaking Ceremony held last 11 November 2012; Loan agreement with Banks in place, financial close on 07 March 2013 (70% Loan / 30% Equity); Project fee is Php10.17B   | September 2014          |
|                           | GEOTHERMAL          |                         |                   | 50.00                  |  |                         |

| Committed /<br>Indicative | Name of the Project  | Project Proponent                     | Location                              | Rated Capacity<br>(MW) | Project Status   | Target<br>Commissioning |
|---------------------------|--|---------------------------------------|---------------------------------------|------------------------|--|-------------------------|
| Committed                 |  | Energy Development<br>Corporation     | Nasuji, Valencia, Negros<br>Oriental  | 50                     | Certificate of Commerciality and Certificate of Additional Investment obtained; DOE Service Contract within GRESC # 2009-10-002; LGU endorsement, Land Use Permits, DENR-ECC, and Water Rights obtained; Obtaining necessary permits and requirements; to be financed by EDC; Project accomplishment:Phase 1 (civil works) -22.91%; Phase 2 (Electromechanical works) - 12.12%; Start of construction- jan 2013; Start of Testing and commissioning - Dec 2013, commercial operation - 2nd quarter of 2014; Project cost \$91M | June 2014               |
|                           | HYDROPOWER   |                                       |                                       | 8.00                   |  |                         |
| Committed                 | Miliagida HED  | Sunwest Water &<br>Electric Co., Inc. | Brgy. Igsoro, Bugasong,<br>Antique    | 8                      | On-going construction; Already secured LGU Endorsements, DENR Environmental Compliance Certificate, and Energy Sales Agreement with Antique Electric Cooperative. Also submitted Feasibility Study, Detailed Engineering Design and 5-Yr Work PlanVarious permits obtained (LGU Endorsement, Water Permit last 19 Februaru 2010, Reconnaisance Permit, ECC last 8 July 2010, BOI last 24 November 2010 and DOE Hydropower Service Contract last 1 February 2010); Financing from PNB; Project cost Php1.4B                     | March 2014              |
|                           | BIOMASS  |                                       |                                       | 19.60                  |  |                         |
| Committed                 | Consolacion Landfill<br>Methane Recovery and<br>Electricity Generation | Asian Energy System<br>Corporation    | Cebu                                  | 3.6                    | On-going construction (15% completed); Permits obtained ECC on February 2010; LGU Endorsement, Land Use Permit, etc.) Has EPC and Financial Arrangements secured; Loan approval from DBP granted on 25 May 2011; Project cost is Php199M   | June 2015               |
| Committed                 | 18 MW San Carlos<br>Biomass Project                                    | San Carlos BioPower<br>Inc.           | San Carlos City, Negros<br>Occidental | 16                     | On-going construction (10%) completed; Various permits permits obtained (ECC,LGU Endorsement, Land Use Perit, etc); Has EPC and secured Financial Arrangements; SEC secured 29 July 2009; ECC secured 28 June 2011; GIS completed 4 June 2012; EPC signed 10 Aug. 2012; Commencement of construction on Dec. 2012; Project cost is \$3.5B  |                         |

**Total CommittedRated Capacity: 429.60** *Source: DOE* 

Annex 13. Private Sector Initiated Power Projects in Visayas (INDICATIVE) as of 31 October 2013

| Committed / Indicative | Name of the Project  | Project Proponent  | Location                      | Rated<br>Capacity (MW) | Project Status  | Target Commissioning |
|------------------------|--|--|-------------------------------|------------------------|---|----------------------|
|                        | COAL   |  |                               | 470.00                 |   |                      |
| Indicative             | 1 X 20 MW FDC Danao<br>CFB Coal Power Plant  | FDC Utilities, Inc.  | Danao City, Cebu              | 20                     | Grid Impact Studies completed; Technical and Financial Study completed; Completed Lease Agreement with land owner signed; Signed supply contract with franchised electric cooperatives; Ongoing 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 Industrries (FHI); Coal Supply - Semirara & Indonesian Coal; Ongoing financing arrangements; Selection of EPC Contractor Ongoing; Target Testing and Commissioning - 2016; Project cost is Php1.512B  | 2016                 |
| Indicative             | PEDC Expansion Project<br>Former report (1x150 MW<br>Circulating Fluidized Bed<br>(CFB) Coal-Fired Power<br>Plant) | Panay Energy<br>Development<br>Corporation<br>(Global Business<br>Power Corporation) | 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 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. Ongoing negotiation with probable customers in Panay. Securing necessary permits; secured clearance from DOE for the conduct of GIS; Project cost is Php6.199B.  | 2015                 |
| Indicative             | 300 MW Therma Visayas<br>Energy Project  | Therma 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; Ongoing 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; BOI registered and GIS study on going; Acquisition of the parcels of the land in the target plant site is on-going; Self-funded with ongoing negotiations with financing institutions; Tendering of EPC on-going; Site development works to start by 1st Quarter of 2014; Target Testing and | March 2017           |

| Committed / Indicative | Name of the Project                          | Project Proponent                                      | Location                 | Rated<br>Capacity (MW) |  | Target<br>Commissioning |
|------------------------|--|--|--------------------------|------------------------|--|-------------------------|
|                        |  |  |                          |                        | Commissioning - March 2017; Target Commercial<br>Operation - June 2017; Project cost is Php23B   |                         |
|                        | GEOTHERMAL                                   |  |                          | 89.00                  |  |                         |
| Indicative             | Dauin Geothermal Project                     | Energy Development<br>Corporation                      | Dauin, Negros Oriental   | 40                     | On-going feasibility studies; LGU endorsement obtained; water rights obtained; DENR-ECC obtained; Project cost is Php8.4B  | December 2018           |
| Indicative             | 49 MW Biliran Geothermal<br>Plant Project    | Biliran Geothermal<br>Incorporated                     | Biliran, Biliran         | 49                     | On-going feasibility studies;On-going processing of requirements such as GIS, LGU endorsement, DENR-ECC.   | December 2015           |
|                        | HYDROPOWER                                   |  |                          | 24.00                  |  |                         |
| Indicative             | Timbaban Hydroelectric<br>Power Project      | Oriental Energy and<br>Power Generation<br>Corporation | Madalag, Aklan           | 18                     | Confirmed declaration of commerciality on 28 May 2013; On-going processing of various permits; Submitted Feasibility Study, Detailed Engineering Design and 5-Yr Work Plan. On-going processing of various permits   | August 2017             |
| Indicative             | Igbulo (Bais) Hydroelectric<br>Power Project | Century Peak Energy<br>Corporation                     | Igbaras, Iloilo          | 6                      | Confirmed declaration of commerciality on 26 June 2013; Already secured LGU Endorsement, DENR Environmental Compliance Certificate, and NCIP Compliance Certificate. Also submitted Feasibility Study, DED and 5-Yr Work Plan. On-going processing of various permits.   | January 2015            |
|                        | SOLAR  |  |                          | 30.00                  |  |                         |
| Indicative             | Leyte Solar Photovoltaic<br>Power Project    | Phil. Solar Farm-<br>Leyte, Inc.                       | Ormoc City, Leyte        | 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; Total project cost is US\$72.0Million; Acquired the DOE Certificate of Confirmation of Commerciality on 31 May 2013; | January 2015            |
|                        | WIND   |  |                          | 154.00                 |  |                         |
| Indicative             | Nabas Wind Power Project                     | Petrogreen Energy<br>Corporation                       | Brgy. Pawa, Nabas, Aklan | 50                     | 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; SIS Final Report from NGCP dated 1 Oct 2012; acquired ECC from DENR  | December 2014           |

| Committed /<br>Indicative | Name of the Project                                       | Project Proponent                              | Location                      | Rated<br>Capacity (MW) | Project Status   | Target Commissioning |
|---------------------------|---|--|-------------------------------|------------------------|--|----------------------|
|                           |   |  |                               |                        | 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; Submitted proofs of negotiations/certifications with financial institutions for project financing; Total project cost is US\$118.44M; Acquired the DOE Certificate of Confirmation of Commerciality on 31 May 2013;  |                      |
| Indicative                | 54 MW San Lorenzo Wind<br>Power Project<br>(8 MW & 46 MW) | Trans-Asia<br>Renewable Energy<br>Corporation  | San Lorenzo, Guimaras Island  | 54                     | 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 Resolutions of Support; Secured ECC permit for the wind farm on 19 Feb 2010; Secured NCIP Certificate of Non-Overlap on 23 Jul 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 Nov 2012; 30% equity and 70% debt; Conditionally secured financial commitment from local banks with respective board approvals in Dec 2012; Total project cost is US\$140.9Million; Acquired the DOE Certificate of Confirmation of Commerciality on 16 May 2013; Conducted Groundbreaking Ceremony on 30 June 2013; On-going construction of switchyard and other temporary facilities; | August 2014          |
| Indicative                | Pulupandan Wind Power<br>Project                          | First Maxpower<br>International<br>Corporation | Pulupandan, Negros Occidental | 50                     | Awarded with Wind Energy Service Contract (WESC No. 2010-02-037) on 1 Feb 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 of Non-Overlap on 7 Jan 2013; Secured clearances from MARINA, BFAR, Philippine Navy, and 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   | November 2015        |

| Committed /<br>Indicative | Name of the Project              | Project Proponent                              | Location                      | Rated Capacity (MW) | Project Status  | Target Commissioning |
|---------------------------|----------------------------------|--|-------------------------------|---------------------|---|----------------------|
|                           |                                  |  |                               |                     | Owner; Conducted Public Consultation; Negotiation for financial closing with local financial institutions is ongoing and expected to be completed by February 2014 (70-30 debt equity ratio); Project Cost: \$124,475,000.00; Acquired the DOE Certificate of Confirmation of Commerciality on 17 Sept 2013;  |                      |
|                           | BATTERY                          |  |                               |                     |   |                      |
| Indicative                | 40 MW Battery Storage<br>Project | AES Philippines<br>Power Partners Co.,<br>LTD. | Kabankalan, Negros Occidental | 40                  | On-going feasibility study; Option to lease was secured on 18 September 2013; Lease Contract for finalization. Sanggunian Panlalawigan issued Resolution 98-2077 declaring the lot as industrial. Conversion process on-going. ECC scoping ongoing.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; Target Commencement of Construction: May 2014; Target Commissioning: March 2015 | March 2015           |

**Total IndicativeRated Capacity:** Source: DOE

807.00

Annex 14. Private Sector Initiated Power Projects in Mindanao (COMMITTED) as of 31 October 2013

| Committed /<br>Indicative | Name of the<br>Project  | Project Proponent               | Location   | Rated Capacity<br>(MW) | Project Status   | Target<br>Commissioning |
|---------------------------|---|---------------------------------|--|------------------------|--|-------------------------|
|                           | COAL  |                                 |  | 500.00                 |  |                         |
| Committed                 | 2 X 150 MW  | Therma South Inc.               | Brgy. Binugao, Toril,<br>Davao City and Brgy.<br>Inawayan, Sta. Cruz,<br>Davao Del Sur | 300                    | Secured the required land; Secured permits for site development works; Self-funded with financing arrangements with BDO, BPI, DBP, MBTC and China Bank; various permits obtained including permits for site development works; 240 MW already contracted to off-takers;EPC Contract awarded to Black and Veatch last June 2012. Currently in Project Month 17 of Construction;Power Sales Agreement for 164MW 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); EPC contract awarded to Black and Veatch on June 2012; Secured SEC, BIR, BOC, BOI, ECC permits; LGU/Sangguniang Panlalawigan Davao City Reclassification already granted and issued on 12 Dec. 2011; On-going site preparation works since 1st quarter of 2012; Site development works by 3rd Qtr. of 2012; Target testing and commissioning is on November 2014; Target commercial operation - Unit 1 - 31 March 2015 and Unit 2 - 30 June 2015; Project cost is Php24B | November 2014           |
| Committed                 | 2 X 100 MW<br>Southern<br>Mindanao Coal<br>Fired Power<br>Station | Sarangani Energy<br>Corporation | Brgy, Kamanga,<br>Maasim, Sarangani  | 200                    | All development permits and some construction permits were already secured, on-going procurement of other construction permits; Power Sales Agreement for 105MW between Sarangani Energy Corporation and South Cotabato II is 70MW (SOCOTECO II), Davao del Norte is 15MW (DANECO), Agusan del Norte is 10MW (ANECO), and Agusan del Sur is 10MW (ASELCO) was executed 2011-2012; Please note that except for SOCOTECO1, all these offtakers will be supplied by Phase 1 of the SEC project in Maasim, Sarangani. Hence, Phase 1 is already fully contracted. SOCOTECO II Power Sales Agreement already has ERC final approval while those of ASELCO and ANECO have provisional approvals. Still working on DANECO; SOCOTECO1 on the other hand will be supplied by Phase 2 of SEC; EPC Contract between Owner and Daelim Philippines, Inc. executed on 30 March 2011; Financial Close on 12 December 2012; Project cost \$450M; Notice to Proceed to EPC Contractor issued on 28 December 2012; Commercial operation on September 2015; SEC has complete and full support of its subsidiary companies, Conal Holdings Corporaion (CHC) and Alsons Consolidated Resources(ACR).  | February 2015           |
|                           | OIL   |                                 |  | 15.00                  |  |                         |

| Committed / Indicative | Name of the<br>Project      | Project Proponent                           | Location                          | Rated Capacity (MW) | Project Status   | Target<br>Commissioning |
|------------------------|-----------------------------|---|-----------------------------------|---------------------|--|-------------------------|
| Committed              | 15 MW Diesel<br>Power Plant | Mapalad Energy<br>Generating<br>Corporation | Mapalad, Dalipuga,<br>Iligan City |                     | SEC issued last 24 February 2011, ECC issued last 8 November 2011; PSA with Iligan Light & Power, Inc. (ILPI) for a 15-year supply contract dated 9 May 2011; Project cost Php379M; Financing by Bank of the Philippine Islands (BPI) and Cagayan de Oro Lending Center. Commissioning July 2013; Target Commercial Operation October 2013 |                         |

Total CommittedRated Capacity: Source: DOE

515.00

Annex 15. Private Sector Initiated Power Projects in Mindanao (INDICATIVE) as of 31 October 2013

| Committed /<br>Indicative | Name of the Project  | Draigat   | Location  | Rated Capacity<br>(MW) |  | Target<br>Commissioning                   |
|---------------------------|--|---|---|------------------------|--|---|
|                           | COAL   |   |   | 2,340.00               |  |   |
| Indicative                | ZAM 100 MW<br>Circulating Fluidized<br>Bed (CFB) Coal-Fired<br>Power Station                       | San Ramon<br>Power Inc.                         | Sitio San Ramon, Bgry.<br>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; 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; Commercial operation on June 2016; Project cost is \$292M   | December 2015                             |
| Indicative                | Davao del Norte 20<br>MW Circulating<br>Fluidized Bed<br>Biomass-Coal Fired<br>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; Project cost is Php4.8B   | March 2015                                |
| Indicative                | 300 MW SMC Davao<br>Power Plant Project<br>Phase I   | San Miguel<br>Consolidated<br>Power Corporation | Brgy. Culaman, Malita,<br>Davao del Sur                     | 300                    | Groundbreaking held last 15 July 2013.Land acquisition completed; On-going securing of permits and other regulatory requirements; SEC issued last 26 August 2011; On-going electric power supply contract negotiation with prospective off-takers; On-going negotiations for financing arrangements; Target construction May 2013; Project cost is \$630M / Php25.8B   | 150 MW - Oct. 2015<br>150 MW - March 2016 |
| Indicative                | Sibuguey Power Plant<br>Project  | Philippine National<br>Oil Company<br>(PNOC-EC) | Sibugay, Zamboanga  | 100                    | Technical and economic feasibility study was completed in July 2011; Eligible bidder for Transaction Advisor on 8 August 2012; Ongoing bid processing for the EIS consultancy leading to ECC application and other permits   | September 2016                            |
| Indicative                | 3 X 135 MW FDC-<br>Misamis Circulating<br>Fluidized Bed (CFB)<br>Coal-Fired Power<br>Plant Project | FDC Utilities, Inc.                             | Phividec Industrial Estate,<br>Villanueva, Misamis Oriental | 405                    | Completed Technical and Financial Study; Completed Lease Agreement with PHIVIDEC Industrial Authority signed; Land acquisition completed; On-going negotiations re: marketing of generating capacities; On-going securing of permits and other regulatory requirements such as ECC, water and other permits under process; On-going electric power supply contract negotiation with prospective off-takers; On-going negotiations for financing arrangements; On-going selection of EPC Contractor; Target Testing and Commissioning- June 2016; Target Commercial Operation- September 2016; Project cost is Php30.019B | September 2016                            |
| Indicative                | Power Plant Project  | San Miguel<br>Consolidated<br>Power Corporation | Brgy. Culaman, Malita,<br>Davao del Sur                     | 300                    | Land acquisition completed; On-going securing of permits and other regulatory requirements; On-going negotiations for financing arrangements   | December 2018                             |
| Indicative                | 600 MW SMC Davao   | San Miguel                                      | Brgy. Culaman, Malita,                                      | 600                    | Land acquisition completed; Secured DENR ECC (ECC-CO-1304-   | 300 MW - Dec 2019                         |

| Committed /<br>Indicative | Name of the Project  | Project<br>Proponent                      | Location   | Rated Capacity (MW) | Project Status   | Target<br>Commissioning |
|---------------------------|--|---|--|---------------------|--|-------------------------|
|                           |  | Consolidated<br>Power Corporation         | Davao del Sur                                    |                     | 0010) on 18 June 2013;On-going securing of permits and other regulatory requirements; On-going negotiations for financing arrangements   | 300 MW - Dec 2020       |
| Indicative                | 3x135 MW PsagCorp<br>Coal-fired Power Plant  | GN Power                                  | Kauswagan, Lanao del Norte                       | 405                 | GIS issued by DOE on 20 November 2012. Contracted by 20 Ecs of AMRECO Psag Corp.; Granted LGU Endorsement; On-going EIS for ECC application; On-going securing water permits.  | December 2017           |
| Indicative                | 2x55 MW Balingasag<br>Thermal Power Plant<br>(Circulating Fluidized<br>Bed Combustion<br>(CFBC) Coal-Fired<br>Power Plant Plant) | Minergy Coal<br>Corporation               | Brgy. Mandangoa,<br>Balingasag, Misamis Oriental | 110                 | SEC Registered on February 2013; Certificate of Endorsement (No. 2013-07-007) issued on 1 August 2013; Site Evaluation completed on 14 August 2002; On-going securing of permits and other regulatory requirements such as EIS/ECC; Technical review ongoing; Off-taker - CEPALCO (embedded via double ckt 138 kV line); Main EPC Contractor: Mitsubishi Corporation; Main Subcontractor: Toshiba Plants Systemes * Services Corp. (TPSC); Total project cost - P14,553B | January 2017            |
|                           | GEOTHERMAL   |   |  | 50.00               |  |                         |
| Indicative                | Goothormal   | Energy<br>Development<br>Corporation      | Kidapawan, North Cotabato                        | 50                  | Ongoing resource assessment; DENR ECC obtained; Land use permits obtained; LGU Endorsement obtained; Water right secured; Project cost \$250M  | December 2017           |
|                           | HYDROPOWER   |   |  | 109.60              |  |                         |
| Indicative                | Tagoloan Hydropower  | First Gen<br>Mindanao<br>Hydropower Corp. | Impasugong & Sumilao,<br>Bukidnon                | 20                  | Confirmed declaration of commerciality on 02 July 2013. Already secured LGU Endorsements and DENR Environment Compliance Certificate. Also submitted Feasibility Study and 5-Yr Work Plan.Completed feasibility study; Confirmed declaration of commerciality on 2 July 2013;  | October 2015            |
| Indicative                | J  | First Gen<br>Mindanao<br>Hydropower Corp. | Baungon and Libona,<br>Bukidnon                  | 8                   | Confirmed declaration 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.   | October 2015            |
| Indicative                | J  | First Gen<br>Mindanao<br>Hydropower Corp. | Cabadbaran, Agusan del<br>Norte                  | 14                  | Confirmed declaration 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.  | December 2015           |
| Indicative                | Puyo Hydroelectric<br>Power Project  | First Gen<br>Mindanao<br>Hydropower Corp. | Jabonga, Agusan del Norte                        | 30                  | Confirmed declaration 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;Groundbreaking held on 17 April 2013  | July 2015               |
| Indicative                | Tumalaong<br>Hydroelectric Power   | First Gen<br>Mindanao                     | Baungon, Bukidnon                                |                     | Confirmed declaration of commerciality on 2 July 2013. Already secured LGU Endorsements DENR Certificate of Non-Coverage,  | October 2015            |

| Committed /<br>Indicative | Name of the Project   | Project<br>Proponent                                      | Location                                 | Rated Capacity (MW) | Project Status   | Target<br>Commissioning            |
|---------------------------|---|---|--|---------------------|--|------------------------------------|
|                           | Project   | Hydropower Corp.  |  |                     | and Conditional Water Permit. Also submitted Feasibility Study and 5-Yr Work Plan.   |                                    |
| Indicative                | Culaman<br>Hydroelectric Power<br>Project                   | Oriental Energy<br>and Power<br>Generation<br>Corporation | Manolo Fortich, Bukidnon                 | 10                  | Confirmed declaration of commerciality on 03 June 2013; already submitted feasibility study and 5-Yr Work Plan. On-going processing of various permits   | June 2018                          |
| Indicative                | Limbatangon<br>Hydroelectric Power<br>Project               | Turbines<br>Resource &<br>Development<br>Corp.            | Cagayan de Oro City,<br>Misamis Oriental | 6                   | Confirmed declaration of commerciality on 12 July 2013. Already secured LGU Endorsements, DENR ECC, and NCIP Certificate. Also submitted Feasibility Study, Detailed Engineering Design, and 5-Yr Work Plan.   | January 2017                       |
| Indicative                | Tudaya 1<br>Hydroelectric Power<br>Project                  | Hedcor Sibulan,<br>Inc.                                   | Sta. Cruz, Davao del Sur                 | 6.6                 | Confirmed declaration of commericiality on 04 April 2013. Already secured LGU Endorsements, DENR ECC, Certificate of Precondition, and Conditional Water Permit. Also submitted Feasibility Study, Detailed Engineering Design and 5-Yr Work Plan. Waived their application for FIT.   | April 2015                         |
| Indicative                | Tudaya 2<br>Hydroelectric Power<br>Project                  | Hedcor Tudaya,<br>Inc.                                    | Sta. Cruz, Davao del Sur                 | 7                   | Confirmed declaration of commericiality on 26 June 2013 -HCC# 2013-05-010; Already secured LGU Endorsements, DENR ECC, Certificate of Precondition, and Conditional Water Permit. Also submitted Feasibility Study, Detailed Engineering Design and 5-Yr Work Plan. Completely installed the remaining 18 m conveyance pipe conecting the desander and Sibulan B tailrace; 98.63% completed as of 19 August 2013; Testing and Commissioning - January 2014 | April 2015                         |
|                           | SOLAR   |   |  | 35.00               |  |                                    |
| Indicative                | Darong Solar<br>Photovoltaic Power<br>Project               | PhilNew Energy<br>Inc.                                    | Sta. Cruz, Davao del Sur                 |                     | Awarded with the Solar Energy Service Contract (SESC No. 2011-<br>12-007) on 16 December 2011; Submitted the Declaration of<br>Commerciality (DOC) on September 2011   | September 2015<br>(Subject to FIT) |
|                           | BIOMASS   |   |  | 30.00               |  |                                    |
| Indicative                | Corporation Multi<br>Feedstock Power<br>Generating Facility | Kalilangan Bio-<br>Energy<br>Corporation                  | FIBECO, Anahawan,<br>maramag, Bukidnon   | 10                  | On-going construction; On-going Processing of Requirements;Permits obtained LGU Endorsement, Land Use Permit, etc.) Has EPC and On-going Financial Negotiations;   | December 2015                      |
| Indicative                | Corporation Multi<br>Feedstock Power<br>Generating Facility | Don Carlos Bio-<br>Energy<br>Corporation                  | FIBECO, Anahawan,<br>maramag, Bukidnon   | 10                  | On-going construction; On-going Processing of Requirements;Permits obtained LGU Endorsement, Land Use Permit, etc.) Has EPC and On-going Financial Negotiations;   | December 2015                      |
| Indicative                |   | Malaybalay<br>Bioenergy<br>Corporation                    | FIBECO, Anahawan,<br>maramag, Bukidnon   |                     | On-going construction; On-going Processing of<br>Requirements;Permits obtained LGU Endorsement, Land Use<br>Permit, etc.) Has EPC and On-going Financial Negotiations;   | December 2015                      |

| Committed / Indicative | Name of the Project | Project<br>Proponent | Location | Rated Capacity (MW) | Project Status | Target<br>Commissioning |
|------------------------|---------------------|----------------------|----------|---------------------|----------------|-------------------------|
|                        | Feedstock Power     |                      |          |                     |                |                         |
|                        | Generating Facility |                      |          |                     |                |                         |

**Total IndicativeRated Capacity:** Source: DOE 2,564.60

Annex 16. ERC Approved Capital Expenditure Projects as of 30 September 2013

| APPLICANT   | PROJECT   | DESCRIPTION   | RATIONALE   | PROJECT COST<br>(MPhP)   | DATE FILED/<br>APPROVED                 |
|---|---|---|---|--|---|
| Visayan Electric<br>Company, Inc.<br>(VECO)                 | Construction of An Underground<br>Distribution System Along Osmeña<br>Road  | <ol> <li>Phase 1a</li> <li>Fuente Osmeña Circle to the Provincial Capitol Building</li> <li>Expected year of completion – 2013</li> <li>Phase 2b</li> <li>Fuente Osmeña Circle to P. Del Rosario Street</li> <li>Expected year of completion - 2014</li> </ol>  | To initially comply with the provisions of the City Ordinance; To abide with the Memorandum set forth by the Provincial Government of Cebu; To eliminate outages of the distribution network primarily due to vegetation; To increase reliability of service to its customers; To prevent further unforeseen events of personnel electrocution; To minimize the trimming of trees growing near the power lines, thus, an earth-friendly approach; To cut operational expenses in trimming of trees; and To create a distribution system that is aesthetically pleasing. | 68,352,258.32<br>136,704,516.63  | 30 May 2012/<br>17 June 2013            |
| Sorsogon II<br>Electric<br>Cooperative, Inc.<br>(SORECO II) | Replacement of Old/Defective Recloser at Bacon Feeder and Abuyog Feeder Replacement and Upgrading of Distribution Transformer from Conventional Type to Completely Self-Protecting Type (Stage 1) Installation of Protective Device at the Distribution Line of Balogo, Gubat, and Danlog Substation (Stage 1) Replacement of Old/Defective kWh Meters of Member Consumers at Balogo, Gubat, and Danlog | The project involves the replacement of old/defective Bacon and Abuyog Feeders to meet the minimum saf PDC. It will ensure the safe operation of its distribution is The scope of the project involves the retrieval conventional type distribution transformers (DTs) to a natype DTs with higher capacity at load center to accommonsumers.  The project includes the installation of combination disconnect switch along the distribution lines of Balogo, ensure proper protection and isolation of systems during faults or equipment failures.  The project includes the replacement of old/defective keys to ensure the accuracy of its metering facilities. | rety requirement set forth under the system and avoid degradation and replacement of old/defective ew completely self-protecting (CSP) modate the increasing demand of its cut-outs with expulsion fuse and , Gubat, and Danlog Substations To ng abnormal conditions such as line  | 205,056,774.95<br>1,500,000.00<br>1,148,000.00<br>381,800.00<br>300,000.00 | 03 August 2011/<br>02 September<br>2013 |

| APPLICANT                         | PROJECT   | DESCRIPTION   | RATIONALE  | PROJECT COST<br>(MPhP) | DATE FILED/<br>APPROVED              |
|-----------------------------------|---|---|--|------------------------|--------------------------------------|
|                                   | Substation (Stage 1)  |   |  |                        |                                      |
|                                   | Customer Accessories and Metering Equipment (New Consumer Connections)  | The project includes the acquisition of kWh meter accessories for the standard connection facilities of new   | 1,119,950.00   |                        |                                      |
|                                   | Acquisition of Distribution System Application Software (DSAS) Sanity Checker   | 15,000.00   |  |                        |                                      |
|                                   | Acquisition of Read and Bill  | The project involves the acquisition of Read and Bi expedite its meter reading processing, billing, and collections.  |  | 1,595,380.00           |                                      |
|                                   | Acquisition of Vehicle for CAMD   | SORECO II acquired a service vehicle (Toyota implementation of Read and Bill scheme.  | Avanza) for its monitoring and   | 400,000.00             |                                      |
|                                   |   | Its Consultancy and Training Fees in the preparatic pursuant to Section 2.5 Article II of ERC Resolution No that:   |  |                        |                                      |
|                                   | Consultancy and Training Fees   | "Those operating expenses incurred directly in the c can be capitalized to become part of the value of the as included in the capital expenditure forecasts.  Cost components that can be capitalized are:                |  |                        |                                      |
|                                   |   | Purchase price, including import duties and non-<br>direct attributable costs of bringing the asset to<br>use, e.g. cost of site preparation, initial delive<br>costs, professional fees such as for the architect<br>xxx | working condition for its intended<br>by and handling costs, installation    | 469,400.00             |                                      |
| Mactan Electric<br>Company, Inc.  | Load Transfer Program due to<br>decommissioning of the National<br>Grip Corporation of the Philippines'<br>(NGCP) Load End Substation | Distribution of the existing load of 8MW from NGCP's Load-End Substation  | To address decommissioning of NGCP's load end substation                     | 14,585,161.22          | 08 April 2013/                       |
| (MECO)                            | Acquisition of a 25MVA Mobile Substation  | Acquisition of a 25MVA Mobile Substation to be installed beside the existing MECO Substation 5  | To ensure quality and<br>reliable electric distribution<br>service customers | 55.000.000.00          | 27 August 2013                       |
|                                   |   | Projects for 2011   |  |                        |                                      |
| Central<br>Pangasinan<br>Electric | Installation of New 1-10 MVA<br>Substation in Bautista, Pangasinan<br>with 0.859 km. 69 kV Transmission<br>Line                       | Substation in Bautista, Pangasinan with 0.859 km. 69 kV Transmission the loading capacity of the Bayambang substation which is already 74.16% loaded at its maximum rated capacity.                                       |  |                        | 28 February<br>2012/ 02<br>September |
| Cooperative, Inc.<br>(CENPELCO)   | Uprating of Mangaldan Guilig<br>Substation from 1-5 MVA to 1-<br>15MVA and Installation of 69kV<br>Power Circuit Breakers/Sulfur      | The upgrading of the Mangaldan Substation from its cur will address the capacity problem of the Mangaldan Gui   |  | 20,230,000.00          | 2013                                 |

| APPLICANT | PROJECT   | DESCRIPTION  | RATIONALE  | PROJECT COST<br>(MPhP) | DATE FILED/<br>APPROVED |  |  |
|-----------|---|--|--|------------------------|-------------------------|--|--|
|           | Hexaflouride (SF6)  |  |  |                        |                         |  |  |
|           | Procurement of Materials for New Customer Connections   |  |  | 9,898,870.00           |                         |  |  |
|           | Correction of Big Load Consumers  |  |  | 4,238,000.00           |                         |  |  |
|           | Procurement of Distribution Transformers (DTs)  |  |  | 22,291,815.00          |                         |  |  |
|           | Procurement of Poles  |  |  | 15,853,962.00          |                         |  |  |
|           | Installation of CENPELCO<br>Broadband   |  |  | 7,000,000.00           |                         |  |  |
|           | Procurement of Gadgets for Read and Bill Scheme   |  |  | 3,639,000.00           |                         |  |  |
|           | Procurement of Service Vehicles (L300 and Boom Trucks)  |  |  | 4,380,000.00           |                         |  |  |
|           | Construction of Lingayen Area Office Construction of San Carlos Area  |  |  | 6,498,000.00           |                         |  |  |
|           | Office Office   |  |  | 4,301,427.32           |                         |  |  |
|           | Projects for 2012   |  |  |                        |                         |  |  |
|           | Uprating of the Binmaley Substation from 1-5.6 MVA to 1-7.5 MVA and Transfer of Load from SCCP Substation to Binmaley Substation        | CEPELCO's Binmaley substation's 1-5.6MVA will be capacity. This requires uprating to 1-7.5MVA in order capacity, sustain load growth and attain reliability                      |  | 250,000,00             |                         |  |  |
|           | with an Estimated Load of 0.4 MVA  Construction of Two Kilometer (2   |  |  | 350,000.00             |                         |  |  |
|           | km) Additional Three (3) Phase Line<br>and Load Transferring of Lingayen<br>Substation from Feeder 1 to Feeder<br>2                     |  |  | 529,214.66             |                         |  |  |
|           | Construction of 0.5 km Additional<br>Three (3) Phase Line and Load<br>Transferring of Malasiqui Substation<br>from Feeder 2 to Feeder 1 |  |  | 411,447.00             |                         |  |  |
|           | Construction of 2.487 km Additional Three (3) Phase Line from New 10 MVA Bautista Substation to bayambang Plaza                         | The project involves the transfer of about 1MVA load fro<br>New 10MVA Bautista substation to address the capacity<br>substation.   |  | 1,113,797.17           |                         |  |  |
|           | Upgrading of Sual Substation including Primary Section Protection Devices   | The purpose of upgrading of primary and secondary sid-<br>breakers (PCB) is in compliance with the Philippine Grid<br>connection points to the grid must be controlled by a circ | I Code (PGC) which requires that all cuit breaker.         | 15,101,675.00          |                         |  |  |
|           | Massive Change Meter with Modification (Coverage Area)  | The project aims to enhance existing single phase elect<br>more efficient electronic meters. The project involves the<br>Eleven Thousand Nine Hundred Ninety-sis (111,996) ur    | ro-mechanical kWh meters woth e acquisition of One Hundred | 99,782,455.92          |                         |  |  |

| APPLICANT | PROJECT   | DESCRIPTION   | RATIONALE  | PROJECT COST<br>(MPhP) | DATE F<br>APPRO |
|-----------|---|---|--|------------------------|-----------------|
|           | Procurement of Materials for New Customer Connections   |   |  | 12.299.885.00          |                 |
|           | Correction of Bid Load Consumers  |   |  | 3,797,000.00           |                 |
|           | Procurement of DTs  |   |  | 23,392,498.00          |                 |
|           | Procument of Poles  |   |  | 17,169,893.00          |                 |
|           | Procuremet and Installation of Electronic Reclosers   |   |  | 3,200,000.00           |                 |
|           | Procurement of Gadgets for Read and Bill Scheme  Procurement of Tools and                         |   |  | 7,398,000.00           |                 |
|           | Equipments  Procurement of Service Vehicles   |   |  | 11,625,229.00          |                 |
|           | (L300 and Boom Trucks)  Construction of Sula Area Office  |   |  | 5,780,000.00           |                 |
|           | and Acquisition of Lot (Parcel of Land)   |   |  | 3,304,419.46           |                 |
|           | Construction of Basista Area Office   |   |  | 3,304,419.46           |                 |
|           | Construction of Mangladan Area Office   |   |  | 4,602,013.38           |                 |
|           | Renovation of Main Office   |   |  | 4,338,600.00           |                 |
|           | Conduct of Polychlorinated Bipenyls (PCB)   |   |  | 6,365,912.00           |                 |
|           | Installation of Supervisory Control and Data Acquisition (SCADA)                                  |   |  | 16,000,000.00          |                 |
|           |   | Projects for 2013   |  |                        |                 |
|           | Massive Change Meter with Modification (Coverage Area)  |   |  | 99,782,455.00          |                 |
|           | Uprating of Malasiqui Substation from 2-5 MVA to 1-15 MVA and 69 kV Protection to Circuit Breaker | The propose upgrading of primary and secondary side f compliance with the PGC which requires that all connect controlled by a circuit breaker.                          | tion points to the grid must be                                | 34,076,449.43          |                 |
|           | Uprating of Lingayen Substation from 2-5 MVA to 1-15 MVA and 69 kV Protection to Circuit Breaker  | The proposed project is in compliance with the PGC wh points to the grid must be controlled by a circuit breaker proposed uprating of the Lingayen substation from 2-5N | . This project is a component of the IVA to 1-15 NVA capacity. | 34,426,449.00          |                 |
|           | Procurement of Materials for New Customer Connections   | The project involves the procurement of Sixteen thousar (16,989) units of new kWh meters including accessories involves the clustering of its kWh meters.               | and service drop wires. It also                                | 11,460,592.00          |                 |
|           | Correction of Bid Load Consumers  | The project involves the replacement of old and inefficie transformers and secondary connections that are ten (1 staggered basis  |  | 3,453,500.00           |                 |
|           | Procurement of DTs  | Procurement of Distribution transformers is necessary to  | accommodate the expected load                                  | 24,037,808.00          |                 |

| APPLICANT | PROJECT  | DESCRIPTION   | RATIONALE                            | PROJECT COST<br>(MPhP) | DATE FILED/<br>APPROVED |
|-----------|--|---|--------------------------------------|------------------------|-------------------------|
|           |  | growth and power demand in San Carlos City, Pangasir be able to address the increasing demand of its residen consumers.                             | tial and small commercial            |                        |                         |
|           | Procument of Poles   | Replacement of old and deteriorated poles with steel and concrete poles will ensure the integrity, safety and reliability of the distribution lines |                                      | 16,511,928.00          |                         |
|           | Procuremet and Installation of Electronic Reclosers                                      | The safety and coordination of circuit protection are nec prevent, or at least minimize, the occurrence of electrical                               |                                      | 1,600,000.00           |                         |
|           | Procurement of Gadgets for Read and Bill Scheme Procurement of Tools and                 | The implementation of Read and Bill scheme necessari appropriate gadgets.   | ly requires the procurement of       | 459,000.00             |                         |
|           | Equipments 1700is and  |   |                                      | 3,224,112.00           |                         |
|           | Procurement of Service Vehicles (L300 and Boom Trucks)                                   | CENPELCO intends to acquire twenty (20) units of L300 trucks for operation and maintenance.   | 0 service vehicles and four (4) boom | 12,920,000.00          |                         |
|           | Construction of Aguilar Area Office and Acquisition of Lot (Parcel of Land)              |   |                                      | 3,304,419.46           |                         |
|           | Construction of Mangatarem Area Office   |   |                                      | 3,602,013.38           |                         |
|           | Renovation of Main Office  | CENPELCO's main office comprises the administration project aims to provide decent and aesthetically-enhance operation and convenient to consumers. |                                      | 13,530,957.00          |                         |
|           | Conduct of Polychlorinated Bipenyls (PCB)  |   |                                      | 2,000,000.00           |                         |
|           | Installation of Supervisory Control and Data Acquisition (SCADA)                         | The procurement of SCADA system for its various subseffective monitoring of its power substations, particularly                                     |                                      | 16,000,000.00          |                         |
|           | Marshar Ohanna Matan with  | Projects for 2014   |                                      |                        |                         |
|           | Massive Change Meter with Modification (Coverage Area)  Procurement of Materials for New |   |                                      | 99,782,455.92          |                         |
|           | Customer Connections   |   |                                      | 11,463,248.00          |                         |
|           | Correction of Bid Load Consumers   |   |                                      | 3,198,500.00           |                         |
|           | Procurement of DTs   |   |                                      | 22,249,218.00          |                         |
|           | Procurement and Installation of  |   |                                      | 16,840,911.00          |                         |
|           | Procuremet and Installation of Electronic Reclosers  Procurement of Gadgets for Read     |   |                                      | 1,600,000.00           |                         |
|           | and Bill Scheme  Procurement of Tools and  |   |                                      | 153,000.00             |                         |
|           | Equipments   |   |                                      | 1,609,229.00           |                         |

| APPLICANT                                   | PROJECT  | DESCRIPTION  | RATIONALE   | PROJECT COST<br>(MPhP)         | DATE FILED/<br>APPROVED              |
|---|--|--|---|--------------------------------|--------------------------------------|
|   | Procurement of Service Vehicles (L300 and Boom Trucks)  Construction of Bautista Area Office |  |   | 2,920,000.00<br>3,304,419.00   |                                      |
|   | Conduct of Polychlorinated Bipenyls (PCB) Management   |  |   | 2,000,000.00                   |                                      |
| Visayan Electric<br>Company, Inc.<br>(VECO) | Installation of SCADA  Talisay Substation  | This project is for the construction of 1 x 25/33 MVA, 69/23 kV substation including subtransmission line stringing and lot acquisition at talisay City, Cebu. | To mitigate loadings of adjacent substations, namely: Pardo and Naga Substations, Installation of transformer offers higher transformation and distribution capacity resulting to higher system stability and reliability in the Towns of Talisay and Minglanilla.                                      | 16,000,000.00<br>94,210,529.00 |                                      |
|   | Calamba Substation Transformer 2 Installation  | This project is for the installation of additional 1 x 25/33 MVA. 69/23 kV transformer at Calamba Substation   | To alleviate increasing load demand carried by Calamba TR1 Feeders, which serve both commercial and densely residential customers in areas like Guadalupe, Capitol Site, portion of Punta Princesa, Labangon and Sambag 1 & 2.  To provide system's stability and reliability during unforeseen events. | 35,921,906.00                  | 30 May 2012/<br>16 September<br>2013 |
|   | Banilad Substation Transformer 2 Installation  | This project is for the installation of additional 1 x 25/33 MVA, 69/23 kV Transformer at Banilad Substation.  | To mitigate loadings of adjacent substations namely: Cabancalan, Banilad Transformer 1, and Mandaue Transformer 1 Substations.  To provide higher transformation and fedders' capacity resulting to higher system's stability and reliability.  | 36,040,290.00                  |                                      |
|   | VECO-Mabuhay Filcement Interconnection   | This project is for the construction of 69 kV subtransmission line from VECO-CEBECO Consortium 69 kV line to Mabuhay Filcement Substation.                     | To provide power supply to<br>Mabuhay Filcement   | 9,650,851.00                   |                                      |

| APPLICANT   | PROJECT  | DESCRIPTION  | RATIONALE  | PROJECT COST<br>(MPhP) | DATE FILED/<br>APPROVED |
|---|--|--|--|------------------------|-------------------------|
|   | Substation Control and Protection<br>Wiring Rehabilitation 1 | This project is for the standardization and rehabilitation of protection and control wiring of the substations.  | This will correct and standardize protection and control scheme of the substations especially the old ones of VECO.  It will increase reliability from equipment failure and integrate network management system in SCADA. | 57,773,981.00          |                         |
|   | Substation Control and Protection<br>Wiring Rehabilitation 2 | This project is for the standardization and rehabilitation of protection and control wiring of the substations.  | This will correct and standardize protection and control scheme of the substations especially the old ones of VECO. It will increase reliability from equipment failure and integrate network management system in SCADA.  | 18,954,366.00          |                         |
|   | Substation Control and Protection<br>Wiring Rehabilitation 3 | This project is for the standardization and rehabilitation of protection and control wiring of the substations.  | This will correct and standardize protection and control scheme of the substations especially the old ones of VECO. It will increase reliability from equipment failure and integrate network management system in SCADA.  | 14,896,016.00          |                         |
|   |  | NETWORK PROJECTS  DIELCO has three-thousand thirty three (3,033) pieces  |  |                        |                         |
| Dinagat Island<br>Electric<br>Cooperative, Inc.<br>(DIELCO) | Replacement of Rotten Poles and Cross-Arms                   | 8.316.010.00   | 04 April 2012/<br>09 September   |                        |                         |
| (BILLOO)  | Line Upgrading from single phase to V phase                  | of its consumers.  DIELCO intends to convert its single phase lateral line interruption due to imbalance in its distribution system Villa Ecleo to Sombrado and Nazareth to Edera. |  | 117,000.00             |                         |

| APPLICANT                                       | PROJECT  | DESCRIPTION   | RATIONALE                         | PROJECT COST<br>(MPhP) | DATE FILED/<br>APPROVED               |  |
|---|--|---|-----------------------------------|------------------------|---------------------------------------|--|
|   | Line Extensions  | DIELCO intends to extend its secondary lines on the lo problems and load growth as follows:  1. P-5 Cagdianao (Campo Langit); 2. P-3 Cambinliw; 3. Bag-ao Village; 4. Punta Esperanza; 5. Nueva Estrella; 6. P-1 Valencia; 7. P-3 Valencia; and 8. P-5 Valencia | 596,000.00                        |                        |                                       |  |
|   | NON-NETWORK PROJECTS   |   |                                   |                        |                                       |  |
|   | Procurement of rubber gloves (high voltage) 13.2 kV with leather protector | At present, DIELCO's linemen and workers do not have exposing them to high risk of electrocution. The procure of DIELCO's linemen in compliance with the Occupation (OSHA) protective equipment requirement.  | 40,338.94                         |                        |                                       |  |
|   | Procurement of Load Logger set for PDC Compliance Plan No. ERC-DCP-PDC-008 | DIELCO intends to acquire Load Logger Equipment distribution system status, specially its load balancing ar   | 289,365.00                        |                        |                                       |  |
| First Laguna Electric Cooperative, Inc. (FLECO) | Repair of the Damaged Distribution<br>Lines Due to Typhoon Basyang         | The projects are necessary to immediately restore the improve the reliability of its distribution system.   | e power of the affected areas and | 3,275,007.86           | 08 July 2011/<br>16 September<br>2013 |  |

Source: ERC website

Annex 17. Amount Incurred by NPC for the Grant of MandatoryRate Reduction, 2001- October 2013

| BILLING<br>MONTH | MERALCO          | REST OF LUZON    | TOTAL LUZON      | VISAYAS          | MINDANAO         | TOTAL             |
|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| 2001             |                  |                  |                  |                  |                  | 1,682,000,000.00  |
| 2002             |                  |                  |                  |                  |                  | 3,051,860,000.00  |
| 2003             |                  |                  |                  |                  |                  | 3,223,300,000.00  |
| 2004             |                  |                  |                  |                  |                  | 3,467,100,000.00  |
| 2005             |                  |                  |                  |                  |                  | 3,267,100,000.00  |
| 2006             |                  |                  |                  |                  |                  | 2,624,120,000.00  |
| 2007             |                  |                  |                  |                  |                  | 2,679,840,000.00  |
| 2008             | 786,079,461.86   | 832,317,675.85   | 1,618,397,137.71 | 561,119,367.51   | 635,133,615.12   | 2,814,650,120.34  |
| 2009             | 588,151,359.71   | 706,070,755.91   | 1,194,222,115.62 | 566,935,169.51   | 689,177,083.02   | 2,550,334,367.15  |
| 2010             | 202,192,491.42   | 83,694,601.88    | 285,887,093.30   | 427,552,082.83   | 714,165,916.31   | 1,427,545,092.44  |
| 2011             | 101,220,503.49   | 53,654,853.12    | 155,448,933.21   | 269,063,509.57   | 742,749,200.70   | 1,167,291,643.48  |
| 2012             | 15,534,952.91    | 17,148,265.50    | 34,237,549.12    | 225,359,601.24   | 714,532,284.67   | 974,129,435.03    |
| 13-Jan           | 1,007,519.67     |                  | 1,007,519.67     | 19,039,165.16    | 62,591,536.19    | 82,638,221.02     |
| 13-Feb           | 881,888.40       |                  | 881,888.40       | 19,295,027.19    | 61,232,145.13    | 81,409,060.72     |
| 13-Mar           | 1,098,789.00     |                  | 1,098,789.00     | 18,295,974.54    | 45,672,696.54    | 65,067,460.08     |
| 13-Apr           | 1,343,510.00     |                  | 1,343,510.00     | 16,843,335.83    | 64,181,388.54    | 82,368,234.37     |
| 13-May           | 1,377,485.01     |                  | 1,377,485.01     | 19,753,397.40    | 62,236,657.34    | 83,367,539.75     |
| 13-Jun           |                  |                  |                  | 20,699,689.30    | 62,463,877.66    | 83,163,566.96     |
| 13-Jul           |                  |                  |                  | 19,681,740.89    | 59,494,873.07    | 79,176,613.96     |
| 13-Aug           |                  |                  |                  | 18,639,343.98    | 54,104,257.05    | 72,743,601.03     |
| 13-Sep           |                  |                  |                  | 18,137,267.00    | 52,477,631.87    | 70,614,898.87     |
| 13-Oct           |                  |                  |                  | 18,065,812.58    | 56,117,216.45    | 74,183,029.00     |
| TOTAL            | 1,698,887,961.47 | 1,692,886,152.26 | 3,293,902,021.04 | 2,238,480,484.53 | 4,076,330,379.66 | 29,629,894,038.20 |

Source: NPC