# 12th EPIRA Implementation Status Report

## For the Period Covering November 2007 to April 2008

*Prepared by the*
Department of Energy

*With Contributions from*

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

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# I. INTRODUCTION

The 12th Status Report of EPIRA Implementation contains various developments in the energy sector's evolving transformation to the restructured electricity industry as of April 2008. In addition to the usual contents, this report includes current initiatives to lower electricity rates in line with the results of the Philippine Energy Summit conducted in February 2008.

The EPIRA Law involved substantive and concrete changes to the electric power industry. The EPIRA is anchored on two aspects – the restructuring of the power industry and the privatization of the NPC assets and liabilities. The restructuring of the electric power industry and privatization of NPC necessitate changes in the way business is conducted. The privatization of NPC will affect the balance of power within the electric power industry and the roles and responsibilities of the DOE, ERC, PSALM, TransCo and NPC.

# II. DEVELOPMENTS IN THE PRIVATIZATION EFFORT

This section provides an update on the government's continuing privatization efforts pursuant to the EPIRA.

## A. Privatization of Generating Assets

To date the government has bidded out 1850.4 MW of capacities in Luzon and Visayas which translates to a 48.9 percent privatization level. Details are provided in Table 1.

All plants successfully bidded out before 2007 were fully paid by the said bidders/new owners and have been turned-over except for Pantabangan-Masiway which is under deferred payment structure.

Recently, full payment was received by PSALM from SN Aboitiz Power Corporation for the Magat Hydro Electric Plant on 25 October 2007. All proceeds from the privatization of NPC's generating assets will be used to liquidate NPC's debts, as specified in the EPIRA, to ease the government's debt burden.

*Table 1- Level of Privatization of Generation Assets as of February 2008*

| *Year* | *Generation Plants per Grid* | *Fuel Type* | *Rated Capacity* | *Percent (%) Contribution to Privatization Level* |
|---|---|---|---|---|
| **2004** | **Luzon** | | | |
| | Barit | Hydro | 1.80 | 0.05 |
| | Cawayan | Hydro | 0.40 | 0.01 |
| | **Visayas** | | | |
| | Loboc | Hydro | 1.20 | 0.03 |
| | *Sub-Total (MW and % Level of Privatization)* | | *3.40* | *0.08* |
| | **Mindanao** | | | |
| | Agusan | Hydro | 1.60 | *Not included* |
| | Talomo | Hydro | 3.5 | *Not included* |
| **2006** | **Luzon** | | | |
| | Pantabangan - Masiway | Hydro | 112.00 | 2.58 |
| | Magat | Hydro | 360.00 | 8.30 |
| | ***Sub-Total (MW and % Level of Privatization)*** | | ***472.00*** | ***10.88*** |
| **2007** | **Luzon** | | | |
| | Masinloc | Coal | 600.00 | 13.84 |
| | Calaca | Coal | 600.00 | 13.84 |
| | Ambuklao - Binga | Hydro | 175.00 | 4.03 |
| | ***Sub-Total (MW and % Level of Privatization)*** | | ***1,375.00*** | ***31.71*** |
| ***TOTAL*** | | | ***1,850.40*** | ***48.9 = 49*** |
| ***TOTAL CAPACITY OF LUZON-VISAYAS GRID*** | | | ***3,777.43*** | |

***Source: PSALM***

### 1. *Ambuklao - Binga*

Ambuklao and Binga Hydro Electric Plants were the latest plants privatized. The two plants were successfully bid out as one package on 28 November 2007 to SN Aboitiz Power Hydro Inc. (SNAP Hydro). SNAP Hydro offered a bid price of USD325 million for the Benguet-based power facilities.

The Notice of Award and Certificate of Effectivity of Contract were issued on 20 and 27 December 2007, respectively. Turn-over of Ambuklao-Binga to its winning bidder is expected on or before 19 June 2009, as provided in the Asset Purchase Agreement (APA).

### 2. *Calaca*

On 16 October 2007, the 600-MW Calaca Coal-Fired Thermal Power Plant fetched an offer of about USD786.5 million from the consortium of Calaca Holdco Inc. The consortium is wholly owned by Suez-Tractebel through its wholly-owned subsidiary Belgeelectric Finance B.V. The Notice of Award and Certificate of Effectivity of Contract were issued on 09 November 2007. Turn-over of Calaca to the winning bidder is expected on 02 June 2008.

### 3. *Masinloc*

The PSALM formally turned-over the 600-megawatt (MW) Masinloc Coal-Fired Thermal Power Plant to Masinloc Power Partners Co. Ltd. (MPPCL) on 16 April 2008. MPPCL, a consortium led by Singapore-based AES Transpower Pte. Ltd., was declared the highest bidder for the Masinloc power plant in the bidding held last 26 July 2007 with an offer of USD930 million. The turn-over was earlier than the expected closing date of 24 May 2008 as indicated in the Asset Purchase Agreement (APA) for the Masinloc power plant provides that the transaction should close no later than 270 days after the APA's effectivity date of 28 August 2007.

## B. Updated Sale Sequence of Generation Assets

PSALM released a new sale schedule for the operating and decommissioned plants as well as for the tender of bids for the IPP Administrators (discussed in succeeding section) in its aim to attain 70% privatization level targeted within 2008 so as to facilitate the implementation of open access and retail competition.

The overall sale schedule for the privatization of generation assets may change depending on the convergence of factors such as investors' interest and plant-specific concerns including operations and maintenance agreements for multipurpose hydropower plants, fuel supply agreements (e.g. geothermal steam and coal), and land-related issues, as among the major and critical ones. The specific timetable for the asset or the asset package is released publicly a few months before the bid date.

The government's latest privatization target for the NPC operating and decommissioned plants are shown in Table 2.

To optimize opportunities in privatization, individual plants may be considered for pairing or grouping as may be viable. Meanwhile, PSALM is currently preparing for the launch of sale this year of the following: Amlan Hydro, Bacman Geothermal, Tongonan Geothermal, Iligan I & II Diesel Power Plants.

### 1. *Tiwi-Makban*

The Invitation to Bid (ITB) for the 747-MW Tiwi-Makban power facilities was published on 27, 28 and 29 February 2008. The deadline for the submission of Letter of Interest (LOI) from prospective investors was on 12 March 2008. Of the nine interested bidders, five are from the Philippines, two are from Europe, one is from North America, and one is from the Asia-Pacific Region. Two of the investor groups had previously participated in the first round of bidding for the Tiwi-Makban geothermal power plants scheduled in 2005. PSALM, however, decided at that time to defer the bidding to update the bidding procedures. The bidding package, which includes the draft transaction documents, was issued to interested bidders last 17 March 2008. The public bidding for Tiwi-Makban asset package will be held on 04 June 2008.

*Table 2 - Indicative Privatization Targets for Generating Assets, 2008-2009*

| Year | Grid | Plants | Fuel Type | Rated Capacity (MW) | Level |
|---|---|---|---|---|---|
| 2008 | Luzon | Tiwi | Geothermal | 289.00 | |
| | Luzon | Makban | Geothermal | 457.73 | |
| | Luzon | Bacman | Geothermal | 150.00 | |
| | Visayas | Amlan | Hydro | 0.80 | |
| | Visayas | Palinpinon | Geothermal | 192.50 | |
| | Visayas | Panay | Diesel | 146.50 | |
| | Visayas | Tongonan | Geothermal | 112.50 | |
| | Visayas | Bohol | Diesel | 22.00 | |
| | Mindanao | Iligan | Diesel/ Bunker | 114.00 | |
| | ***Sub-Total of Operating Capacities/Year (excluding Iligan I & II)*** | | | ***1,371.03*** | ***70%*** |
| 2009 | Luzon | Angat | Hydro | 246.00 | |
| | Luzon | Navotas I & II | Diesel | 310.00 | |
| | ***Sub-Total of Operating Capacities/Year*** | | | ***556.00*** | |
| | ***TOTAL*** | | | ***1,927.03*** | ***100%*** |
| | ***TOTAL CAPACITY FOR LUZON AND VISAYAS GRIDS*** | | | ***3,777.43*** | |

***Source: PSALM***

### 2. *Palinpinon-Panay Package*

The sale of Palinpinon-Panay plants as one package was launched on 07 September 2007 with the publication of its ITB. A Pre-Bid Conference followed on 28 October 2007. However, the scheduled bid date on 5 December 2007 was reset pending approval by the Joint Congressional Power Commission of the Steam Supply Agreement (SSA) or Geothermal Resource Supply Contract (GRSC) between NPC-PSALM and PNOC-EDC. The GRSC is intended to provide a steady supply of steam for the Palinpinon Plant.

In case there will be a delay in the approval of the GRSC by the JCPC, PSALM is considering to package Panay Diesel with Bohol Diesel and sell Palinpinon Geothermal Plant separately, as an alternative option.

## C. Privatization of Decommissioned Power Plants

### 1. *Manila Thermal*

On 06 February 2008, PSALM declared a failure of bidding for the decommissioned or retired Manila Thermal Power Plant (MTPP), including the land, when the bid offer of the sole qualified bidder, Gagasan Steel, Inc., did not meet the reserve price.

Accordingly, on 07 March 2008, PSALM commenced the negotiated sale with Gagasan Steel, Inc., after two (2) failed bidding for the decommissioned plant (excluding the land). PSALM issued the Notice of Award to Gagasan Steel Inc., formally declaring the company as the new owner of the decommissioned Manila Thermal Power Plant (MTPP) 15 May 2008. The Notice of Award and Certificate of Effectivity were issued after Gagasan Steel gave to PSALM its performance bond for the MTPP sale amounting to USD1.253 million, or 50% of the total purchase price of USD2.5 million (USD2,506,000.00). The purchase price covers the plant equipment, components, auxiliaries, and accessories of the MTPP, but excluding the underlying land.

Under the terms of the sale, Gagasan Steel will be responsible for dismantling the plant equipment and site clean up. The actual start of the project and mobilization should not go beyond 270 days. The period covers the compliance by both parties of their respective deliverables as stated in the APA and the completion of the payment of the purchase price.

*Table 3 - Indicative Privatization Targets Decommissioned Assets, 2008-2009*

| Year | Grid | Plants | Fuel Type | Rated Capacity (MW) |
|---|---|---|---|---|
| 2008 | Luzon | Manila Thermal | Bunker | 200.00 |
| | Luzon | Bataan | Bunker | 225.00 |
| | Mindanao | Aplaya | Diesel/Bunker | 108.00 |
| | Mindanao | General Santos | Diese/Bunker | 22.30 |
| | ***Sub-Total*** | | | ***555.3*** |
| 2009 | Luzon | Sucat | Bunker | 850.00 |
| | Visayas | Cebu | Diesel/Bunker | 54.00 |
| | ***Sub-Total*** | | | ***904.00*** |
| ***TOTAL*** | | | | ***1,459.30*** |

***Source: PSALM***

As soon as the required deliverables have been met, Gagasan Steel will be given six months, subject to extension, to dismantle the plant building and equipment and clean up the site. Gagasan Steel should secure the necessary permits, licenses or accreditation from relevant government agencies such as the Department of Environment and Natural Resources in the dismantling of the structures and equipment as well as in the environmental clean up of the site in accordance with existing environmental laws and regulations.

PSALM also aims to dispose the six (6) retired/decommissioned plants by end of 2009. The "retired/decommissioned" or non-operational plants generate interest for their scrap value.

The indicative privatization schedule for the decommissioned power plants is shown in Table 3.

## D. Privatization of TransCo Assets

Following are the developments on the privatization of the government's transmission assets.

### *1. 25-Year Concession of TransCo*

After three unsuccessful bids, PSALM achieved a successful bidding for the 25-year Concession of the National Transmission Corporation (Transco) on 12 December 2007 with the Consortium of Monte Oro Grid Resources Corporation, Calaca High Power Corp. and State Grid Corp. of China, collectively, the "Monte Oro Consortium", as the Highest Bidder. The Monte Oro Consortium offered USD3.950 billion for the Concession contract, besting the Consortium of San Miguel Energy Corp., Dutch firm TPG Aurora BV and Malaysia's TNB Prai Sdn bid of USD3.905 billion.

On the 2nd week of January 2008, PSALM issued to the Monte Oro Consortium the "Selection Notice" as the Winning Bidder and thereafter on 17 January 2008, delivered to the Consortium the Execution Version of the Direct Agreement making the Agreement for the Privatization of TransCo through Concession effective as of that date. The Direct Agreement provides for the obligations of PSALM and the Consortium and the conditions precedent prior to the Commencement of the Concession period, including the execution and delivery of the Concession Agreement and other final transaction documents. The Consortium, as the new operator of Transco, is required to secure a franchise from Congress

The Securities and Exchange Commission (SEC) approved the incorporation of the National Grid Corporation of the Philippines (NGCP), the "Concessionaire", established by the Consortium of Monte Oro Grid Resources Corp., Calaca High Power Corp. and State Grid Corp. of China, on 21 February 2007. The Concession Agreement, after the execution and delivery thereof to the Concessionaire, became effective on 28 February 2008. Thereafter, the Concessionaire submitted its franchise application to Congress on 10 March 2008.

The Concession Period of twenty five (25) years starts on the commencement date to be agreed upon by the Parties after the following conditions precedent have been both satisfied: (1) Congress has granted a franchise to the Winning Bidder to carry out the concession; (2) PSALM has secured the consent of financial institutions and lenders of the National Power Corp. pertaining to (i) transfer of transmission assets and all other properties to TransCo as mandated by Section 8 of the EPIRA; and (ii) the privatization of TransCo by way of Concession.

### *2. Privatization of Sub-Transmission Assets*

For the period October 15, 2007 to December 31, 2007, three sale contracts for the sub-transmission assets were signed amounting to PhP 138.85 Million. These were sold to Surigao del Norte Electric Cooperative (SURNECO), Batangas I Electric Cooperative (BATELEC I) and Zambales II Electric Cooperative, Inc. (ZAMECO II).

As of 31 December 2007, TransCo was able to sell PhP 2.49 Billion worth of sub-transmission lines including 320 MVA transformers to 42 Distribution Utilities, both private utilities and electric cooperatives (ECs), when the implementation of the sub-transmission assets disposal started in January 2004. All of these contracts are subject to final ERC approval.

TransCo developed Lease Purchase Agreements for the financing of the acquisitions by ECs of TransCo sub-transmission assets as required by RA 9136. To date, 27 Lease Purchase Agreements have been signed with 26 ECs amounting to about PhP1.6 Billion. TransCo is currently negotiating for the sale of 1,492 Ckm of sub-transmission lines amounting to about PhP 1.36 Billion to 30 interested DUs.

*Table 4 - Summary of Sub-transmission Asset Sale*

| | |
|---|---|
| **Total No. of Contracts Signed** | **45 Packages** |
| Total Length (Ckm) | 1,855 CKm |
| Total Transformer (MVA) | 320 MVA |
| Total Amount Divested (P) | ₱ 2.515 Billion |
| **Total No. of Contracts Under Negotiation** | **30 Packages** |
| Total Length (Ckm) | 1,492.03 CKm |
| Total Transformer | 200 MVA |
| Total Amount Under Negotiation | ₱1.361 Billion |
| Total Sold and Under Negotiation | ₱ 3.876 Billion |

*Source: Transco*

*Table 5 - Summary of Sub-transmission Assets Sale*

| Region | Circuit Kilometer | | MVA | | Value (Php Million) | | No. of Sale Packages Involved | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sold | To be Sold | Sold | To be Sold | Sold | To be Sold* | Sold | To be Sold | Likely to be Sold | Balance | % |
| North Luzon | 474.36 | 2,514.03 | 110.00 | 258.50 | 775.02 | 2,772.53 | 13 | 30 | 12 | 18 | 40.00 |
| South Luzon | 186.61 | 887.58 | | 687.25 | 217.79 | 1,574.83 | 4 | 7 | 3 | 4 | 42.86 |
| Visayas | 411.26 | 983.80 | 210.00 | 297.70 | 678.22 | 1,281.50 | 14 | 12 | 4 | 8 | 33.33 |
| Mindanao | 772.80 | 1,599.62 | | 52.20 | 821.91 | 1,651.82 | 13 | 16 | 11 | 5 | 68.75 |
| **TOTAL** | **1,845.02** | **5,985.03** | **320.00** | **1,295.65** | **2,492.94** | **7,280.68** | **45** | **65** | **30** | **35** | 46.15 |

*Source: Transco*

*Table 6 - Summary of Sale Packages*

| Region | Sold | | | Likely to be Sold | | | | Balance | | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | No. of Sale Packages | No. of DUs | Amount (PhP Million) | No. of Sale Packages | CKM | MVA | Amount (PhP Million) | No. of Sale Packages | Amount* (Php Million) | |
| North Luzon | 14 | 13 | 775.02 | 12 | 624.02 | 10 | 371.33 | 18 | 2,401.20 | 3,547.55 |
| South Luzon | 4 | 4 | 217.79 | 3 | 152.18 | | 93.09 | 4 | 1,481.83 | 1,792.71 |
| Visayas | 14 | 12 | 678.22 | 4 | 158.90 | 190 | 296.63 | 8 | 984.87 | 1,959.72 |
| Mindanao | 13 | 13 | 821.91 | 11 | 556.96 | | 600.27 | 5 | 1051.55 | 2,473.73 |
| **TOTAL** | **45** | **42** | **2,492.94** | **30** | **1,492.06** | **200** | **1361.32** | **35** | **5,919.45** | **9,773.71** |

*Based on PhP1.0 Million per ckm and PhP1.0 Million per MVA*
*Source: Transco*

### E. Transfer of the Contracted Energy Outputs of NPC-IPPs to IPP Administrators

The government advisor for the IPPA submitted a revised Final Report in January 2008, which contains cost-benefit analysis of the two (2) recommended schemes/approaches and analysis of the resulting costs compared to the time-of-use (TOU) rates and long run marginal cost (LRMC).

Parallel to the previous studies conducted, the DOE through the WB, has also procured the services of Intelligent Energy Systems (IES) to conduct a study and develop a market model projecting the market revenue and cost of the different portfolios cited in the earlier study taking into account the movement in the cost of fuel and other significant factors that may influence the electricity market.

These studies were complemented by a Legal Adviser hired by DOE through ADB to assist PSALM in the preparation of the commercial terms, development of a financial model for the approaches being considered and develop the financial criteria as basis for evaluation of offers made. The services of international financial and legal experts are also being procured to assist PSALM in the preparation of the financial and legal agreements (Back to back contracts) that will be part of the bidding documents.

In February and March, the government conducted a series of consultations with the Philippine Independent Power Producers Association (PIPPA), potential investors, plant managers of independent power producers (IPPs), distribution utilities, and members of financial institutions, to ensure that all perspectives are taken into account as the government finalizes the terms of reference and bidding rules for the selection of IPPAs. Feedbacks generated from prospective investors during the forum are currently analyzed and considered in the finalization of the terms of reference for the IPPA/s selection. These include:

1. The structure to be adopted for the IPPA should not affect the ECA/PPA and the PU provided for the projects.
2. Fuel supply responsibility must be transferred to the IPPA
3. Preference is for reduced contracted capacities to be managed; with suggestions to bid out the IPP contracts on a per individual plant level.
4. TSCs / Bilateral contracts should be assigned to the IPPAs to assure stable load operation.

## III. ELECTRICITY RATES

### A. Unbundling of Electricity Rates

This section presents the continuing activities with regards to the unbundling of rates into specific components or charges for each electricity service to ensure that pricing is more transparent and understandable to end-users.

Unbundling of rates is the identification and separation of individual charges for providing electric service to end-users for generation, transmission, distribution, and supply by breaking down the specific components of the electricity bill.

The NPC and the DUs were required in 2001 to submit their unbundled rates for the approval of the ERC. The ERC conducted comprehensive evaluation and analysis of the unbundling applications to verify whether the utilities acted in accordance with the prescribed requirements to determine the reasonableness of the rates.

As of March 31, 2008, the ERC has decided on 99% of the unbundling applications of (i) NPC, (ii) 20 Private Utilities (PUs), and (iii) 120 Electric Cooperatives (ECs).

So far, only the Bauan Electric Light System (BELS) has yet to comply with the unbundling requirement. The management of BELS' facilities was taken over by the First Bay Power Corp. (FBPC). An ERC audit team was sent to BELS/FBPC office in Batangas for an inspection and dialogue with the new management regarding its rates and other concerns regarding its violation of the EPIRA requirements. BELS/FBPC expressed its willingness to file another Uniform Filing Requirements (UFR) application and proposed that they be allowed to use an updated test year (i.e., not 2000 as set by the EPIRA IRR).

Although the ERC has already decided on the unbundling application of Angeles Electric Corp. (AEC), it has not yet implemented the approved unbundled rates. The ERC has already issued a Show Cause Order and AEC submitted its manifestation on February 8, 2008. Said manifestation is currently being evaluated by the ERC.

The ERC has approved all of the unbundling applications for all of the 120 ECs. However, Zambales II Electric Cooperative, Inc. (ZAMECO II) has not yet implemented the approved unbundled rates up to this date, citing that the fire that gutted their office resulted to a financial crisis. A technical meeting was conducted by the ERC's Investigation and Enforcement Division (IED) and ZAMECO II to discuss the issues of non-implementation of the rates approved by the Commission. ZAMECO II agreed to implement the said unbundled rates and other rate adjustments approved since 2002 by April 2008. In case ZAMECO II fails to implement said approved unbundled rates, appropriate sanctions and penalties shall be imposed upon it.

*Table 7 - Electric Cooperative Unbundled Power Rates for Residential Customers*

| Bill Subgroup | Luzon | | Visayas | | Mindanao | | Philippines | |
|---|---|---|---|---|---|---|---|---|
| | P/kWh | % | P/kWh | % | P/kWh | % | P/kWh | % |
| Generation | 4.2645 | 50.72 | 3.0108 | 45.74 | 2.6212 | 46.06 | 3.2988 | 47.85 |
| Transmission | 1.1300 | 13.44 | 1.0683 | 16.23 | 0.9052 | 15.91 | 1.0345 | 15.01 |
| System Loss | 0.7793 | 9.27 | 0.6072 | 9.22 | 0.4996 | 8.78 | 0.6287 | 9.12 |
| Distribution* | 1.7977 | 21.38 | 1.6357 | 24.85 | 1.5250 | 26.80 | 1.6528 | 23.98 |
| Subsidies/Others (Lifeline Disc. & Inter-Class Cross Subsidy | (0.1636) | (1.95) | (0.0839) | (1.28) | (0.1624) | (2.85) | (0.1366) | (1.98) |
| Government Taxes (VAT) Universal Charges (Missionary & Environmental) | 0.5996 | 7.13 | 0.3442 | 5.23 | 0.3023 | 5.31 | 0.4154 | 6.03 |
| **TOTAL** | **8.4075** | **100.00** | **6.5824** | **100.00** | **5.6909** | **100.00** | **6.8936** | **100.00** |

Source: NEA

Note: * Includes Distribution, Supply and Metering Charges

The ECs use cash based rate setting methodology which provides them, being a non-profit organization, cash requirement to operate viably plus fund for reinvestment, rehabilitation and maintenance. PDUs are using the Return on Rate Base (RORB) Methodology and the Performance Based Regulation Methodology (PBR). ECs' average system rate as of 2007 is P6.89 per kilowatthour. Table 7 illustrates the ECs' effective unbundled rates for 2007.

## B. Administration of Universal Charge (UC)

Pursuant to Section 34 of the EPIRA, PSALM continuously administers the fund collected through the UC. Total collections and remittances as of 28 February 2008 amounted to PhP8.21 Billion, out of which PSALM disbursed PhP7.93 Billion from the Special Trust Fund for the environmental charge of NPC and missionary electrification of the NPC-SPUG in accordance with the provisions of the EPIRA. This leaves the UC fund with a balance of PhP275 Million.

*Table 8 - Status of Universal Charge Collections, Remittances and Disbursements as of February 2008*

| Particulars | Collections/ Remittances | Disbursements | Balances |
|---|---|---|---|
| Special Trust Fund – Missionary Electrification | 7,687,393,577.84 | 7,681,118,996.07 | 6,274,581,77 |
| Special Trust Fund- Environmental Charge | 518,510,316.58 | 251,921,041.32 | 266,589,275.26 |
| Main Trust Account Universal Charge | 1,869,920.42 | - | 1,869,920.26 |
| **TOTAL** | **8,207,773,814.84** | **7,933,040,037.39** | **274,733,777.45** |

**Source: PSALM**

There are several DUs which do not regularly remit UC to the PSALM. Relative to this, PSALM imposed interest charges on collecting entities (CEs) with late remittances, in accordance with the Guidelines and Procedures Governing Remittances and Disbursements of the UC (UC Guidelines). To date, PSALM sent letters to 37 CEs requiring, among others, the submission of monthly UC collection and audit reports to serve as basis for setting due date when remittance of UC should be made. It also submitted the list of deficient CEs to the ERC, pursuant to the UC guidelines, which led the ERC to issue show-cause orders to the said deficient CEs. In 2007, fourteen (14) delinquent CEs were audited were regards to their 2006 remittance of UC to PSALM.

### *1. Universal Charge – Missionary Electrification (UC-ME)*

With the decision dated 28 February 2006, the ERC authorized the annual release of P1.34 Billion to NPC-SPUG's missionary electrification from the UC-ME fund for years 2005 to 2008. For 2008, the government has already disbursed the amount of P290 Million.

Meanwhile, the recovery of the Deferred Accounting Adjustment (DAA) portion of NPC-SPUG's Incremental Currency Exchange Rate Adjustment (ICERA) and Generation Rate Adjustment Mechanism (GRAM) was allowed by the ERC through its orders dated 19 December 2005 and 10 February 2006, in the amount of Php2.03 Billion chargeable against the UC-ME fund. As of February 2008, PSALM has partially disbursed P688 Million, of which Php489.4 Million were disbursed in the last quarter of 2007.

### 2. *Universal Charge – Environmental Charge (UC-EC)*

On 22 February 2008, the ERC approved a total fund of P87 Million for the rehabilitation and management of watershed areas. The total collection to date for the UC-EC is P518,510,316.58 while disbursements amounted to P251,921,041.32. The remaining balance for the fund amounts to P266,589,275.26.

### 3. *Universal Charge for Stranded Debts and Stranded Contract Cost*

The Technical Working Group (TWG), composed of representatives from the Department of Energy, PSALM, NPC and TransCo, was created on 19 January 2007 to facilitate the documentary requirements for filing of the petitions for the recovery of NPC's stranded contract costs (SCC) and stranded debts (SD) from the UC.

For the CY 2008 filing for the UC-SCC and SD, PSALM is continuously conducting due diligence for each item under NPC and TransCo's cash flow projections, to ensure that the amount to be recovered from all electricity end-users through the UC-SD and UC-SCC is just and reasonable.

On the filing of UC-SCC and SD petitions with the ERC, PSALM requested to move the deadline to June 30 of every year starting 2008, instead of March 15, as required under the Rules for Recovery of NPC SCC and SD portion of the UC. The request was made because the Certified Financial Statements of NPC and TransCo that are used in the calculations are available after February, when complete Financial Statements of NPC and TransCo are submitted to the Commission on Audit. The requested extension to file the petitions will also allow PSALM some lead time to evaluate and finalize calculations on the proposed UC-SCC and SD charges, and comply with the publication requirements under Rule 3, Section 4(e) of the EPIRA-IRR. The said PSALM request was favorably considered by the ERC on 29 June 2008.

## C. Assumption of Loans of Electric Cooperatives

As of February 2008, PSALM has paid a total of Php7.37 Billion worth of financial obligations of ECs to NEA and other government agencies as well as local government units (LGUs). Table 9 shows a summary of PSALM's outstanding financial obligations to NEA and other EC creditors. From October 2007 to February 2008, PSLAM has made a total payment of Php644.42 Million to NEA. Commensurate with the resultant savings due to the removal of the amortization payments of the ECs' loans, the ERC approved final rate reductions based on the amount of loans condoned and assumed by PSALM which, as of December 2007, was equivalent to Php0.4988 per kilowatt-hour.

Of the Php7.29 Billion total payments to NEA as of February 2008, about 75.15% or P5.48 Billion was used to

*Table 9 - Status of Loan Condonation as of February 2008*

| | Total Assumptions | Actual Payments | | Balance | |
|---|---|---|---|---|---|
| | | Amount | % | Amount | % |
| ECs | 17,977,951,553.40 | 7,289,664,905.59 | 40.55 | 10,688,286,647.81 | 59.45 |
| LGU/OGA | 99,614,779.89 | 80,291,473.88 | 80.60 | 19,323,306.05 | 19.40 |
| **TOTAL** | **18,077,566,333.29** | **7,369,956,379.47** | **40.77** | **10,707,609,953.86** | **59.23** |

**Source: PSALM**

pay the rural electrification loans incurred by the ECs, 15.43% or P1.13 Billion was for the Mini-Hydro, and 9.34% or P680.96 Million was for the Dendro Thermal. Payments intended for house wiring services amounted to only P5.47 Million or 0.08%. Table no. 9 shows the summary of these payments.

PSALM initiated the assumption of loans of ECs owed to other government agencies (OGAs) and LGUs other than NEA. These loans are in addition to the Php18 Billion amount owed by ECs to NEA. These OGAs and LGUs had an estimated loan to NEA of about Php246.1 million. Of this amount, PSALM has approved for assumption P99.6 Million in which P52.6 Million is for OGAs and Php47.0 Million is for LGUs. The balance of Php146.5 Million, representing the application of AKELCO, BISELCO, and VRESCO is still being verified and audited. AKELCO has yet to submit a Memorandum of Agreement and a certification as a precondition to its loan assumption approval. BISELCO's reconciliation of books with the Provincial Government of Palawan is still ongoing. Meanwhile, the Provincial Government of Negros Occidental has issued Resolution No. 0205 series of 2007 approving the request of VRESCO for the condonation by the latter of the interest and penalties on its Ph2.7 Million loan from the government. PSALM is currently working on the approval of loan assumption request by VRESCO.

*Table 10 - Payments per Type of Loans as of February 2008*

| Type of Payment | Amount Paid (in Pesos) | Percentage of Payment |
|---|---|---|
| Rural Electrification Loan | 5,478,097,906.59 | 75.15% |
| Mini-Hydro | 1,125,134,555.00 | 15.43% |
| Dendro Thermal | 680,958,888.00 | 9.34% |
| House Wiring | 5,473,556.00 | 0.08% |
| **TOTAL** | **7,289,664,905.59** | **100.00%** |

*Source: PSALM*

Approval of applications for loan assumption of the three electric cooperatives will be subject to their compliance with the aforementioned requirements. Further, PSALM needs to finalize the auditing of the remaining applications by these ECs and the documentation of the unpaid balance of the approved amount for assumption.

In this situation, it is necessary for the government to undertake program to make ECs more up to date in their payments of NPC and TransCo billings. In this, the ECs will be more compliant to Section 5 of E.O 119, which consequently would facilitate the processing by PSALM of the payments to NEA.

## D. Evaluation and Approval of the Business Separation and Unbundling Plan (BSUP)

To date, the ERC approved the BSUP applications of Trans Asia Oil and Energy Development Corp. (TA-Oil) and Aboitiz Energy Solutions, Inc (AESI).

The following DUs, likewise, filed their BSUP applications for the ERC's evaluation:

1) San Fernando Electric Light & Power Co., Inc. (SFELAPCO)
2) Tarlac Electric, Inc. (TEI)
3) Cabanatuan Electric Corporation (CELCOR)
4) Ibaan Electric & Engineering Corporation (IEEC)
5) Dagupan Electric Corporation (DECORP)
6) La Union Electric Co., Inc. (LUECO)

7) National Transmission Corporation (TRANSCO)
8) Angeles Electric Corporation (AEC)

The evaluation on the said applications was put on hold pending the approval of the Accounting Cost and Allocation Manual (ACAM). The ERC is already in the final stages of coming up with the ACAM to address the BSUP issues raised in the submissions of DUs. The ACAM model for the BSUP applications of DUs shall provide uniform cost allocation methodologies employed in the accounting separation process for revenues, cost, assets, and liabilities. It shall also provide uniform methodologies for the capitalization and depreciation policies to be applied for each account, as well as the transfer pricing policy used in the accounting for inter-segmental transactions.

## E. Removal of Cross-Subsidies

The ERC approved the removal of Inter-class cross-subsidies (*Table 11*) simultaneously with the Unbundling of rates application filed by the DUs. Out of the 120 ECs that have implemented the gradual removal of inter-class cross subsidy, a total of 55 ECs or 46% has fully implemented the inter-class cross subsidy removal scheme as of March 2008. Out of the nineteen (19) Private Utilities (PUs) that have implemented the gradual removal of inter-class cross subsidy, a total of nine (9) PUs or 47% has fully implemented the inter-class cross subsidy removal scheme as of the same period. AEC has not yet implemented its approved unbundling of rates, therefore, has not yet started the removal of its cross subsidy.

*Table 11 - Number of DUs per Inter-class Cross Subsidy Removal Scheme as of March 2008*

| Removal Scheme | No. of ECs | No. of Pus |
|---|---|---|
| Complete Removal | 23 | 1 |
| 2/3 Removal | 10 | 2 |
| ½ Removal | 3 | 2 |
| 1/3 Removal | 51 | 11 |
| ¼ Removal | 33 | 3 |
| **Total** | **120** | **19** |

**Source: ERC**

*Table 12 – List of ECs with Application for True-up of Interclass Cross Subsidy Implementation*

| Name of Cooperative | Period Covered |
|---|---|
| 1. V-M-C Rural Electric Cooperative, Inc. (VRESCO) | September 2003 to August 2006 |
| 2. Bantayan Electric Cooperative, Inc. (BANELCO) | September 2003 to September 2004 |
| 3. Iloilo III Electric Cooperative, Inc. (ILECO III) | March 2004 to November 2005 |
| 4. Camotes Island Electric Cooperative, Inc. (CELCO) | December 2004 to March 2006 |
| 5. San Jose Electric Cooperative, Inc. (SAJELCO) | July 2004 to May 2006 |
| 6. Aklan Electric Cooperative, Inc. (AKELCO) | April 2004 to May 2006 |
| 7. Cebu III Electric Cooperative, Inc. (CEBECO III) | April 2004 to October 2006 |
| 8. Davao del Sur Electric Cooperative, Inc. (DASURECO) | September 2004 to December 2006 |
| 9. Aurora Electric Cooperative, Inc. (AURELCO) | April 2004 to June 2006 |
| 10. Province of Siquijor Electric Cooperative, Inc. (PROSIELCO) | October 2003 to March 2007 |
| 11. Cagayan Electric Cooperative, Inc. (CAGELCO) | June 2004 to May 2007 |
| 12. Davao del Norte Electric Cooperative, Inc. (DANECO) | July 2004 to February 2005 |
| 13. Cotabato Electric Cooperative, Inc. (COTELCO) | February 2004 to September 2005 |

Source: ERC

Following the ERC Guidelines for a "True-Up" Mechanism of the Over or Under Recovery in the Implementation of Inter-class Cross Subsidy Removal by Distribution Utilities promulgated on August 3, 2005, the DUs who have submitted its computation on the true-up

for Inter-Class Cross Subsidy implementation for evaluation and confirmation of the ERC are listed in *Table 12*. The applications are as of March 31, 2008.

## F. System Loss Cap

The ERC adopted Resolution No. 19, Series of 2007: A Resolution Embodying the Energy Regulatory Commission's Policy for Replacing Existing System Loss Caps for Distribution Utilities (attached as Annex "2") on June 7, 2007. Thus, the ERC resolved to adopt the following policy declarations:

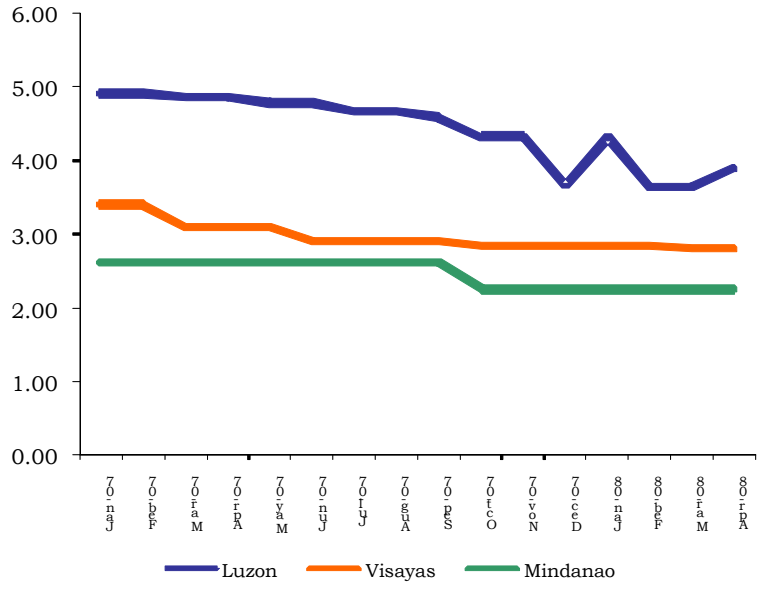
1) The DUs' applications for approval of system loss caps already filed with the ERC shall be dismissed. The DUs who have not filed their applications within the deadline set by the ERC shall not be required anymore to do so or sanctioned for their failure to file;
2) All ECs are required to file their respective applications as required under the guidelines using updated data after three (3) years from effectivity of this Resolution and within the deadline set by the ERC;
3) The ECs are directed to utilize the three (3) year deferment period to build up the pertinent data bases in preparation for the filing of their applications;
4) The ERC's new policies on the treatment of system loss and the setting of new caps for private DUs shall be incorporated in the ERC's evaluation of their respective applications as entrants to PBR; and
5) In the meantime, the ERC shall consider incorporating its policies in the treatment of system loss and the setting of new system loss caps for the ECs in the new rate-making methodology.

## G. NPC Generation Rates

NPC's effective selling rates starting October 2007 were Php4.3184 per kWh in Luzon; ₱2.8343 per kilowatthour in the Visayas; and ₱2.5523 per kilowatthour in Mindanao. The approved rate in Luzon reflects a reduction of 1.6 centavos vis-à-vis previous NPC rate of Php 4.344/kWh.

From the January 2007 level, NPC's effective selling rate reduced significantly in all grids. In Luzon, a reduction of Php1.02 per kWh was

*Figure 1 - Effective NPC SellingRates*
*Php per kWh*



realized from a level Php4.91 per kWh to Php 3.89 with an equivalent monthly average reduction of 1.5 percent. In the Visayas, NPC's effective rate was down to 60 centavos per kWh while in Mindanao, a reduction of 37 centavos was effected. The reduction was due largely to the improvement in peso to dollar exchange rates.

### *1. ERC's final Approval of the 8th GRAM and 7th ICERA*

The applications for recovery of Deferred Accounting Adjustments (DAA) under the 8th Generation Rate Adjustment Mechanism (GRAM) and the 7th Incremental Currency Exchange Rate Adjustment (ICERA) covering the test period February 2006 to June 2006 were filed at the ERC on March 30 and April 2, 2007. The provisional approvals (PA) on these applications were issued by the ERC in its December 17, 2007 for the 8th GRAM and on December 21, 2007 for the 7th ICERA. The final decision made the provisional approvals for Visayas and Mindanao grid permanent while the rates in Luzon were modified. **Error! Reference source not found.** shows the change from provisionally approved rates to the final approved rates.

The Orders further stated that the approved rates for the 8th GRAM and 7th ICERA shall be effective until full recovery of the approved DAA or until a new GRAM and ICERA has been filed and approved by the ERC, whichever comes first.

*Table 13 - 8th GRAM and 7th ICERA Provisional Approval vs. Final Approval*

| | LUZON | VISAYAS | MINDANAO |
|---|---|---|---|
| **Provisional Approval** | | | |
| Generation Charge (RORB-TOU) | 3.8966 | 2.8879 | 2.1030 |
| 8th GRAM DAA 2/ | (0.1863) | (0.1013) | 0.4023 |
| 7th ICERA DAA 2/ | 0.5996 | 0.0300 | 0.0188 |
| Franchise and Benefits to Host Communities (FBHC) | 0.0245 | 0.0177 | 0.0282 |
| TOTAL | **4.3344** | **2.8343** | **2.5523** |
| **Final Approval** | | | |
| Generation Charge (RORB-TOU) | 3.8966 | 2.8879 | 2.1030 |
| 8th GRAM DAA 3/ | (0.0315) | (0.1013) | 0.4023 |
| 7th ICERA DAA 4/ | 0.4288 | 0.0300 | 0.0188 |
| FBHC | 0.0245 | 0.0177 | 0.0282 |
| TOTAL | **4.3184** | **2.8343** | **2.5523** |
| **Difference** | | | |
| Generation Charge (RORB-TOU) | 0.0000 | 0.0000 | 0.0000 |
| 8th GRAM DAA | 0.1548 | 0.0000 | 0.0000 |
| 7th ICERA DAA | (0.1708) | 0.0000 | 0.0000 |
| FBHC | 0.0000 | 0.0000 | 0.0000 |
| TOTAL | **(0.0160)** | **0.0000** | **0.0000** |

Source: NPC

*Notes: 1/ ERC Final Decision dated 13 April 2005*
*2/ ERC Order dated 5 September 2007 (Provisional Authority): effective October 2007 billing month*
*3/ ERC Order dated 17 December 2007 (Final Decision): effective January 2008 billing month*
*4/ ERC Order dated 21 December 2007 (Final Decision): effective January 2008 billing month*

Meanwhile, the recovery of the Deferred Accounting Adjustment (DAA) portion of NPC-SPUG's Incremental Currency Exchange Rate Adjustment (ICERA) and Generation Rate Adjustment Mechanism (GRAM) was allowed by the ERC through its orders dated 19 December 2005 and 10 February 2006, in the amount of Php2.03 Billion chargeable against the UC-ME fund. As of February 2008, PSALM has partially disbursed P688 Million, of which Php489.4 Million were disbursed in the last quarter of 2007.

### 2. *Transition Supply Contracts*

As of April 2008, the ERC approved 119 TSCs with electric cooperatives and private distribution utilities, 56 in Luzon, 31 in the Visayas and 32 in Mindanao. There are TSCs that have expired following ERC approval and been renewed while there are 25 DU-CSEEs are being readied for filing with the ERC. Eighteen (18) DU customers have been allocated to privatised or bidded out power plants.

The NPC's TSC with MERALCO was signed on 16 November 2006 and was implemented the following day 17 November 2006. The TSC was published on 16 December 2006 in two (2) nationally circulated newspapers (Philippine Star and Manila Times). NPC and MERALCO filed a joint application to the ERC the approval of TSC on 18 December 2006 and on 22 January 2007, the ERC granted a provisional authority to implement the TSC.

On 16 March 2008, the ERC issued an order to NPC and MERALCO to submit within five (5) days from receipt of the case explanation/clarifications on some issues for the signing of the said TSC including the volume of the energy contracted.

For non-distribution utility customers, NPC adopted the same ERC-approved template for its other directly-connected customers such as large industrial customers. To date, 138 non-DU customers have secured TSC with NPC. For 2007, the following non-DU customers signed TSC with NPC:

1. United Pulp and Paper Company
2. Melters Steel Coporation
3. Kabayan Ice Plant
4. Partido Rice Mill
5. Philippine Hydro Inc.
6. Embarcadero Land Venture
7. SC Global Coco Products Inc.

## H. Lifeline Rate Subsidy Program

The provision of lifeline rate subsidy is allowed by Section 73 of the EPIRA. To date, the lifeline subsidy is enjoyed by mostly marginalized residential end-consumers falling within the lifeline level determined based on consumption while subsidizing class are the non-lifeliner residential end-users as well as the industrial and commercial consumers.

In November 2007, the total amount of subsidy provided to lifeline consumers was PhP323.4 million which translated an average of Php1.99 per kWh subsidy to lifeline customers all over. For that amount, every non-lifeline customers in the country provided an average of 10 centavos per kWh subsidy. Of the total lifeline subsidy, 84 percent were enjoyed by lifeline customers in the franchise area of PDUs. Summary of DUs applicable lifeline level is in Annex 1.

The average benefit to lifeline customers from PU areas was Php2.23 per kWh while in the franchise area of ECs the average benefit to lifeline customers was Php1.99 per kWh. It should be noted however that the percentage of discount per range of consumption was not considered in this computations due to absence of relative data.

The total consumption of lifeline customers during the month amounted to 162,906,123 kWh wherein 75% were consumed in PU areas while 25% in EC areas. That figure is a measly 4.68% against the total of 3,482,192,310 kWh consumption of both lifeline and non-lifeline customers.

*Table 14 - Summary of Lifeline Subsidy, November 2007*

| Particulars | Private Utilities | Electric Cooperatives | Total |
|---|---|---|---|
| Amount of Subsidy Provided by Non-Lifeline Customers (In Php Million) | 271.804 | 51.589 | 323.394 |
| Total Consumption of Non-Lifeline Customers (million kWh) | 2,576.915 | 742.370 | 3,319.286 |
| Total Consumption of Lifeline Customers (million kWh) | 121.829 | 41.076 | 162.906 |
| Total Consumption of Lifeline and Non-Lifeline Customers (million kWh) | 2,698.745 | 783.446 | 3,482.192 |
| Average Amount of Subsidy Provided by Non-Lifeline Customers (In Peso/kWh) | 0.11 | 0.07 | 0.10 |
| Average Amount of Subsidy Provided to Lifeline Customers (In Peso/kWh) | 2.23 | 1.26 | 1.99 |

Source: ERC

In height of clamour for lower electricity rates, the expansion and improvement of lifeline coverage was proposed by various consumer groups to include the Consumer Oil Price Watch Group headed by Mr. Raul T. Concepcion. The group proposed to revise the application of the lifeline methodology currently implemented by various DUs such that only qualified residential end-users could avail of the said subsidy. Related discussion on initiatives to rationalize lifeline level can be found on Page 38

## I. Mandated Rate Reduction

The implementation of mandated rate reduction (MRR) equivalent to 30 centavos/kWh granted by NPC is provided for by the EPIRA. From the implementation of the MRR in 2001 to 2007, the total grant provided by the government translates around Php20 billion to residential customers. On the average, this translates to an annual grant of around Php3.07 billion. As ECs' sources 100 percent of their electricity from NPC, their customers enjoy the full benefits of MRR. Meanwhile, in the MERALCO franchise area, with a mix source of supply, the average MRR for its residential customers translates only to around 7.5 centavos per kWh. However, given that

*Table 15 - Summary of Php0.30 Mandatory Rate Reduction*

| YEAR | Q1 | Q2 | Q3 | Q4 | TOTAL |
|---|---|---|---|---|---|
| **2001** | | | | | **1,682.00** |
| **2002** | 616.97 | 796.47 | 801.35 | 837.07 | **3,051.86** |
| **2003** | 715.54 | 853.30 | 810.68 | 843.78 | **3,223.30** |
| **2004** | 726.77 | 913.08 | 896.68 | 930.57 | **3,467.10** |
| **2005** | 739.08 | 901.69 | 822.54 | 803.79 | **3,267.10** |
| **2006** | 777.88 | 885.94 | 498.30 | 462.00 | **2,624.12** |
| **2007** | 591.90 | 728.27 | 721.92 | 637.75 | **2,679.84** |
| **Total Rate Reduction to date** | | | | | **19,995.32** |
| | | | *Or Say* | | **Php19.995 Billion** |
| **Average Annual (Php19,995.32 / 6.5 years)** | | | | | **Php3,076.20 Million** |
| | | | *Or Say* | | **Php3.076 Billion** |

Source: NPC

MERALCO sources more than 40 percent of its electricity from NPC, there are issues as to how it determines the proportionate MRR. Hence, the DOE has requested MERALCO to explain on how it determines the MRR pass on to the consumers. The ERC was likewise requested to shed light on the matter and to strictly monitor the compliance of distribution utilities in passing on the full PhP0.30 per kWh MRR being implemented by NPC pursuant to the EPIRA Law. The MRR grant for the period 2001-2007 is summarized in Table 15.

# IV. COMPETITION

## A. Implementation of WESM

The Philippine Wholesale Electricity Spot Market (WESM) went through its last quarter of 2007 and the first two months of 2008 without any significant departure from the market conditions as assessed in the last Market Assessment Report for this EPIRA Update.

### *1. Governance*

Governance of the electricity market is continuously undertaken by the five committees, each with distinct functions.

In terms of surveillance, compliance and enforcement, the Market Surveillance Committee (MSC), recommended the following measures to the PEM Board:

i) Review on the Investigation Report of the Enforcement and Compliance Office (ECO);
ii) Analysis on the Competitiveness of the Visayas Electricity Market; and
iii) Investigation on the possible breaches of the WESM Rules (i.e., non-compliance with the must offer rule and the real time dispatch schedules).

On the possible breaches of the WESM Rules, the MSC endorsed the following to the PEM Board for ECO appropriate actions:

- Investigation on the non-compliance with the must offer rule of 6 generator trading participants for the period December 2006 to May 2007.
- Investigation on the non-compliance with the real time dispatch schedules/instructions of 5 generator trading participants for the period August 2007 to December 2007
- Clarifications and explanations from 26 generator trading participants on the non-compliance with the must offer rule for the period June 2007 to December 2007

- Clarifications and explanations from 2 generator trading participants on the non-compliance with the real time dispatch schedules for the period December 2007 to January 2008.

On 12 February 2008, MSC has promulgated the WESM Manual on Financial Penalty Scheme pursuant to Clause 1.6.3 of the WESM Rules. The financial penalty scheme took effect on 4 March 2008 after compliance with the procedural requirements of the WESM Rules.

With respect to improvements in the rules, the Rules Change Committee (RCC) has approved on January 22, 2008 the proposed amendment to the Dispatch Protocol shortening the gate closure time for the submission of energy offers from two hours to one hour before the RTD execution. Meanwhile, the Dispute Resolution Group (DRG) has likewise proposed for the amendment of the WESM Rules to the RCC. The proposed amendments aim to harmonize and institutionalize the dispute resolution process, such as negotiation, mediation and arbitration. The DRG has finalized in December 2007 the Handbook for Arbitration which will serve as a step-by-step guide for the stakeholders during the arbitration proceeding.

In preparation to the possible launching of WESM in the Visayas, the DOE is doing an independent review of the WESM rules, based on key findings of a study conducted by the DOE with the assistance of consultants through grant from World Bank. The key findings are as follows:

1. Participant Readiness

- Only the Market Operator is prepared.
- The System Operator was understaffed and not really prepared to operate properly in a market context.
- Although the generators had submitted market offers, among others, and have tested the market systems, the Distribution Utilities (private and electric cooperatives) are not really ready to operate in a competitive bidding environment which is manifested in low load side participation.

2. Generation Competition

With the tight demand and supply balance situation particularly in the Visayas, all supply side participants have market power. Hence it is critical to develop first measures to mitigate abuse of market power to ensure that there is adequate competition in both the energy and reserve market. Adequate measures should also be in placed to prevent pass through of

high spot prices to captive and other customers. It is also necessary to have available and dependable capacities, either through existing power plants and/or new generation capacities.

3. Transmission and Generation Competition

One way of increasing generation competition and reducing the potential for generators to exercise local market power would be to increase the transmission capability in Visayas, particularly the transmission from the generation rich areas in Leyte to the load centres in Cebu, Negros and Panay. Such upgrades should also increase the reliability of supply in these areas. Since the activities of the Transco are regulated, these upgrades would not require the WESM to be operating in Visayas. However, such upgrades may not be the least cost way of reliably meeting the growing loads in Visayas. It may be the case that commissioning of generation facilities within Cebu, Negros and Panay would be less costly.

4. Demand and Supply Balance

The tight demand and supply balance situation in Cebu, Negros, Panay and Bohol will make it difficult to start the VIsayas WESM in the immediate future. However, unless this situation can be readily rectified by transmission upgrades alone then new generation plant will be required but private investors are unlikely to build new plant unless there is an operating market, the WESM, or there are government guarantees or long term power purchase agreements. Extending the WESM to Visayas is likely to result in high WESM prices in Cebu, Negros and Panay which should encourage generation in the medium to long term and consequently reduce to frequency or power interruptions. However there is a danger that high WESM prices in Visayas could cause lots of political problems for the market. One solution to this apparent conundrum could be to start the market with (a) high levels of contracting for a number of years and (b) other market power and risk mitigation measures in place.

5. Dysfunctional Aspects of the WESM

Before extending the WESM to Visayas some of the most dysfunctional aspects of the market need to be fixed and immediately addressed. These are summarized as follows:

- Capacity withholding and poor management of plant energy and physical constraints such as Pmins by a number of the NPC and PSALM traders.

- Must run' generating unit pricing and capacity withholding.

- Ex-ante market re-run prices using ex post re-run prices and lack of transparency and speed with which re-run prices are calculated.

- Energy prices being set well below the price cap even when there is involuntary load shedding used to balance supply and demand; and

- Lack of transparency regarding the market network model parameter values used in the ex ante and ex post dispatches and lack of transparency in what security constraints the SO provides the MO.

6. Market Power Mitigating Measures

The following are some of the recommended mitigating measures to minimize market power:

- DOE and ERC to develop management strategies for avoiding and mitigating abuse of market power.

- DOE to review PSALM asset sales to avoid creating portfolios with local market power.

- Ensure Electric Cooperatives, private Distribution Utilities, large customers are highly contracted. Transition Supply Contracts (TSCs) could cover 100% but will cease one year after start of Open Access.

- Establishment of a high level contract on the demand side would require generators to look into the creditworthiness and the corresponding price of the contract.

- Improve the provision of information in terms of availability and timing will allow many stakeholders in Visayas to better manage their affairs and for all stakeholders to scrutinize the market outcomes and judge whether there has been any abuse of market power when there are high prices.

Relative to the resolution of anti-competitive behavior, breaches to the WESM Rules, and disputes, the ERC and PEMC entered into a Memorandum of Agreement on 23 January 2008. The MOA contains protocol that must be observed both by PEMC and ERC in resolving case of anti-competitive behavior, breaches to the WESM Rules, and disputes. Along this line, an ERC-MAG Coordination Group was organized that will meet every quarter of the year to enhance the respective monitoring functions of the PEMC and the ERC. To date, the group will look into the following issues:

- consistency of market monitoring systems between the ERC and MAG

- the development of market monitoring triggers, which refer to the monitoring of certain market conditions through identified reference levels, and is looking forward to their implementation within the year.
- Streamlining of the reporting protocol of MAG to ERC, which provides the procedures and documents required in the reporting of MAG to the ERC in the events of unusual market outcomes and possible anti-competitive behavior.

On matters of technical issues under the WESM Rules, the Technical Committee has discussed and is currently preparing its position on PSALM's request for reclassification of some hydro electric power plants from scheduled generating units to new and renewable generating unit with intermittent energy resource.

*Table 16- Registration Status in Luzon*

| Generators | No. of Generators | Registered* | Registered MW |
|---|---|---|---|
| All Generators | 22 | 17 | 11,867 |
| 1. NPC -Owned (Trading Teams) | 7 | 7** | 2,486 |
| 2. PSALM (NPC-IPPs) (Trading Teams) | 3 | 3 | 6,771 |
| 3.First Gas Power Corporation | 1 | 1 | 1,054 |
| 4. FGP Corp | 1 | 1 | 530 |
| 5. Quezon Power Philippines (Limited) Co. | 1 | 1 | 459 |
| 6.First Gen Hydro Power Corporation | 1 | 1 | 112 |
| 7. SN Aboitiz Power Corp. Inc | 1 | 1 | 380 |
| 8. Trans Asia Power Generation | 1 | 1 | 50 |
| 9. Northwind Power Development Corp. | 1 | 1 | 25 |
| 10.Other IPPs | 5 | 0 | 0 |
| **Customers** | **No. of Customers** | **Registered*** | **Registered MW** |
| All Customers*** | 163 | 5 | 4,739 |
| 1. Private Distribution Utilities | 11 | 1 | 4,588 |
| 2. Rural Electric Cooperatives | 44 | 3 | 137 |
| 3. Other Customers | 108**** | 1 | 14 |
| **Suppliers** | **No. of Suppliers** | **Registered*** | |
| All Suppliers | 3 | 3 | |
| 1. Team (Philippines) Energy Corp. | 1 | 1 | |
| 2. Aboitiz Energy Solution, Inc. | 1 | 1 | |
| 3. Trans-Asia Oil and Energy Development Corp. | 1 | 1 | |

Source: PEMC

*Notes:* ** Registered = Direct Members*
*** Includes privatized plants that are not yet turned-over*
****Includes all directly connected customers*
***** Estimated # of directly connected customers (other than private DUs and ECs)*

Meanwhile, the PEM Audit Committee will seek the assistance of external auditing firms for their conduct of operational audit on the Billing and Settlement systems and procedures. The Terms of Reference and shortlist of auditing firms are being finalized for the said audit.

### 2. *Luzon Commercial Operation*

For nearly two years of operation, the Luzon WESM pool of players remain to be generator dominated with total registration of seventeen (17) generators. Meanwhile, three suppliers have participated in the market as listed in *Table 16*. Demand side participation remains low with on five out of 163 prospective demand side participants registered. Application for direct participation by Sorsogon I Electric

Cooperative, Inc. (SORECO I) and Tarlac I Electric Cooperative, Inc. (TARELCO I) are expected to be approved by the second quarter of 2008.

In preparation for ECs participation in the WESM, the EC-WESM Support Office conducts the EC Traders Training Program (ECTTP) for ECs which have indicated interest to join the WESM. To date, an ECTTP is scheduled to be conducted for future direct participants like Batangas II Electric Cooperative, Inc. (BATELEC II) and Benguet Electric Cooperative, Inc. (BENECO) on April 2008. After attending the ECTTP, BATELEC II and BENECO are also scheduled to apply for direct participation in the WESM in the second quarter of 2008.

Highlights of the trading in Luzon for the period 26 September 2007 to 25 February 2008, covering the 16th to 20th billing or supply months in the WESM can be gleaned on Annex 2.

### *3. Visayas Trial Operations*

The Live Dispatch Operation (LDO) program of WESM is currently being implemented in the Visayas. The LDO program is the final phase of the Trial Operations Program and serves as the final phase of preparation for commercial operation. It is the actual implementation of the Security-Constrained Dispatch Schedule (SCED) produced by the Market Dispatch Optimization Model (MDOM) in the Market Management System (MMS) without any financial settlement.

The LDO is intended to enable the Trading Participants, the System Operator and the Market Operator to perform their respective roles and responsibilities in preparation for the WESM Commercial Operation. It is also intended to finalize testing of all interfaces to the MMS, including WESM procedures and protocols, as well as to address operational issues that have arisen that may impact on the commercial operations of the WESM. The LDO is still on-going and will continue until the commencement of commercial operations in the Visayas.

*Table 17- Registration Status in Visayas*

| Generators | Number of Resources | Registered | Registered MW |
|---|---|---|---|
| All Generators | 27 | 22 | 1,631 |
| 1. NPC | 16 | 15 | 768 |
| 2. PSALM | 1 | 1 | 591 |
| 3. Global Business Power Corporation/PPC | 4 | 3 | 104 |
| 4. PNOC-EDC | 1 | 1 | 49 |
| 5. Other IPP's | 5 | 2 | 120 |
| **Customers** | **Number of Customers** | **Registered** | **Registered MW** |
| All Customers | 58 | 14 | |
| 1. Private Distribution Utilities | 4 | 3 | |
| 2. Rural Electric Cooperatives | 27 | 10 | |
| 3. Industrial & Commercial Loads | 27 | 1 | |

## B. Open Access and Retail Competition

The implementation of open access and retail competition is still a much-awaited development in the EPIRA regime. To date, efforts were exerted to facilitate early implementation of OARC. Even President Arroyo has directed the DOE and other

entities to fast track the implementation of OARC. This includes among others, energy summit directives and possible amendment to the EPIRA by either lowering or removing the threshold for open access.

1. ***ERC preparation of pertinent rules and regulations relative to the implementation of OARC***

As the industry waits for the completion of contingent provisions before open access and retail competition could be implemented, the Energy Regulatory Commission has prepared pertinent rules and regulations that will guide the industry in its transition to OARC regime. To date, the ERC has put in placed rules on the following:

- Rules on Rate Filing by the Supplier of Last Resort (SOLR) – approved on 10 October 2007, this provides for a uniform filing system for applications on approval of SOLR rate/charges to the affected Contestable Market to ensure recovery of the allowable premium and reasonable return and other costs associated with the SOLR service.
- Rules for Customer Switching – approved 26 September 2006. These rules established the standards and procedures governing the commercial transfer of customers from one competitive electricity supplier to another, and at the same time, ensure the efficient and timely exchange of information between and among competitive retail market participants
- Rules for Contestability – approved 23 January 2008, which clarifies and establishes the conditions and eligibility requirements for end-users to be part of the Contestable market.

2. ***Presidential Directives Fast-tracking the implementation of OARC***

The Energy Summit conducted last February led to various directives of the President towards early implementation of OARC. Along this line, the DOE has studied two options:

a. *Proposed Voluntary Open Access*

Collected efforts from various industry players led particularly by the MERALCO, PIPPA, Private Electric Plant Owners Association (PEPOA) and various industry sector groups has put forward a proposal for the early voluntary implementation of open access. Former Energy Secretary Vince Perez led the recommending group which coordinated with the DOE on the possibility of implementing the proposal. The Terms of Reference for this undertaking was discussed in the Power Stakeholders Meeting and it was agreed among private and government entities that the proposal would not redound to the expected benefits due to the following:

- The proposal would be subjected to legal challenges
- The proposal is anti-competitive and discriminatory

- The proposal will not result to lower prices due to the potential stranded costs that would be eventually passed on to the consumers through the universal charge

*b. Open Access in the Economic Zones*

One of the most probable way of implementing open access and retail competition without violating the EPIRA was through the PEZA Charter. Under Section 12c of RA 7916, PEZA can "regulate and undertake the establishment, operation and maintenance of utilities, other services and infrastructure in the ECOZONE, such as heat, light and power, water supply, telecommunications, transport, toll roads and bridges, port services, etc., and to fix just reasonable and competitive rates, fares, charges and fees therefore;".

Hence, recognizing PEZA's authority under its Charter, open access will initially be implemented in the economic zones through PEZA Board Resolution Nos. 07-393 and 07-394 which provides for the Guidelines in the Registration of Electric Power Generation Facilities/Utilities/Entities Operating Inside the Ecozones and Guidelines for the Supply of Electricity in the Ecozones, respectively.

Currently, however, PEZA is still barred from implementing the law in the economic zones because of the injunction granted by the Pasig Regional Trial Court in favor of MERALCO and PEPOA. The basis used by MERALCO and PEPOA in their petition for injunction was the Memorandum of Agreement signed by ERC and PEZA on 11 March 2004 which provides for the terms and conditions in the registration and operation of power generation utilities in PEZA-owned and administered economic zones.

As a sign of government support to PEZA and to expedite the President's directive for early Open Access, ERC and PEZA signed the Rescission Agreement during the 29 February 2008 meeting which rescinds the above mentioned MOA. The agreement will thus weaken the position of MERALCO/PEPOA in the case and the DOE is hopeful that the injunction will be lifted immediately. The following is the chronology of efforts undertaken by the DOE through the regularly conducted Power Stakeholders Meeting towards the resolution of the injunction case.

- On 12 March 2008, MERALCO requested clarification from PEZA on the coverage of PEZA Guidelines under Board Resolution Nos. 07-393 and 07-394. In addition, MERALCO agreed to meet with PEZA, with Justice Vitug representation.
- On 13 March 2008, PEZA sent the clarificatory letter to MERALCO (Annex 1) indicating the coverage of PEZA Guidelines
- On 17 April 2008, PEPOA agreed to join the meeting with PEZA, ERC and MERALCO and has agreed to create a Technical Working Group composed of PEZA, MERALCO and PEPOA which would work to immediately resolve the remaining issues on the PEZA Guidelines as raised by MERALCO and PEPOA.

- On 21 April 2008, the TWG met and discussed technical issues on the PEZA Guidelines, to include franchising and regulatory powers among others. The result of the discussion is still under review.

## C. Market Power Monitoring

On 12 March 2008, the ERC issued Resolution No. 4 Series of 2008, which sets the market share limitations for installed generating per grid and on the national grid for the year 2008. The limit set forth as shown in Table 18 will be enforced by the ERC until its next adjustment on or before March 15, 2009.

Based on the said Resolution, NPC's generating assets share of the total installed capacity for the national grid stands at 18.5 percent. In Luzon, its share is around 10.9 percent however, this still includes the already privatized Masinloc, Calaca and Ambuklao power plants which has a combined capacity of 368.8 MW. If these plants are classified under private IPPs, NPC's share in the national grid and Luzon grid will be reduced to 15.7 percent and 7.3 percent, respectively. The installed capacity data and share per grid is summarized on Table 19.

With regards to the issue on the proposed reduction of privatization threshold in the House Bills intending to amend EPIRA, the simulations on the resulting market share of NPC and its IPPs are simulated on Annex 3.

*Table 18 – Installed Generating Capacity and Market Share Limitation for 2008**

| Grid | Installed Generating Capacity (kW) | % Market Share Limitation as per RA 9136 | Installed Generating Capacity Limit (kW) |
|---|---|---|---|
| Luzon | 10,060,904.00 | 30% | 3,018,271.20 |
| Visayas | 1,637,270.40 | 30% | 491,181.12 |
| Mindanao | 1,703,348.00 | 30% | 511,004.40 |
| National | 13,401,522.40 | 25% | 3,350,380.60 |

*Based on ERC Resolution No. 4 Series of 2008

*Table 19 – Installed Capacity and Share per Grid**

| Installed Capacity (MW) | LUZON | VISAYAS | MINDANAO | Philippines |
|---|---|---|---|---|
| **NPC[1]** | 1,100.15 | 438.32 | 940.80 | 2,479.26 |
| **NPC-IPP[2]** | 6,317.16 | 785.46 | 668.48 | 7,771.10 |
| **Sub-total NPC/NPC-IPP[3]** | **7,417.30** | **1,223.78** | **1,609.28** | **10,250.36** |
| First Gen/First Gas | 1,608.50 | 69.00 | 1.60 | 1,679.10 |
| Other IPPs | 1,035.10 | 344.49 | 92.47 | 1,472.06 |
| **Sub-total Private IPPs** | **2,643.60** | **413.49** | **94.07** | **3,151.16** |
| **TOTAL** | **10,060.90** | **1,637.27** | **1,703.35** | **13,401.52** |
| **Share in Percentage (%) per Grid** | | | | |
| **NPC** | 10.93% | 26.77% | 55.23% | 18.50% |
| **NPC-IPP** | 62.79% | 47.97% | 39.25% | 57.99% |
| **Sub-total NPC/NPC-IPP** | **73.72%** | **74.75%** | **94.48%** | **76.49%** |
| First Gen/First Gas | 15.99% | 4.21% | 0.09% | 12.53% |
| Other IPPs | 10.29% | 21.04% | 5.43% | 10.98% |
| **Sub-total Private IPPs** | **26.28%** | **25.25%** | **5.52%** | **23.51%** |
| **TOTAL** | **100.00%** | **100.00%** | **100.00%** | **100.00%** |

***Based on ERC Resolution No. 2 Series of 2008**

*Note: [1] Includes Masinloc, Calaca and Ambuklao*

*[2] Includes Binga as among NPC-IPPs*

*[3] PNOC-EDC plants are included in the NPC-IPP plants*

# V. ENERGY SUPPLY SECURITY AND RELIABILITY

The following discussion provides an update on the country's power supply and demand situation for the year 2007. It likewise presents updates on the coal supply situation which slightly affected the country's power supply base particularly in the first quarter of 2008.

With reference to the ERC Resolution No. 4 Series of 2008, the difference between the ERC declared installed capacity data and DOE data further widened to 2,538 MW because of the difference in the methodology for determining such data. A comparison is shown on Table 20.

*Table 20 - Installed Capacity Data Comparison*

| GRID | DOE Data | ERC Data | Difference |
|---|---|---|---|
| Luzon | 12,174.54 | 10,060.90 | 2,113.64 |
| Visayas | 1,831.62 | 1,637.27 | 194.35 |
| Mindanao | 1,933.42 | 1,703.35 | 230.08 |
| National | 15,939.58 | 13,401.52 | 2,538.06 |

## A. 2007 Supply and Demand Situation

### 1. *Installed Capacity*

Total installed generating capacity as of December 2007 was 15,937 MW. Coal-fired power plants accounted the largest share in terms of installed capacity, contributing 4,213 MW or 26.4 percent of the mix. Majority of these coal plants are located in Luzon grid. Oil-based power plants accounted for 3,616 MW or 22.7 percent of the total capacity. Hydroelectric power plants, which is the main source of electricity in Mindanao grid accounted for 3,289 MW or 20.64 percent. Natural gas fired power plants in Luzon grid amounted to 2,834 MW or 17.78 percent; geothermal power plants which are mostly located in Visayas grid accounted for 1,958 MW or 12.29 percent to the total installed capacity. Other renewable energy such as wind and solar accounted for only 0.16 percent of the capacity mix. (See figure 1)

*Figure 3 - Installed Capacity by Energy Resource*

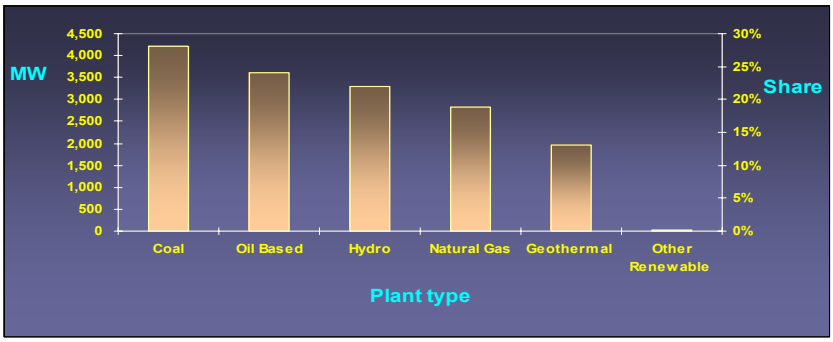
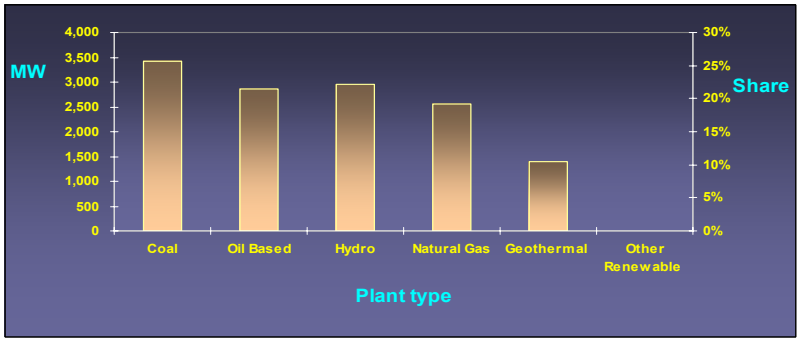



*Figure 2 - Dependable Capacity by Energy Resource*



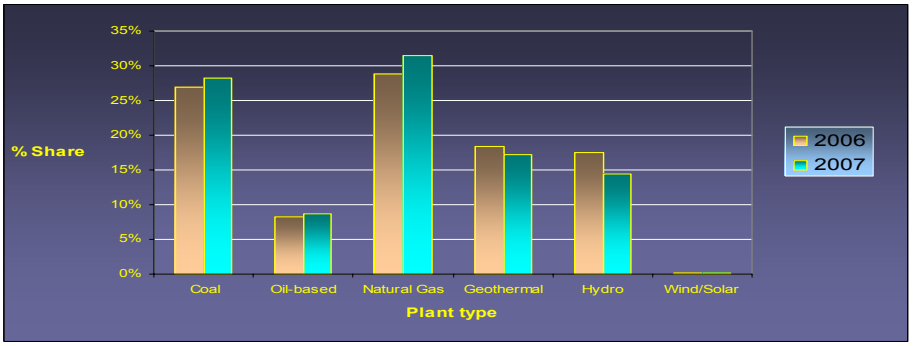

### 2. *Dependable Capacity*

Dependable capacity refers to the maximum capacity a power plant can sustain over a specified period modified for seasonal

limitation less the capacity required for station service and auxiliaries. It changes due to various factors affecting the actual operational conditions of the power plants like allowances for the planned/scheduled outage rate, forced outage rate, de-rating and water inflow of hydro plants. The dependable capacity of hydro plants were high during rainy months and low during dry months.

Out of the 15,937 MW installed capacity, 13,205 MW or 83 percent are the corresponding dependable capacity reported. The generation capacity information came from the owners of existing power generating facilities and from the operator of the power grid.

*Figure 4 – Generation Mix by Resource*




### 3. *Generation*

Gross power generation increased by 4.98% from 2006 to 2007, reaching 59,612 gigawatthours (GWh)1 in 2007 from 56,784 in 2006. Natural gas fired power plants remain the dominant source of fuel for power generation after replacing coal-fired power plants in 2005. Its share in the mix is consistently increasing from 18.1 percent in 2002 to 31.52 percent in 2007.

*Figure 5 - Gross Power Generation Share by Ownership/Utility*

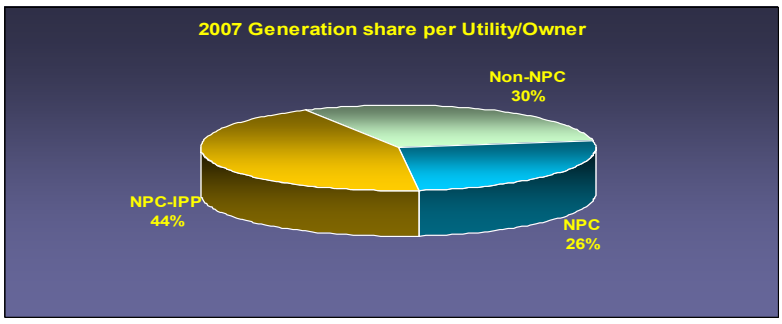
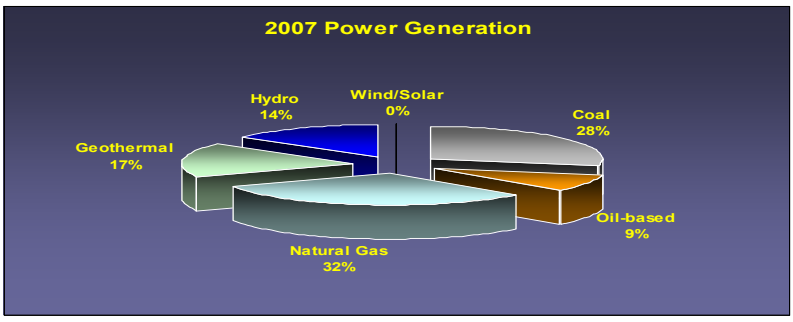


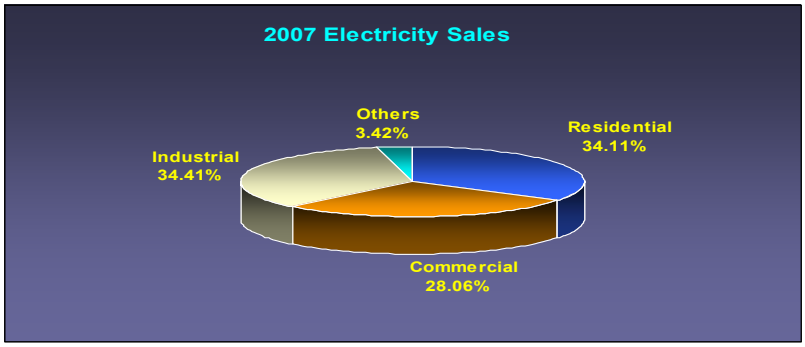

*Figure 6 - 2007 Gross Power Generation by Source*




Natural Gas accounted the highest among generation mix (31.52 %) or 18,789 GWh of the total generation. This was followed by coal at 28.24 percent. Meanwhile generation from Hydro electric power plants fell by 13.84 percent, from 9,939 Gwh in 2006 to 8,563 GWH in 2007 due to summer months when rainfall and water levels in the dams fell below critical levels, preventing them from delivering optimal generation. Likewise, generation from

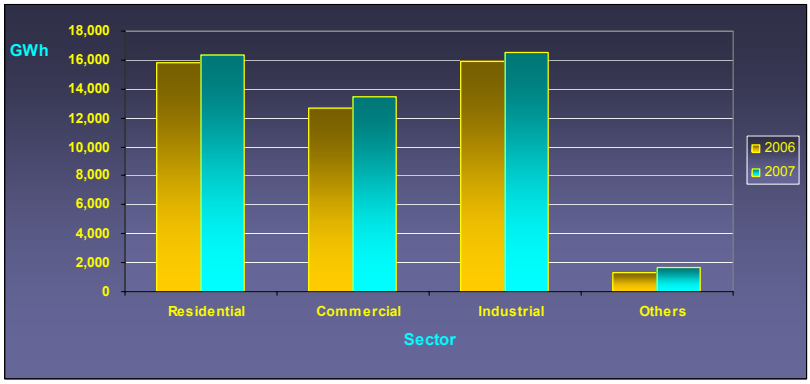
geothermal power plants decreased by 2.39% from 10,465 GWh in 2006 to 10,215 GWh in 2007 due to outages experienced by Macban, Bacman and Tiwi geothermal plants in Luzon. Its share in the mix was also lower from 18.43% in 2006 to 17.14% in 2007. Most occurrences of outages from geothermal power plants were due to deactivated shutdown which resulted from steam deficiency as well as isolation due to transmission network related problems.

*Figure 7 - Electricity Sales*




Generation from oil-based power plants increased by 10.36 percent in 2007, from 4,665 GWh in 2006 to 5,148 GWh in 2007 since oil-based power plants were in full operation in Luzon grid for the entire month of July during the time that Pagbilao and Sual coal-fired power plants were on outages due to fuel constraints. Other renewable energy such as wind and solar, grew by 8.31 percent contributing a meager 0.10 percent of gross generation in 2007.( Please see figure 3 for comparison between 2006 and 2007 generation mix and figure 4 for 2007 Total Generation Mix).

*Figure 8- 2006 and 2007 Electricity Sales by Sector*




The share of NPC to the total generation by utilities fell by 9.77 percent in 2007, contributing 15,588 GWh or 26.15 percent of the mix1. This was due to the transfer of Pantabangan-Masiway Hydropower plant and Magat Hydropower plant to First Gen Corporation on 18 November 2006 and to SN-Aboitiz on 26 April 2007, respectively. Contributions from NPC-IPPs power plants accounted for 26,156 GWh or 43.88 percent of the total electricity generation. On the other hand, generation from Non-NPC power plants contributed 17,867 GWh or 29.97 percent of the mix. These power plants are composed of Meralco IPPs and other Privately-owned generation companies (Figure 5).

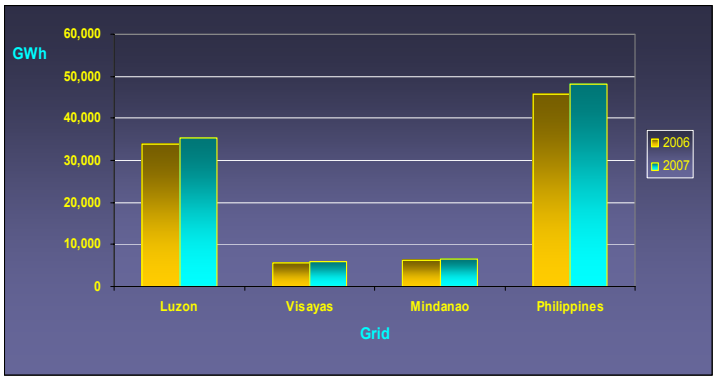
## B. Electricity Sales and Consumption

Total sales all over the country posted an accelerated growth during the year at 5.0 percent from 45,672 GWh in 2006 to 48,009 GWh in 2007. Out of this total, 35,906 GWh or 60.23 percent were contributed by the PIOUs.

Significant increases were observed in the commercial sector as sales went up by 6.0 percent from 12,679 GWh in 2006 to 13,470 GWh in 2007. This can be attributed to the increasing number of small-scale businesses and call centers. Rapid increase was also seen in "others" which includes street lightings, public buildings and others not elsewhere classified. (Figure 6, 7 and 8).

On a per grid basis, despite the recurring browouts, Visayas recorded the highest growth at 8.0 percent from 5,551 in 2006 to 6,017 in 2007. Significant increases were observed in the "others" sector at 72.0 percent, followed by commercial sector at 10.0 percent, residential sector at 6.0 percent and industrial sector at 3.0 percent.

*Figure 9 - Electricity Sales by Grid*

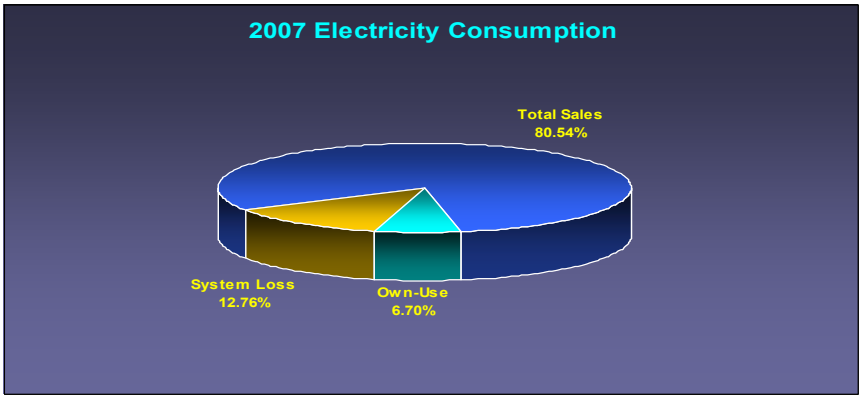



Mindanao posted an increased of 6.0 percent in electricity sales with the "others" sector exhibiting 40.0 percent increased followed by commercial sector at 7.0 percent, residential sector at 5.0 percent and industrial sector at 3.0 percent.

Luzon sales also went up by 4.0 percent with the "others" sector posted an 8.0 percent increase. Commercial sector gained by 6.0 percent, industrial sector by 4 percent and despite the suppressed demand in the residential sector due to high electricity rates, the sector still exhibited an increase of 3.0 percent.

After accounting for losses, electricity used by the power plants and distribution utilities, Philippines consumed 59,612 GWh in 2007. Total sales accounted for 48,009 GWh or 80.64 percent to total consumption. Own-used from power plants and distribution utilities consumed 3,994 GWh or 6.70 percent. Losses from

*Figure 10 - 2007 Electricity Consumption*



generator, transmission and distribution loss accounted for 7,608 GWh or 12.78 percent.

## C. Peak Demand

The aggregate peak demand in the country's main grid expanded by 2.62 percent in 2007. From a total non-coincident demand of 8,763 MW in 2006 to a total of 8,993 MW in 2007. Luzon peak demand occurred in summer season when the demand for cooling system such as, electric fan and air-conditioning are being used simultaneously. On the other hand, peak in the Visayas and Mindanao occurred at the same time in December.

*Table 21 - Peak Demand (MW)*

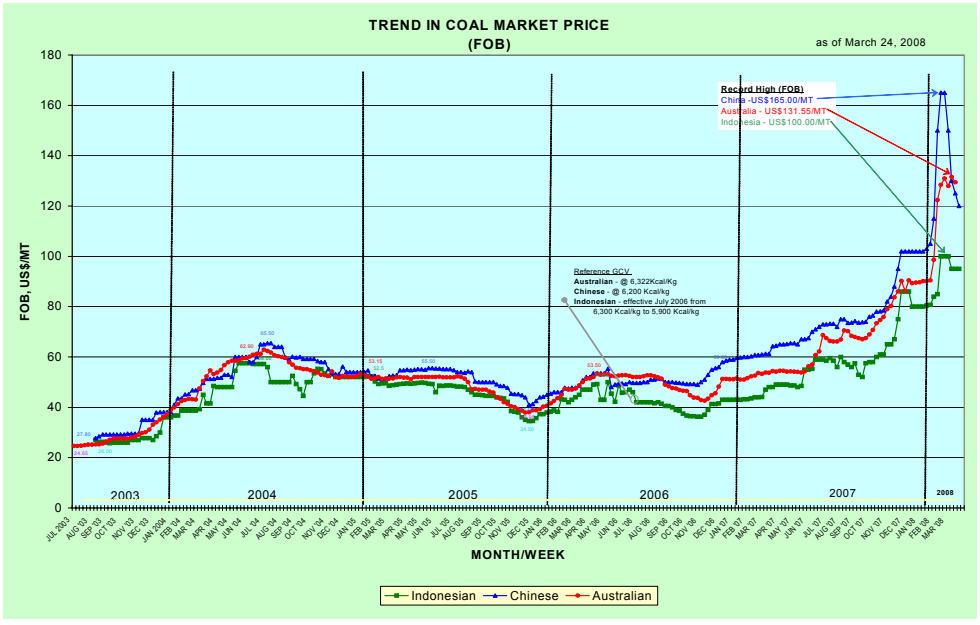
| GRID | 2007 | 2006 | % CHANGE |
|---|---|---|---|
| LUZON | 6,643 | 6,466 | 2.74 |
| VISAYAS | 1,102 | 1,066 | 3.38 |
| MINDANAO | 1,241 | 1,228 | 1.06 |
| PHILIPPINES | 8,986 | 8,760 | 2.58 |

## D. Mitigating Measures on Possible Impacts of Tightening Coal Supply

For the first quarter of 2008, the energy sector was confronted by the tightening coal supply situation brought about by force majeure as well as increased demand in other economies with growing demand for energy like China and India. In addition, the tight coal supply situation pushed upward the price of coal in the international market to an FOB all-time high of US$165.00 per metric ton. Further, the upward trend for coal prices is expected to continue as major consuming countries like China and India compete for supply.

In this light, mitigating measures were put in placed so as to minimize potential impacts, particularly to the Luzon grid which has the highest percentage of dependable capacity relying on coal. The situation could be further aggravated by strong demand and low availability of

*Figure 11 - Coal Market Price*



hydro plants during the summer months. As part of contingency measures and to lessen the volatility of WESM prices which could be brought by high coal prices, the DOE, ERC and PEMC issued Resolution No. 1 which provides for the determination and pricing of must run units which will be utilized in case coal capacities would not be able to provide for the demand.

## 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.

In 1999, the Accelerated Barangay Electrification Program (ABEP) was launched with the initial partnership of the following energy agencies: DOE, National Electrification Administration (NEA), National Power Corporation through its Small Power Utilities Group (NPC-SPUG), and PNOC-Energy Development Corporation (PNOC-EDC). In 2000 the ABEP was renamed the "O' Ilaw Program" wherein the Independent Power Producers (IPPs) were encouraged to participate as part of their corporate social responsibility. Under the O' Ilaw and IPP Partnership, the Adopt-a-Barangay Scheme and Advance Financing Scheme were adopted.

*Table 22 - Barangay Electrification Status (end March 2008)*

| Region | Potential Barangays | Electrified Barangays | Unelectrified Barangays | Electrification Level |
|---|---|---|---|---|
| CAR | 1,176 | 1,127 | 49 | 95.83% |
| I | 3,265 | 3,264 | 1 | 99.97% |
| II | 2,311 | 2,231 | 80 | 96.54% |
| III | 3,102 | 3,097 | 5 | 99.84% |
| IV-A | 4,011 | 3,947 | 64 | 98.40% |
| IV-B | 1,458 | 1,408 | 50 | 96.57% |
| V | 3,471 | 3,259 | 212 | 93.89% |
| NCR | 1,695 | 1,695 | 0 | 100.00% |
| **Sub-Total (Luzon)** | **20,489** | **20,028** | **461** | **97.75%** |
| VI | 4,051 | 4,023 | 28 | 99.31% |
| VII | 3,003 | 3,002 | 1 | 99.97% |
| VIII | 4,390 | 4,190 | 200 | 95.44% |
| **Sub-Total (Visayas)** | **11,444** | **11,215** | **229** | **98.00%** |
| IX | 1,904 | 1,794 | 110 | 94.22% |
| X | 2,020 | 1,934 | 86 | 95.74% |
| XI | 1,160 | 1,157 | 3 | 99.74% |
| XII | 1,194 | 1,127 | 67 | 94.39% |
| ARMM | 2,459 | 2,050 | 409 | 83.37% |
| CARAGA | 1,310 | 1,285 | 25 | 98.09% |
| **Sub-Total (Mindanao)** | **10,047** | **9,347** | **700** | **93.03%** |
| **TOTAL PHILIPPINES** | **41,980** | **40,590** | **1,390** | **96.69%** |

***Source: DOE-REAMD***

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 Electric Power Industry Reform Act of 2001 or "EPIRA," the Expanded Rural Electrification Program (ER Program) was established, building around the basic concepts and objectives of its predecessors. The ER Program aims to achieve 100% barangays electrification by 2009 and 90% household electrification by 2017.

## A. Status of Electrification Program

Prior to the launching of ABEP, barangay electrification level stood only at 76.9% having a recorded electrified barangays of 32,281 out of 41,945 total barangay coverage. As of 31 March 2008, the ER Program had accomplished electrification level of 96.69% (see Table 1). The accomplishment of 40,590 barangays was spearheaded by the DOE and its attached agencies together with the private sector notably the Independent Power Producers as part of their Corporate Social Responsibility Program. From January 2007 to March 2008, the concerted efforts of the ER Program stakeholders resulted in the electrification of 664 barangays, which reduced the numbers of unenergized barangays to 1,390 nationwide.

## B. Implementation Strategies

Electrification Program today faces various and bigger challenges than years before. A large portion of the remaining unenergized barangays are mostly remote and disperse and more difficult to electrify, requiring extensive resources, time and efforts. As such, the ER Program integrates the rural and missionary electrification efforts of the government in collaboration with the private sector, non-government organizations, and several donor-funded projects with the view to attaining the goals of the ER Program.

### *1. Public Sector Contribution*

As part of its mandate, the Government continues to be the major contributor in delivering access to electricity services.

- **DOE Programs and Projects**

Currently, the DOE has several programs to extend access to electricity services. Two of these are through **Locally-Funded Projects**, namely: the **Barangay Electrification Program** (**BEP**), which provides cost-of-capital subsidies of renewable energy systems like Solar Photovoltaic (PV) Battery Charging Stations (BCS), individual Solar Home System, micro-hydro systems and wind turbine energy systems; and the **Remote Area Electrification Subsidy** (**RAES**) **Program**, which focuses on implementing reforms in the rural power sector as embodied under the Electric Power Industry Reform Act of 2001 or EPIRA. The RAES Program involves the implementation of missionary electrification using innovative service delivery mechanism that ensures sustainability of the projects and greater ownership from the beneficiaries. The RAES adopts the Sustainable Solar Market Packages (SSMP) concept, which aims to facilitate the market development of solar PV systems through the provisions of technical assistance, market development support, and subsidies to qualified PV companies and consumers.

Another electrification program that DOE is currently pursuing is the **211 Priority Barangays** of President Gloria Macapagal-Arroyo using the Malampaya

Proceeds (SC 38). This program applies various technologies and implementation strategies such as grid connection and off-grid electrification solar.

Meanwhile, through Financial Benefits to Host Communities, or the Energy Regulations 1-94, as amended. Under ER 1-94, power generators and/or energy resource developers are mandated to set aside one centavo per kilowatt-hour (P0.01 per kWh) of the total electricity sales as financial benefits to host communities for electrification, development and livelihood, reforestation, watershed management, health and/or environment enhancement. ER 1-94 Electrification Fund (EF) supports any electrification solution including sitio electrification e.g., grid-extension and off-grid electrification of host communities, following the radiating order i.e., based on proximity of the un-electrified areas to the contributing power plant/s. To date, ER 1-94 EF provided funding for 1,459 electrification projects amounting to approximately P1.214 Billion.

- **NEA Programs and Projects**

The NEA provides technical, financial and institutional assistance to electric cooperatives (ECs) to ensure the provision of the reliable and adequate electric services in their respective franchise areas. There are 119 ECs operating in the country today, which are mostly serving remote and unviable barangays. NEA's subsidy program covers barangays and sitio electrification, implemented through its own set of criteria in prioritizing beneficiaries.

- **NPC-SPUG Programs and Projects**

The NPC-SPUG, on the other hand is responsible for providing small-scale power generation and its associated power delivery systems in areas that are not connected to the main transmission grid. It is currently serving 75 small islands nationwide. It is noted, however, that NPC-SPUG's implementation is dependent on the availability of its internal cash generation or the share of Missionary Electrification from the Universal Charge (UC-ME).

- **PNOC-Energy Development Corporation's Programs and Projects**

The PNOC-EDC, on the other hand, provides assistance in areas where its geothermal fields are located namely in Albay and Sorsogon, Leyte Provinces and Samar Provinces, Negros Oriental and Occidental, and North Cotabato. However, this would be the last year of PNOC-EDC's participation in the ER Program since it is already privatized.

2. ***Private Sector Participation***

The success of the ER Program will not be accomplished without the support from the private sector.

- **Independent Power Producers**

While DOE provides policy direction and over-all program management, the private sector particularly the IPPs extend participation in the ER Program through provision of advanced financial assistance where the cost incurred can be recovered through the available electrification fund under ER 1-94, as amended or "benefits to host communities." The other option available for the IPPs is the "Adopt-a-Barangay" scheme where IPPs provide entire funding for rural electrification of chosen barangays. Under this scheme, the IPP can either implement the project by itself or through the relevant franchise holder.

So far, Mirant Philippines Foundation provided support to some 1,500 barangays. The Korea Electric Power Corporation (KEPCO), on the other hand, has supported more than 200 barangays and is currently collaborating with the DOE for the electrification of the 200 barangays. It is expected that KEPCO will continue to complete its 500 committed barangays by next year.

- **Qualified Third Parties**

The EPIRA opened opportunities for private sector participation and investment in the rural electrification activities of Government. Specifically, Section 59 of the EPIRA and Rule 14 of the EPIRA-IRR stated that "the provision of electric service in remote and unviable villages that the franchised utility is unable to service for any reason shall be opened to other qualified third parties." This means that once the concerned franchised holder deems the barangay/s unviable for it to serve (having negative impact on its financial and economic viability, then an electric service provider other than the adjacent distribution utility may be authorized to provide the electricity services, subject to approval or authorization by the ERC.

In compliance with its mandate, the DOE facilitated the following issuances:

- Department Circular DC 2004-06-006 on 18 June 2004 "Prescribing the Qualification Criteria for the QTPs." This issuance is used as the basis for determining whether or not a certain interested non-governmental organization, a local government unit or a private firm, is qualified to participate in the missionary electrification program of the Government.

- Department Circular 2005-012-011 on 12 December 2005, the "Prescribing the Guidelines for the Participation of QTPs in the Provision of Electric Services in Remote and Unviable Areas" (QTP Participation Guidelines). This issuance complemented the earlier DOE Circular and set the guidelines to encourage investment by QTPs in remote and unviable areas consistent with the Missionary Electrification Program of the Government as prescribed in the Missionary Electrification Development Plan (MEDP).

- ERC Resolution No. 22 prescribed the rules and regulations to govern the operation of the QTPs and availment of the UC-ME.

Currently, the DOE and ERC along with other concerned Government agencies are collaborating on the full development of the QTP Program. The expected full implementation of the program is within 2008.

- **PowerSource's Community Energizer Platform**

A hybrid QTP project was initiated in 2005 in Rio-Tuba, Bataraza, Palawan. PowerSource is a private firm engages in small-scale energy generation with various attendant services to be offered to community entrepreneurs such as restaurant, movie showing, entertainment and educational training. The project is a showcase of a public-private partnership consisting of DOE, KEPCO, PALECO and PowerSource. The project uses innovative design of stand alone electrification system by integrating basic elements of a sustainable electrification solution: (i) provision of a viable, cost effective generation platform; (ii) provision of a local distribution system; (iii) provision of a customer service facilities; and (iv) provision of a community development platform ensuring, at a minimum, integrated skills training, technology transfer and livelihood training leading to community-based enterprise creation.

Currently, the DOE is assisting PowerSource in securing from the ERC its QTP status.

### 3. *Foreign-Assisted Projects*

Various donor-funded projects through grants/loans also contributed in the achievement of the total electrification target of the country. These grants are aimed at increasing access to electricity, better delivery of electricity services, capacity building for the energy sector, and, increase participation of private sector in the rural electrification efforts.

- The DOE implements the **Rural Power Project** funded by the World Bank-Global Environment Facility (WB-GEF). It is aimed at carrying out the key reforms and priority investments in the rural power sector. The project expects to contribute a minimum of 10,000 households connections by the end 2009.

- The **PNOC** implements the **Solar Home System (SHS) Distribution Project** with fund support from the Dutch Government. The Project seeks to install 15,000 SHS in selected regions in the country to induce countryside development. The Dutch Government provides 60% grant to the total system cost and the remaining 40% is being shouldered by the end-users.

- The **Department of Agrarian Reform (DAR)** undertakes the **Solar Power Technology Supports Project (SPOTS)** aimed to address poverty in the unenergized and off-grid agrarian reform communities (ARCs) through the introduction of appropriate solar PV applications for agricultural and rural enterprise. One of the project components was the solar electrification which involves provision of variety of solar packages (ie., home lighting, alternating current power supply systems for various agribusiness uses, level II potable water pumping and lighting of public facilities such as barangay halls, school buildings, health centers, and, streets).

- The **Alliance for Mindanao Off-grid Rural Electrification (AMORE) Project** is a joint undertaking of USAID, Mirant Philippines, Autonomous Region of Muslim Mindanao (ARMM), Winrock International and DOE. It envisions establishing sustainable renewable energy systems in remote and conflict-affected off-grid communities in Mindanao Regions.

- The **Philippine Rural Electrification Service (PRES) Project** is being proposed through the French Filipino Loan Protocol financing amounting to some Euro17.5 Million. The project aims to improve the living conditions of the Masbate residents by providing them adequate and reliable energy services. About 18,000 households located in 128 barangays shall benefit from the project. Aside from this, basic services such as lighting for barangay halls and school building, provision of vaccine refrigerators and lighting for rural health units as well as provision of streetlights to major thoroughfares will also be the project's main concern. The Project will eventually be operated by a private operator.

## C. Plans and Programs

1. The Department has programmed the electrification of 1,413 barangays for CY 2009 thereby achieving the national target of 100% barangay electrification.

2. The Department aims to energize 531 barangays for CY 2008 through various funding sources, i.e., ER 1-94, BEP and RAES, in collaboration with government and private agencies. The said target also includes 211 barangays to be funded through SC 38 under PGMA's Priority Areas Project.

3. The Department also targeted an additional 250 barangays to be funded SC 38. However, after allocating all other funding sources, only 39 barangays can possibly be funded under SC 38 (second batch). Remaining fund can be used for sitio electrification.

4. NEA will also energize 167 barangays under its Subsidy Program in partnership with the local government units and electric cooperatives nationwide.

5. Also, with the assistance from the private sector, the Program will also be able to energize 545 barangays within the said period.

6. The remaining 170 unenergized barangays will be accomplished with CY 2008 through the efforts of the other stakeholders both government and private sector.

7. Due to foreseen delays in project implementation brought by unpredictable availability of funds (i.e., delays in government fund releases, etc.), target slippages will be vigorously pursued for completion within CY 2009.

8. The areas with implementation issues, especially those identified with security problems, will be coordinated with the Office of the Presidential Adviser for Peace Process (OPAPP) for possible assistance to address the said issues appropriately.

*Table 23 - ER Program CY 2008*

| IMPLEMENTOR / FUND SOURCE | 2007 | | Balance of CY 2007 | 2008 Target (Cumulative) | Remarks |
|---|---|---|---|---|---|
| | Target | Actual | | | |
| NEA | 301 | 316 | - | 167 | |
| DOE | 101 | 76 | 43 | 531 | 9 sitios energized (BEP); 220 sitios energized (ER 1-94) |
| CERED/USAID/AMORE | 1 | 3 | - | | |
| DAR-SPOTS | 9 | 6 | 3 | 9 | |
| PNOC-EDC | 29 | 20 | 9 | 33 | |
| Public/Private Partnership | 417 | 208 | 199 | 545 | |
| MIRANT | 214 | 186 | 18 | 118 | - 67 sitios energized (grid)<br>- RAES funding released for 30 bgys.<br>- completed 42 projects under SSMP (include 3 enhancements |
| DOE/Winrock AMORE | 23 | 21 | 2 | 4 | |
| DOE/KEPCO | 180 | 1 | 179 | 366 | |
| MERALCO - DOE ER 1-94 (SSMP) | - | - | - | 57 | |
| PRES | 32 | 0 | 32 | 128 | |
| Luzon Hydro | 1 | 1 | 0 | | |
| Colight | 1 | - | - | | Target accomplished through ER 1-94 |
| Others | - | 11 | - | | |
| TOTAL | 892 | 641 | 286 | 1,413 | |

# VII. STRENGTHENING THE REFORM PROCESS

The imperfections encountered in the course of implementing the EPIRA are continuously addressed by the government with the assistance of the private sectors. Dialogues were undertaken as manifested in the concluded Energy Summit while at the legislative, efforts to amend weak areas of the law are ongoing.

## A. Energy Summit Initiatives

The 100 US dollar mark for crude oil in mid-day trading in New York on 02 January 2008 gave birth to the energy summit to map out a strategic response and mitigating measures to minimize impact to the economy. There were some 200 registered participants wherein 46 percent came from Government institutions, eight percent from the generation companies, 29 percent from distribution utilities, 7 percent from the academe, three percent from financial institutions while 7 percent came from consumers/consumer groups. As part of the Power Sector's contribution in mitigating the impact of the increasing oil prices, the sub-topic of "Lowering Power Rates for Industry Competitiveness and Consumer Welfare" was discussed in a workshop which resulted to the following Presidential directives:

### *1. DTI Petition to ERC on Lowering Electricity Rates*

In 5 February 2008, President Gloria Macapagal-Arroyo instructed the Department of Trade and Industry (DTI) through its Bureau of Trade Regulations and Consumer Protection (BTRCP) to lodge a petition to the ERC for the following concerns:

(i) Grant bigger electricity discounts for low-income consumers;
(ii) Prohibit MERALCO from buying electricity from WESM at peak hours;
(iii) Ensure preferential treatment for poor households and power intensive industries in the distribution of TransCo charges by MERALCO;
(iv) Prohibit MERALCO from charging system's loss as a separate item; and
(v) Require MERALCO to price distribution charges the same as the distribution charges of Visayan Electric Company (VECO), Cebu Electric Cooperative (CEBECO) and Davao Light and Power.

On the same day of 05 February 2008, the BTRCP filed an Omnibus Petition before the ERC on behalf of the consumers citing the abovementioned items. On 13 February 2008 the ERC sent letter to BTRCP acknowledging the receipt of the said petition while seeking clarification with respect to the following:

- Legal capacity of DTI-BTRCP to file the petition
- The impact and details of the proposed lifeline programs
- Legal basis of petition with respect to matters concerning MERALCO

The DOE has met with DTI-BTRCP and offered to provide assistance in preparing the petition to be filed with ERC in accordance with their existing procedural requirements including the substance of the said petition. This will include analysis on

the rates passed on by MERALCO to consumers as well as integrate analysis on items concerning lifeline and industrial users.

The BTRCP and DOE officially agreed that the petition shall be limited to items (i) and (iii) since items (ii), (iv) and (v) do not require petitions to ERC as these matters only require strict monitoring and implementation of pertinent EPIRA provisions particularly on the part of ERC.

The DOE submitted to the Commission its opinion on items (ii), (iv) and (v) and has likewise requested the Commission to review the DUs' implementation of the mandated PhP0.30 per kWh mandated rate reduction under Section 72 of the EPIRA in line with the distribution utilities' mandate of providing least cost power supply to their customers.

On 31 March 2008, the DTI-BTRCP refiled to ERC a revised petition for approval of new lifeline rate for marginalized consumers. The petition, however, is not consistent with what was proposed by the DOE, which is to integrate in the filing the concerns of the lifeline and industrial customers.

The second petition calls for ERC's approval of new lifeline rate to marginalized end-users. Specifically for its second petition, the BTRCP has proposed the following for ERC's consideration:

- In the case of the customers of the Manila Electric Company or MERALCO, the discounts are at 0-50, 51-70 and 71-100 kwh/month consumption at 50%, 35% and 20% discounts respectively. The proposal include increasing the discounts of each consumption block to 60%, 40% and 20% respectively , or increase the consumption block to 150 kWh and spread out equitably the discounts, thus from 0-50 kw /m is 50% discount, 51-100 kw/m is 35% discount and 101-150 kw/m is 20% discount.

- There are also studies made by the Asian Development Bank or ADB for a uniform lifeline rate for all Distribution Utilities to ensure that the targeted "vulnerable customers" are actually served, and excluding those customers who may fall within a consumption block but does not belong to the EPIRA definition of marginalized end- users, thus adding built in control in the implementation of the law.

- The lifeline subsidy is at the moment shouldered by the non-lifeline customers. Mr. Yongping Zhai of the ADB proposed to source the subsidy from the universal charges of the present unbundled rates while consumer advocate Mr. Raul T. Concepcion of the Consumer & Oil Price Watch suggested that the subsidy be sourced from any "excess profits" from the privatization of the assets of the National Power Corporation or the National Transmission Corporation, or from the National Government share in the royalty of the Malampaya natural gas project.

2. *Accelerate the implementation of open access and retail competition*

Ways to accelerate the implementation of open access and retail competition is likewise discussed through the following schemes: [2]

a. Proposed amendment to the EPIRA removing the 70% privatization as a requirement for open access
b. Early voluntary implementation of open access

3. *The Power Stakeholders Meeting (PSM)*

In 21 January, the first Power Stakeholders Meeting was held in view of resolving issues on power rates through consensus among various stakeholders. From then on, the PSM became the venue for determining the feasibility of the proposed initiatives based on consensus of both government and private sectors. The first five meetings have resulted to an immediate reduction of about one peso per kilowatt-hour for high load factor customers in economic zones that availed under the NPC-MERALCO MOA on PhP3.52 per kWh basic generation rates. The savings were due to:

a. Reduction in the generation rates of about P0.68 per kWh.
b. Restoration of High Load Factor Discount by MERALCO to ecozones locators for additional P0.22 per kWh savings.

c. Reduction in MERALCO's System Loss Charge for a savings of approximately P0.01 per kWh.

The multi-stakeholders' meeting is composed of the government like DOE, ERC, PSALM, NPC, TRANSCO, NEA, DOF, DTI and PEZA, while the private sector is composed of MERALCO, PEPOA, SEIPI, and MR. MENELEO CARLOS. The most recent to join the group was the consumer sector which was represented by NASECORE. With the continuing dialogues between the Government and the private sector, the energy sector looks forward to other potential developments by way of reflecting efficiencies in the generation and distribution charges.

## B. Proposed Amendments to RA 9136

Discussions on proposed amendments to the EPIRA are ongoing at both houses of Congress primarily aimed at accelerating the implementation of open access and ensuring affordable rates for end-consumers of electricity.

At the Lower House, House Bill 3124 entitled " An Act Accelerating the Implementation of Retail Competition and Open Access in the Electric Power Industry, Amending for the Purpose Sections 31 and 43 of Republic Act 9136, otherwise known as the 'Electric Power

[2] Progress to date is reported in Section IVB2 on page 23

Industry Reform Act of 2001' and for other purposes. The bills main feature is lowering of the threshold level of privatization both of NPC generating assets and IPP contracts from 70 percent to 50 percent. The bill, certified as urgent of national importance, has been approved by the House Committee on Energy.

In the Senate, 2nd reading interpellation is ongoing for Senate Bill 2121 which is sponsored by Senator Juan Ponce Enrile and co-sponsored by Senators Lito Lapi, Jinggoy Estrada and Edgardo Angara. The bill entitled " An Act Amending Sections 4, 9, 20, 21, 23, 25, 26, 30, 31, 32, 33, 34, 35, 38, 41, 43, 45, 48, 51 of Republic Act 9136 entitled an Act Ordaining Reforms in the Electric Power Industry and For Other Purposes" was prepared and submitted jointly by the Senate Committees on Energy, Finance, Public Services and Ways and Means in substitution of Senate Bill Nos. 52, 160, 308, 899 and 1234. The said bill aims to strengthen the reforms for the power industry primarily through the following:

a. Facilitating faster implementation of open access and retail competition through reduction in the privatization threshold for NPC generating assets and transfer of IPP contracts to qualified administrators from 70 percent to 50 percent
b. Removal of the not more than 90 percent requirement of electricity supply that should be sourced from bilateral contracts
c. Affirmation of PEZA's regulatory powers within the economic zones
d. Emphasis on DUs obligation to source electricity in a least cost manner
e. Non-recovery of NPC's stranded debts and stranded contract costs as well as DUs stranded contract costs through proposed deletion of Sections 32, 33 and 34a
f. Limitations on the taxes imposed by local government units which should be applicable only to transmission and distribution charges
g. Inclusion of the basic rights of consumers
h. Mandatory public hearing and removal of ERC's provisional authority on basic electricity rate increases
i. Additional provision on bilateral contracting with an affiliate
j. Addition powers for PSALM with respect to the administration of universal charge

# ANNEXES

# UNBUNDLED RATES FOR LUZON,VISAYAS AND MINDANAO GRIDS, P/kWh

JANUARY 2003 – APRIL 2008

## UNBUNDLED RATES FOR LUZON GRID, P/kWh

**January 2003 - April 2008**

| Month | Generation Charge | Franchise & Benefits to Host Communities | FOREX/ ICERA | Net FPCA | NPC Effective Rate |
|---|---|---|---|---|---|
| (A) | (B) | (C) | (D) | (E) | (F=B+C+D+E) |
| **2003** | | | | | |
| JAN | 2.1913 | 0.0245 | 0.2415 | 0 | 2.4573 |
| FEB | 2.1913 | 0.0245 | 0.2506 | 0 | 2.4664 |
| MAR | 2.1913 | 0.0245 | 0.2506 | 0 | 2.4664 |
| APR | 2.1913 | 0.0245 | 0.2506 | 0 | 2.4664 |
| MAY | 2.1258 | 0.0245 | 0.2506 | 0 | 2.4009 |
| JUNE | 2.1258 | 0.0245 | 0.2506 | 0 | 2.4009 |
| JULY | 2.1258 | 0.0245 | 0.2506 | 0 | 2.4009 |
| AUG | 1.7314 | 0.0245 | 0.2506 | 0 | 2.0065 |
| SEP | 1.7314 | 0.0245 | 0.2506 | 0 | 2.0065 |
| OCT | 2.4717 | 0.0245 | 0 | 0 | 2.4962 |
| NOV | 2.4717 | 0.0245 | 0 | 0 | 2.4962 |
| DEC | 2.4717 | 0.0245 | -0.0065 | 0 | 2.4897 |
| **2004** | | | | | |
| JAN | 2.4717 | 0.0245 | -0.0065 | 0 | 2.4897 |
| FEB | 2.1435 | 0.0245 | 0.2207 | 0 | 2.3887 |
| MAR | 2.1435 | 0.0245 | 0.2207 | 0 | 2.3887 |
| APR | 2.1435 | 0.0245 | 0.2207 | 0 | 2.3887 |
| MAY | 2.1435 | 0.0245 | 0.2934 | 0 | 2.4614 |
| JUN | 2.2802 | 0.0245 | 0.2934 | 0 | 2.5981 |
| JUL | 2.2802 | 0.0245 | 0.2934 | 0 | 2.5981 |
| AUG | 2.2802 | 0.0245 | 0.2934 | 0 | 2.5981 |
| SEP | 2.2802 | 0.0245 | 0.2934 | 0 | 2.5981 |

| Month | Generation Charge | Franchise & Benefits to Host Communities* | Deferred Accounting Adj. (DAA)* | | NPC Effective Rate |
|---|---|---|---|---|---|
| | | | GRAM | ICERA | |
| (A) | (B) | (C) | (D) | (E) | (F=B+C+D+E) |
| **2004** | | | | | |
| OCT | 3.8054 | 0.0245 | 0.1085 /1 | 0.0278 /2 | 3.9662 |
| NOV | 3.8054 | 0.0245 | 0.1085 | 0 | 3.9384 |
| DEC | 3.8054 | 0.0245 | 0.1085 | 0 | 3.9384 |
| **2005** | | | | | |
| JAN | 3.8054 | 0.0245 | 0.1085 | 0 | 3.9384 |
| FEB | 3.8054 | 0.0245 | 0.1085 | 0 | 3.9384 |
| MAR | 3.8054 | 0.0245 | 0.1085 | 0 | 3.9384 |
| APR | 3.8054 | 0.0245 | 0.1085 | 0 | 3.9384 |
| MAY | 3.8966 | 0.0245 | 0.3048 /3 | 0.1821 /4 | 4.408 |
| JUN | 3.8966 | 0.0245 | 0.3048 | 0.1821 | 4.408 |
| JUL | 3.8966 | 0.0245 | 0.3048 | 0.1821 | 4.408 |
| AUG | 3.8966 | 0.0245 | 0.3048 | 0.1821 | 4.408 |
| SEP | 3.8966 | 0.0245 | 0.3048 | 0.1821 | 4.408 |
| OCT | 3.8966 | 0.0245 | 0.3048 | 0.1821 | 4.408 |
| NOV | 3.8966 | 0.0245 | 0.3048 | 0.1821 | 4.408 |
| DEC | 3.8966 | 0.0245 | 0.4060 /5 | 0.2032 /6 | 4.5303 |

## UNBUNDLED RATES FOR LUZON GRID, P/kWh

**January 2003 - April 2008**

| Month | Generation Charge | Franchise & Benefits to Host Communities | FOREX/ ICERA | Net FPCA | NPC Effective Rate |
|---|---|---|---|---|---|
| | | | | | |
| **2006** | | | | | |
| JAN | 3.8966 | 0.0245 | 0.406 | 0.2032 | 4.5303 |
| FEB | 3.8966 | 0.0245 | 0.406 | 0.2032 | 4.5303 |
| MAR | 3.8966 | 0.0245 | 0.406 | 0.2032 | 4.5303 |
| APR | 3.8966 | 0.0245 | 0.406 | 0.2032 | 4.5303 |
| MAY | 3.8966 | 0.0245 | 0.406 | 0.2032 | 4.5303 |
| JUN | 3.8966 | 0.0245 | 0.406 | 0.2032 | 4.5303 |
| JUL | 3.8966 | 0.0245 | 0.406 | 0.2032 | 4.5303 |
| AUG | 3.8966 | 0.0245 | 0.4170 /8 | 0.5719 /9 | 4.91 |
| SEP | 3.8966 | 0.0245 | 0.417 | 0.5719 | 4.91 |
| OCT | 3.8966 | 0.0245 | 0.417 | 0.5719 | 4.91 |
| NOV | 3.8966 | 0.0245 | 0.417 | 0.5719 | 4.91 |
| DEC | 3.8966 | 0.0245 | 0.417 | 0.5719 | 4.91 |
| **2007** | | | | | |
| JAN | 3.8966 | 0.0245 | 0.417 | 0.5719 | 4.91 |
| FEB | 3.8966 | 0.0245 | 0.417 | 0.5719 | 4.91 |
| MAR | 3.8966 | 0.0245 | 0.2034 /10 | 0.7425 /11 | 4.867 |
| APR | 3.8966 | 0.0245 | 0.2034 | 0.7425 | 4.867 |
| MAY | 3.8966 | 0.0245 | 0.1221 /12 | 0.7425 | 4.7857 |
| JUN | 3.8966 | 0.0245 | 0.1221 | 0.7425 | 4.7857 |
| JUL | 3.8966 | 0.0245 | 0.0000 /14 | 0.7425 | 4.6636 |
| AUG | 3.8966 | 0.0245 | 0.0000 | 0.7425 | 4.6636 |
| SEP | 3.8966 | 0.0245 | 0.0000 | 0.6676 | 4.5887 |
| OCT | 3.8966 | 0.0245 | -0.1863 | 0.5996 | 4.3344 |
| NOV | 3.8966 | 0.0245 | -0.1863 | 0.5996 | 4.3344 |
| DEC | 3.8966 | 0.0245 | -0.1863 | -0.0603 | 3.6745 |
| **2008** | | | | | |
| JAN | 3.8966 | 0.0245 | -0.0315 | 0.4288 | 4.3184 |
| FEB | 3.8966 | 0.0245 | -0.0315 | -0.2427 | 3.6469 |
| MAR | 3.8966 | 0.0245 | -0.0315 | -0.2427 | 3.6469 |
| APR | 3.8966 | 0.0245 | -0.0315 | 0.0000 | 3.8896 |

*** Power customers billed under the TOU Rate Schedules shall also be billed with the above DAA and Franchise and Benefits to Host Communities in addition to the TOU rates.**

**/1 Per ERC Order dated June 9, 2004 (Approval of 3rd GRAM).**
**/2 Per ERC Order dated April 22, 2004 (approval of 2nd ICERA).**
**/3 Per ERC Order dated April 12, 2005 (Approval of 4th GRAM).**
**/4 Per ERC Order dated April 13, 2005 (Approval of 3rd ICERA).**
**/5 Per ERC Order dated November 23, 2005 (Approval of 5th GRAM).**
**/6 Per ERC Order dated November 23, 2005 (Approval of 4th ICERA).**
**/7 Per ERC Order dated July 17, 2006 (Approval of 6th GRAM) Partial Decision.**
**/8 Per ERC Order dated July 14, 2006 (Approval of 6th GRAM) Partial Decision.**
**/9 Per ERC Order dated July 12, 2006 (Approval of 5th ICERA).**
**/10 Per ERC Order dated June 12, 2007 (Final Decision of 7th GRAM).**
**/11 Per ERC Order dated June 12, 2007 (Final Decision of 6th ICERA).**
**/12 Per ERC Order dated June 12, 2007 (Final Decision of 7th GRAM).**
**/13 Per ERC Order dated June 12, 2007 (Final Decision of 6th ICERA).**

## UNBUNDLED RATES FOR LUZON GRID, P/kWh

**January 2003 - April 2008**

| Month | Generation Charge | Franchise & Benefits to Host Communities | FOREX/ ICERA | Net FPCA | NPC Effective Rate |
|---|---|---|---|---|---|

**/14 Per ERC Order dated June 12, 2007 (Final Decision of 7th GRAM).**

**/15 Per ERC Order dated June 12, 2007 (Final Decision of 6th ICERA).**

**/16 Per ERC Order dated September 5, 2007 (Provisional Authority of 8th GRAM).**

**/17 Per ERC Order dated September 5, 2007 (Provisional Authority of 7th ICERA).**

**/18 Per ERC Order dated December 17, 2007 (Final Decission of 8th GRAM).**

**/19 Per ERC Order dated December 21, 2007 (Final Decission of 7th ICERA).**

**/20 Per ERC Order dated December 21, 2007 (Final Decission of 7th ICERA).**

**/21 Per ERC Order dated December 21, 2007 (Final Decission of 7th ICERA).**

**/22 Per ERC Order dated December 21, 2007 (Final Decission of 7th ICERA).**

**UNBUNDLED RATES FOR VISAYAS GRID, P/kWh**

**January 2003 - April 2008**

| Month | Generation Charge | Franchise & Benefits to Host Communities | FOREX/ ICERA | Net FPCA | NPC Effective Rate |
|---|---|---|---|---|---|
| (A) | (B) | (C) | (D) | (E) | (F=B+C+D+E) |
| **2003** | | | | | |
| JAN | 2.0837 | 0.0177 | 0.2415 | 0 | 2.3429 |
| FEB | 2.0837 | 0.0177 | 0.2506 | 0 | 2.352 |
| MAR | 2.0837 | 0.0177 | 0.2506 | 0 | 2.352 |
| APR | 2.0837 | 0.0177 | 0.2506 | 0 | 2.352 |
| MAY | 2.2412 | 0.0177 | 0.2506 | 0 | 2.5095 |
| JUNE | 2.2412 | 0.0177 | 0.2506 | 0 | 2.5095 |
| JULY | 2.2412 | 0.0177 | 0.2506 | 0 | 2.5095 |
| AUG | 2.2412 | 0.0177 | 0.2506 | 0 | 2.5095 |
| SEP | 2.2412 | 0.0177 | 0.2506 | 0 | 2.5095 |
| OCT | 2.5752 | 0.0177 | 0 | 0.05 | 2.6429 |
| NOV | 2.5752 | 0.0177 | 0 | 0.05 | 2.6429 |
| DEC | 2.5752 | 0.0177 | -0.0065 | 0.05 | 2.6364 |
| **2004** | | | | | |
| JAN | 2.6587 | 0.0177 | -0.0065 | 0.05 | 2.7199 |
| FEB | 2.2907 | 0.0177 | 0.2207 | 0.31 | 2.8391 |
| MAR | 2.2907 | 0.0177 | 0.2207 | 0.31 | 2.8391 |
| APR | 2.2907 | 0.0177 | 0.2207 | 0.31 | 2.8391 |
| MAY | 2.2907 | 0.0177 | 0.2934 | 0.31 | 2.9118 |
| JUN | 2.5238 | 0.0177 | 0.2934 | 0.0989 | 2.9338 |
| JUL | 2.5238 | 0.0177 | 0.2934 | 0.0989 | 2.9338 |
| AUG | 2.5238 | 0.0177 | 0.2934 | 0 | 2.8349 |
| SEP | 2.5238 | 0.0177 | 0.2934 | 0 | 2.8349 |

| Month | Generation Charge | Franchise & Benefits to Host Communities | Deferred Accounting Adj. (DAA)* | | NPC Effective Rate |
|---|---|---|---|---|---|
| | | | GRAM | ICERA | |
| (A) | (B) | (C) | (D) | (E) | (F=B+C+D+E) |
| **2004** | | | | | |
| OCT | 3.0374 | 0.0177 | 0.1059 /1 | 0.0278 /2 | 3.1888 |
| NOV | 3.0374 | 0.0177 | 0.1059 | 0 | 3.161 |
| DEC | 3.0374 | 0.0177 | 0.1059 | 0 | 3.161 |
| **2005** | | | | | |
| JAN | 3.0374 | 0.0177 | 0.1059 | 0 | 3.161 |
| FEB | 3.0374 | 0.0177 | 0.1059 | 0 | 3.161 |
| MAR | 3.0374 | 0.0177 | 0.1059 | 0 | 3.161 |
| APR | 3.0374 | 0.0177 | 0.1059 | 0 | 3.161 |
| MAY | 2.8879 | 0.0177 | 0.4734 /3 | (0.0967) /4 | 3.2823 |
| JUN | 2.8879 | 0.0177 | 0.4734 | -0.0967 | 3.2823 |
| JUL | 2.8879 | 0.0177 | 0.4734 | -0.0967 | 3.2823 |
| AUG | 2.8879 | 0.0177 | 0.4734 | -0.0967 | 3.2823 |
| SEP | 2.8879 | 0.0177 | 0.4734 | -0.0967 | 3.2823 |
| OCT | 2.8879 | 0.0177 | 0.4734 | -0.0967 | 3.2823 |
| NOV | 2.8879 | 0.0177 | 0.4734 | -0.0967 | 3.2823 |
| DEC | 2.8879 | 0.0177 | 0.4598 /5 | 0.0000 /6 | 3.3654 |
| **2006** | | | | | |
| JAN | 2.8879 | 0.0177 | 0.4598 | 0 | 3.3654 |
| FEB | 2.8879 | 0.0177 | 0.4598 | 0 | 3.3654 |
| MAR | 2.8879 | 0.0177 | 0.4598 | 0 | 3.3654 |
| ARP | 2.8879 | 0.0177 | 0.4598 | 0 | 3.3654 |
| MAY | 2.8879 | 0.0177 | 0.4598 | 0 | 3.3654 |
| JUN | 2.8879 | 0.0177 | 0.3203 /7 | 0 | 3.2259 |
| JUL | 2.8879 | 0.0177 | 0.3203 | 0 | 3.2259 |
| AUG | 2.8879 | 0.0177 | 0.3203 | 0.1784 /9 | 3.4043 |
| SEP | 2.8879 | 0.0177 | 0.3203 | 0.1784 | 3.4043 |

**UNBUNDLED RATES FOR VISAYAS GRID, P/kWh**

**January 2003 - April 2008**

| Month | Generation Charge | Franchise & Benefits to Host Communities | FOREX/ ICERA | Net FPCA | NPC Effective Rate |
|---|---|---|---|---|---|
| OCT | 2.8879 | 0.0177 | 0.3203 | 0.1784 | 3.4043 |
| NOV | 2.8879 | 0.0177 | 0.3203 | 0.1784 | 3.4043 |
| DEC | 2.8879 | 0.0177 | 0.3203 | 0.1784 | 3.4043 |
| 2007 | | | | | |
| JAN | 2.8879 | 0.0177 | 0.3203 | 0.1784 | 3.4043 |
| FEB | 2.8879 | 0.0177 | 0.3203 | 0.1784 | 3.4043 |
| MAR | 2.8879 | 0.0177 | 0.0157 /10 | 0.1679 /11 | 3.0892 |
| APR | 2.8879 | 0.0177 | 0.0157 | 0.1679 | 3.0892 |
| MAY | 2.8879 | 0.0177 | 0.0157 | 0.1679 | 3.0892 |
| JUN | 2.8879 | 0.0177 | 0.0000 /12 | 0.0000 /13 | 2.9056 |
| JUL | 2.8879 | 0.0177 | 0 | 0 | 2.9056 |
| AUG | 2.8879 | 0.0177 | 0 | 0 | 2.9056 |
| SEP | 2.8879 | 0.0177 | 0 | 0 | 2.9056 |
| OCT | 2.8879 | 0.0177 | -0.1013 | 0.0300 | 2.8343 |
| NOV | 2.8879 | 0.0177 | -0.1013 | 0.0300 | 2.8343 |
| DEC | 2.8879 | 0.0177 | -0.1013 | 0.0300 | 2.8343 |
| 2008 | | | | | |
| JAN | 2.8879 | 0.0177 | -0.1013 | 0.0300 | 2.8343 |
| FEB | 2.8879 | 0.0177 | -0.1013 | 0.0300 | 2.8343 |
| MAR | 2.8879 | 0.0177 | -0.1013 | 0.0300 | 2.8043 |
| APR | 2.8879 | 0.0177 | -0.1013 | 0.0300 | 2.8043 |

*** Power customers billed under the TOU Rate Schedules shall also be billed with the above DAA and Franchise and Benefits to Host Communities in addition to the TOU rates.**

**/1 Per ERC Order dated June 9, 2004 (Approval of 3rd GRAM).**
**/2 Per ERC Order dated April 22, 2004 (approval of 2nd ICERA).**
**/3 Per ERC Order dated April 12, 2005 (Approval of 4th GRAM).**
**/4 Per ERC Order dated April 13, 2005 (Approval of 3rd ICERA).**
**/5 Per ERC Order dated November 23, 2005 (Approval of 5th GRAM).**
**/6 Per ERC Order dated November 23, 2005 (Approval of 4th ICERA).**
**/7 Per ERC Order dated July 17, 2006 (Approval of 6th GRAM) Partial Decision.**
**/8 Per ERC Order dated July 14, 2006 (Approval of 6th GRAM) Partial Decision.**
**/9 Per ERC Order dated July 12, 2006 (Approval of 5th ICERA).**
**/10 Per ERC Order dated June 12, 2007 (Final Decision of 7th GRAM).**
**/11 Per ERC Order dated June 12, 2007 (Final Decision of 6th ICERA).**
**/12 Per ERC Order dated June 12, 2007 (Final Decision of 7th GRAM).**
**/13 Per ERC Order dated June 12, 2007 (Final Decision of 6th ICERA).**
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**/16 Per ERC Order dated September 5, 2007 (Provisional Authority of 8th GRAM).**
**/17 Per ERC Order dated September 5, 2007 (Provisional Authority of 7th ICERA).**
**/18 Per ERC Order dated December 17, 2007 (Final Decission of 8th GRAM).**
**/19 Per ERC Order dated December 21, 2007 (Final Decission of 7th ICERA).**
**/20 Per ERC Order dated December 21, 2007 (Final Decission of 7th ICERA).**
**/21 Per ERC Order dated December 21, 2007 (Final Decission of 7th ICERA).**

**UNBUNDLED RATES FOR MINDANAO GRID, P/kWh**

**January 2003 - April 2008**

| Month | Generation Charge | Franchise & Benefits to Host Communities | FOREX/ ICERA | Net FPCA | NPC Effective Rate |
|---|---|---|---|---|---|
| (A) | (B) | (C) | (D) | (E) | (F=B+C+D+E) |
| **2003** | | | | | |
| JAN | 1.0217 | 0.0282 | 0.2415 | 0 | 1.2914 |
| FEB | 1.0217 | 0.0282 | 0.2506 | 0 | 1.3005 |
| MAR | 1.0217 | 0.0282 | 0.2506 | 0 | 1.3005 |
| APR | 1.0217 | 0.0282 | 0.2506 | 0 | 1.3005 |
| MAY | 1.0262 | 0.0282 | 0.2506 | 0 | 1.305 |
| JUNE | 1.0262 | 0.0282 | 0.2506 | 0 | 1.305 |
| JULY | 1.0262 | 0.0282 | 0.2506 | 0 | 1.305 |
| AUG | 1.0262 | 0.0282 | 0.2506 | 0 | 1.305 |
| SEP | 1.0145 | 0.0282 | 0.2506 | 0 | 1.305 |
| OCT | 1.0145 | 0.0282 | 0.2506 | 0 | 1.2933 |
| NOV | 1.0177 | 0.0282 | 0.2506 | 0 | 1.2965 |
| DEC | 1.0177 | 0.0282 | 0.2207 | 0 | 1.2666 |
| **2004** | | | | | |
| JAN | 1.0177 | 0.0282 | 0.2207 | 0 | 1.2666 |
| FEB | 1.073 | 0.0282 | 0.2207 | 0 | 1.3219 |
| MAR | 1.073 | 0.0282 | 0.2207 | 0 | 1.3219 |
| APR | 1.073 | 0.0282 | 0.2207 | 0 | 1.3219 |
| MAY | 1.1283 | 0.0282 | 0.2934 | 0 | 1.4499 |
| JUN | 1.5101 | 0.0282 | 0.2934 | 0 | 1.8317 |
| JUL | 1.5101 | 0.0282 | 0.2934 | 0 | 1.8317 |
| AUG | 1.5101 | 0.0282 | 0.2934 | 0 | 1.8317 |
| SEP | 1.5101 | 0.0282 | 0.2934 | 0 | 1.8317 |

| Month | Generation Charge | Franchise & Benefits to Host Communities | Deferred Accounting Adj. (DAA)* | | NPC Effective Rate |
|---|---|---|---|---|---|
| | | | GRAM | ICERA | |
| (A) | (B) | (C) | (D) | (E) | (F=B+C+D+E) |
| **2004** | | | | | |
| OCT | 2.07 | 0.0282 | 0.1527 /1 | 0.0278 /2 | 2.2787 |
| NOV | 2.07 | 0.0282 | 0.1527 | 0 | 2.2509 |
| DEC | 2.07 | 0.0282 | 0.1527 | 0 | 2.2509 |
| **2005** | | | | | |
| JAN | 2.07 | 0.0282 | 0.1527 | 0 | 2.2509 |
| FEB | 2.07 | 0.0282 | 0.1527 | 0 | 2.2509 |
| MAR | 2.07 | 0.0282 | 0.1527 | 0 | 2.2509 |
| APR | 2.07 | 0.0282 | 0.1527 | 0 | 2.2509 |
| MAY | 2.103 | 0.0282 | 0.4767 /3 | (0.0772) /4 | 2.5307 |
| JUN | 2.103 | 0.0282 | 0.4767 | -0.0772 | 2.5307 |
| JUL | 2.103 | 0.0282 | 0.4767 | -0.0772 | 2.5307 |
| AUG | 2.103 | 0.0282 | 0.4767 | -0.0772 | 2.5307 |
| SEP | 2.103 | 0.0282 | 0.4767 | -0.0772 | 2.5307 |
| OCT | 2.103 | 0.0282 | 0.4767 | -0.0772 | 2.5307 |

## UNBUNDLED RATES FOR MINDANAO GRID, P/kWh

**January 2003 - April 2008**

| Month | Generation Charge | Franchise & Benefits to Host Communities | FOREX/ ICERA | Net FPCA | NPC Effective Rate |
|---|---|---|---|---|---|
| NOV | 2.103 | 0.0282 | 0.4767 | -0.0772 | 2.5307 |
| DEC | 2.103 | 0.0282 | 0.4653 /5 | 0.0000 /6 | 2.5965 |
| 2006 | | | | | |
| JAN | 2.103 | 0.0282 | 0.4653 | 0 | 2.5965 |
| FEB | 2.103 | 0.0282 | 0.4653 | 0 | 2.5965 |
| MAR | 2.103 | 0.0282 | 0.4653 | 0 | 2.5965 |
| APR | 2.103 | 0.0282 | 0.4653 | 0 | 2.5965 |
| MAY | 2.103 | 0.0282 | 0.4653 | 0 | 2.5965 |
| JUN | 2.103 | 0.0282 | 0.4653 | 0 | 2.5965 |
| JUL | 2.103 | 0.0282 | 0.4653 | 0 | 2.5965 |
| AUG | 2.103 | 0.0282 | 0.5048 /8 | -0.001722 | 2.6205 |
| SEP | 2.103 | 0.0282 | 0.5048 | -0.0155 | 2.6205 |
| OCT | 2.103 | 0.0282 | 0.5048 | -0.0155 | 2.6205 |
| NOV | 2.103 | 0.0282 | 0.5048 | -0.0155 | 2.6205 |
| DEC | 2.103 | 0.0282 | 0.5048 | -0.0155 | 2.6205 |
| 2007 | | | | | |
| JAN | 2.103 | 0.0282 | 0.5048 | -0.0155 | 2.6205 |
| FEB | 2.103 | 0.0282 | 0.5048 | -0.0155 | 2.6205 |
| MAR | 2.103 | 0.0282 | 0.4544 /10 | 0.0304 /11 | 2.616 |
| APR | 2.103 | 0.0282 | 0.4544 | 0.0304 | 2.616 |
| MAY | 2.103 | 0.0282 | 0.4544 | 0.0304 | 2.616 |
| JUN | 2.103 | 0.0282 | 0.4544 | 0.0304 | 2.616 |
| JUL | 2.103 | 0.0282 | 0.4544 | 0.0304 | 2.616 |
| AUG | 2.103 | 0.0282 | 0.4544 | 0.0304 | 2.616 |
| SEP | 2.103 | 0.0282 | 0.4544 | 0.0304 | 2.616 |
| OCT | 2.103 | 0.0282 | 0.4023/16 | 0.0188/17 | 2.25523 |
| NOV | 2.103 | 0.0282 | 0.4023 | 0.0188 | 2.25523 |
| DEC | 2.103 | 0.0282 | 0.4023 | 0.0188 | 2.25523 |
| 2008 | | | | | |
| JAN | 2.103 | 0.0282 | 0.4023/18 | 0.0188/19 | 2.25523 |
| FEB | 2.103 | 0.0282 | 0.4023 | 0.0188 | 2.25523 |
| MAR | 2.103 | 0.0282 | 0.4023 | 0.0188 | 2.25523 |
| APR | 2.103 | 0.0282 | 0.4023 | 0.0188 | 2.25523 |

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**/6 Per ERC Order dated November 23, 2005 (Approval of 4th ICERA).**
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**UNBUNDLED RATES FOR MINDANAO GRID, P/kWh**

**January 2003 - April 2008**

| Month | Generation Charge | Franchise & Benefits to Host Communities | FOREX/ ICERA | Net FPCA | NPC Effective Rate |
|---|---|---|---|---|---|

**/8 Per ERC Order dated July 14, 2006 (Approval of 6th GRAM) Partial Decision.**

**/9 Per ERC Order dated July 12, 2006 (Approval of 5th ICERA).**

**/10 Per ERC Order dated June 12, 2007 (Final Decision of 7th GRAM).**

**/11 Per ERC Order dated June 12, 2007 (Final Decision of 6th ICERA).**

**/12 Per ERC Order dated June 12, 2007 (Final Decision of 7th GRAM).**

**/13 Per ERC Order dated June 12, 2007 (Final Decision of 6th ICERA).**

**/14 Per ERC Order dated June 12, 2007 (Final Decision of 7th GRAM).**

**/15 Per ERC Order dated June 12, 2007 (Final Decision of 6th ICERA).**

**/16 Per ERC Order dated September 5, 2007 (Provisional Authority of 8th GRAM).**

**/17 Per ERC Order dated September 5, 2007 (Provisional Authority of 7th ICERA).**

**/18 Per ERC Order dated December 17, 2007 (Final Decission of 8th GRAM).**

**/19 Per ERC Order dated December 21, 2007 (Final Decission of 7th ICERA).**

**/20 Per ERC Order dated December 21, 2007 (Final Decission of 7th ICERA).**

# APPROVED LIFELINE LEVEL AND LIFELINE RATES

| Approved Lifeline Level and Lifeline Rates | | | | | Approved Lifeline Level and Lifeline Rates | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Distribution Utility | | Lifeline Level (kWh) | Discount | Rate | Distribution Utility | | Lifeline Level (kWh) | Discount | Rate |
| **Region I** | **ABRECO** | 0-15 | 10% | **0.0706** | | **MOPRECO** | 0-15 | 10% | **0.0556** |
| | | 16 | 5% | | | | 16 | 5% | |
| | | 17 | 5% | | | | | | |
| | | 18 | 5% | | | | | | |
| | | | | | | **PANELCO I** | 0-15 | 30% | **0.0606** |
| | **BENECO** | 0-20 | 50% | **0.0601** | | | 16 | 25% | |
| | | 21-25 | 40% | | | | 17 | 20% | |
| | | 26-30 | 30% | | | | 18 | 15% | |
| | | 31-35 | 20% | | | | 19 | 10% | |
| | | 36-40 | 10% | | | | 20 | 5% | |
| | | 41-45 | 5% | | | | | | |
| | | | | | | | | | |
| | | | | | | **CENPELCO** | 15 | 35% | **0.0726** |
| | **INEC** | 0-15 | 50% | **0.0510** | | | 16 | 30% | |
| | | 16 | 40% | | | | 17 | 25% | |
| | | 17 | 30% | | | | 18 | 20% | |
| | | 18 | 20% | | | | 19 | 15% | |
| | | 19 | 10% | | | | 20 | 10% | |
| | | 20 | 5% | | | | 21-25 | 5% | |
| | | | | | | | | | |
| | | | | | | | | | |
| | **ISECO** | 0-15 | 30% | **0.0510** | | **PANELCO III** | 15 | 50% | **0.0516** |
| | | 16 | 25% | | | | 17 | 50% | |
| | | 17 | 20% | | | | 18 | 45% | |
| | | 18 | 15% | | | | 19 | 40% | |
| | | 19 | 10% | | | | 20 | 30% | |
| | | 20 | 5% | | | | 25 | 25% | |
| | | | | | | | 26 | 10% | |
| | | | | | | | | | |
| | **LUELCO** | 0-15 | 50% | **0.0883** | | | | | |
| | | 16 | 40% | | | | | | |
| | | 17 | 30% | | | | | | |
| | | 18 | 20% | | | | | | |
| | | 19 | 10% | | | | | | |
| | | 20 | 5% | | | | | | |
| | | 25 | 5% | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

| Approved Lifeline Level and Lifeline Rates | | | | | Approved Lifeline Level and Lifeline Rates | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Distribution Utility | | Lifeline Level (kWh) | Discount | Rate | Distribution Utility | | Lifeline Level (kWh) | Discount | Rate |
| | | | | | | | | | |
| **Region II** | **BATANELCO** | 0-15 | 35% | **0.0994** | | **ISELCO II** | 0-15 | 30% | **0.0628** |
| | | 16 | 30% | | | | 16 | 25% | |
| | | 17 | 25% | | | | 17 | 20% | |
| | | 18 | 15% | | | | 18 | 15% | |
| | | 19 | 10% | | | | 19 | 10% | |
| | | 20 | 5% | | | | 20 | 5% | |
| | | | | | | | | | |
| | | | | | | | | | |
| | **CAGELCO I** | 0-15 | 50% | **0.0604** | | **KAELCO** | 0-15 | 10% | **0.0653** |
| | | 16 | 40% | | | | 20 | 5% | |
| | | 17 | 30% | | | | | | |
| | | 18 | 20% | | | **NUVELCO** | 0-16 | 50% | **0.1094** |
| | | 19 | 10% | | | | 17 | 40% | |
| | | 20 | 5% | | | | 18 | 30% | |
| | | | | | | | 19 | 20% | |
| | **CAGELCO II** | 0-15 | 15% | **0.0689** | | | 20 | 10% | |
| | | 16 | 10% | | | | | | |
| | | 17 | 5% | | | **QUIRELCO** | 0-15 | 15% | **0.0995** |
| | | | | | | | 16 | 10% | |
| | **IFELCO** | 0-15 | 15% | **.0975** | | | 17 | 5% | |
| | | 16 | 10% | | | | | | |
| | | 17 | 10% | | | | | | |
| | | 18 | 5% | | | | | | |
| | | 19 | 5% | | | | | | |
| | | 20 | 5% | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | **ISELCO I** | 0-15 | 50% | **0.0593** | | | | | |
| | | 16 | 45% | | | | | | |
| | | 17 | 40% | | | | | | |
| | | 18 | 30% | | | | | | |
| | | 19 | 20% | | | | | | |
| | | 20 | 10% | | | | | | |
| | | 25 | 5% | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

| Approved Lifeline Level and Lifeline Rates | | | | | Approved Lifeline Level and Lifeline Rates | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Distribution Utility | | Lifeline Level (kWh) | Discount | Rate | Distribution Utility | | Lifeline Level (kWh) | Discount | Rate |
| **Region III** | **NEECO I** | | | **0.0508** | | **PELCO III** | | | **0.0674** |
| | | 0-15 | 30% | | | | 0-15 | 35% | |
| | | 16 - 20 | 20% | | | | 16 | 30% | |
| | | 21 - 25 | 10% | | | | 17 | 25% | |
| | | 26 - 30 | 5% | | | | 18 | 20% | |
| | | | | | | | 19 | 15% | |
| | **NEECO II** | 0-15 | 50% | **0.0575** | | | 20 | 10% | |
| | | 16 | 40% | | | | 25 | 5% | |
| | | 17 | 30% | | | | | | |
| | | 18 | 20% | | | **PENELCO** | 0-15 | 50% | **0.0565** |
| | | 19 | 10% | | | | 20 | 40% | |
| | | 20 | 5% | | | | 25 | 30% | |
| | | | | | | | 30 | 20% | |
| | | | | | | | 35 | 10% | |
| | **NEECO III** | 0-10 | 50% | **0.0657** | | | 40 | 5% | |
| | | 12 | 40% | | | | | | |
| | | 14 | 30% | | | | | | |
| | | 16 | 20% | | | **SAJELCO** | 0-10 | 30% | **0.0587** |
| | | 18 | 10% | | | | 26 | 25% | |
| | | 20 | 5% | | | | 27 | 20% | |
| | | | | | | | 28 | 15% | |
| | | | | | | | 29 | 10% | |
| | **PELCO I** | 0 - 15 | 50% | **0.0258** | | | 35 | 5% | |
| | | 16 | 40% | | | | | | |
| | | 17 | 30% | | | | | | |
| | | 18 | 20% | | | **TARELCO I** | 0-15 | 50% | **0.0619** |
| | | 19 | 10% | | | | 16 | 40% | |
| | | 20 | 5% | | | | 17 | 30% | |
| | | | | | | | 18 | 20% | |
| | **PELCO II** | 0-15 | 50% | **0.0667** | | | 19 | 10% | |
| | | 20 | 45% | | | | 20 | 5% | |
| | | 25 | 40% | | | | | | |
| | | 30 | 35% | | | | | | |
| | | 35 | 30% | | | **TARELCO II** | 0-15 | 50% | **0.0510** |
| | | 36 | 25% | | | | 17 | 40% | |
| | | 37 | 20% | | | | 19 | 30% | |
| | | 38 | 15% | | | | 21 | 20% | |
| | | 39 | 10% | | | | 23 | 10% | |
| | | | | | | | 25 | 5% | |

| Approved Lifeline Level and Lifeline Rates | | | | | Approved Lifeline Level and Lifeline Rates | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Distribution Utility | | Lifeline Level (kWh) | Discount | Rate | Distribution Utility | | Lifeline Level (kWh) | Discount | Rate |
| **Region III** | **ZAMECO I** | | | **0.0556** | **Region IV** | **BATELEC II** | | | **0.0502** |
| | | 0-15 | 50% | | | | 0-15 | 50% | |
| | | 16 | 40% | | | | 20 | 45% | |
| | | 17 | 30% | | | | 25 | 40% | |
| | | 18 | 20% | | | | 30 | 35% | |
| | | 19 | 10% | | | | 35 | 20% | |
| | | 20 | 5% | | | | 40 | 10% | |
| | | | | | | | 45 | 5% | |
| | **ZAMECO II *** | | | **0.0673** | | | | | |
| | | 0-20 | 50% | | | **FLECO** | 0-16 | 50% | **0.0604** |
| | | 21 | 25% | | | | 17 | 40% | |
| | | 22 | 25% | | | | 18 | 30% | |
| | | 23 | 25% | | | | 19 | 20% | |
| | | 24 | 25% | | | | 20 | 10% | |
| | | 25 | 25% | | | | 25 | 5% | |
| | | | | | | | | | |
| | **PRESCO** | | | **0.0947** | | | | | |
| | | 0-15 | 50% | | | **LUBELCO** | | | |
| | | 16 | 40% | | | | 0 - 7 | 10% | |
| | | 17 | 30% | | | | 10 | 5% | |
| | | 18 | 20% | | | | | | |
| | | 19 | 10% | | | **QUEZELCO I** | 0-15 | 35% | **0.0761** |
| | | 20 | 5% | | | | 16 | 30% | |
| | | | | | | | 17 | 25% | |
| **Region IV** | **AURELCO** | 0-10 | 30% | **.0859** | | | 18 | 20% | |
| | | 11 | 25% | | | | 19 | 15% | |
| | | 12 | 20% | | | | 20 | 10% | |
| | | 13 | 15% | | | | 25 | 5% | |
| | | 14 | 10% | | | | | | |
| | | 15 | 5% | | | | | | |
| | | | | | | **QUEZELCO II** | | | |
| | **BATELEC I** | | | **0.1027** | | **Mainland** | 0-15 | 30% | **0.0767** |
| | | 0-15 | 50% | | | **SPUG** | 16 | 25% | **0.0767** |
| | | 17 | 40% | | | | 17 | 20% | |
| | | 19 | 30% | | | | 18 | 15% | |
| | | 20 | 20% | | | | 19 | 10% | |
| | | 25 | 15% | | | | 20 | 5% | |
| | | 30 | 10% | | | | | | |
| | | 35 | 5% | | | | | | |

| Approved Lifeline Level and Lifeline Rates | | | | | Approved Lifeline Level and Lifeline Rates | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Distribution Utility | | Lifeline Level (kWh) | Discount | Rate | Distribution Utility | | Lifeline Level (kWh) | Discount | Rate |
| **Region IV** | **MARELCO** | 0-15 | 50% | **0.0661** | **Region IV** | **PALECO** | 0-15 | 50% | **0.0832** |
| | | 16 | 40% | | | | 20 | 40% | |
| | | 17 | 30% | | | | 25 | 35% | |
| | | 18 | 20% | | | | 30 | 30% | |
| | | 19 | 10% | | | | 31 | 25% | |
| | | 20 | 5% | | | | 32 | 20% | |
| | | | | | | | 33 | 15% | |
| | | | | | | | 34 | 10% | |
| | **OMECO** | 15 & below | 50% | **0.0704** | | | 35 | 5% | |
| | | 16 | 40% | | | | | | |
| | | 17 | 30% | | | **ROMELCO** | 0-15 | 30% | **0.0769** |
| | | 18 | 20% | | | | 16 | 25% | |
| | | 19 | 10% | | | | 17 | 20% | |
| | | 20 | 5% | | | | 18 | 15% | |
| | | | | | | | 19 | 10% | |
| | | | | | | | | | |
| | **ORMECO** | 15 | 50% | **0.0616** | **Region V** | **ALECO** | 0-20 | 50% | **0.0533** |
| | | 16 | 40% | | | | 21 | 40% | |
| | | 17 | 30% | | | | 22 | 30% | |
| | | 18 | 20% | | | | 23 | 20% | |
| | | 19 | 10% | | | | 24 | 10% | |
| | | 25 | 5% | | | | 25 | 5% | |
| | | | | | | | | | |
| | | | | | | **CANORECO** | 0-15 | 50% | **0.0584** |
| | **TIELCO** | 15 | 20% | **0.0915** | | | 16 | 40% | |
| | | 16 | 20% | | | | 17 | 30% | |
| | | 17 | 20% | | | | 18 | 20% | |
| | | 18 | 15% | | | | 19 | 10% | |
| | | 19 | 10% | | | | 20 | 5% | |
| | | 20 | 5% | | | | | | |
| | | | | | | | | | |
| | | | | | | **CASURECO I** | | | **0.0897** |
| | **BISELCO** | 0 - 15 | 25% | **0.0945** | | | 15 | 40% | |
| | | 16 | 10% | | | | 16 | 30% | |
| | | 17 | 15% | | | | 17 | 25% | |
| | | 18 | 15% | | | | 18 | 20% | |
| | | 19 | 10% | | | | 19 | 10% | |
| | | 20 | 5% | | | | 20 | 5% | |
| | | | | | | | | | |

| Approved Lifeline Level and Lifeline Rates | | | | | Approved Lifeline Level and Lifeline Rates | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Distribution Utility | | Lifeline Level (kWh) | Discount | Rate | Distribution Utility | | Lifeline Level (kWh) | Discount | Rate |
| **Region V** | **ALECO** | 0-20 | 50% | **0.0533** | **Region V** | **CASURECO IV** | 0-15 | 40% | **0.0811** |
| | | 21 | 40% | | | | 16 | 30% | |
| | | 22 | 30% | | | | 17 | 25% | |
| | | 23 | 20% | | | | 18 | 20% | |
| | | 24 | 10% | | | | 19 | 10% | |
| | | 25 | 5% | | | | 20 | 5% | |
| | | | | | | | | | |
| | | | | | | | | | |
| | **CANORECO** | 0-15 | 50% | **0.0584** | | **FICELCO** | 0-15 | 20% | **0.0779** |
| | | 16 | 40% | | | | 16 | 15% | |
| | | 17 | 30% | | | | 17 | 10% | |
| | | 18 | 20% | | | | 18 | 10% | |
| | | 19 | 10% | | | | 19 | 5% | |
| | | 20 | 5% | | | | 20 | 5% | |
| | | | | | | | | | |
| | | | | | | | | | |
| | **CASURECO I** | 0-15 | 40% | **0.0897** | | **MASELCO** | 0-20 | 50% | **0.0607** |
| | | 16 | 30% | | | | 21 | 40% | |
| | | 17 | 25% | | | | 22 | 30% | |
| | | 18 | 20% | | | | 23 | 20% | |
| | | 19 | 10% | | | | 24 | 10% | |
| | | 20 | 5% | | | | 25 | 5% | |
| | | | | | | | | | |
| | | | | | | | | | |
| | **CASURECO II** | 0-15 | 50% | **0.0569** | | **SORECO I** | 0-15 | 25% | **0.0639** |
| | | 20 | 40% | | | | 16 | 20% | |
| | | 25 | 30% | | | | 17 | 10% | |
| | | 30 | 20% | | | | 18 | 5% | |
| | | 35 | 10% | | | | | | |
| | | | | | | | | | |
| | | | | | | **SORECO II** | 0-15 | 20% | **0.0564** |
| | **CASURECO III** | 0-15 | 25% | **0.0739** | | | 16 | 15% | |
| | | 16 | 20% | | | | 17 | 10% | |
| | | 17 | 15% | | | | 20 | 5% | |
| | | 18 | 10% | | | | | | |
| | | 20 | 5% | | | **TISELCO** | 0-15 | 20% | **0.0880** |
| | | | | | | | 16 | 15% | |
| | | | | | | | 18 | 10% | |
| | | | | | | | 20 | 5% | |

| Approved Lifeline Level and Lifeline Rates | | | | | Approved Lifeline Level and Lifeline Rates | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Distribution Utility | | Lifeline Level (kWh) | Discount | Rate | Distribution Utility | | Lifeline Level (kWh) | Discount | Rate |
| **Region VI** | **AKELCO** | 0-15 | 50% | **0.0929** | | **ILECO III** | 0-15 | 40% | **0.0530** |
| | | 16 | 40% | | | | 17 | 30% | |
| | | 17 | 30% | | | | 19 | 20% | |
| | | 18 | 20% | | | | 21 | 15% | |
| | | 19 | 10% | | | | 23 | 10% | |
| | | 20 | 5% | | | | 25 | 5% | |
| | | | | | | | | | |
| | | | | | | **GUIMELCO** | 0-15 | 40% | **0.0564** |
| | **ANTECO** | 0-15 | 50% | **0.0530** | | | 16 | 30% | |
| | | 16 | 40% | | | | 17 | 25% | |
| | | 17 | 30% | | | | 18 | 20% | |
| | | 18 | 20% | | | | 19 | 10% | |
| | | 19 | 10% | | | | 20 | 5% | |
| | | 20 | 5% | | | | | | |
| | | | | | | **VRESCO** | 0-15 | 50% | **0.0395** |
| | | | | | | | 16 | 40% | |
| | **CAPELCO** | 0-15 | 50% | **0.0611** | | | 17 | 30% | |
| | | 16 | 30% | | | | 18 | 20% | |
| | | 17 | 25% | | | | 19 | 15% | |
| | | 18 | 20% | | | | 20 | 10% | |
| | | 19 | 10% | | | | 25 | 5% | |
| | | 20 | 5% | | | | | | |
| | | | | | | **CENECO** | 0-15 | 50% | **0.0670** |
| | | | | | | | 30 | 45% | |
| | **ILECO I** | 0-15 | 50% | **0.0649** | | | 35 | 40% | |
| | | 16 | 40% | | | | 40 | 35% | |
| | | 17 | 30% | | | | 45 | 30% | |
| | | 18 | 20% | | | | 50 | 25% | |
| | | 19 | 10% | | | | 60 | 20% | |
| | | 20 | 5% | | | | 70 | 10% | |
| | | | | | | | 80 | 5% | |
| | | | | | | | | | |
| | **ILECO II** | 0-15 | 50% | **0.0911** | | **NOCECO** | 0-15 | 40% | **0.0541** |
| | | 16 | 40% | | | | 17 | 35% | |
| | | 17 | 30% | | | | 19 | 25% | |
| | | 18 | 20% | | | | 21 | 15% | |
| | | 19 | 10% | | | | 23 | 10% | |
| | | 25 | 5% | | | | 25 | 5% | |
| | | | | | | | | | |

| Approved Lifeline Level and Lifeline Rates | | | | | Approved Lifeline Level and Lifeline Rates | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Distribution Utility | | Lifeline Level (kWh) | Discount | Rate | Distribution Utility | | Lifeline Level (kWh) | Discount | Rate |
| **Region VII** | **BANELCO** | 0-15 | 20% | **0.0744** | **Region VII** | **CEBECO III** | 0-15 | 50% | **0.0525** |
| | | 16 | 15% | | | | 20 | 45% | |
| | | 17 | 10% | | | | 21 | 40% | |
| | | 18 | 10% | | | | 22 | 35% | |
| | | 19 | 5% | | | | 23 | 30% | |
| | | 20 | 5% | | | | 24 | 20% | |
| | | | | | | | 25 | 10% | |
| | | | | | | | 30 | 5% | |
| | **BOHECO I** | 0-16 | 10% | **0.0527** | | | | | |
| | | 17 | 5% | | | | | | |
| | | | | | | **NORECO I** | 0-15 | 50% | **0.0798** |
| | | | | | | | 16 | 40% | |
| | **BOHECO II** | 0-10 | 30% | **0.0867** | | | 17 | 30% | |
| | | 11 | 25% | | | | 18 | 20% | |
| | | 12 | 20% | | | | 19 | 10% | |
| | | 13 | 15% | | | | 20 | 5% | |
| | | 14 | 10% | | | | | | |
| | | 15 | 5% | | | | | | |
| | | | | | | **NORECO II** | 0-15 | 50% | **0.0692** |
| | | | | | | | 16 | 40% | |
| | **CELCO** | 0-12 | 10% | **0.0616** | | | 17 | 30% | |
| | | | | | | | 18 | 20% | |
| | | | | | | | 19 | 10% | |
| | **CEBECO I** | 0-10 | 50% | **0.0887** | | | 20 | 5% | |
| | | 16 | 40% | | | | | | |
| | | 17 | 30% | | | | | | |
| | | 18 | 20% | | | **PROSIELCO** | 0-16 | 15% | **0.0992** |
| | | 19 | 10% | | | | 18 | 10% | |
| | | 20 | 5% | | | | 20 | 5% | |
| | | | | | | | | | |
| | | | | | | | | | |
| | **CEBECO II** | 0-15 | 50% | **0.0614** | | | | | |
| | | 16 | 40% | | | | | | |
| | | 17 | 30% | | | | | | |
| | | 18 | 20% | | | | | | |
| | | 19 | 10% | | | | | | |
| | | 20 | 5% | | | | | | |
| | | | | | | | | | |

| Approved Lifeline Level and Lifeline Rates | | | | | Approved Lifeline Level and Lifeline Rates | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Distribution Utility | | Lifeline Level (kWh) | Discount | Rate | Distribution Utility | | Lifeline Level (kWh) | Discount | Rate |
| **Region VIII** | **BILECO** | 0-15 | 20% | **0.01571** | **Region VIII** | **SOLECO** | 0 - 5 | 15% | **0.0970** |
| | | 16 | 10% | | | | 7 | 10% | |
| | | 17 | 5% | | | | 10 | 5% | |
| | | | | | | | | | |
| | | | | | | **LEYECO I** | 0-10 | 40% | **0.0397** |
| | **ESAMELCO** | | | **0.0647** | | | 11 | 30% | |
| | | 0-10 | 50% | | | | 12 | 20% | |
| | | 11 | 40% | | | | 13 | 10% | |
| | | 12 | 30% | | | | 14 | 10% | |
| | | 13 | 20% | | | | 15 | 5% | |
| | | 14 | 10% | | | | | | |
| | | 15 | 5% | | | **LEYECO II** | 0-20 | 50% | **0.0520** |
| | | | | | | | 25 | 45% | |
| | **NORSAMELCO** | | | **0.0828** | | | 30 | 40% | |
| | | 0-15 | 35% | | | | 35 | 35% | |
| | | 16 | 30% | | | | 40 | 30% | |
| | | 17 | 25% | | | | 45 | 25% | |
| | | 18 | 20% | | | | 50 | 20% | |
| | | 19 | 15% | | | | 55 | 15% | |
| | | 20 | 10% | | | | 60 | 10% | |
| | | 225 | 5% | | | | 70 | 5% | |
| | | | | | | | | | |
| | **SAMELCO I** | | | **0.0625** | | **LEYECO III** | 0-16 | | **0.0840** |
| | | 0-15 | 30% | | | | 18 | 10% | |
| | | 16 | 25% | | | | 20 | 5% | |
| | | 17 | 20% | | | | | | |
| | | 18 | 15% | | | **LEYECO IV** | 0-15 | 25% | **0.1654** |
| | | 19 | 10% | | | | 16 | 15% | |
| | | 20 | 5% | | | | 17 | 10% | |
| | **SAMELCO II** | | | **0.0788** | | | 18 | 10% | |
| | | 0-15 | 30% | | | | 19 | 5% | |
| | | 16 | 25% | | | | 20 | 5% | |
| | | 17 | 20% | | | **LEYECO V** | 0-20 | 50% | **0.0699** |
| | | 18 | 15% | | | | 21 | 40% | |
| | | 19 | 10% | | | | 22 | 30% | |
| | | 20 | 5% | | | | 23 | 20% | |
| | | | | | | | 24 | 10% | |
| | | | | | | | 25 | 5% | |

| Approved Lifeline Level and Lifeline Rates | | | | | Approved Lifeline Level and Lifeline Rates | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Distribution Utility | | Lifeline Level (kWh) | Discount | Rate | Distribution Utility | | Lifeline Level (kWh) | Discount | Rate |
| **Region IX** | **BASELCO** | 0-15 | 15% | **0.0902** | **Region IX** | **ZAMSURECO II** | 0-15 | 20.00% | **0.1601** |
| | | 17 | 10% | | | | 16 | 15.00% | |
| | | 20 | 5% | | | | 17 | 10.00% | |
| | | | | | | | 18 | 5.00% | |
| | **CASELCO** | 0-5 | 20% | **0.0744** | | | | | |
| | | 6 | 15% | | **Region X** | **ANECO** | 0-25 | 50% | **0.0522** |
| | | 7 | 10% | | | | 26 | 45% | |
| | | 10 | 5% | | | | 27 | 40% | |
| | | | | | | | 28 | 35% | |
| | **SIASELCO** | 0-10 | 50% | **0.0631** | | | 29 | 30% | |
| | | 15 | 25% | | | | 30 | 20% | |
| | | | | | | | 35 | 10% | |
| | **SULECO** | 0-15 | 50% | **0.0698** | | | 40 | 5% | |
| | | 20 | 25% | | | | | | |
| | | | | | | **ASELCO** | 0-15 | 50% | **0.0706** |
| | **TAWELCO** | 0-15 | 20% | **0.0527** | | | 16 | 45% | |
| | | 20 | 15% | | | | 17 | 40% | |
| | | 25 | 5% | | | | 18 | 30% | |
| | | | | | | | 19 | 20% | |
| | **ZANECO** | 0-15 | 50.00% | **0.0299** | | | 20 | 10% | |
| | | 16 | 40.00% | | | | 25 | 5% | |
| | | 17 | 30.00% | | | | | | |
| | | 18 | 20.00% | | | **BUSECO II** | 0-15 | 50% | **0.0560** |
| | | 19 | 10.00% | | | | 16 | 45% | |
| | | 20 | 5.00% | | | | 17 | 40% | |
| | | | | | | | 18 | 35% | |
| | **ZAMCELCO** | 0-50 | 50.00% | **0.0513** | | | 19 | 30% | |
| | | 60 | 45.00% | | | | 20 | 25% | |
| | | 65 | 40.00% | | | | 21 | 20% | |
| | | 70 | 35.00% | | | | 22 | 15% | |
| | | 75 | 30.00% | | | | 23 | 10% | |
| | | | | | | | 25 | 5% | |
| | **ZAMSURECO I** | 0-20 | 40.00% | **0.0654** | | | | | |
| | | 21 | 30.00% | | | **MOELCI I** | 0-10 | 50% | **0.0556** |
| | | 22 | 25.00% | | | | 11 | 40% | |
| | | 23 | 15.00% | | | | 12 | 30% | |
| | | 24 | 10.00% | | | | 13 | 20% | |
| | | 25 | 5.00% | | | | 14 | 10% | |
| | | | | | | | 15 | 5% | |

| Approved Lifeline Level and Lifeline Rates | | | | | Approved Lifeline Level and Lifeline Rates | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Distribution Utility | | Lifeline Level (kWh) | Discount | Rate | Distribution Utility | | Lifeline Level (kWh) | Discount | Rate |
| **Region X** | **MOELCI II** | 0-15 | 50% | **0.0641** | **Region X** | **SIARELCO** | 0-15 | 50% | **0.0517** |
| | | 16 | 40% | | | | 16 | 10% | |
| | | 17 | 30% | | | | 17 | 5% | |
| | | 18 | 20% | | | | | | |
| | | 19 | 10% | | | **DIELCO** | 0-10 | 25% | **0.0616** |
| | | 20 | 5% | | | | 15 | 10% | |
| | | | | | | | | | |
| | **MORESCO I** | 0-20 | 50% | **0.0674** | | **FIBECO** | 0-15 | 50% | **0.0606** |
| | | 25 | 45% | | | | 16 | 40% | |
| | | 26 | 40% | | | | 17 | 30% | |
| | | 27 | 35% | | | | 18 | 20% | |
| | | 28 | 30% | | | | 19 | 10% | |
| | | 29 | 25% | | | | 20 | 5% | |
| | | 30 | 15% | | | | | | |
| | | 35 | 10% | | **Region XI** | **DANECO** | 0-15 | 50.00% | **0.0515** |
| | | | | | | | 20 | 45.00% | |
| | | | | | | | 25 | 35.00% | |
| | **MORESCO II** | 0-15 | 50% | **0.0542** | | | 30 | 25.00% | |
| | | 16 | 40% | | | | 35 | 10.00% | |
| | | 17 | 30% | | | | 40 | 5.00% | |
| | | 18 | 20% | | | | | | |
| | | 19 | 10% | | | **DASURECO** | 0-15 | 60% | **0.0608** |
| | | 20 | 5% | | | | 20 | 50% | |
| | | | | | | | 25 | 40% | |
| | | | | | | | 26 | 35% | |
| | **SURNECO** | 0 - 15 | 50% | **0.0520** | | | 27 | 30% | |
| | | 16 | 40% | | | | 28 | 20% | |
| | | 17 | 30% | | | | 29 | 10% | |
| | | 18 | 20% | | | | 30 | 5% | |
| | | 19 | 10% | | | **DORECO** | 0-15 | 30% | **0.0557** |
| | | 40 | 5% | | | | 17 | 20% | |
| | | | | | | | 19 | 10% | |
| | | | | | | | 20 | 5% | |
| | **CAMELCO** | 0-15 | 45% | **0.1177** | | **SOCOTECO II** | 0-20 | 40% | **0.0564** |
| | | 16 | 40% | | | | 21 | 35% | |
| | | 17 | 30% | | | | 22 | 30% | |
| | | 18 | 20% | | | | 23 | 20% | |
| | | 19 | 10% | | | | 24 | 10% | |
| | | 20 | 5% | | | | 25 | 5% | |

| Approved Lifeline Level and Lifeline Rates | | | | | Approved Lifeline Level and Lifeline Rates | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Distribution Utility | | Lifeline Level (kWh) | Discount | Rate | Distribution Utility | | Lifeline Level (kWh) | Discount | Rate |
| **Region XI** | **SOCOTECO I** | 0-20 | 50% | **0.0787** | **Region XI** | **MAGELCO** | 0-15 | 50% | **0.0793** |
| | | 25 | 45% | | | | 17 | 40% | |
| | | 30 | 40% | | | | 19 | 30% | |
| | | 35 | 35% | | | | 20 | 25% | |
| | | 40 | 30% | | | | 25 | 20% | |
| | | 45 | 25% | | | | 30 | 10% | |
| | | 50 | 20% | | | | 35 | 5% | |
| | | 55 | 15% | | | | | | |
| | | 60 | 10% | | | **COTELCO** | 0-15 | 40% | **0.0622** |
| | | 65 | 5% | | | | 16 | 30% | |
| | | | | | | | 17 | 25% | |
| | **SURSECO I** | 0-15 | 50% | **0.0816** | | | 18 | 20% | |
| | | 16 | 40% | | | | 19 | 15% | |
| | | 17 | 30% | | | | 20 | 10% | |
| | | 18 | 20% | | | | 25 | 5% | |
| | | 19 | 10% | | | | | | |
| | | 20 | 5% | | | | | | |
| | | | | | | **SUKELCO** | 0-25 | 50% | **0.0559** |
| | **SURSECO II** | 0-15 | 20% | **0.0963** | | | 26 | 40% | |
| | | 16 | 15% | | | | 27 | 30% | |
| | | 18 | 10% | | | | 28 | 20% | |
| | | 20 | 5% | | | | 29 | 10% | |
| | | | | | | | 30 | 5% | |
| **Region XII** | **LANECO** | 0-15 | 25% | **0.0510** | | | | | |
| | | 16 | 20% | | | | | | |
| | | 17 | 10% | | | | | | |
| | | 18 | 5% | | | | | | |
| | | 19 | 5% | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | **LASURECO** | 0-15 | 50% | **0.0575** | | | | | |
| | | 20 | 45% | | | | | | |
| | | 25 | 40% | | | | | | |
| | | 30 | 30% | | | | | | |
| | | 35 | 20% | | | | | | |
| | | 40 | 15% | | | | | | |
| | | 45 | 10% | | | | | | |
| | | 50 | 5% | | | | | | |
| | | | | | | | | | |

| Approved Lifeline Level and Lifeline Rates | | | | | Approved Lifeline Level and Lifeline Rates | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Distribution Utility** | | **Lifeline Level (kWh)** | **Discount** | **Rate** | **Distribution Utility** | | **Lifeline Level (kWh)** | **Discount** | **Rate** |
| **Private Utilities** | **MERALCO** | 0-50 | 50% | **0.1079** | **Private Utilities** | **SFELAPCO** | 40 & below | 50% | **0.0906** |
| | | 70 | 35% | | | | 41 - 50 | 45% | |
| | | 100 | 20% | | | | 51 - 60 | 40% | |
| | | | | | | | 61 - 70 | 35% | |
| | **CELCOR** | 1-30 | 40% | **0.0770** | | | 71 - 80 | 30% | |
| | | 31-40 | 30% | | | | 81 - 90 | 20% | |
| | | 41-50 | 20% | | | | 91 - 100 | 10% | |
| | | 51-60 | 10% | | | | | | |
| | | 61-75 | 5% | | | **TEI** | 0-25 | 50% | **0.0607** |
| | | | | | | | 26-30 | 45% | |
| | **DECORP** | 0-30 | 50% | **0.0707** | | | 31-35 | 40% | |
| | | 61-45 | 10% | | | | 36-40 | 35% | |
| | | 46-80 | 5% | | | | 41-45 | 30% | |
| | | | | | | | | | |
| | **IEEC** | 0 - 25 | 50% | **0.0728** | | **BLCI** | 15 kWh and below | 50% | **0.0314** |
| | | 26 - 30 | 35% | | | | 16 - 25 kWh | 45% | |
| | | 31 - 35 | 25% | | | | 26 - 35 kWh | 40% | |
| | | 36 - 40 | 15% | | | | 36 - 45 kWh | 35% | |
| | | 41 - 50 | 10% | | | | | | |
| | | | | | | **MECO** | 0-20 | 50% | **0.0528** |
| | **LUELCO** | 25 below | 50% | **0.0763** | | | 21-25 | 45% | |
| | | 26 - 30 | 45% | | | | 26-30 | 40% | |
| | | 31 - 35 | 40% | | | | 31-35 | 35% | |
| | | 36 - 40 | 35% | | | | 36-40 | 30% | |
| | | 41 - 45 | 30% | | | | 41-45 | 25% | |
| | | 46 - 50 | 25% | | | | 46-50 | 20% | |
| | | 51 - 55 | 20% | | | | 51-55 | 15% | |
| | | 56 - 60 | 15% | | | | 56-60 | 10% | |
| | | 61 - 65 | 10% | | | | 61-65 | 5% | |
| | | 66 - 70 | 50% | | | | | | |
| | | | | | | **PECO** | 75 below | 50% | **0.1183** |
| | **PUD - OLONGAPO** | 0-10 | 50% | **0.0520** | | | 76-80 | 40% | |
| | | 11-20 | 45% | | | | 81-85 | 30% | |
| | | 21-30 | 40% | | | | 86-90 | 20% | |
| | | 31-40 | 35% | | | | 91-95 | 10% | |
| | | 41-50 | 30% | | | | 96-100 | 5% | |
| | | 51-60 | 25% | | | | | | |

| Approved Lifeline Level and Lifeline Rates | | | | | Approved Lifeline Level and Lifeline Rates | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Distribution Utility** | | **Lifeline Level (kWh)** | **Discount** | **Rate** | **Distribution Utility** | | **Lifeline Level (kWh)** | **Discount** | **Rate** |
| **Private Utilities** | **VECO** | 0-50 | 30% | **0.0876** | **Private Utilities** | **COLIGHT** | 0-35 | 50% | **0.0585** |
| | | 51 | 25% | | | | 36-40 | 45% | |
| | | 52 | 20% | | | | 41-45 | 40% | |
| | | 53 | 15% | | | | 46-50 | 35% | |
| | | 54 | 10% | | | | 51-55 | 30% | |
| | | 55 | 5% | | | | 56-60 | 25% | |
| | | | | | | | 61-65 | 20% | |
| | **CEPALCO** | 0-15 | 40% | **0.0507** | | | 66-70 | 15% | |
| | | 16 | 30% | | | | 71-75 | 10% | |
| | | 17 | 25% | | | | 76-80 | 5% | |
| | | 18 | 20% | | | | | | |
| | | 19 | 15% | | | **DALIGHT** | 0-25 | 50% | **0.0720** |
| | | 20 | 10% | | | | 26 | 40% | |
| | | 21-25 | 5% | | | | 27 | 30% | |
| | | | | | | | 28 | 20% | |
| | **ILPI** | 40 & below | 50% | **0.0923** | | | 29 | 10% | |
| | | 41 - 50 | 45% | | | | 30 | 5% | |
| | | 51 - 60 | 40% | | | | | | |
| | | 61 - 70 | 35% | | | | | | |
| | | 71 - 80 | 30% | | | | | | |
| | | 81 - 90 | 20% | | | | | | |
| | | 91 - 100 | 10% | | | | | | |

**Note: * Not yet implementing the unbundled rates**

# LUZON WESM COMMERCIAL OPERATION HIGHLIGHTS

Philippine Electricity Market Corporation

March 28, 2008
LAH/PEMC-08/ 028

**HON. ANGELO T. REYES**
Secretary
Department of Energy
Energy Center, Meritt Road, Fort Bonifacio,
Taguig, Metro Manila

Dear Secretary Reyes,

We are pleased to submit PEMC's Narrative Report on the Wholesale Electricity Spot Market (WESM) Implementation Update for the period 26 September – 25 February 2008.

Please feel free to call us should you have any further questions. Thank you for your continued support for the WESM.

Kindest regards,

**LASSE A. HOLOPAINEN**
President

**Luzon WESM Commercial Operation Highlights**

The Philippine Wholesale Electricity Spot Market (WESM) went through its last quarter of 2007 and the first two months of 2008 without any significant departure from the market conditions as assessed in the last Market Assessment Report for this EPIRA Update. Thus, this portion of the EPIRA Update will continue to highlight what needs to be done to improve the performance of the electricity spot market especially on the aspect of promoting competition and the efforts on the mitigation of market power exercise.

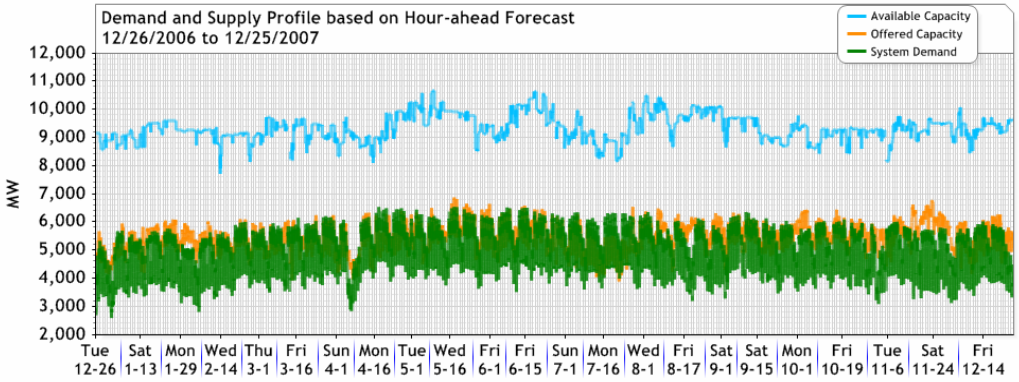
We remain grounded in the assessment that full competition was still not accomplished as a result of hangovers from the old industry structure. The capacity gap continued to be a permanent feature of the more than a year-old electricity spot market. The consequence of a diluted market outcome continued to manifest itself as pricing errors and undergenerations. As a result, market transparency was still under challenge. This made the monitoring of market rule breaches and uncompetitive market behavior two tasks that necessitate the creative energies of PEMC's various Market Governance groups and the government regulators.

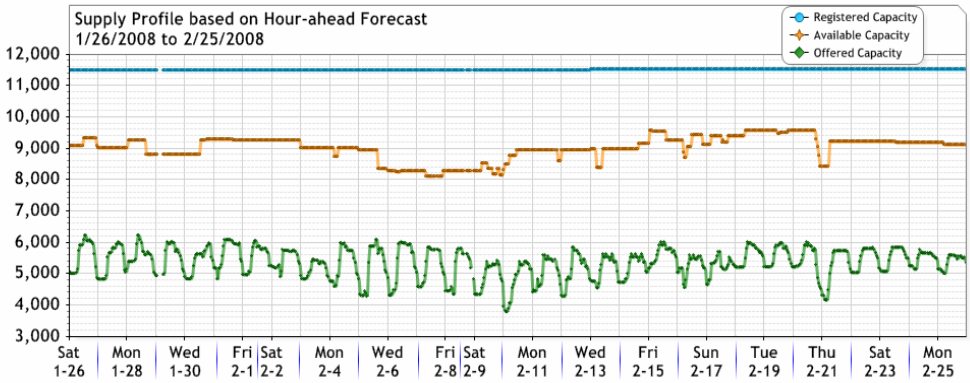
In terms of competition monitoring indices, the potential to commit uncompetitive actions by market participants was manifested in the very highly concentrated nature of the electricity market especially if considered in terms of the major market participants to include the PSALM, the NPC and the MERALCO-controlled independent power producers (IPP).

The WESM is expected to expand to the Visayas before the end of 2008 for a fully-integrated Luzon and Visayas electricity market grid. This poses doubly severe if not novel challenges to market governance and the daily grind of market monitoring and surveillance. We have only vague ideas what kind of governance and competition challenges the Visayas really has in store for us.

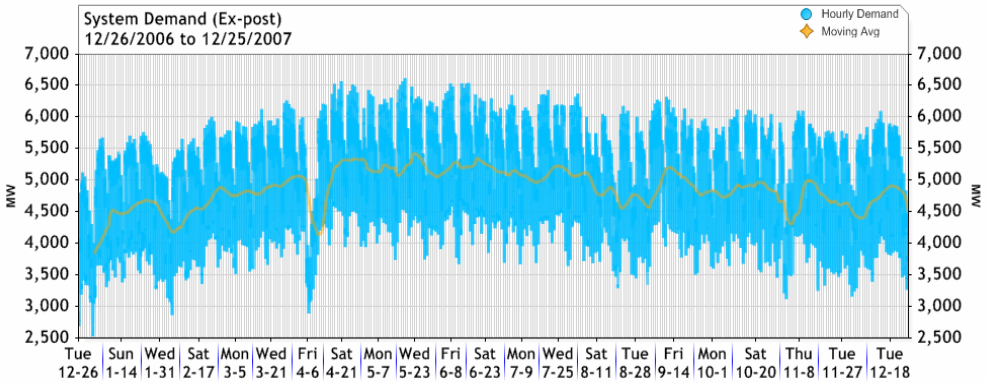
The following are the highlights for the period of September 2007 to February 2008:

- The capacity gap remained unexplained and unaccounted. The ratio of the offered capacity to available capacity is still 55 to 60 percent. This was true on average during the said period and even beyond. And this is a continuing breach of the must-offer rule that has never been resolved.



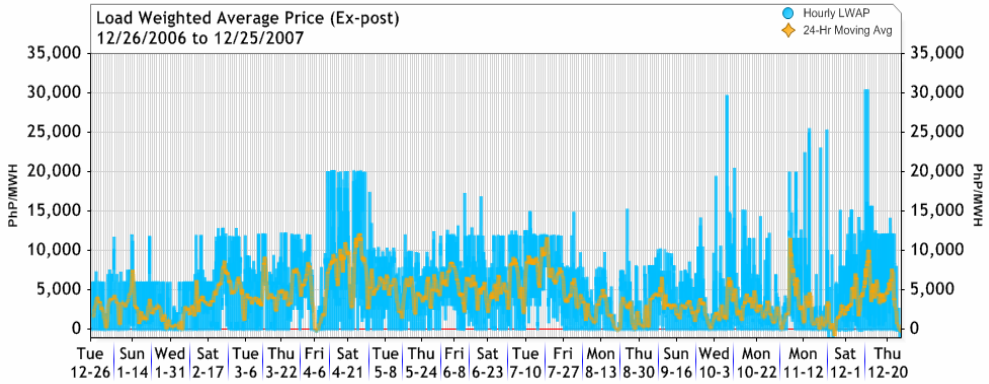




- Predictability of load behavior was the best explanation for the phenomenon of market offers that do not deviate much from the standing demand in any trading interval in any trading day. Since the participants have the ability to know in advance the load requirements a day ahead, they have no incentive to offer up to the maximum available capacity may it be on an individual plant or aggregate basis.

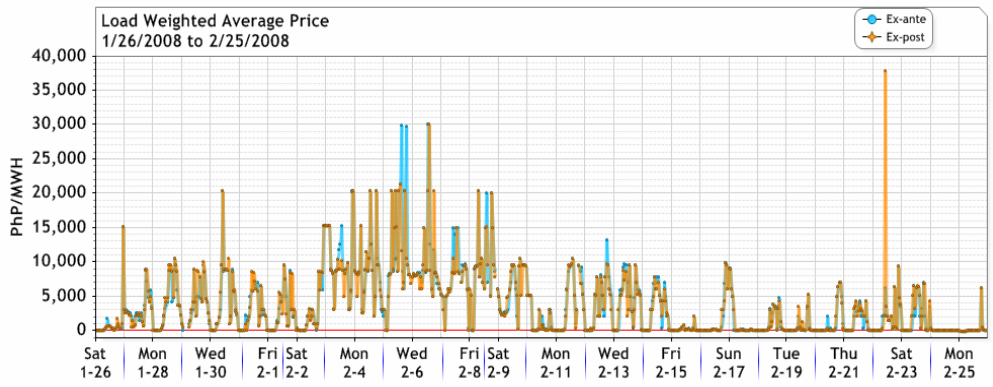



- Peak prices for 2007 occurred during the last quarter. They breached the PHP30,000/MWh price level for four trading intervals on the 9th and 10th

December. The highest cleared price for the year was PHP30,477/MWh on a Sunday, 9th December at 1900H. The persistent end-year spikes in prices above the PHP25,000/MWh started to be observed in October and lasted until the days around Christmas. For the spikes in December, the market was persistently in tight supply and demand conditions that allowed the marginal generators to increase their offer prices. For the spikes in October and November, the market experienced persistent undergeneration during the relevant trading intervals.

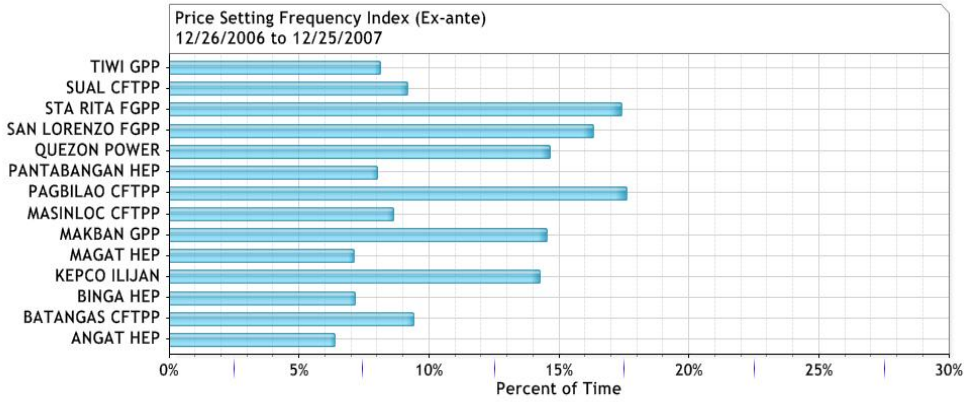


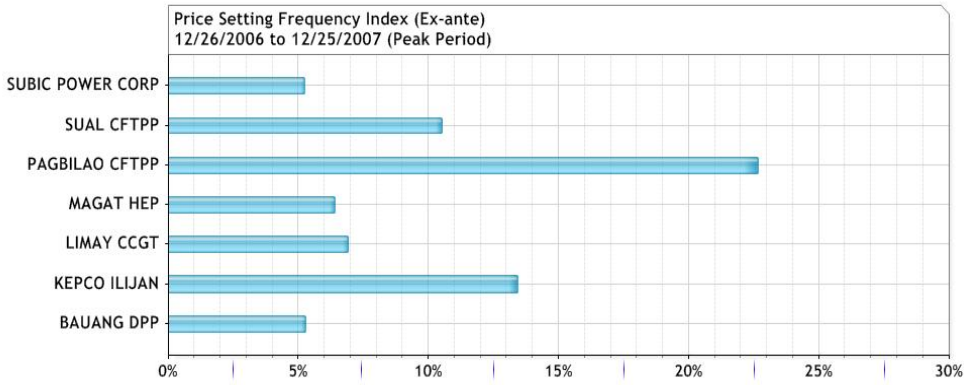

- In 2008, the hourly LWAP attempted to breach the PHP30,000/MWh price level in early February and eventually pierced through this ex-post price level on the 22nd trading day with a price level achieved at above PHP35,000/MWh. Base case constraint along the Duhat-Balintawak 230kV line caused nodal disparity explaining the high LWAP during this particular trading hour.

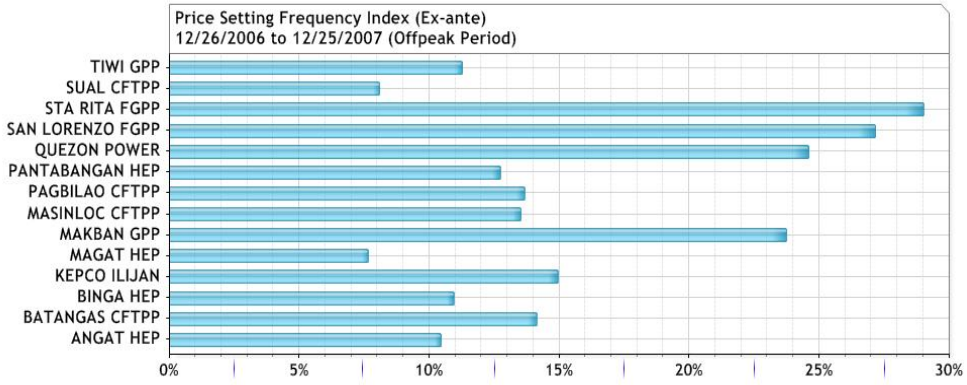



- The price setters for the 2007 billing year with Price Setting Frequency Indices (PSFI) above 10 percent were Pagbilao CFTPP, Sta. Rita FGPP, San Lorenzo FGPP, Quezon Power, Makban GPP and Kepco Ilijan. The top price

setter Pagbilao CFTPP was the price setter for 17.6 percent of the time for the entire 2007 billing year followed closely by Sta. Rita FGPP for 17.4 percent of the time. This configuration was for all hours. It turned out that Pagbilao CFTPP was the significant price setter during peak hours only while Sta. Rita FGPP was the significant price setter during offpeak hours only.

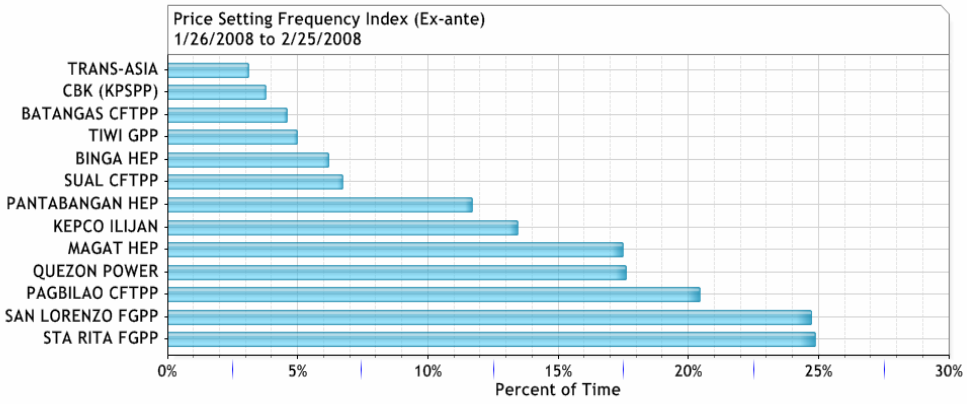


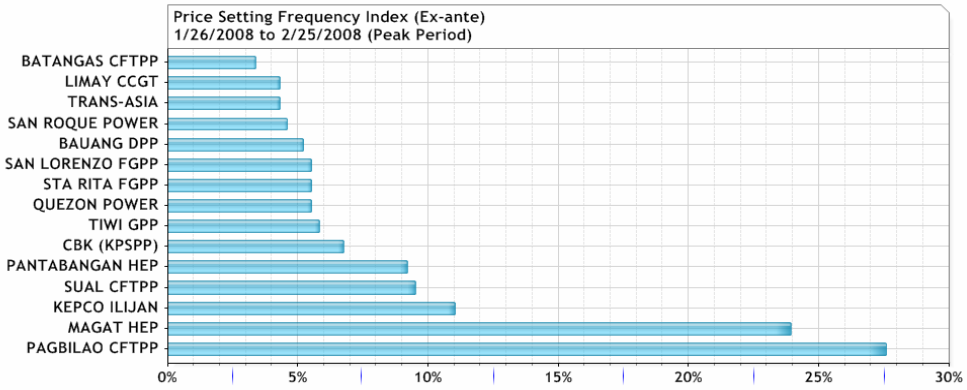



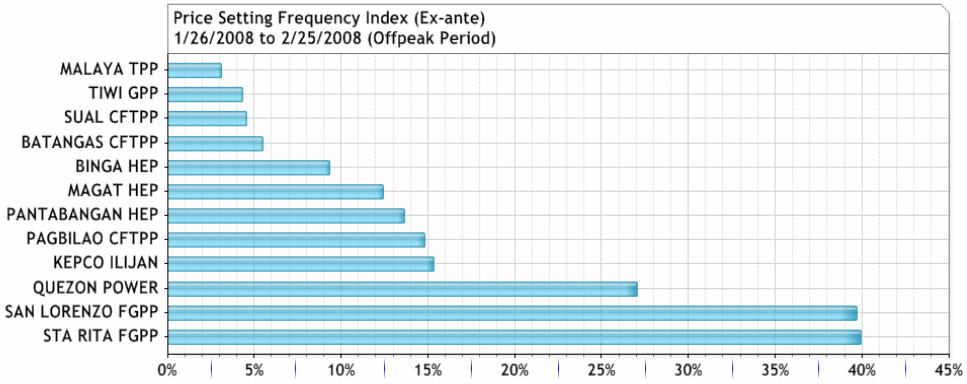




- In 2008, the offpeak dominance of Sta. Rita FGPP and San Lorenzo FGPP as price setters influenced heavily the composition of price setters for all hours in February 2008. This served to replicate the previous month's

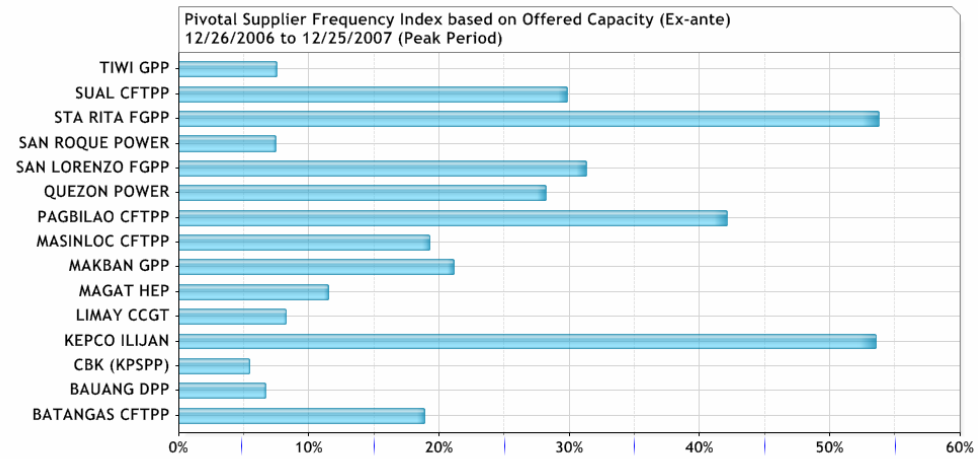
predominance of the two plants. However, Pagbilao CFTPP and Magat HEP were again setting the price during peak hours.

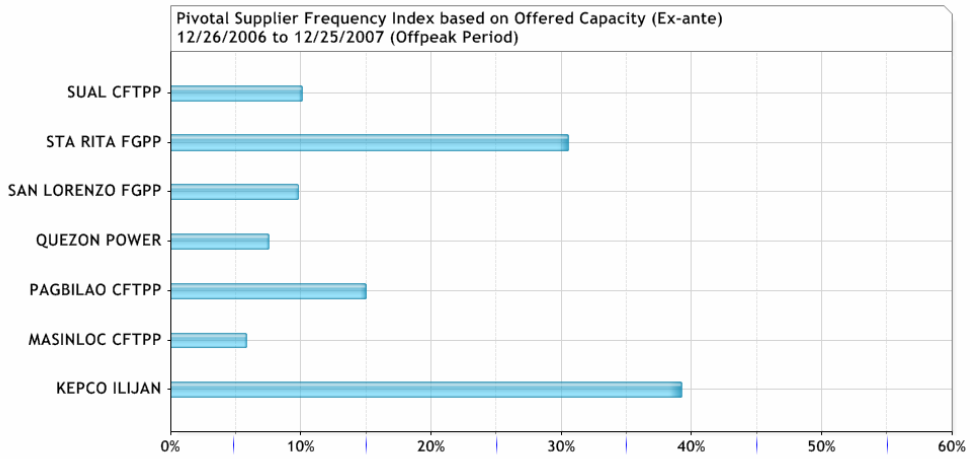


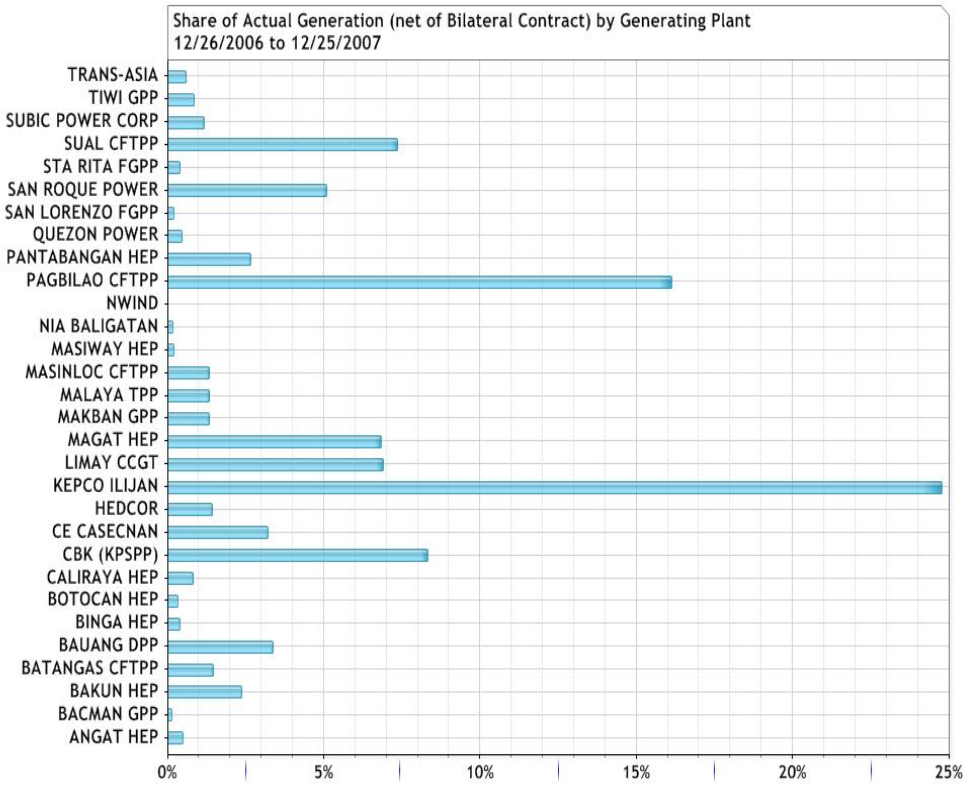




- The most frequent pivotal suppliers for 2007 were Sta. Rita FGPP and Kepco Ilijan in both peak and offpeak hours. This was quite significant especially for Sta. Rita FGPP since it also present itself as a frequent price setter putting it in a position to dictate the price and provide the critical piece of capacity that will achieve market balance for several trading intervals during the year.



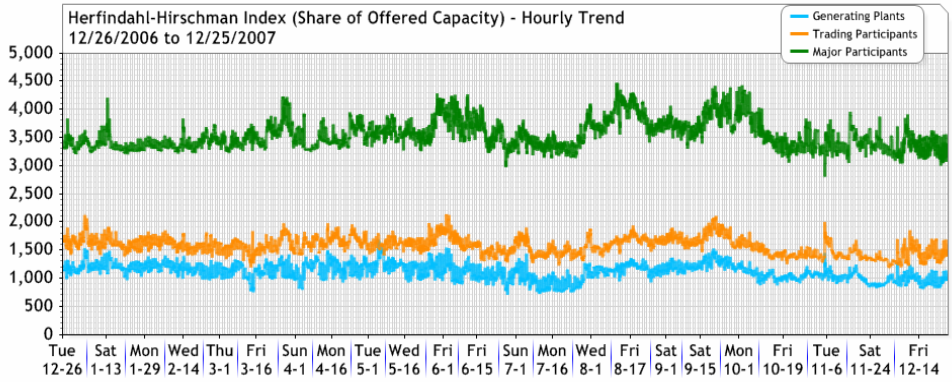

- The observations on the price setters and pivotal suppliers became significant not only when there are convergences between the two findings per plant but also if the convergences take place under conditions of substantial exposures in the electricity spot market. For instance, Sta. Rita FGPP, San Lorenzo FGPP, Quezon Power and Makban GPP do not have the incentive to game because of their exposure in the bilateral contracts market. On the other hand, price setters and pivotal supplier designations for Pagbilao CFTPP, Kepco Ilijan, Sual CFTPP, Limay CCGT, Magat HEP, Bauang DPP and Subic Power all have the potential incentive to game because of their significant exposure in the spot market.

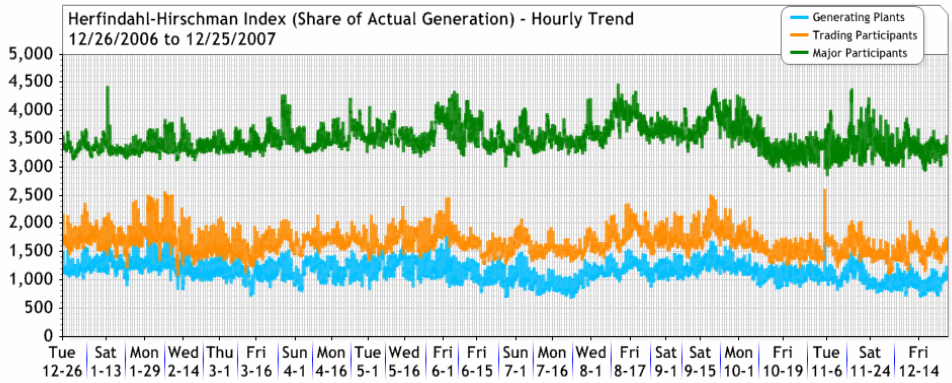



- As what has been generally established as an assessment reading of the market concentration, the break up in ownership of generation from the major participant aggregation down to the plant-based segregation exhibited a contrasting improvement in the market concentration as measured by the HHI (here measured in terms of shares to offered capacity as well as actual generation). At the plant level, the market turned out to be not concentrated at all consistent with the historical findings on the HHI. This is again a strong endorsement for privatization through the IPPA implementation complemented by the actual sales of NPC facilities.

- The caveat is that the sales of energy assets must be carried out in such a way that the diversification in investment and even ownership are ensured to prevent the replacement of government monopoly with private monopoly. This possibility will ignore the true intentions of the EPIRA and the electricity industry reforms.

- To partly bear the cost of reforms, the government, lead by NPC and PSALM, should push for the implementation of the universal levy for stranded cost that will mitigate the negative impact of historical costs especially those that arose from pre-WESM policy and management decisions.




In summing up, the Philippine electricity spot market is still confronted with the same issues on competition and market rule compliance by market participants. The newly-instituted market governance structure still has to show its clout and the government regulators still has to assert their policy oversight to address the perceived imperfections of the market. Of course, we cannot discount the fact that most of these thrusts for discipline in the market are dependent on how adherent to the policy timetable are the remaining requirements of the EPIRA. The urgency has been highlighted recently by the proposal by some private energy interests to accelerate the open access and retail market implementation. There is no substitute to transparency, discipline and compliance in the market. This kind of market environment must be set to allow market efficiency to take root and ensure the sustainability of the electricity industry.

# SIMULATION OF MARKET SHARE OF NPC AND ITS IPPs

**Simulations of Market Share of NPC and its IPPs**
Based on PSALM Privatization Target

**BASE CASE (NO PRIVA YET)**

| | INSTALLED CAPACITY (MW) | | | | GRID AND NATIONAL SHARE | | | |
|---|---|---|---|---|---|---|---|---|
| | LUZ | VIS | MIN | PHIL | LUZ | VIS | MIN | PHIL |
| NPC | 3,274 | 571 | 1,121 | 4,965 | 26.9% | 31.2% | 58.0% | 31.1% |
| NPC-IPP | 6,280 | 812 | 712 | 7,805 | 51.6% | 44.3% | 36.9% | 49.0% |
| **Total NPC/NPC-IPP** | **9,554** | **1,383** | **1,833** | **12,770** | **78.5%** | **75.5%** | **94.8%** | **80.1%** |
| NON-NPC | 2,620 | 449 | 100 | 3,169 | 21.5% | 24.5% | 5.2% | 19.9% |
| TOTAL | 12,174 | 1,832 | 1,933 | 15,940 | 100.0% | 100.0% | 100.0% | 100.0% |

**LATEST SALE -- Ambuklao -Binga**

| | INSTALLED CAPACITY (MW) | | | | GRID AND NATIONAL SHARE | | | |
|---|---|---|---|---|---|---|---|---|
| | LUZ | VIS | MIN | PHIL | LUZ | VIS | MIN | PHIL |
| NPC | 1,442 | 571 | 1,117 | 3,129 | 11.8% | 31.1% | 57.8% | 19.6% |
| NPC-IPP | 6,280 | 812 | 712 | 7,805 | 51.6% | 44.3% | 36.9% | 49.0% |
| **Total NPC/NPC-IPP** | **7,722** | **1,383** | **1,829** | **10,934** | **63.4%** | **75.5%** | **94.6%** | **68.6%** |
| Meralco IPPs | 1,914 | 75 | 2 | 1,991 | 15.7% | 4.1% | 0.1% | 12.5% |
| Other-IPPs | 2,538 | 374 | 103 | 3,014 | 20.8% | 20.4% | 5.3% | 18.9% |
| TOTAL | 12,175 | 1,832 | 1,933 | 15,940 | 100.0% | 100.0% | 100.0% | 100.0% |

**Projected Sale for 2008**

| | INSTALLED CAPACITY (MW) | | | | GRID AND NATIONAL SHARE | | | |
|---|---|---|---|---|---|---|---|---|
| | LUZ | VIS | MIN | PHIL | LUZ | VIS | MIN | PHIL |
| NPC | 545 | 96 | 1,002.8 | 1,644 | 4.5% | 5.3% | 51.9% | 10.3% |
| NPC-IPP | 6,280 | 812 | 712 | 7,805 | 51.6% | 44.3% | 36.9% | 49.0% |
| **Total NPC/NPC-IPP** | **6,825** | **908** | **1,715** | **9,449** | **56.1%** | **49.6%** | **88.7%** | **59.3%** |
| Meralco IPPs | 1,914 | 75 | 2 | 1,991 | 15.7% | 4.1% | 0.1% | 12.5% |
| Other-IPPs | 3,435 | 848 | 217 | 4,500 | 28.2% | 46.3% | 11.2% | 28.2% |
| TOTAL | 12,175 | 1,832 | 1,933 | 15,940 | 100.0% | 100.0% | 100.0% | 100.0% |

**Projected Sale for 2009**

| | INSTALLED CAPACITY (MW) | | | | GRID AND NATIONAL SHARE | | | |
|---|---|---|---|---|---|---|---|---|
| | LUZ | VIS | MIN | PHIL | LUZ | VIS | MIN | PHIL |
| NPC | 0 | 0 | 1,002.8 | 1,003 | 0.0% | 0.0% | 51.9% | 6.3% |
| NPC-IPP | 6,280 | 812 | 712 | 7,805 | 51.6% | 44.4% | 36.9% | 49.0% |
| **Total NPC/NPC-IPP** | **6,280** | **812** | **1,715** | **8,808** | **51.6%** | **44.4%** | **88.7%** | **55.3%** |
| Meralco IPPs | 1,914 | 75 | 2 | 1,991 | 15.7% | 4.1% | 0.1% | 12.5% |
| Other-IPPs | 3,980 | 944 | 217 | 5,141 | 32.7% | 51.6% | 11.2% | 32.3% |
| TOTAL | 12,175 | 1,831 | 1,933 | 15,939 | 100.0% | 100.0% | 100.0% | 100.0% |

**Sale Target for 2008 and 30% Transfer of IPPs**

| | INSTALLED CAPACITY (MW) | | | | GRID AND NATIONAL SHARE | | | |
|---|---|---|---|---|---|---|---|---|
| | LUZ | VIS | MIN | PHIL | LUZ | VIS | MIN | PHIL |
| NPC | 545 | 96 | 1,003 | 1,644 | 4.5% | 5.3% | 51.9% | 10.3% |
| NPC-IPP | 4,396 | 569 | 499 | 5,464 | 36.1% | 31.0% | 25.8% | 34.3% |
| **Total NPC/NPC-IPP** | **4,941** | **665** | **1,502** | **7,108** | 40.6% | 36.3% | 77.7% | 44.6% |
| Meralco IPPs | 1,914 | 75 | 2 | 1,991 | 15.7% | 4.1% | 0.1% | 12.5% |
| Other-IPPs | 5,319 | 1,092 | 430 | 6,841 | 43.7% | 59.6% | 22.3% | 42.9% |
| TOTAL | 12,175 | 1,832 | 1,933 | 15,940 | 100.0% | 100.0% | 100.0% | 100.0% |

**PSALM Priva Plan Completed by 2009 and 30% Transfer of IPPs**

| INSTALLED CAPACITY (MW) | | | | | GRID AND NATIONAL SHARE | | | |
|---|---|---|---|---|---|---|---|---|
| | LUZ | VIS | MIN | PHIL | LUZ | VIS | MIN | PHIL |
| NPC | 0 | 96 | 1,002.8 | 1,099 | 0.0% | 5.3% | 51.9% | 6.9% |
| NPC-IPP | 4,396 | 569 | 499 | 5,464 | 36.1% | 31.0% | 25.8% | 34.3% |
| **Total NPC/NPC-IPP** | **4,396** | **665** | **1,502** | **6,563** | 36.1% | 36.3% | 77.7% | 41.2% |
| Meralco IPPs | 1,914 | 75 | 2 | 1,991 | 15.7% | 4.1% | 0.1% | 12.5% |
| Other-IPPs | 5,864 | 1,092 | 430 | 7,386 | 48.2% | 59.6% | 22.3% | 46.3% |
| TOTAL | 12,175 | 1,832 | 1,933 | 15,940 | 100.0% | 100.0% | 100.0% | 100.0% |

**PSALM Priva Plan Completed by 2009 and 50% Transfer of IPPs**

| INSTALLED CAPACITY (MW) | | | | | GRID AND NATIONAL SHARE | | | |
|---|---|---|---|---|---|---|---|---|
| | LUZ | VIS | MIN | PHIL | LUZ | VIS | MIN | PHIL |
| NPC | 0 | 96 | 1,002.8 | 1,099 | 0.0% | 5.0% | 51.9% | 6.9% |
| NPC-IPP | 3,140 | 406 | 356 | 3,903 | 25.8% | 21.1% | 18.4% | 24.3% |
| **Total NPC/NPC-IPP** | **3,140** | **502** | **1,359** | **5,002** | 25.8% | 26.1% | 70.3% | 31.2% |
| Meralco IPPs | 1,914 | 75 | 2 | 1,991 | 15.7% | 3.9% | 0.1% | 12.4% |
| Other-IPPs | 7,120 | 1,350 | 573 | 9,043 | 58.5% | 70.1% | 29.6% | 56.4% |
| TOTAL | 12,175 | 1,928 | 1,933 | 16,036 | 100.0% | 100.0% | 100.0% | 100.0% |

**PSALM Priva Plan Completed by 2009 and 70% Transfer of IPPs**

| INSTALLED CAPACITY (MW) | | | | | GRID AND NATIONAL SHARE | | | |
|---|---|---|---|---|---|---|---|---|
| | LUZ | VIS | MIN | PHIL | LUZ | VIS | MIN | PHIL |
| NPC | 0 | 96 | 1,002.8 | 1,099 | 0.0% | 5.0% | 51.9% | 6.9% |
| NPC-IPP | 1,884 | 244 | 214 | 2,342 | 15.5% | 12.6% | 11.1% | 14.6% |
| **Total NPC/NPC-IPP** | **1,884** | **340** | **1,217** | 3,441 | 15.5% | 17.6% | 62.9% | 21.5% |
| Meralco IPPs | 1,914 | 75 | 2 | 1,991 | 15.7% | 3.9% | 0.1% | 12.4% |
| Other-IPPs | 8,376 | 1,513 | 715 | 10,604 | 68.8% | 78.5% | 37.0% | 66.1% |
| TOTAL | 12,175 | 1,928 | 1,933 | 16,036 | 100.0% | 100.0% | 100.0% | 100.0% |