

# 17<sup>th</sup> EPIRA Implementation Status Report (Period Covering May to October 2010)

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*With Contributions from*

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## **I. INTRODUCTION**

The 17th Status Report of Electric Power Industry Reform Act of 2001 (EPIRA) implementation covers developments for the period May to October 2010. This contains the changes in policy actions from the Arroyo regime to the Aquino Administration. The new Administration called for a review of EPIRA implementation particularly on the effectiveness of the privatization of the assets and contracts by the Power Sector Assets and Liabilities Management (PSALM) Corporation, with the end in view of being able to pay-off its debts, encourage greater private sector participation, promote competition and most importantly, ensure supply security. This requires taking a few steps backward to ensure that the objectives set forth in EPIRA remains on track. It is deemed necessary to take a closer look at the role of the government in an environment of greater private sector participation in a utility industry which for so long has been under the control of the government and largely dependent on public funding support. In the process, the government has to put on hold the privatization of the remaining assets and contracts of PSALM/NPC.

The security of power supply in the country remains a major concern due to the timeliness of the entry of additional generating capacity, when and where they are most needed. Private investments in the generation business are still faced with various commercial, institutional and regulatory challenges, aside from the impact of climate change to the supply availability and demand predictability. There were also technical constraints in the operation of the national transmission networks, power plant operations and distribution systems.

The barangay electrification marked near completion with only 55 barangays or less than one percent remained unelectrified out of the 41,975 barangays nationwide. The next paramount task is to complete the sitios and the households connections.

The Department of Energy (DOE) continued to improve the governance and operations of the Wholesale Electricity Spot Market (WESM) based on the recommendations of the independent auditors that reviewed the performance of the market. During this period, there was a renewed call from the generators for the government to implement the WESM in the Visayas and appoint the Independent Market Operator (IMO).

The review of the EPIRA implementation and identification of appropriate course of actions are the priority thrusts of the new Administration in the energy sector.

## **II. DEVELOPMENTS IN THE PRIVATIZATION EFFORT**

For the report period, the sale of Bacon-Manito marked 91.7 percent privatization of NPC generation assets in the Luzon and Visayas grids. Likewise, during this period, the country experienced supply shortages for various reasons which prompted the new Administration to put on hold the privatization of the remaining power plants as contingency measure to ensure available supply of electricity to the consumers. Thus, the scheduled bidding for some plants and contracts were temporarily postponed.

Privatization proceeds earned by the government from the privatization, excluding that of the sub-transmission assets (STAs) amounted to US\$10.65 billion.

### **A. Privatization of Generating Assets**

The transfer of Angat Dam hydro-electric power plant (HEPP) to Korea Water Resources Development Corp. (K-Water), the Korean company which won the bidding for the plant, was suspended in view of the status quo ante order issued by the Supreme Court (SC) on 24 May 2010. The said SC Decision likewise ordered the suspension of the bidding process for the

privatization of Angat HEPP. Also, the same Decision froze all activities regarding the sale of the Angat HEPP, thus neither PSALM nor the winning bidder can proceed with the next steps in the sale, including the payment for and turnover of the asset. For that reason, PSALM filed a position paper to lift the order, however, the said motion was rejected by the SC which maintained its earlier decision, finding the petition filed by several caused oriented groups led by the Freedom from Debt Coalition (FDC) against the planned sale of the hydro facility to be “sufficient in form and substance.” Likewise privatization of the remaining NPC generating assets which include Navotas 1& 2, Sucat and Agus/Pulangui HEPP are temporarily put on hold.

*Table 1 - Privatization Proceeds as of October 2010*

Item	Amount in million US\$
Generating Plants and Turned-over IPPs	3,470.00
TransCo Concession	3,950.00
Transfer of NPC-IPP contracts to IPPA	3,229.00
<b>TOTAL</b>	<b>10,650.00</b>

*Source: PSALM*

PSALM, K-Water, Metropolitan Waterworks and Sewerage System (MWSS), National Irrigation Administration (NIA) and the five (5) other bidders for the sale of the Angat HEPP, which were likewise included as respondents in the case before the SC, have submitted their respective comments on the petition filed by IDEALS. On 10 August 2010, the SC issued a Resolution requiring petitioners to file a consolidated reply to the comments filed by the respondents within ten (10) days from receipt thereof. Petitioners have requested for an extension of thirty (30) days from 2 September 2010, or until 2 October 2010 within which to file the said Consolidated Reply.

In the meantime, on 20 September 2010, PSALM filed an Urgent Manifestation and Motion informing the SC that in view of the continued El Niño Phenomenon and to avoid the possibility of scarcity of potable water within the Metro Manila area, the low-level outlet and By-Pass No. 5 (both non-power components) will be repaired and rehabilitated immediately by NPC, in its capacity as operator, and MWSS, through its two (2) concessionaires, namely: (1) Manila Water Company, Inc. and (2) Maynilad Water Services, Inc. In the alternative, PSALM moved that the conduct of the necessary repairs and rehabilitation be approved by the SC. The said Manifestation and Motion is still pending resolution by the SC.

On the other hand, the sale of the decommissioned Bataan Thermal Power Plant to Rubenori Inc. for US\$2.859 million has been officially terminated by PSALM through a Notice of Termination issued on 13 August 2010, which became effective on 13 September 2010. This is due to the winning bidder’s non-compliance with the conditions of the Asset Purchase Agreement (APA). The PSALM Board has approved the commencement of the re-bidding process for the decommissioned Plant.

**B. Transfer of NPC-IPP to Independent Administrators**

During the Report period, the government was able to turn-over the management and control of nearly two-thirds of energy outputs under contract with NPC to Independent Administrators.

Meanwhile, the selection for IPP Administrators (IPPAs) for the remaining IPP-contract of NPC was indefinitely postponed due to concerns on the potential impact to supply security, competition and electricity rates if the bidding for the said contracts will not be studied carefully. These contracts include the 560-MW Unified Leyte Geothermal, 630-MW Malaya, 96-MW Cebu Thermal I&II and 36-MW Cebu Diesel.

Bidding for the Unified Leyte IPPA contract has been supposedly scheduled last 30 July 2010. So far, three companies have expressed interest in the IPPA namely Pacifica Inc., Aboitiz Power Corp. and Energy Development Corp.

### C. Remaining Assets for Privatization

PSALM’s remaining assets for privatization and the indicative privatization schedule as of 30 September 2010 are summarized in Table 2 . The privatization of these assets shall continue depending on the timetable to be approved by the PSALM Board consistent with the direction that will be set by the national government, in view of the deferment of these assets on the ground of supply security concerns. This shall form part of the reformulated Energy Reform Agenda.

### D. Concession of the National Transmission Network

The National Grid Corporation of the Philippines (NGCP) has been operating and managing the national transmission network for about 20 months since the turn-over in 15 January 2009. Pursuant to the Concession Agreement (CA) signed by the NGCP, as the concessionaire of the national transmission network, with the Philippine Government through TransCo and PSALM, NGCP shall perform its obligations in accordance with all applicable laws in relation to the proper conduct of business activities and obligations.

TransCo and PSALM conducted a joint compliance assessment on the performance of NGCP covering the period January 2009 up to May, in relation to its obligations under the CA. The assessment identifies that there are certain provisions of the CA that NGCP needs to take necessary actions as summarized in below:

- Philippine Grid Code

After completing the inspection of all transmission assets in all districts (areas), the PSALM/TransCo conducted another round of inspections (one area each in Luzon, Viasayas, and Mindanao) to verify NGCP’s action plans with previous observations. Based on the data and information gathered, NGCP failed to comply with the following provisions on the Philippine Grid Code (PGC).

- PGC 3.2.3 (voltage Variations)** – Zapote Substation voltage records still show low system voltage during peak load.
- PGC 6.2.2.3 (Single Outage Contingency Criterion)** – Zapote 3 X 300MVA Power Transformers are operating without single outage contingency criterion. An outage of one transformer will result to load dropping.
- PGC 4.6.2 (SCADA System)** – Carmen and Rosario Substations have no Remote Terminal Units (RTU) to serve as telemetry equipment for real time monitoring and

Table 2 – List of Remaining Plants/Assets for Privatization as of October 2010

Asset	Rated/ Contracted Capacity (MW)	Indicative Schedule
<b>I. Generating Assets</b>		
Power Barges 101-104	128.00	December 2010
Agus-Pulangi Hydro	982.10	2011
Malaya Thermal	630.00	2011
<i>Subtotal</i>	<i>1,740.10</i>	
<b>II. Decommissioned Plants</b>		
Sucat Thermal	00.00	2011
Bataan Thermal	00.00	2011
<i>Subtotal</i>	<i>00.00</i>	
<b>III. IPP</b>		
Naga	131.80	October 2010
Leyte	559.00	November 2010
CBK	728.00	2011
WMPC	100.00	2011
SPPC	50.00	2011
Mindanao Coal	200.00	2011
Mt. Apo 1 and 2	92.52	2011
Casecnan	165.00	2011
<i>Subtotal</i>	<i>2,026.32</i>	
<b>IV. Other Assets</b>		
Real Estate/Non-power	n/a	2011
<b>TOTAL</b>	<b>3,766.42</b>	

Source: PSALM

control.

- d) **PGC 6.2.3 (Grid protection)** – Breaker Failure Relays at Kibawe Substation were found to be not commissioned and Kibawe – Nuling 138 kV Line has no back-up protection as required.

- NGCP Franchise (RA 9511)

Section 3 (Manner of Operation of System or Facilities) of this Law, specifies that the transmission system grid and related facilities maintained, operated or managed by the Grantee, its successors or assigns, shall be operated and maintained at all times in accordance with industry standards.

PSALM/TransCo conducted inspection of failed power equipment with significant impact in the system. Notable failures are the explosion of Kibawe Power Circuit Breaker 75KB4 and failure of Aplaya 50MVA Power Transformer. Based on the information gathered, said power equipments were operated without the required periodic maintenance as required in the original equipment maintenance manual.

- Section 3.01 of the Concession Agreement

Pursuant to the above section of the concession agreement, the Concessionaire shall take over and operate the whole of Transco's regulated transmission business.

This provision is complied with except for the operation and maintenance of Iligan Diesel Power Plant Switchyard previously operated and maintained by the National Power Corporation (NPC) TransCo personnel attended the meeting with PSALM Asset Boundary Technical Working Group (TWG) and requested NGCP to take over the operation and maintenance of the said switchyard has grid function and owned by TransCo. As of February 2010, neither NPC nor NGCP are operating the said switchyard.

- Construction Management Agreement (CMA)

Based on the CMA, the construction manager (NGCP) shall implement, manage and administer the construction and completion of each Project Under Construction (PUC).

TransCo inspection teams have conducted inspection of PUCs such as the Northern Panay Backbone and Wright-Calbayog Transmission Projects. These transmission reliability projects were approved by the ERC to be implemented in the Second Regulatory Period. Delays in the completion of the said projects were observed and these projects might not be completed by the end of the Second Regulatory Period.

- Issues Relative to NGCP Provision of Transmission Services and Operations

Outage of transmission lines (Agus-Kibawe Lines and Pulangui-Kibawe Lines) and Power Circuit Breaker explosion (Kibawe 75KB4) also triggered partial blackout in Southern Mindanao. Concerns on proper scheduling of shutdown of lines are also notable in Mindanao.

Several outages in Visayas also brought widespread load curtailment in Panay and Negros islands. The unwanted outages of Bacolod-Dingle Lines and explosion of Bacolod Capacitor Bank no. 4 triggered the load curtailments.



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

The sale of STAs is continuously being undertaken by the National Transmission Corporation. The sale involved a total of about 6,200 circuit-kilometers comprising mostly of 69kV transmission lines and 1,600 MVA of substation capacity. Estimated cost of these assets is placed at about PhP 7.6 Billion based on December 31, 2007 net book values. For the period 01 May to 06 October 2010, two sale contracts amounting to about PhP155 Million were signed by TransCo, as follows:

Meetings and negotiations with some 21 Distribution Utilities/Consortia nationwide are underway to further push for the sale of STAs. Included in this drive is the negotiation for the sale of about 980 ckt-kms of subtransmission lines worth PhP0.940 Billion.

As of 06 October 2010, Transco was able to divest PhP3.57 Billion (69 sale packages) worth of STAs including MVA transformers to 56 Distribution Utilities. Included in the sale packages are 40 Lease Purchase Agreements with 32 cooperatives under concessional terms amounting to about PhP 2.4 Billion. The balance of over P1.17 Billion represents sales to private distribution utilities. Thirty two sale contracts have been approved by the Energy Regulatory Commission amounting to PhP1.73 billion as of 30 September 2010.

*Table 3- STA Sale Contracts Signed*

Distribution Utility	Contract Amount PhP Million
Visayan Electric Co. (VECO) 2nd Contract	141.5
Dagupan Electric Co. (DECORP)	13.9
<b>TOTAL</b>	<b>155.4</b>

*Source: TransCo*

### III. ELECTRICITY RATES

The DOE continuously monitors data on electricity rates to provide the JCPC and the public an idea of on the latest information on electricity rates. This section considers the reports submitted by the ERC and also the data and information gathered by the DOE from various sources to fully substantiate and provide the JCPC with significant updates to serve as reference in identifying areas that may require legislative actions.

#### A. PSALM/NPC Effective and Basic Generation Charges

The Basic Generation Charges (BGC) of PSALM/NPC as of September 2010 is shown in Table 4. The provisional implementation of the said BGC for the three grids was extended by the ERC through an Order issued 8 February 2010. PSALM/NPC will continuously use the March 2009-approved BGC until the final resolution of the instant application. Meanwhile, the ERC has directed PSALM to submit the asset valuation reports not later than 15 June 2010; otherwise, they shall be constrained to revoke the provisional authority previously granted. In compliance with said Order, PSALM submitted the results of the 2007 appraisal conducted by Royal Asia Appraisal Corporation (RAAC) on 15 June 2010.

In terms of Effective Generation Charges (EGC), Luzon posted the highest increase of PhP0.5832/kWh from PhP4.0271/kWh in February to PhP4.6103/kWh in September. For the same period, EGC in Visayas and Mindanao recorded an increase of PhP0.2446/kWh and PhP0.0707/kWh, respectively.

The monthly automatic cost adjustment mechanism for NPC, i.e. Fuel and Power Purchase Cost Adjustment (FPPCA) and Foreign Exchange Related Cost Adjustments (FxA) was implemented starting March 2010. From the start of its implementation, the NPC EGC were moving in accordance with the economic indices used as reference as provided for under the rules governing the cost adjustment recovery. However, the ERC, on 06 September 2010, issued an Order

modifying the August 2010 billing period Automatic Cost Adjustment (ACA) rates for the Luzon Grid's rates which, it noted, significantly increased by PhP1.2012/kWh (from PhP0.5378 to PhP1.7390/kWh) due to a drastic decrease of NPC sales by 81 percent with the transfer of the administration and management of the Ilijan contract to the new IPPA. Pursuant to the said Order, the ERC limited the ACA rates that can be imposed by NPC for the August billing month to a total of PhP0.5916/kWh.

Table 4 - NPC Effective Generation Charges (PhP/kWh) as of September 2010

Item	Luzon	Visayas	Mindanao
Average BGC	4.3648	3.7255	2.8177
GRAM	(0.0490) <sup>1</sup>	-	-
ICERA	(0.3132) <sup>1</sup>	0.0278 <sup>2</sup>	-
FPPCA	0.3828	0.211	0.0641
FxA	0.2004	0.336	0.0066
FBHC	0.0245	0.0177	0.0282
Total	4.6103	4.0156	2.9166

<sup>1</sup> Effective for 23 months from January 2009 NPC billing period or until further notice whichever comes earlier. Provisional Authority under 11<sup>th</sup> ICERA and 12<sup>th</sup> GRAM approval dated January 19 2009.  
<sup>2</sup> Effective for 30 months from June 2008 NPC billing period or until further notice whichever comes earlier. Final Authority under 8<sup>th</sup> ICERA and 9<sup>th</sup> GRAM approval dated December 15, 2008.

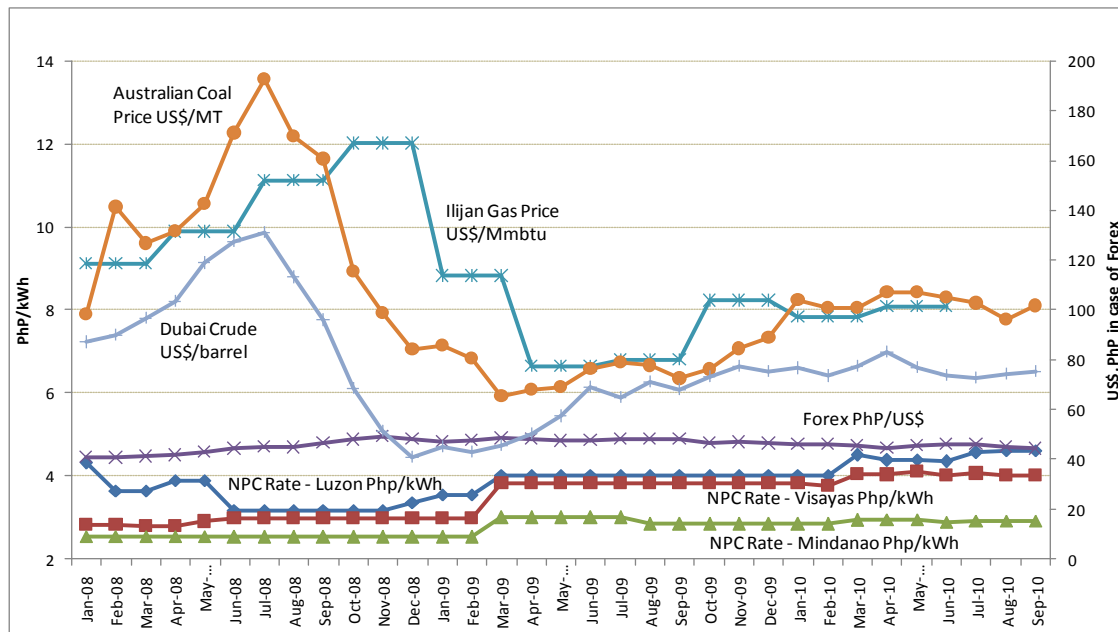
Table 5 – ACA Rates Comparative Table

Billing Period	Sales (kWh)	FPPCA (PhP)	PhP/kWh	FxA (PhP)	PhP/kWh	ACA Rates (PhP/kWh)
July 2010	703,093,858	247,058,653.09	0.3514	131,083,300.80	0.1864	0.5378
August 2010	135,324,671	189,599,719.17	1.4011	45,721,606.79	0.3379	1.7390
<b>Difference</b>	<b>(567,769,187)</b>	<b>(57,458,933.22)</b>	<b>1.0497</b>	<b>(85,361,694.01)</b>	<b>0.1514</b>	<b>1.2012</b>

The ERC provided a limitation of ten percent (10%) increase/decrease of the NPC costs, however, it may allow exemption if such is found to be in the public interest and is not contrary to any law or any other related rules or regulations. The actual generation cost incurred by NPC shall be determined by the ERC on the annual true-up filing by PSALM/NPC.

Meanwhile, ERC has yet to issue its final ruling on the remaining NPC/PSALM GRAM and ICERA applications covering the billing period October 2008 to April 2010 for the Luzon grid and the period January 2007 to April 2010 for the Mindanao and Visayas grids. The said applications already includes PSALM's final filing of 17th GRAM and 16th ICERA in accordance with the implementation of Automatic Recovery of PSALM's Generation Assets'

Figure 1 – Comparative Fuel Prices and NPC Effective Generation Charges



Monthly Fuel, Purchased Power, and Foreign Exchange-Related Costs which became effective on 27 February 2010.

In reference to the movements of fuel prices, a disparity can be noted vis-à-vis NPC EGC rates in Luzon, Visayas and Mindanao (Figure 1) which resulted to large under-recoveries by PSALM/NPC (Annex 2) in view of higher utilization of oil and coal-based plants during the onset of El Niño phenomenon. This is apparent in GRAM application for Mindanao covering the period April 2009 to April 2010 with increasing under-recoveries for fuel and power purchase costs amounting to PhP2.2 billion. It can be noted that prior to the said period, PSALM/NPC has applied for over-recoveries (refund to customers) in fuel and power purchase costs.

The deferred costs that has to be recovered by PSALM/NPC due to pending GRAM and ICERA amounts to PhP55.3 billion while that of August 2010 billing true-up at the end of the year is estimated at PhP155.3 million. Details of over/under-recoveries are summarized in Annex 2.

## **B. Transmission Rates**

The ERC has provisionally authorized NGCP to recover the amount of PhP44,991.45 Million as its Maximum Annual Revenue (MAR) for the Regulatory Year 2010 (MAR2010) in its Order dated January 20, 2010 under ERC Case No. 2009-160RC.

The monthly adjustments in the rates of NGCP are governed by the Open Access Transmission Service (OATS) Rules issued in December 2006 and verified by the ERC annually through the Rate Adjustment and Verification process under the Rules for Setting Transmission Wheeling Rates (RTWR).

Further, on 15 July 2010, the ERC issued the Draft Determination for NGCP's application for the Approval of the MAR for the Third Regulatory Period (2011-2015) in accordance with the alternative form of Rate Setting Methodology under the RTWR. As a requirement under the RTWR, the ERC issued the Draft Determination to provide an opportunity for interested parties to comment and discuss the ERC's evaluation during the public consultations and/or hearings to be held for that purpose, prior to the final determination. The Final Determination will be issued by the ERC after the termination of the presentation of evidence by all the parties (both documentary and testimonial) during the public consultations and/or hearings and only after it has conducted a complete evaluation thereof. Annex 3 provides summary of NGCP related petitions.

## **C. Distribution Utilities (DUs) Rates**

The following discussions provide updates on the electricity rates for the month of March and June 2010 and available developments on related issues and concerns.

### **1. Average Effective Electricity Rates**

The country's total average effective electricity rates as of June 2010 was estimated at PhP8.14/kWh, higher than PhP0.56/kWh compared with the March 2010 average effective electricity rates mainly as a result of the increase in NPC basic generation rates in the three grids. Among the three major grids, Luzon has the highest average effective electricity rates at PhP8.70 for June 2010. Mindanao with its increase of PhP1.48/kWh compared to the March 2010 level is at average of PhP7.98/kWh, which makes Visayas now the lowest at PhP7.75/kWh. The significant increase in

Mindanao's average effective electricity rates can be mainly attributed to the increase in NGCP's Transmission Charges brought about by the ASPA between NGCP and Therma Marine Inc., under ERC Case No. 2010-011 RC at a rate of PhP1.40/kWh.

*Table 6 - Average Effective Residential Electricity Rates, March 2010 vs. June 2010 (PhP/kWh)*

Grid	Electric Cooperatives			Private Distribution Utilities			National Average		
	March	June	Change	March	June	Change	March	June	Change
Luzon	8.9540	9.1441	0.1901	8.0465	8.2581	0.2116	8.5003	8.7011	0.2008
Visayas	8.6913	8.7381	0.0468	6.8179	6.7541	-0.0638	7.7546	7.7461	-0.0085
Mindanao	7.1071	8.4494	1.3423	5.8864	7.5046	1.6182	6.4968	7.9770	1.4802
Philippines	8.2508	8.7772	0.5264	6.9169	7.5056	0.5887	7.5839	8.1414	0.5575

*Sources: : ECs – NEA's Quarterly Unbundled Power Rate Schedules  
PDU's – Monthly Operations Report*

The ECs' national average effective electricity rates for June 2010 was estimated at PhP8.78/kWh, an increase of PhP0.53/kWh from the March 2010 level. Generation costs comprised 43.3 percent of ECs' national average effective electricity rates followed by distribution costs share of 24.4 percent of the total. The highest average increase in ECs' rates was noted in the Mindanao grid at PhP1.34/kWh from PhP7.11/kWh in March to PhP8.45/kWh in June.

*Table 7 - EC's Unbundled Average Effective Residential Electricity Rates, June 2010 (PhP/kWh)*

Bill Subgroup	LUZON		VISAYAS		MINDANAO		NATIONAL	
	PhP/kWh	Percent share	PhP/kWh	Percent share	PhP/kWh	Percent share	PhP/kWh	Percent share
Generation	4.3806	47.91	4.0224	46.03	2.9944	35.44	3.7992	43.28
Transmission	0.9688	10.60	1.1993	13.73	2.1943	25.97	1.4541	16.57
System Loss	0.7769	8.50	0.6842	7.83	0.6832	8.09	0.7148	8.14
Distribution *	2.2045	24.11	2.2463	25.71	1.9648	23.25	2.1385	24.36
Subsidies	0.0277	0.30	0.0567	0.65	0.0253	0.30	0.0366	0.42
Government Taxes	0.7855	8.59	0.5292	6.06	0.5875	6.95	0.6340	7.22
<b>Total</b>	<b>9.1441</b>	<b>100.00</b>	<b>8.7381</b>	<b>100.00</b>	<b>8.4494</b>	<b>100.00</b>	<b>8.7772</b>	<b>100.00</b>

*\* Includes Distribution, Supply and Metering Charges*

*Source: ECs' submission of their unbundled effective rates to NEA*

The national average effective residential electricity rates of private distribution utilities (PDUs) increased by PhP0.59/kWh from PhP6.92/kWh in March 2010 to PhP7.51/kWh in June 2010. The highest increase was noted in the Mindanao grid at PhP1.62/kWh while a slight decline of PhP0.06/kWh in PDUs average rate in the Visayas was noted from PhP6.82/kWh to PhP6.75/kWh. Among the PDUs, MERALCO remains to have the highest average effective rate for the residential customers at PhP10.67/kWh for the billing period June 2010. On the other hand, Bohol Light Company, Inc (BLCI) has the lowest average effective residential rates at PhP6.15/kWh for the same billing period.

For the June 2010 billing, MERALCO's effective residential rates for the different

residential customer classes ranged from PhP8.99/kWh to PhP10.33/kWh of which the highest component was generation costs at PhP5.57/kWh. Meanwhile, MERALCO distribution charges for its different residential customer classes comprised 21 percent to 31 percent of the total effective residential rates equivalent to PhP1.86/kWh and PhP3.20/kWh, respectively.

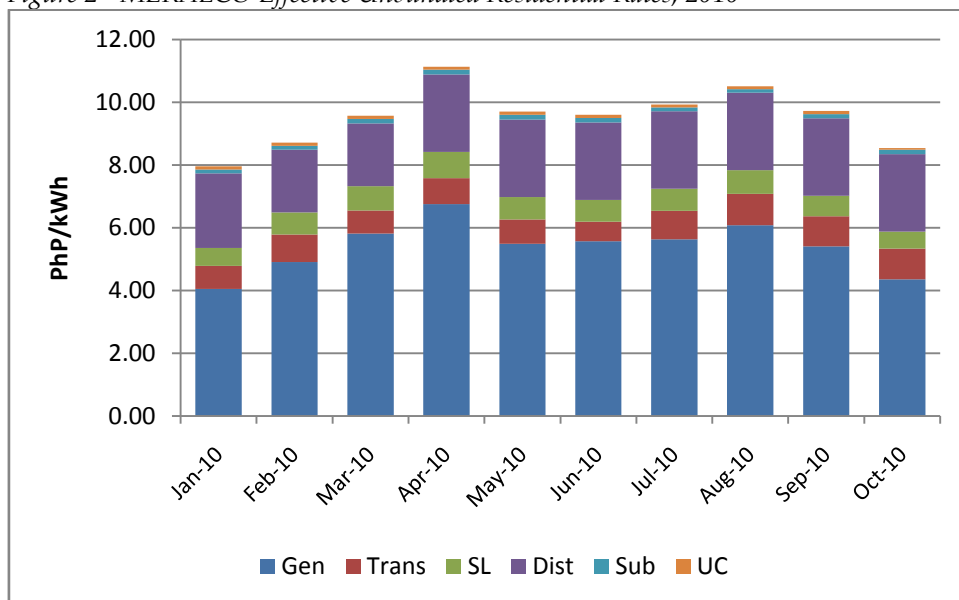
For the billing month of October, MERALCO's effective residential rates for the different residential customer classes ranged from PhP7.93/kWh to PhP9.27/kWh of which the highest component was generation costs at PhP4.36/kWh. This significantly went down by around PhP1.00/kWh on account of lower generation cost compared to the June 2010 level. For the year 2010, generation costs comprised 57 percent, on the average, of the total residential electricity rates followed by distribution cost with an average share of 25 percent (Figure 2). Data pertaining to MERALCO's residential rates can be gleaned in Annex 4.

Table 8 –PDUs Average Effective Rates (AER), June 2010 (PhP/kWh)

PDU	Residential	Commercial	Industrial	Others	Average
DECORP	7.6637	7.4044	6.7211	8.3958	7.4430
AEC	6.9693	7.2394	11.7323	6.5543	7.0971
SFELAPCO	7.4129	7.4962	6.0382	7.8815	6.9164
IEEC	7.3428	6.8982	8.6224	6.9113	7.3694
CELCOR	9.4895	9.2338	8.4662	9.2006	9.3036
MERALCO	10.6705	9.0527	7.1211	10.8426	8.3579
VECO	7.3543	7.5514	5.7788	6.5780	6.5926
BLCI	6.1539	6.0717	-	5.8002	6.0782
CEPALCO	8.8027	8.3663	7.2257	7.8533	7.9778
DALIGHT	6.7587	6.6331	6.2008	6.8629	6.4563

Note: Based on Monthly Operations Report submitted by Private DUs (AER = Revenue over Sales)

Figure 2 - MERALCO Effective Unbundled Residential Rates, 2010



## 2. Regulatory Actions

The following report on regulatory actions on electricity rates are based on ERC report and as gathered in the ERC website.

a. Private Distribution Utilities

For the PDUs, the ERC continued to adopt phased implementation of Performance-Base Rate Methodology as set pursuant to Rules for Setting Distribution Wheeling Rates (RDWR). Currently, the ERC has implemented PBR for the 3<sup>rd</sup> Entry Group composed of La Union Electric Company (LUECO), TEI, CELCOR, IEEC, VECO and DLPC.

Meanwhile, the reset process for the 4th Entry Group PBR composed of AEC, SEZ, CEDC, SFELAPCO, PECO, BLCI, started on September 2010. The group (except PECO) had already submitted their application for the Annual Revenue Requirement and Performance Incentive Scheme (PIS) for the Regulatory Period 2011 to 2015 on September 24, 2010.

The recent ERC decisions on PDUs application under the 1st to 3rd Entry groups are summarized in Table 9. All decisions are final except for the MERALCO application which is still being evaluated by the ERC.

*Table 9 - Status of PDUs Rate Application to ERC*

DU	Case Number/ Date of Filing	Regulator y Year	RY 2011 Rate (PhP/kWh)				Status
			Previous Rates	ERC Approved	Proposed Rates (RY 2011)	Difference	
DECORP	2010-025 RC/ 30-Mar-10	2011	1.5460	1.7100	1.9429	0.1640	Final Decision issued by ERC on June 7, 2010.
CEPALCO	2010-024 RC/ 1-Jun-09	2011	1.4482	1.5705	1.5745	0.1223	Final Decision issued by ERC on June 7, 2010.
CLPC	2009-178 RC/ 22-Feb-10	2009-2013	1.3189	1.5056	1.7620	0.1867	Final Decision issued by ERC on April 1, 2010.
MECO	2009-175 RC/ 15-Feb-10	2009-2013	0.9990	1.0149	1.01489	0.0159	Final Decision issued by ERC on April 1, 2010.
ILPI	2009-179 RC/ 10-Mar-10	2009-2013	0.9703	1.1256	1.1256	0.1553	Final Decision issued by ERC on April 1, 2010.
LUECO	2010-031 RC/ 16-Apr-10	2011-2014	1.0707	1.2326	1.2326	0.1619	Final Decision issued by ERC on June 15, 2010.
TEI	2010-029 RC/ 15-Feb-10	2011-2014	1.2320	1.2571	1.2492	0.0172	Final Decision issued by ERC on June 15, 2010.
CELCOR	2010-030 RC/ 15-Apr-10	2011-2014	1.3563	1.4275	1.4275	0.0712	Final Decision issued by ERC on June 15, 2010.
IEEC	2010-041 RC/ 13-May-10	2011-2014	1.2751	1.4614	1.4614	0.1863	Final Decision issued by ERC on August 5, 2010.
VECO	2010-042 RC/ 19-May-10	2011-2014	1.0872	1.1717	1.1717	0.0845	Final Decision issued by ERC on June 28, 2010.
DLPC	2010-036 RC 26-Apr-10	2011-2014	1.0800	1.1633	1.1633	0.0833	Final Decision issued by ERC on June 15, 2010.

*Source: ERC*

*Table 10 - Status of PDUs Rate Application to ERC Under the RORB Regime*

Date Filed	Case No.	Name of Private Utility	Status
8-Sep-09	2009-061 RC	San Fernando Electric Light and Power Company, Inc. (SFELAPCO)	Decision issued on 29 March 2010 granting an average of PhP0.2297/kWh rate increase.
10-Sep-09	2009-062 RC	Panay Electric Company, Inc. (PECO)	Decision issued on 12 April 2010 granting an average of PhP0.0241/kWh rate increase.
15-Oct-09	2009-067 RC	Clark Electric Distribution Corporation (CEDC)	Decision issued on 24 May 2010 ordering an average of PhP0.1787/kWh rate reduction.

The reset process for the 4th Entry Group PBR, started on September 2010. The group (except PECO) had already submitted their application for the

Annual Revenue Requirement and Performance Incentive Scheme (PIS) for the Regulatory Period 2011 to 2015 on September 24, 2010. However, as discussed in the previous report, three PDUs under this group applied for rate increase under RORB. The status of such applications is summarized in Table 10.

b. Electric Cooperatives

With respect to the applications for approval of rates under the Rules for Setting the Electric Cooperatives' Wheeling Rates (RSEC-WR) filed by various on-grid ECs, (except for Pampanga III Electric Cooperative, Inc. and Maguindanao Electric Cooperative, Inc. (MAGELCO), the ERC issued an Order dated 18 October 2010 granting partially the request of NASECORE, who filed an intervention for the ECs' rates cases last 17 November 2009, and requested the provision of some documents related to personnel salaries, asset acquisition, investments and loans of the ECs. Some ECs opposed the said request and pointed out that since NASECORE is not doing business nor a member-consumer within the franchise areas of the concerned ECs, it has no interest whatsoever that may be affected adversely by the rate adjustments subject to the instant applications.

However, the ERC partially approved the petition of NASECORE and directed the ECs to submit the requested documents while hearings are continuously being held.

**D. Administration of Universal Charge (UC)**

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

**1. Total Collections/Disbursements for UC-ME and UC-EWR**

Total collections/remittances to PSALM as of 30 September 2010 amounted to PhP16.058 billion, where PhP15.504 billion of which was disbursed by PSALM to NPC for missionary electrification and environment and watershed rehabilitation in accordance with the provisions of the EPIRA. This leaves the Universal Charge (UC) fund with a balance of about PhP554 million as of 30 September 2010. For the period May 2010 to September 2010, PSALM disbursed a total of PhP2.25 billion of UC-ME funds.

On August 16, 2010, the ERC issued its Decision dated August 16, 2010 modifying the provisional authority granted for from the Universal Charge of the share for Missionary Electrification (UC-ME) in the Order dated August 17, 2009 be modified from PhP0.0978/kWh to PhP0.0454/kWh.

*Table 11 - UC Collections & Disbursements, As of 30 Sept 2010 (In Billion PhP)*

<b>Particulars</b>	<b>Collections/ Remittances</b>	<b>Disbursements</b>	<b>Balances</b>
Missionary Electrification	15.212	15.165	0.047
Environmental Charge	0.846	0.339	0.507
<b>Total:</b>	<b>16.058</b>	<b>15.504</b>	<b>0.554</b>

*Source: PSALM*

With respect to NPC-SPUG's petition for the availment from UC-ME, the 2010 ERC issued a permanent

authority allowing NPC-SPUG for UC-ME the amount of PhP0.0454/kWh to be effected/charged from the consumers by the distribution utilities (DUs) starting August billing period (July 26, 2010-August 25, 2010). NPC-SPUG was further directed to implement the proposed missionary electrification projects in accordance with the DOE's MEDP.

**2. UC for Stranded Contract Costs (SCC) and Stranded Debts (SD)**

With pending ERC resolution on PSALM's 2009 SCC and SD applications, PSALM filed for subsequent UC petition on 29 June 2010 seeking to recover the losses from operating eligible IPPs in 2009 under the SCC and the projected 2010 stranded debts not liquidated by the proceeds from the sale and privatization of NPC assets. In these petitions, PSALM seeks to recover around PhP26.68 billion SCC over a three-year period, and PhP54.89 billion SD (calculated for the year 2010 only) over a year instead of a levelized application.

*Table 12 - UC Collections for the Period May-September 2010 (in Billion PhP)*

Month	UC - ME	UC - EWR	Total
May	0.412	0.011	0.423
June	0.450	0.012	0.462
July	0.456	0.012	0.468
August	0.498	0.013	0.511
September	0.456	0.012	0.468
<b>Total</b>	<b>2.272</b>	<b>0.060</b>	<b>2.332</b>

*Source: PSALM*

The 2010 UC-SCC filing is equivalent to PhP0.1879 per kWh to the consumers' electric bill. Meanwhile, the updated 2010 UC-SD projection would translate to a reduction from PhP1.07 per kWh projected 2010 UC-SD in the 2009 filing (if unlevelized) to PhP0.86 per kWh projected 2010 UC-SD in the 2010 filing or a reduction of PhP0.21 under an unlevelized UC-SD. The improvement is attributed to the successful appointment of IPP Administrators (IPPAs) for Sual, Pagbilao, San Roque, Bakun and Ilijan Power Plants. The impact of the IPP privatization reduced the projected 2010 SD from PhP67.3 billion to PhP54.9 billion.

In summary, there are four filings to cover UC-SCC for 2008 and 2009 operations of eligible IPPs and a levelized projected UC-SD for the period covering 2009-2029 as computed in 2009 and one update to the projected 2010 SD. The ERC reported that they are yet to conduct hearings for UC-SD and UC-SCC petitions.

*Table 13 – Proposed UC for the Recovery of SCC and SD*

UC Item	Particulars	2009	2010
SCC	Total Amount (in million PhP)	22,256	26,685
	Equivalent PhP/kWh	0.0920	0.1879
	Proposed Recovery Period	5 years	3 years
SD	Total Amount (in million PhP)	470,865	54,897
	Equivalent PhP/kWh	0.3049	0.8677
	Proposed Recovery Period	17 years	1 year

*Note: The 2010 filing is just an update of the 2010 SD projection, which, in the 2009 UC SD filing, amounts to PhP 67.34 billion.*

*Source: PSALM*

**3. UC for Environmental and Watershed Management**

Four NPC petition for availment of UC for the rehabilitation and management of watershed areas ERC as summarized in Table 14.

Meanwhile, NPC utilization of UC-EWR as reported by the ERC -approved availment, the status of disbursement is summarized in Table 15.



Table 14 – Status of NPC Petition for the Availment of UC for the Rehabilitation and Management of Watershed Areas

Plan	Year	Case No.	Amount Applied (Original)	Amount Applied (Revised)	Remarks
Plan 4	CY 2007	2007-098RC	89,707,668.73		Ongoing evaluation
Plan 5	CY 2008	2008-010 RC	112,171,000.00		No Formal Offer of Evidence
Plan 6	CY 2009	2009-016 RC	226,351,354.25	243,288,354.25	NPC filed a supplemental petition for the Casecanan-subwatershed area. Hearing still on going
Plan 7	CY 2010	2010-019 RC	153,220,773.50		Hearing still on going.

Source: ERC

#### 4. UC Imposition to Self-Generating Facilities (SGFs<sup>1</sup>)

For the first four years of the UC imposition, which commenced in February 2003 through an ERC Order dated 20 December 2002, the EPIRA-IRR provides that all SGFs, whether new, existing or under construction, shall not be covered by the imposition. The four-year deferment of UC on SGFs expired in 2007 and various SGFs particularly those using biomass clamored for the extension of the deferment.

Table 15 – Status of NPC Availment of ERC-approved UC for the Rehabilitation and Management of Watershed Areas

Petition	Amount Approved (PhP)	Financial Utilization (PhP)	% Utilization	Balance (PhP)
Plan 1	69,921,041.00	63,244,400.00	90.45	6,676,641.00
Plan 2	182,002,547.00	59,948,247.00	32.94	122,054,300.00
Plan 3	87,007,451.00	22,693,168.00	26.08	64,314,284.00
<b>Total</b>	<b>338,931,040.00</b>	<b>145,885,815.00</b>	<b>44.04</b>	<b>193,045,225.00</b>

On 21 June 2007 the DOE promulgated “Amendments to Section 4 (c) of Rule 3 and Section 7 of Rule 18 of the Implementing Rules and Regulations (IRR) of Republic Act No. 9136 otherwise known as the Electric Power Industry Reform Act (EPIRA)”, extending the deferment of UC on SGFs up to June 2010. The promulgation provides that all Self-Generation Facilities whether new, existing, or under construction shall not be covered by the imposition of UC for a period of three (3) years from June 25, 2007, provided, that, such Self-Generation Facilities shall register with ERC and PSALM.

The exemption of SGFs to UC imposition was made permanent for those using renewable energy to generate electricity for their own consumption through the passage of RA 9513 (An Act Promoting the Development, Utilization and Commercialization of Renewable Energy (RE) Resources and for Other Purposes).

For those SGFs utilizing non-renewable energy, the expiration has lapsed with the UC imposition commencing in July 2010. In this regard, PSALM, based on the DOE’s directive, conducted from July to August 2010, separate consultations with various stakeholders, i.e., SGFs, distribution utilities (DUs), Philippine Economic Zone Authority (PEZA), and the National Grid Corporation of the Philippines (NGCP), to prepare the various entities that will be affected by the UC imposition. To date, PSALM in coordination with the DOE still has to resolve the following issues relating to the implementation of the UC on SGFs:

- SGFs, particularly energy-intensive industries, strongly opposed the imposition of the UC. For them, the UC will be an additional burden to their operating costs, thus

<sup>1</sup> Rule 4 (aaaa) of the EPIRA-IRR defines “Self-Generation Facility” or “SGF” as a power Generation Facility owned and constructed by an End-user for such End-user’s own consumption or internal use, excluding Generation Facilities for use by households, clinics, hospitals and other medical facilities. An End-User refers to any Person or entity requiring the supply and delivery of electricity for its own use.

hampering their growth, and in the worst case scenario, possibly result in plant shutdown.

- DUs in Visayas and Mindanao expressed great apprehension as to the difficulties that will be encountered in implementing the UC on SGFs, particularly to SGF-customers participating in the Interruptible Load Program (ILP). The ILP was established by the ERC to minimize the impact of the power crisis affecting the region.
- Under the ILP, SGFs utilize their gensets to enable non-SGFs to enjoy the lower power rates out of drawing power from the DU. For the SGFs, the UC imposition will be unfair since they significantly contribute to the alleviation of tight power supply during certain hours of the day. They are even exposed to higher power costs out of running their generation facilities.
- All collecting entities of the UC (i.e., DUs and NGCP), voiced their concern over additional administrative costs that will be incurred in conducting meter reading for each generation facility owned by the SGF, reconfiguring the IT system that will be used to generate power bills that will be issued to SGFs monthly, and in maintaining the meters that will have to be installed for each generation facility.
- Another issue was who will shoulder the cost of meters, which ranges from P30,000 to P100,000, that will be installed for each generation facility owned by the SGF. Asking SGFs to shoulder the cost of meters will definitely affect their viability, especially so if they maintain a large number of gensets at their disposal. On the other hand, if the collecting entities will shoulder the cost, will the ERC allow them to recover the meter costs from their transmission/distribution charges?

#### **E. Assumption of Loans of Electric Cooperatives**

As of 30 September 2010, PSALM has paid a total of PhP11.142 billion worth of financial obligations of ECs to National Electrification Administration (NEA), local government units (LGUs) and other government agencies (OGAs) (Table 16).

*Table 16 – Status of Loan Condonation as of 30 September 2010 (PhP)*

	Total Assumption	Actual Payments		Balance	
		Amount	%	Amount	%
NEA	17,977,951,553	11,066,072,321 <sup>1/</sup>	61.6	6,911,879,233	38.4
LGU/OGA	99,614,780	76,566,473 <sup>2/</sup>	76.9	19,323,306	19.4
<b>TOTAL</b>	<b>18,077,566,333</b>	<b>11,142,638,794</b>	<b>61.6</b>	<b>7,751,504,908</b>	<b>38.3</b>

<sup>1/</sup>With application of the PhP2.215 Billion collection of NEA from ECs amounting to PhP369

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

Source: PSALM

Of the PhP11.066 billion total payments to NEA as of 30 September 2010, 75.3 percent was used to pay for rural electrification loans incurred by the ECs, 15.4 percent was for Mini-hydro loans, 9.2 percent was for Dendro Thermal loans and only 0.1 percent was used for house wiring loans. Table 16 following is the summary of these payments.

Meanwhile, the ERC reported that with the implementation of the new rate setting methodology for transmission grid-connected ECs called the RSEC–WR and non–grid connected ECs (specifically those in the NPC–SPUG areas), their respective newly approved rates no longer include recovery of loans condoned by PSALM. However, for those ECs which from the time their rates are unbundled have yet to file a new rate case or with rate cases pending with the ERC,

the final rate reduction due to loan condonation still remains in their billings to customers until such time that a new rate is filed and approved by the ERC.

### F. Mandatory Rate Reduction

Pursuant to Section 72 of the EPIRA, NPC continuously grant to residential customers the mandatory discount of 30-centavos/kWh. For the period April-August 2010, total discounts granted by NPC amounted to PhP622.0 million of which 47.4 percent were availed by residential customers in Mindanao, 30.4 percent in the Visayas and 22.2 percent in Luzon.

*Table 17 - Payments per Type of Loan*

Type of Payment	Amount Paid (In PhP)	Percentage to Total
Rural Electrification Loan	8,333,786,072	75.3
Mini-hydro	1,706,336,657	15.4
Dendro Thermal	1,017,633,352	9.2
House wiring	8,316,240	0.1
<b>TOTAL</b>	<b>11,066,072,321</b>	<b>100.0</b>

Source: PSALM

*Table 18 - Monthly Amount Incurred by NPC for the Grant of MRR, April –August 2010*

Billing Month	MERALCO	REST OF LUZON	TOTAL LUZON	VISAYAS	MINDANAO	TOTAL
April 2010	27,989,214.10	6,994,305.08	34,983,519.18	33,097,892.60	55,781,074.41	123,862,486.19
May 2010	26,945,954.12	8,335,549.24	35,281,503.36	46,852,306.73	58,602,559.43	140,736,369.52
June 2010	25,829,411.99	7,667,101.81	33,496,513.80	38,496,958.90	66,213,086.12	138,206,558.82
July 2010	7,577,968.93	9,467,995.19	17,045,964.12	37,035,208.59	56,583,928.26	110,665,100.97
Aug-10	8,449,485.54	8,726,414.90	17,175,900.44	33,892,800.66	57,451,146.62	108,519,847.72
<b>TOTAL</b>	<b>167,431,687.47</b>	<b>41,191,366.22</b>	<b>137,983,400.90</b>	<b>293,493,600.73</b>	<b>294,631,794.84</b>	<b>621,990,363.22</b>

Source: NPC

### G. Lifeline Rate Subsidy Program

For the report period, PDUs that entered into PBR are providing 100 percent discount to customers consuming 20 kWh and below, pursuant to the ERC decisions in their rate applications. The subsidy rate shouldered by non-lifeline customers ranges from PhP0.0654 to PhP0.1396 respectively. Among the PDUs, three posted an increase in the amount of subsidy rate. These are CLPC, IEEI and IEEC. Details of the new lifeline rates of the PDUs are shown in Annex 5.

Pursuant to the EPIRA, the lifeline rate shall be implemented for a period of ten years, unless extended by law.

## IV. COMPETITION

This section provides an update on key areas of competition to include the operation of the WESM, preparation for open access and retail competition and monitoring of compliance to Section 45 of the EPIRA. The WESM report covers major highlights for the report period were the reforms instituted in the overall operation of the spot market, improvement in the governance and regulatory approvals that affected its operations. Also included in the report are developments in the establishment of Renewable Energy Market (REM) pursuant to Republic Act 9513 or the Renewable Energy (RE) Act.

On open access and retail competition, pending compliance to the pre-conditions under Section 31, the DOE closely monitored developments in the ERC preparations. In terms of compliance to the market share, the DOE provides an analysis and some observations on the ERC issuance and methodology.

### A. Wholesale Electricity Spot Market Implementation

After 51 months of commercial operation in Luzon, the WESM has 30 registered trading teams from 23 generating companies that are directly participating in the WESM (Annex 7). Of these, two (2) are from NPC, three (3) from PSALM, two (2) from First Gen Hydro, two (2) from Aboitiz-controlled AP Renewables, while the rest are from other independent generating companies. There are 34 generating plants of different fuel resources with a total registered capacity of 11,652 MW. As for customers, there are 38 registered members composed of twenty eight (28) ECs, six (6) PDUs and four (4) industrial/commercial customers. There are five (5) registered suppliers which are mostly affiliates of registered generators.

### 1. Highlights of Luzon Commercial Operations

For the period covering May to September, the average demand was registered at 5,818 MW, 11.44% (597 MW) higher than last year average demand with the same period. With Luzon’s hot and humid weather brought about by the El Niño phenomenon, the average demand was highest in May at 6,101 MW with the highest peak recorded on May 26 at 7,643 MW (reflected in the June billing month). Meanwhile, the lowest average demand of 5,605 MW was recorded in July 2010 with the onset of the rainy season.

On average, the minimum average energy offers submitted by the WESM-registered generators was noted in July 2010 at 6,247 MW while the maximum was in May 2010 at 6,932MW. However, supply margins continued to remain tight during the aforementioned period. In

Table 19 - Summary of Market Results

Billing Month	Peak Demand (MW)	Coincident Energy Offers (MW)	Average Demand (MW)	Average Energy Offers (MW)	Average Capacity on Outage (MW)
May 2010	7558	7152	6101	6932	631
Jun 2010	7643	7791	6027	6618	1245
Jul 2010	7242	7447	5605	6247	1712
Aug 2010	7042	7049	5699	6780	1737
Sep 2010	7039	7170	5656	6480	2193

Source: PEMC

May 2010, despite slight improvement as the average energy offer increased by 14.0 percent from 6,079 MW in April 2010 to 6,932 MW, the supply were still tight for some peak to mid-peak intervals as operating reserves were insufficient to augment the energy supply. Average capacity on outage for the 5-month period under review was at 1,504 MW.

The effects of the El Niño phenomenon were evident in the share of hydroelectric plants in the energy mix at 3.9 percent in May while it significantly increased through the rest of the period to 11.4 percent in September with the onset of the rainy season. Contribution of natural gas plants remained high and was at an increasing trend, from 40.5 percent in May to 44.2 percent in September. Meanwhile, share of energy from coal plants have significantly declined from 44.5 percent in May 2010 to 33.2 percent in September 2010 with increasing utilization of hydro and natural gas plants.

Contribution from geothermal plants averaged 6.5 percent while diesel/oil-based plants averaged 5.6 percent for the period. Highest share of diesel/oil-based plants was noted in July 2010 at 7.8 percent, which were used mostly as must-run unit to address the problems arising in relation to thermal limits in the transmission line and/or equipment and in some trading

Table 20 - Metered Quantities: Energy Consumption

Billing Month	Metered Quantity (MWh)	Spot Quantity (MWh)	Percent	Bilateral Quantity (MWh)	Percent
May 2010	4,025,236	632,741	15.7	3,392,494	84.3
Jun 2010	4,120,067	711,151	17.3	3,408,915	82.7
Jul 2010	3,705,460	594,644	16.0	3,110,816	84.0
Aug 2010	3,900,844	462,747	11.9	3,438,096	88.1
Sep 2010	3,893,171	321,815	8.3	3,571,355	91.7

Source: PEMC

intervals, to augment the reserve requirements.

Energy quantity sourced through the spot market posted an average of 13.8 percent with the maximum spot transaction noted was in June 2010 at 17.3 percent and the lowest in September at 8.3 percent. Bilateral contract quantities (BCQ) which are settled outside the spot market averaged 86.2 percent with the highest noted in September at 91.7 percent.

Customer Effective Buying Prices were relatively high particularly in July at PhP10,542.92/MWh. The lowest was noted in August at PhP5,952.7/MWh. High prices during the covered period were experienced as tight supply condition may have affected supply in the spot market. Impacts of congestion prices were mitigated with the implementation of the Price Substitution Mechanism for congestion, which lowered the prices on relevant trading intervals.

After fully returning the Net Settlement Surplus to market participants, the buying prices were brought down to the equivalent Effective Selling Prices that ranged from a low of PhP5,034.90/MWh in August to a high of PhP9,089.57/MWh in July.

## 2. *Visayas WESM*

As a result of the Stakeholders Meeting conducted by the DOE on 18 and 28 June 2010, PEMC launched the WESM Visayas Trial Operation Program (TOP) on 15 July 2010. The TOP which was implemented from 15 July to 29 September 2010 serves as the trial run of the WESM in the Visayas, to determine and ensure the readiness of the power industry stakeholders for the possible commercial operations of the WESM in the region. In particular, the TOP aims to:

- Test the full functionality of the Market Management System (MMS) when integrated with the Visayas System Operator Energy Management System and Trading Participants Market Interface;
- Encourage early involvement of the Trading Participants in the operation of the Visayas WESM, and encourage them to develop and test their own internal business procedures and understand their responsibilities under the WESM Rules;
- Test the impact of the relevant provisions of the WESM Rules and operating procedures;
- Familiarize the Visayas Trading Participants with the different market procedures and protocols; and
- Pave the way for commercial operations of the WESM in the Visayas.

The TOP consists of two major activities, namely:

- Market Operations Scenario Testing (MOST) - implemented from 15 July to 17 September 2010 which involved a series of structured tests to familiarize the trading participants in the Visayas region with the various modules and functionalities of the WESM Market Management System (MMS), which is the main system being used in

*Table 21 - Metered Quantities: Energy Mix (in Percent)*

Billing Month	Hydro	Geo	Coal	Natural Gas	Diesel/Oil	Wind
May 2010	3.9	6.5	44.5	40.5	4.6	0.04
Jun 2010	4.7	6.5	42.5	40.7	5.6	0.04
Jul 2010	8.7	6.5	35.7	41.2	7.8	0.02
Aug 2010	11.3	6.5	35.4	41.4	5.3	0.14
Sep 2010	11.4	6.6	33.2	44.2	4.6	0.06

*Source: PEMC*

*Table 22 - Effective Settlement Prices (PhP/MWh)*

Billing Month	Buying Price (w/ Surplus),	Selling Price (w/o Surplus),
May 2010	8,468	7,933
Jun 2010	8,737	8,266
Jul 2010	10,543	9,090
Aug 2010	5,953	5,035
Sep 2010	8,981	7,508

the operations of the WESM. The tests were also aimed at orienting the trading participants with the prevailing WESM protocols and procedures.

- Live Dispatch Operations (LDO) - final phase of the TOP which was implemented from 20 to 29 September 2010 in 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 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 possible operational issues that may impact on the commercial operations of the WESM.

The LDO was conducted as a two-part activity. The first part was implemented from 20 to 22 September 2010 and involved the utilization of scripted offers and bids in the form of price range offers prepared by PEMC which in turn were submitted by the participants as energy offers. The second part was implemented 23 to 29 September 2010 and involved a “free-for-all” bidding where participants are allowed to submit their own energy offers according to the plants’ capability and availability.

Meanwhile, the number of expected and actual registered participants with their corresponding capacity/demand are summarized in Table 23.

*Table 23- Registration Status in Visayas TOP*

Participants	No. of Participants		Installed Capacity / Estimated Demand, MW	
	Expected	Registered Participants	Expected	Registered Capacity / Demand
<b>Generators</b>	<b>20</b>	<b>12</b>	<b>2,003</b>	<b>1,879</b>
<b>Customers</b>	<b>58</b>	<b>32</b>	<b>1,257</b>	<b>1,080</b>
Private Distribution Utilities	4	3	352	337
ECs (excluding 3 offgrids)	28	23	690	631
Directly Connected Customers	21	3	136	36
Economic Zones	3	3	77	77
Government Owned Facilities	2	0	2	-
<b>TOTAL</b>	<b>78</b>	<b>44</b>	<b>3,260</b>	<b>2,959</b>

*Note: Participants in the WESM Visayas have registered mostly as Direct Members while some as Indirect Members.  
Source: PEMC*

Concurrently, PEMC through its Rule Changes Committee proposed amendments to the WESM Rules and Manuals which are necessary in the implementation of WESM Visayas such as removal of contingency list from the ex-post dispatch process, and proposed new manual on the criteria and guidelines for the issuance of pricing error notices and conduct of market re-run.

On 4 October 2010, the ERC issued its decision on ERC Case No. 2010-120RC as filed by PEMC through the DOE entitled “In the Matter of the Establishment of the WESM in the Visayas”. In the said Order, the ERC required PEMC through the DOE to manifest if the implementation of the WESM in the Visayas will not require modifications to the WESM Rules and other rulings made by the ERC relative to the following:

- a) Price Determination Methodology;
- b) Price Substitution Methodology;
- c) Administered Price Determination Methodology;
- d) Compensation for Must-Run Units;
- e) Rules on the Net Settlement Surplus; and

f) WESM Dispatch Protocol.

The ERC suggested that if ever there are modifications or amendments to the abovementioned rules and procedures, PEMC should file within 30 days the necessary application for modification. With regards to the market fees to be imposed at the WESM Visayas, the ERC required PEMC to supplement its pending market fees application and include the budgetary requirements necessary to operate the WESM in the Visayas grid.

**3. *Regulatory Filings for the Approval of Market fees for the WESM***

On 1 July 2010, PEMC filed an Application for the approval of the level of market transaction fees for CY2010 to 2011, inclusive of the additional market fees needed to cover the cost of the MMS Migration. Proceedings in this Application are ongoing before the ERC.

On 19 July 2010, the ERC issued an Order whereby PEMC was authorized to collect the amount of PhP331.5 million for the MMS Migration project. Collection shall be over a period of five (5) years at an annual market fee rate of PhP0.0015/kWh. In the same Order, PEMC was authorized to continue implementing the CY2009 market fee rate of PhP0.0144/kWh until the Commission approves a new market fee rate for CY2010 in the above-stated Application. PEMC filed a Motion for Partial Reconsideration, but only insofar as the period for the collection of the approved amount is concerned. In its Motion, PEMC prayed for authority to collect PhP331.5 million during CY2010. This Motion is pending before the ERC.

Meanwhile, PEMC's Petition for the approval of the WESM Market Fee Setting Rules (MFSR), which was intended to govern the subsequent approvals of PEMC's market fees applications, was denied in a Decision promulgated by the ERC on 19 July 2010. PEMC filed a Motion for Reconsideration that is submitted for resolution.

**4. *WESM Governance***

The PEMC has steadfastly implemented reforms in the governance of the WESM taking off from the result of operational and organizational audits conducted in preparation for the transition to Independent Market Operator (IMO). Following the reconstitution of the PEM Board and the various governance committees, the PEMC reorganized its structure based on the recommendation of the SGV group who conducted the PEMC organizational audit in early 2010. The final recommendatory report which was submitted to PEMC contained relevant findings in the then existing PEMC manning and structure and the recommended structure that would rationalize the functions of the existing manpower including the proposal for improvements. PEMC's roster of officers was reconstituted in June 2010 to further improve governance of the WESM. The move is in preparation for the transfer of operations to an Independent Market Operator (IMO).

On the various PEM Committees, following are the summary of the significant activities conducted during the report period:

- The Market Surveillance Committee (MSC) completed review of four (4) investigation reports submitted by the Enforcement and Compliance Office (ECO) which covered the compliance of ECO with the procedures set out in the WESM Rules and the Market Surveillance, Compliance and Enforcement Market (MSEEM) Manual and the validity and completeness of the data and documents upon which the factual findings are based.
- The MSC presented to the PEM Board last 25 August 2010 the trading behavior/activity of the WESM participants for the July 2010 billing period which highlighted the increasing frequency of price errors for the billing period relative to

same period last year. It likewise underlined coal plants with the most number of trading intervals on outage and limited offers.

- The Dispute Resolution Group (DRA) filed to the RCC on 13 August 2010, the proposed urgent amendments to WESM Rules and the DRMM to address the procedural gaps in the existing rules which is expected to expedite the resolution of the WESM related disputes. (refer to PEM Board Minutes)
- The Rules Change Committee deliberated the proposed changes to the WESM Rules and Manual as summarized in Annex 6.
- The Technical Committee submitted to the PEM Board during its 52nd Meeting last 5 October 2010 its position paper regarding the request for the reclassification of the Bakun and Casecnan hydroelectric power plants from scheduled to non-scheduled generating facilities. Based on the TC's report and recommendations, the PEM Board finally resolved to declare Bakun and Casecnan to remain as scheduled generating facilities. Accordingly, the previous Board resolution to hold any inquiry / investigation against Bakun and Casecnan HEPs was lifted.
- Currently, the TC is finalizing its study on the appropriate criteria for the determination of the minimum/maximum stable loads and ramp rates of a WESM registered generating facilities. Said study aims to identify areas for improvement in the aspect of market registration including particularly the request for change of the same.
- The TC will be tapped to provide technical assistance in the forthcoming conduct of independent audit of the System Operations and Metering Services of the NGCP
- The PEM Audit Committee (PAC), has concluded the Independent Operational Audit of the Systems and Procedures on Market Operations under the supervision of the DOE. The independent auditor, Deloitte Touche Tohmatsu-Australia, with its local partner Deloitte Philippines-Manabat Delgado Amper and Co., and Intelligent Energy Systems Pty Ltd (IES) reviewed and assessed the processes of the market management systems, market models, software, billing and settlement system, emanating from the submission of generation offers/bids up to the dispatching, and publication of market information under the WESM Rules for the period June 2007 – July 2009. The final audit report, which was finalized on July 22, 2010, covers the compliance assessment, software certification and broad identification of areas to achieve better international practice. One of the significant recommendations of the said audit was to conduct a separate audit of the NGCP's System Operations and Metering Service Operations to assess the compliance of NGCP to its responsibilities under the WESM Rules, as the system operator and the metering service provider.

##### **5. *Electric Cooperative's Participation in the WESM***

As of October, there are eighteen (18) ECs that are registered as direct trading participants in Luzon WESM. Ten ECs are indirect members, while 11 are applying for membership. Meanwhile, 15 out of the 31 ECs in the Visayas participated in the TOP.

##### **6. *Termination of the Default Wholesale Supplier (DWS) and Implementation of the Disconnection Policy***

The DWS is an interim measure implemented by the DOE upon the commencement of the commercial operation of the WESM in Luzon to ensure the smooth transition from the pre-WESM supply arrangements. The inability then of the ECs to comply with certain technical and financial prerequisites for membership in the WESM prompted the DOE to issue Department Circular No. 2006-06-009 designating the NPC and PSALM to be the DWS to cover the imbalances of the customers in the WESM. Pursuant to the said circular, the DWS arrangement will be effective for a period of one year to give ample time to the DUs particularly the ECs prepare for the new market environment. However, with the subsequent



issuances of the ERC extending the period of implementation for the DWS, the said arrangement put NPC to further financial strain while making the ECs dependent for their source of power. These issues then called for the termination of the DWS policy and subsequent implementation of the disconnection policy.

Last 06 May 2010, the DOE issued DC No. 2010-05-006 terminating the DWS Arrangement and declaring a Disconnection Policy. This Circular became effective on 27 May 2010 relieving both NPC and PSALM from their designation as Default Wholesale Suppliers. As provided in the circular, the termination of the DWS Arrangement shall apply only to the grid where WESM is operational.

The ground for disconnection is pursuant to Section 2.2.4.2 of the WESM Rules, stating that all persons or entities who fail to register with the WESM within ninety (90) days from the effectivity of the Circular shall be disconnected from the grid.

The termination of the DWS arrangement and the disconnection policy are subjected to a transition period of ninety (90) days from the effectivity of the DOE Circular. By the said period, all DUs, generation companies, and other entities connected to the grid, were directed to register with the WESM. Failure to comply with this requirement shall result in the disconnection of the concerned entity. Further, any DU which has arrearages with NPC and PSALM at the time of the effectivity of the Circular, shall be allowed to register in the WESM, provided that such DU shall settle its arrearages or enter into a restructuring agreement with NPC and PSALM within ninety (90) days transition period.

On 23 August 2010, the DOE issued Circular No. 2010-08-0010 prescribing the implementing rules and procedures for the termination of the DWS arrangements and the disconnection policy. The issuance of the Circulars facilitated significant improvements in the status of registration in the WESM as shown in Table 24.

*Table 24: WESM Registration Status Before and After the Issuance of DOE-DC No. 2010-08-0010*

CATEGORY	WESM REGISTRATION STATUS AS OF MAY 31, 2010 (Prior to the issuance of DWS Arrangement Termination and Disconnection Policy)			WESM REGISTRATION STATUS AS OF OCTOBER 31, 2010 (During the implementation of the DWS Arrangement Termination and Disconnection Policy)			
	DIRECT	INDIRECT	TOTAL	DIRECT	INDIRECT	TOTAL	INTENDING PARTICIPANTS
Generators <sup>1</sup>	19	1	20	20	2	22	8
ECs	16	7	23	19	10	29	14
PDU's	3	2	5	3	4	7	0
Others	0	0	0	8	14	22	1
<b>TOTAL</b>	<b>38</b>	<b>10</b>	<b>48</b>	<b>50</b>	<b>30</b>	<b>80</b>	<b>23</b>

## **B. Open Access and Retail Competition**

Of the five pre-conditions set by Section 31 of R.A. 9136 for open access and retail competition, four (4) have already been completed to include: 1) establishment of the WESM; 2) unbundling of transmission and distribution wheeling charges; 3) initial implementation of the cross subsidy removal scheme; and 4) privatization of at least 70 percent of the total capacity of generating assets of NPC in Luzon and Visayas. The last condition yet to be fulfilled is the transfer of the management and control of at least 70 percent of the total energy output of power plants under contract with NPC to the IPP Administrators.

Based on the report of the ERC, 60.45 percent of the total NPC-IPP contracts in Luzon and Visayas were bidded-out by PSALM as of September 2010, as published in its official website. The completion of the 70 percent requirement is now only a matter of privatizing a small IPP

plant for the government to commence the implementation of the Open Access and Retail Competition (OARC).

The IPP contracts in line for privatization in October 2010 are the contracted capacity of the Naga Power Plant Complex located at Naga, Cebu composed of the Cebu Power Plant Complex 1 with an installed capacity of 55 MW, Cebu Power Plant Complex 2 with an installed capacity of 55 MW and Cebu Diesel Power Plant 1 with an installed capacity of 39 MW (collectively, the “Naga Contracted Capacity”) with total capacity of 149 MW.

Meanwhile, the government will continue to address the other key requirements that should be in place prior to the commencement of OARC. The adequacy of supply must be determined including the readiness of necessary infrastructures such as transmission networks and the related rules and regulations that will govern the same. For its part, the ERC has already promulgated nine retail competition rules which will govern the implementation of OARC while issued relevant resolutions which clarifies the ERC’s separation requirements, adopting the rules for contestability and indicating the timeline for full competition and open access. The ERC is expected to continue to hold discussions with stakeholders to determine issues and concerns to be able to come up with appropriate rules in the exercise of their rule making function.

### **C. Market Power Monitoring**

The ERC, on 4 October 2010, issued Resolution No. 20, Series of 2010 setting the installed generating capacity per grid, national grid and market share limitations per grid and limitations per grid and the national grid for 2010. Adjustments on the installed generating capacities and the market share limitations are usually made by the ERC on or before the 15th of March of the succeeding years or as often as needed as per Section 3, Article 2 of the ERC Resolution No. 26, Series of 2005.

The issuance of a new resolution is mainly due to the increase in capacities in the Visayas grid, change in material circumstances, correction in the inclusion of the capacity of the blackstart and standby generating assets, and increase/decrease in the originally reported installed capacity of some power plants based on recent submission by the generation companies. The said resolution further reiterated that the ERC finds no generation company nor any other entity has violated the market share limitations per grid and national grid for the year 2010. The revised limitations for 2010 and shall remain until 15 March 2011 is provided in Table 25.

*Table 25 – Market Share Limitations per ERC Resolution No. 20 Series of 2010*

GRID	INSTALLED GENERATING CAPACITY (kW)	MARKET SHARE LIMITATION	INSTALLED GENERATING CAPACITY LIMIT (kW)
Luzon	10,839,012.00	30%	3,251,703.60
Visayas	1,954,774.00	30%	586,432.20
Mindanao	1,799,750.00	30%	539,925.00
Philippines	14,593,536.00	25%	3,648,384.00

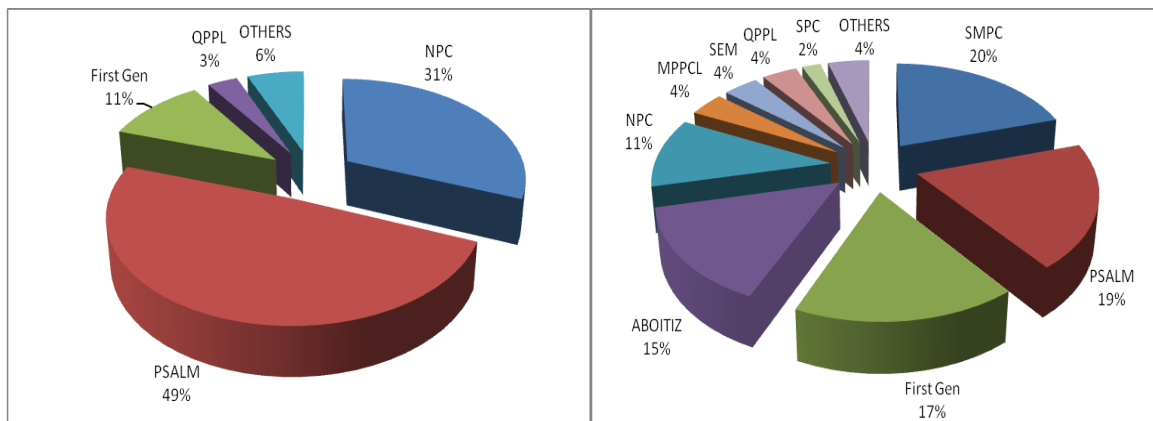
Significant changes in the ownership structure were noted after the successful privatization of more than 90 percent of NPC generating assets and more than 60 percent of the NPC-IPP contracts.

Before the significant development in the privatization, NPC owns and/or control nearly 90 percent of generation capacities nationwide. After the commissioning of the Sta. Rita and San Lorenzo natural gas powered plants, NPC’s share of the total generating capacity was reduced to 80 percent. After privatizing more than 90 percent of the generating capacities in Luzon and Visayas and transferring the administration and management of more than 62 percent of the NPC-IPP contracts, NPC/PSALM’s share was reduced to 11 percent of the total capacity nationwide.

As a result of privatization, the share of generating capacity in the country was diluted to around seven major players which include the existing generators in the industry like First Gen

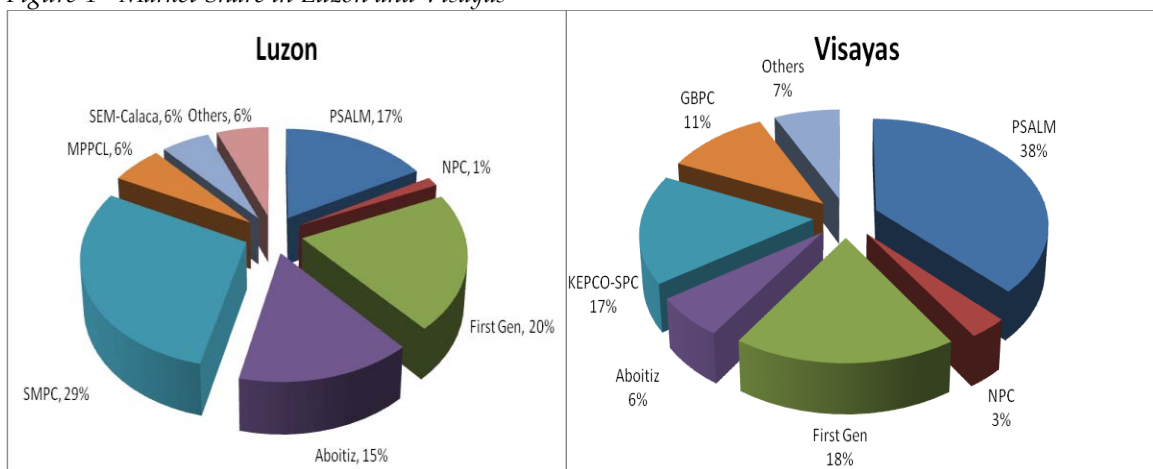
Corporation and Aboitiz group and new business ventures by the San Miguel Energy Corporation (SMEC), AES Corporation and SEM Calaca.

Figure 3 - Market Share of Generating Companies, Before and After Privatization



SMEC now controls the largest share of capacity in Luzon at 29 percent through its energy arm, San Miguel Power Corporation (SMPC). This was attained after only two years of venturing in power business. SEM Calaca, a company attributed to construction giant DMCI and Coyiuto group bought the 600 MW Batangas Coal Fired Thermal Power Plant in Batangas and took 6 percent of the market share in Luzon. AES, a giant in generation business in the United States now owns and operates the 600 MW Masinloc Coal Thermal Power Plant through the Masinloc Power Partners Company, Ltd (MPPCL), sharing 6 percent of the total capacity in Luzon.

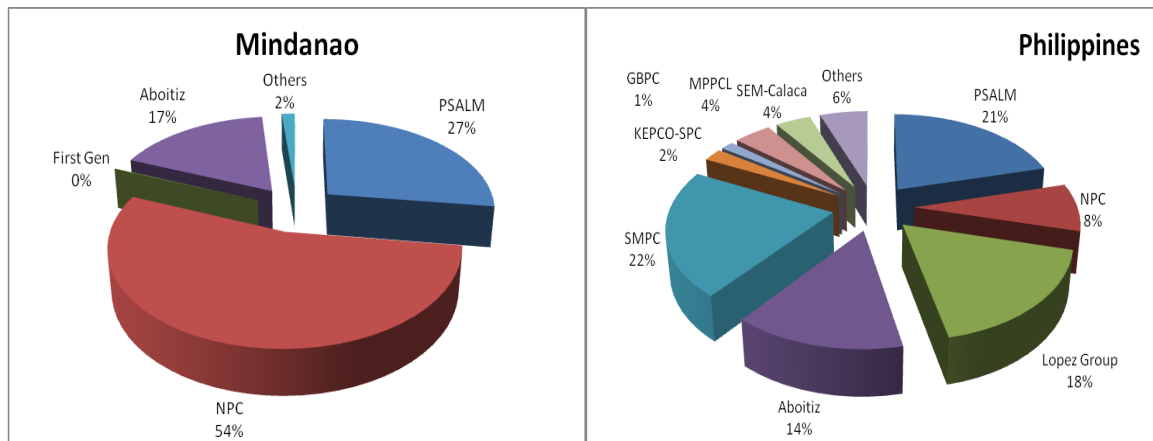
Figure 4 - Market Share in Luzon and Visayas



In Visayas, Global Power has gained significant share in power generation after it put online the first unit of 72 MW Panay Energy Development Corporation coal plant, in addition to its first two units of 144 MW Cebu Energy Development Corporation's coal plant. Global Power has now 17 percent share in the Visayas grid.

In Mindanao, a minor change in share was noted after HEDCOR of the Aboitiz Group commissioned their 42.5 MW Sibulan A & B hydro power plant. The group has now a total of 17 percent share in Mindanao and 14 percent nationwide. PSALM and NPC still has the largest share in generating capacity in Mindanao at 27 percent and 54 percent, respectively. PSALM/NPC will remain the major generating company in Mindanao until such time that NPC/PSALM power plants is privatized and turn over to successor generating companies as provided in Section 47 of the EPIRA. Currently, privatization of government capacities are put on hold in view of supply security concerns.

Figure 5 - Market Share in Mindanao and the Philippines



## V. POWER SUPPLY SECURITY AND RELIABILITY

This section presents the country’s power supply and demand situation for the first semester of 2010 providing information on the available capacity, actual electricity generation and sales, and status of power generation, transmission and distribution projects. This section likewise provides update on the continuing efforts to address concerns on supply security and reliability.

During the first semester of 2010, the country has experienced the worst El Nino occurrence of the decade wherein the hydropower production has reduced to about 33.75 percent in Luzon and 31.83 percent in Mindanao compared to first semester of 2009. In Luzon, the situation was aggravated by the scheduled maintenance of the Malampaya Gas Facilities which is the source of natural gas of the three major power plants in the grid. This scenario created a big challenge both on power supply security and affordability.

### A. Power Generating Capacity

The data for the installed and dependable capacity of each power plant was based on the Monthly Operations Report submitted to the DOE by the generating companies and was counter checked from the Daily Operation Report of the NGCP.

Total installed and dependable capacity in the country, for the 1st semester of 2010 increased to 15,896 MW and 13,502 MW, respectively, with entry of new capacities in Visayas and Mindanao.

The first two units of 3 x 72 MW coal-fired power plant owned by Cebu Energy Development Corporation (CEDC) was tested and commissioned during the first semester of 2010 which increased the total installed capacity of Visayas to 2,064 MW. Located in Toledo City, Cebu, the third unit of the CEDC plant is expected to be commissioned on January 2011.

In Mindanao, the 42 MW Sibulan hydroelectric power plant in Davao del Sur commence testing and commissioning last April 2010 for the first unit to be followed by Unit 2 on August 2010. The dependable capacity for the total Philippines is around 85 percent of the total installed capacity. However, it is observed that the maximum daily available capacity for the first semester is even lower than the dependable capacity by about 25.94 percent or 2,592 MW in Luzon, 20.48 percent or 320 MW in Visayas and 22.93 percent or 393 MW in Mindanao<sup>2</sup>.

<sup>2</sup> Available capacity for the first semester was affected by the following: limited capability of hydroelectric plant due to El Niño phenomenon, Malampaya gas field which provide fuel to the natural gas fired power plants

It was observed that during the period 2006 to first semester of 2010, available capacity in Luzon on the average was 26.0 percent lower than the recorded dependable capacity. The same observation is true with the Visayas grid at 27.0 percent difference between the dependable and available capacity. In Mindanao grid, available capacity during the period 2006 to 2008 on the average is about 14.0 percent less than the dependable capacity. However, due to lower water level in Lanao Lake in 2009 and the first semester of 2010 due to El Nino, the available capacity on the average is 26.0 percent lower than the dependable capacity.

## **B. Power Generation**

Gross electricity generation in the 1st semester of 2010 reached 32,861 GWh, posting an increase of 8.7 percent compared to 30,233 GWh in 1st semester of 2009. Generation in Luzon grid registered a 12.6 percent growth while Visayas only had 0.4 percent increase due to suppressed demand in view of capacity constraints until the commissioning of the CEDC coal-fired power plant. In Mindanao, electricity generation dropped by 3.8 percent as a result of lower average capability of most of the hydroelectric plants which provides the bulk of its requirements.

Significant increase in the utilization of coal-fired and oil-based plants, at 42.3 percent and 38.4 percent, respectively, was noted during the period. Fossil-fueled plants serve as power replacement in times of lower output of hydroelectric plants as exemplified during the occurrence of El Niño phenomenon in most part of the first semester of 2010.

Electricity generated by coal-fired plants for the first semester of 2010 increased to 12,272 GWh from only 8,622 GWh in the same period of 2009. In Luzon and Mindanao, the higher use of coal for power generation was due mainly to compensate for the lower output of the hydroelectric plants. In the Visayas, the increase in coal-based electricity generation resulted from the testing and commissioning of the CEDC plant which started to inject in the Visayas grid in April of 2010 for Unit I (72 MW) and mid of June 2010 for Unit II (72 MW).

After 5 years of leading in electricity production, natural gas electricity generation placed second for the 1st semester of 2010 posting a decrease of 4.7 percent from 9,438 GWh in 1st semester of 2009 to 8,992 GWh in 1st semester of 2010. Electricity generation from natural gas-fired power plants was affected by the Malampaya gas field shutdown from 10 February 2010 to 13 March 2010 and the unavailability of Ilijan A (600 MW) on 23 to 26 May 2010 due to turbine valve inspection.

The country's total generation from oil-based power plants posted an increase of 38.4 percent with frequent dispatched as a must run unit to address the insufficient reserve capacity in the Luzon grid, while in the Mindanao grid, these were fully dispatched when the plant capability of the hydroelectric plants decreased as a result of low water elevation of the reservoir cause by El Niño Phenomenon.

On the other hand, hydroelectric generation declined by 33.0 percent, from 4,266 GWh in 1st semester of 2009 to 2,861 GWh in 1st semester of 2010. While Luzon was able to cope up with limited hydroelectric plants output, Mindanao suffered rotating power interruptions with the average capability of Agus and Pulangi plants going down to 95 MW, an almost 90 percent difference from its 982 MW total installed capacity, during the drought period.

Gross power generation from geothermal power plant went down by 3.0 percent or 157 GWh from 5,268 GWh in 1st semester of 2009 to 5,122 GWh in 1st semester of 2010. The reduction of generation from geothermal power plants was attributed to the following reasons; 1) Leyte Geothermal Power Plant Unit 3 (37.5 MW) was on economic shutdown from 12 February 2010 to

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in Luzon was on maintenance from 10 February 2010 to 13 March 2010, non-operational status of some oil-based power plants (Cebu Land-based Gas Turbine, Bohol and Panay Diesel power plant) in the Visayas grid

20 April 2010; 2) Mahanagdong Unit 1 (60 MW) was on emergency shutdown from 26 March 2010 to 20 April 2010; 3) limited capability of Palinpinon Geothermal Power Plant Unit 2 (20 MW) for the month of February 2010; 4) Leyte Geothermal Power Plant Unit 1 (37.5 MW) on shutdown due to rotor assessment from 19 May 2010 to 20 June 2010; and, 5) the limited capability of Mindanao Geothermal Power Plant Unit 1 (54.24 MW) to an average of 44 MW for the months of March to May 2010.

Contributions from renewable energy such as wind, solar and biomass combined, declined by 27.76 percent or 11.47 GWh with a share of only 0.09 percent to the total generation.

### **C. System Peak Demand**

As the Philippines is slowly recovering from the immense devastation wrought by super typhoons, especially Ondoy and Pepeng during the last quarter of 2009, the country was again eroded by climate change's another ferocity. The extensive heat of El Nino Phenomenon brought Luzon an all time peak temperature for the year recorded at 38°C. For the 1st semester of 2010, significant increase in system peak was observed. System peak intensity during the month of May posted a remarkable figure of 7,656 MW<sup>3</sup> or 12.1 percent higher compared to the same period of 2009 and 10.5 percent higher compared to the maximum peak.

Electricity requirement in Luzon for 2010 was on an uptrend since January, driven by the intense increase in the temperature during the start of summer season and the aggravated expansion in heat rage continued due to the prolonged dry spell. Towards the end of the semester, however, demand rate restrained as expected to be tempered by the inception of the rainy season.

In the Visayas, coincident peak demand in May 2010 reached 1,364 MW, higher by 13.2 percent from the previous year of the same month. In sub-grid level, Cebu reflected highest average demand for the 1st semester of the year with a 47.7 percent share to the total Visayas grid demand.

With the increasing demand in the region, the power supply in the Visayas remained tight during the first half of 2010. New power plants are still on testing and commissioning stages (2 x 72 MW Coal by CEDC) and the other capacity were expected to operate on the 1st quarter of 2011( 72 MW Coal CEDC, 2 x 72 MW Coal by Panay Energy Development Corporation and 2 x 100 Coal Kepco-Salcon). Also, some oil-based power plants with no contracts from distribution utilities are not running and the effect of the structural problems in the grid such as aging power plants that runs on limited capacity which entails more regular maintenance and assessment also contributed to the power supply conditions in the grid.

Mindanao immensely suffered the worst of the power shortage, since more than 50 percent of its electricity requirement mainly sourced from hydro-generated power plants. Power supply in the island was insufficient as water elevation in lakes and rivers all over the grid continued to lower down to its critical level.

As such, suppressed demand was observed since several hydroelectric power plants were operating below capacity, a substantial decline in the electricity demand in Mindanao for the months of March and April 2010).

In line with this, the government and private sector initiated various mitigation measures against the worsening power scenario throughout the grid. However, towards the end of the 2<sup>nd</sup> quarter of 2010, the demand rate attributed a minimal increase as water levels in lakes and rivers slightly

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<sup>3</sup> The System Peak Demand provided by the System Operator was based on an every 2-seconds SCADA snapshot which does not consider load dropping and output of embedded generating capacity. Meanwhile, the system peak recorded by the MO in the was based on every 5-minute snapshot submitted by the SO.

improved. Meanwhile, hydroelectric plants are expected to operate nearly full capacity in the second semester of the year when the rains are expected to come.

#### D. Status of Private Sector Initiated Power Generation Projects

As of the report period, a total of 1,354 MW private sector initiated projects were committed and already has secured financing. Of this amount, 600 MW are expected in Luzon, 671 MW in the Visayas and 100.5 MW in Mindanao. Indicative projects or those which are at the different stages of development prior to financial closure, are expected to provide around 4,193 MW. Details and status of these committed and indicative projects are shown in Annexes 7 to 9.

#### E. Status of Transmission Projects

In the transmission sector in Luzon, the San Jose Transformer Replacement Project involves the replacement of existing 500/230 kV transformer banks at San Jose substation which have been in critical conditions. In order to maintain the provision for N-1 contingency, the replacement units also aim to increase the capacity of the substation from 2400 MVA to 3000 MVA. The ERC has granted the Provisional Authority in March 2009 to implement this project. The replacement program will be completed by October 2010.

Figure 6 - San Jose Transformer Replacement Project



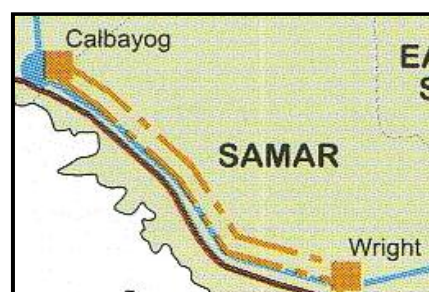
In the Visayas, civil works have been completed and testing and commissioning are ongoing in the Substation portion of the Northern Panay Backbone Transmission Project. In addition, the Transmission Line portion of this project has ongoing construction, erection, and installation activities. This project is part of the Panay Power Transmission Backbone Project which is divided into northern and southern Panay. The Northern Panay Transmission Project involves the installation/construction of a total of 107 kilometers of 138 kV and 69 kV overhead transmission line utilizing steel tower structures and aims to: (1) accommodate load growth and address the low voltage problem; (2) improve the system reliability and operational flexibility; and (3) extend service to previously un-electrified areas.

Figure 8 - Northern Panay Backbone Transmission Project



Figure 7 - Wright Calbayog Transmission Project

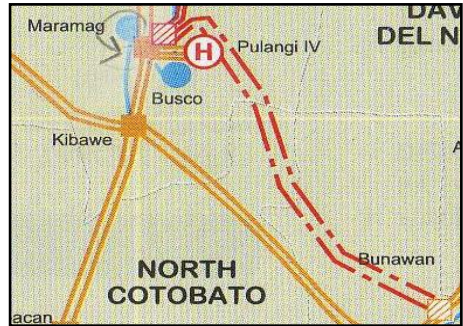
To support the long term power requirements of Samar and improve the delivery of quality and reliable power in the island, NGCP is constructing the 138 kV Wright-Calbayog transmission line. The new line will replace the old 69 kV woodpole transmission line and will address the overloading of Wright Substation. The Transmission Line and Substation portions of this project has ongoing civil works



In the Mindanao Grid, Line 1 of the Maramag (Pulangui) – Bunawan 230 kV T/L was energized last October 9 2010 and Line 2 is scheduled for energization within the month of October 2010. The Maramag-Bunawan 230kV T/L Project is a component of the Mindanao 230 kV Backbone Transmission which is aimed to strengthen the existing transmission system, thereby ensuring the stability, reliability and efficiency transmission of power in the entire Mindanao Grid. The proposed transmission network, which will be initially

energized at 138 kV level, will also enhance the transmission integrity even at the weakest node of the system, especially during contingency condition.

Figure 9 - Maramag - Bunawan 230 kV T/L Project



## F. ERC-Approved Capital Expenditure Projects

The ERC has approved a total of four (4) Capital Expenditure (CAPEX) Projects amounting to PhP662.61 million applied by Manila Electric Company (MERALCO), Angeles Electric Corporation (AEC), Isabela II Electric Cooperative, Inc. (ISELCO II), and Agusan del Sur Electric Cooperative, Inc. (ASELCO) for the period May – October 2010. Of the said amount, Meralco has the highest CAPEX amounting to PhP465.63 million intended to prevent widespread power interruptions in the areas covered by the Sta Mesa and Balintawak substations, and within the Laguna Technopark. These projects will also accommodate the increasing number of prospective load customers' application from Caloocan and Quezon City and from the Technopark locators.

In the case of ISELCO II, the installation of the 10 MVA power transformer is an Emergency CAPEX intended to replace the broken 10 MVA power transformer in Roxas substation. The purpose of which is to attain system reliability and provide efficient power supply to its customers.

## G. Transition Supply Contracts (TSCs)

The EPIRA provided for NPC filing with the ERC of its TSCs duly negotiated with the DUs containing the terms and conditions of supply and corresponding schedule of rates, including adjustments and indexation formulas which shall apply to the term of such contracts. As provided for in Section 67 of the EPIRA, the term of the TSCs shall not extend beyond one (1) year from the introduction of open access. Such contracts shall be based on the projected demand of such utilities less any of their currently committed quantities under eligible IPP contracts. Said provision further provides that the total generation capacity of the signed TSCs shall not exceed the level of NPC owned, controlled or committed capacity as of the EPIRA's effectivity. Such TSCs shall be assignable to the NPC Successor Generating Companies (NPC-SGCs) who are now the new owners/administrators of NPC generating assets/contracts.

As of October 2010, 154 TSCs were already transferred to NPC-SGCs with equivalent demand of approximately 3,395 MW. One hundred thirty nine (139) of these TSCs are in Luzon with equivalent demand of 3,121 MW and 15 in the Visayas with 274 MW demand.

The bulk of NPC/PSALM TSCs will expire in 2010 and 2011. In Luzon, where only 18 percent of the capacity is controlled by NPC/PSALM, six TSCs will expire during the period. NPC/PSALM's TSC with MERALCO, which is equivalent to 1,732 MW will expire in November 2011. However, most of these TSCs with MERALCO were already transferred to SGCs which include 219 MW from Makban (AP Renewables), 169 MW from Sual (Team Energy), 169 MW from Pagbilao (GreenCore), 169 MW from Calaca (SEM-Calaca), and 1,006 MW from Ilijan (SMPC). In the Visayas, eighteen (18) TSCs will expire in 2010 while five (5) will expire in 2011. Currently, the Association of Visayas Electric Cooperatives (AVEC) clamored for the renewal of these TSCs including those ECs whose TSCs were transferred to SGCs. This is also the case in Mindanao, where ten (10) TSCs will expire in 2010 and twenty nine (29) in 2011.

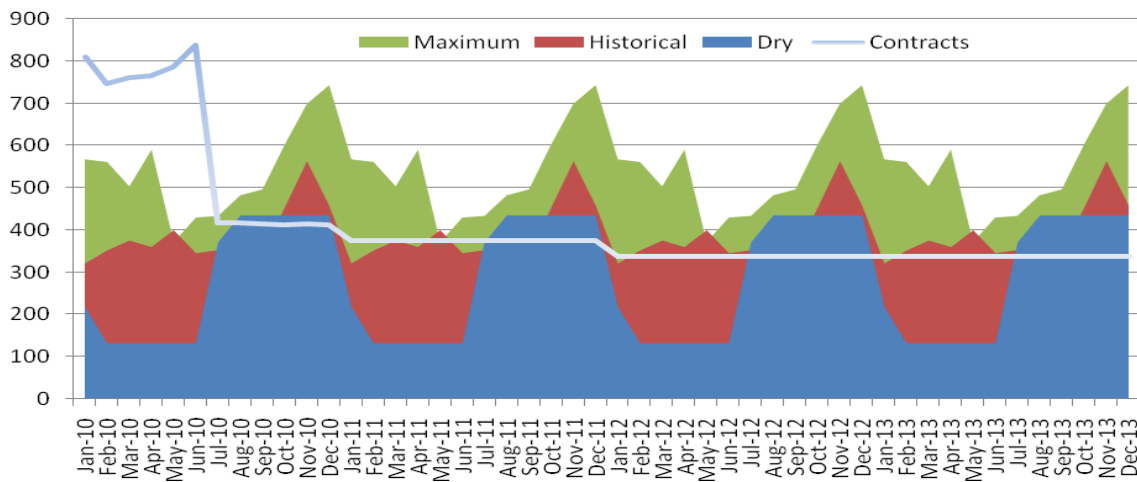
Various distribution utilities, particularly ECs, clamor for the renewal of their supply contracts



with NPC amidst continuing privatization of its assets. In order to provide the more realistic assessment of its capacity that can be available for contracting, NPC simulated various scenarios to determine its capacity and obligations in the different grids.

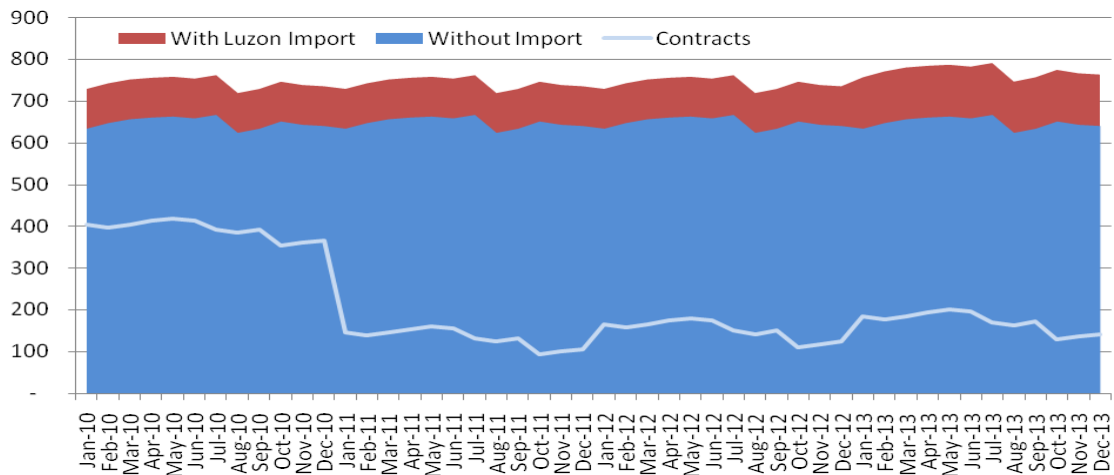
Three scenarios were considered in Luzon which includes running the plants in their maximum capacity, utilizing the plants based on their historical performance (dependable capacity) and considering lower utilization of hydro plants during the dry season and/or in the event of El Niño. In the three scenarios, it can be noted that during the dry months (April and May), NPC can barely meet its contracted capacities, otherwise, there would be sufficient capacity to cover these contracts. If NPC plants in Luzon run in their maximum capacity, it can still deliver its contracted capacities, except during the dry months (Figure 10).

Figure 10 - NPC Available and Contracted Capacities, Luzon



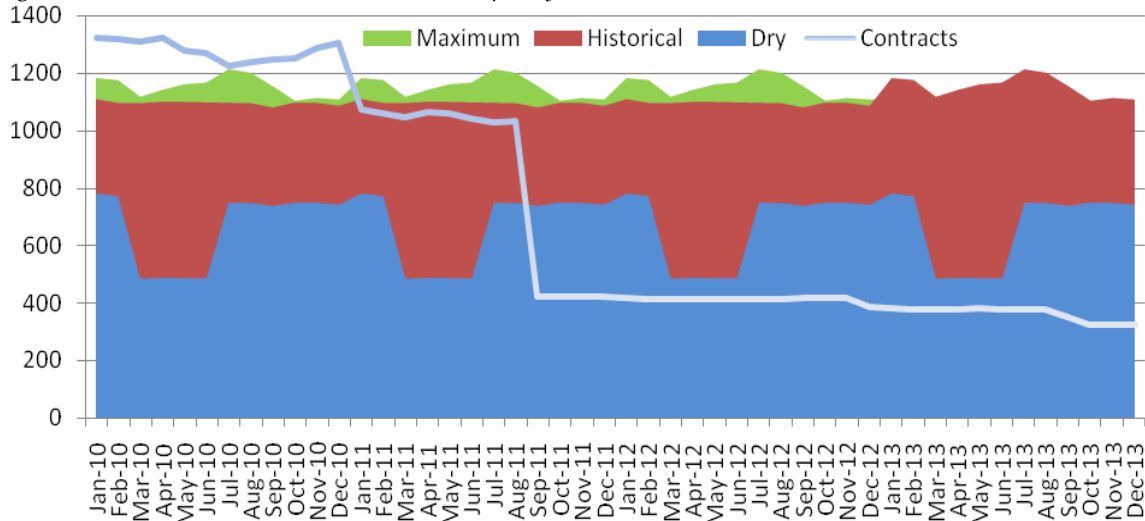
In the Visayas, NPC considered two scenarios: first, utilizing only the available capacity in the grid, and, second, utilizing import from Luzon via the submarine cable to Leyte, on top of the existing power plants in the area. Considering that 17 TSCs are to expire in 2010, with equivalent demand of 279 MW, NPC could still fulfill its obligations (Figure 11). On this note, the uncontracted capacity will be allocated by PSALM to various ECs in the Visayas which have expressed their interest in renewing their supply contracts with NPC, for a contract period of one year.

Figure 11 - NPC Available and Contracted Capacity, Visayas



Three scenarios were considered in Mindanao (Figure 12). First is that all plants can operate in its maximum capacity. Second is that the plants will operate based on their historical dependable capacity and, third, there will be dry season to which Mindanao is greatly vulnerable. It can be noted from Figure 12 that NPC may have difficulties in fulfilling its contractual obligations in Mindanao in either of the three scenarios particularly up to August 2011. Even in the maximum available capacity scenario, NPC available capacity is already insufficient for its contractual obligations. Hence, there are already concerns on whether it can still renew its expiring contracts particularly with ECs who continue to rely heavily to NPC for their supply.

Figure 12 - NPC Contracted and Available Capacity, Mindanao



## H. Initiatives to Ensure Supply Security and Reliability

During the first half of 2010, the country experienced frequent “Red Alert” and “Yellow Alert” notices due to tight power supply brought about by planned and unplanned downtime of major power plants and the El Nino phenomenon that lasted until the later part of 2<sup>nd</sup> quarter. As part of the DOE’s mandate under the EPIRA, various contingency measures were formulated to ensure continuous power supply amidst natural and technical problems that hamper the delivery of sufficient and reliable power. These are remedial measures in the meantime that new generating plants are not yet available. Following are the initiatives undertaken by the DOE, in coordination with its attached agencies and ERC, to ensure continuous and reliable supply of power:

1. Continue the implementation of Department Circular No. DC- 2010-03-003 entitled “Directing all power Generation Companies, the Transmission Service Provider, and All Distribution Utilities to Ensure Adequate and Reliable Electric power Supply in the Country”

DC 2010-03-003 directing all power generation companies, the transmission service provider and all DUs to comply with the technical, operating and financial standards established for the purpose of ensuring supply security and reliability. For this purpose, the DOE is currently reviewing the existing regulatory framework governing the operation of power utilities with the end in view of recommending changes and/or additional penalties and sanctions for non-complying industry participants for consideration of the ERC in the revision of relevant rules and guidelines. The Implementing Rules and Procedures for this Circular is currently being formulated and will be subjected to public consultations.

## 2. Facilitating the Rational Utilization of Available Generating Resources

In cognizant of the need to closely monitor and work with critical stakeholders, the DOE regularly conducts consultative meetings where bi-monthly assessment of the power situation are undertaken. Towards this, various possible scenarios and solutions are studied to ensure that there will be no or at least minimal power interruptions.

Particularly in Mindanao, one of the significant results of the consultative meetings was the issuance of Department Circular No. DC 2010-10-0011, entitled, “Mandating the Rational Utilization of Available Generation Capacity in Mindanao and Directing DOE-Attached Agencies, the National Grid Corporation of the Philippines (NGCP) and All Industry Stakeholders to Address the Power Supply Situation in Mindanao”. This Circular enjoins the DOE-attached agencies to extend their full cooperation and action within the period of 45 days to address the power situation in Mindanao. Primarily, the NGCP-System Operation was directed to maximize the use of any and all available capacity to maintain load-generation balance to meet the demand for energy in Mindanao at any given time.

In response to the above directive, NGCP filed its Memorandum to ERC, on October 1, 2010 for the final approval of its ASPA with Therma Marine, Inc. for the use of Power Barges 117 and 118 for Ancillary Services. On 04 October 2010, the ERC issued the final approval of the said ASPA with the following provisions:

- Fuel cost incurred in generating electricity should be passed through to the customers at cost;
- The rate approved by the Commission is P7.40312/kwh, lower by P0.52518/kwh as applied by TMI;
- The proposed rates for the capacity dispatch beyond the contracted capacity are denied, instead the rate should be equal to the rates applicable within the contracted capacity;
- The Ancillary Service cost should be passed-on to the customers in accordance to the Ancillary Service Cost Recovery Mechanism (AS-CRM);
- NGCP’s proposed collection deficiency mechanism is denied by the Commission since this is already covered by the annual true-up mechanism;
- Utilizing PB 118 as a baseload plant is more expensive than using it as ancillary service plant. Based on ERC computation, the customer’s effective rate when utilizing PB 118 as baseload will be P7.91/kwh, while as ancillary, the cost to customers will only be P4.25/kWh.

Meanwhile, PSALM and NPC were directed to fully utilize all available capacities of the hydroelectric power plants in the Mindanao region for energy purposes taking into consideration the fluctuating demand requirements of large industrial users in the Mindanao region. Further, the said agencies were likewise tasked to finalize the TSCs and Bilateral Contracts allocation to allow the DUs to determine the quantity or volume of capacity or energy they can buy or contract out from PSALM/NPC and how much they still need to buy or contract out from other generating companies.

Recognizing NEA’s statutory obligations, said agency was enjoined to provide all necessary assistance to ECs to facilitate execution of appropriate power supply contracts. In addition, NEA was directed to closely coordinate and provide weekly reports to the DOE on the status of the negotiations for power supply contracts between the ECs and power generation companies not only in the Mindanao region but in other regions as well. Currently, NEA is assisting Mindanao ECs complete their negotiations with TMI to supply a portion of their demand.

All successor generating companies were likewise requested to consider repowering or rehabilitate and upgrade their power plants to be able to increase their capacities to near their nameplate ratings. Any additional capacity to the grid will greatly help to improve the power supply situation in the country.

## VI. TOTAL ELECTRIFICATION

As of 31 October 2010, the Program has already achieved 99.88 percent of the total potential barangay nationwide. Prior to the launching of ABEP, barangay electrification level only stood at 76.9%, having energized only 32,281 out of 41,975 total barangay coverage. Under the program, the energization of 41,921 barangays was spearheaded by the DOE with assistance from the NEA, NPC-SPUG, and PNOC and its subsidiaries.

The electrification schedule for the remaining barangays is summarized in *Table 27* to attain 100% barangay level electrification.

Among the remaining 52 unenergized barangays, seven (7) barangays have implementation issues especially in ARMM areas which have peace and order problem. MERALCO, on the other hand, has committed to accelerate electrification of the 27 barangays yet to be energized in its franchise area. The DOE is closely coordinating with NEA and concerned LUGs on the possible options to pursue electrification of these barangays. *Please note that five barangays (5) were delisted from the target due to no inhabitants and located on permanent danger zone (Albay near Mt. Mayon).*

NEA reported that attained 100 percent barangay energization under the area coverage of ECs as of December 2009. It is currently developing a Sitio Electrification Program Masterplan to energize the remaining sitios in the country without access to electricity. In addition, NEA is finalizing the Barangay Enhancement Masterplan which aims to upgrade the electric facilities of off-grid barangays. However, these efforts of NEA will be done in coordination with the DOE as part of attaining 90 percent household electrification by 2017. Following are the

Table 26 - Barangay Electrification Status as of 31 October 2010

Region	Potential Barangays	Electrified Barangays	Unelectrified Barangays	Electrification Level (%)
CAR	1,176	1,176	0	100.00
I	3,265	3,265	0	100.00
II	2,311	2,311	0	100.00
III	3,102	3,102	0	100.00
IV-A	4,010	3,983	27	99.33
IV-B	1,458	1,451	7	99.52
V	3,469	3,469	0	100.00
NCR	1,695	1,695	-	100.0
<b>SUB-TOTAL LUZON</b>	<b>20,486</b>	<b>20,452</b>	<b>34</b>	<b>99.83</b>
VI	4,050	4,050	0	100.00
VII	3,003	3,003	-	100.00
VIII	4,389	4,389	0	100.00
<b>SUB-TOTAL VISAYAS</b>	<b>11,442</b>	<b>11,442</b>	<b>0</b>	<b>100.00</b>
IX	1,904	1,904	0	100.00
X	2,020	2,020	0	100.00
XI	1,160	1,160	0	100.00
XII	1,194	1,194	0	100.00
ARMM	2,459	2,441	18	99.27
CARAGA	1,310	1,310	0	100.00
<b>SUB-TOTAL MINDANAO</b>	<b>10,047</b>	<b>10,027</b>	<b>20</b>	<b>99.82</b>
<b>TOTAL PHILIPPINES</b>	<b>41,975</b>	<b>41,921</b>	<b>52</b>	<b>99.88</b>

Source: DOE

Table 27 – Electrification Schedule of Remaining Unenergized Barangays, 2010

Program/ Implementor	Aug 31	Sep 30	Oct 31	Problem Barangays	Total
DOE		38		6	44
BEP				1	1
RAES				4	4
ER 1-94		11		1	12
MERALCO		27			27
Team Energy			7		7
AMORE	2			1	3
Total	2	38	7	7	54

developments in various activities that were instrumental to the near completion of barangay electrification:

### **A. Qualified Third Party (QTP)**

Section 59 of the EPIRA provides 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*”. Following are the updates on the QTP Program being spearheaded by the DOE:

#### **1. *PowerSource Philippines, Inc., Rio Tuba QTP Project in Bataraza, Palawan***

After a year of thorough review and evaluation, the ERC has finally issued a decision last 19 April 2010 granting PowerSource Philippines, Incorporated (PSPI) Permanent Authority to Operate as QTP in Rio Tuba, Bataraza, Palawan subject to Full Cost Retail Rate (FCRR) of PhP24.49/kWh and the Subsidized and Approved Retail Rate (SARR) of PhP8.50/kWh, and has authorized PSPI to collect from the UC-ME the difference between the FCRR and the SARR. Moreover, it has directed PSPI to refund any over-recoveries or authorized to collect any under-recoveries as case may be, incurred from the implementation of the QTP Service Contract and submit its project cost for biomass plant within three (3) months from commercial operations of said plant.

PSPI is now working on their submission of subsidy claims to NPC, commencing the month of June 2010, for the release of their UC-ME subsidy following the above ERC decision.

PSPI has also worked closely with NPC-SPUG for the installation of the billing meter and accommodated a delegation from NPC Billing and Finance Group to conduct a project site inspection. As part of PSPI obligation under the QTP Service Contract, it has started preparing the load growth projections and system’s growth for the next two years.

DOE, for its part, has requested NPC to provide the necessary assistance to PSPI to facilitate the payment of their UC-ME subsidy fee as duly approved by the ERC.

#### **2. *PSPI Malapascua QTP Project in Bantayan, Cebu***

PSPI has completed the installation of its Malapascua Community Energizer Platform Project this 2<sup>nd</sup> Quarter of 2010. PSPI is now coordinating with NPC-SPUG for their QTP Service Contract and with CEBECO for their Waiver Agreement as well as other documentations needed for submission to DOE and eventual endorsement to ERC.

Given PSPI experience with its Rio Tuba QTP project, PSPI sees no problem with its Malapascua QTP application as well as its other prospective QTP sites like in Liminangcong and Port Barton, Northern Palawan.

Meanwhile, PSPI is inviting DOE, NPC, NEA and ERC for project validation and ocular inspection of the Malapascua QTP Project, tentatively scheduled by 4<sup>th</sup> quarter of 2010.

#### **3. *Semirara QTP Project in Caluya, Antique***

Semirara Mining Corporation (SMC) has already identified the consultants that will prepare the technical and financial proposal for its QTP project. It is expected that SMC can submit its QTP application to DOE by the end of December 2010.

#### 4. *PRES Project in Masbate*

For the report period, NPC-SPUG as Interim QTP had put in place administrative guidelines for the operation of the PRES Project. The Mobo Diesel Power Plant (DDP) has been designated as the central payment center and started accepting payments from customers in April 2010. Billing shall be retroactive from start of commercial operation in each of the barangays. For PV systems and mini-grid systems, monthly fixed rate is PhP90.00 and PhP325.00, respectively. A total of 146 personnel were hired as of April 2010 and will hire additional 73 personnel in May 2010 for the operation and maintenance of the mini-grid systems.

Meanwhile, PAMATEC, the Project Contractor, completed installation of the PV systems in 108 barangays benefitting 5,129 household and mini-grid systems in 102 barangays with 12,183 households' beneficiaries. Out of these target barangays, 84 barangays were provided with hybrid systems in which diesel generator sets were installed for clustered households and solar PV systems for the dispersed households.

Series of meeting between DOE and NPC-SPUG were also held to discuss strategies for the appointment of a permanent QTP to operate and maintain the mini-grid and PV systems installed in the barangays. The French Embassy has likewise expressed support by providing grant for technical assistance to the Government for the selection and identification of the said permanent QTP for the Project.

DOE also followed up through the Department of Finance the proposed technical assistance of the French Government to assist in the identification of private operator for said project.

At present, DOE in close coordination with NPC, is working out the development of necessary contractual and/or commercial arrangements suitable for PRES project as well as timelines and action plan to ensure the target barangays under the PRES project may be assured of least-cost electricity services that is sustainable.

#### **B. Rural Power Project (RPP)**

RPP continued to show steady growth in PV systems marketed by Participating Companies (PCs). The cumulative number of households (HH) electrified through solar PV increased from 6,513 to 7,459 HH plus the QTP projects new HH connections, bringing the total to 8,777 HH. The cumulative number of PV systems installed in public facilities increased from 765 to 1498 during the quarter, thus bringing the total number of new connections to 10,275 against RPP target of 10,000.

HH sales under the two remaining contracts of the first Sustainable Solar Market Packages (SSMP 1) project continue to remain far below contractual requirements, and public facility installations in the remaining 10 barangays in Palawan were not completed by the revised 22 March 2010 deadline. Implementation of the follow-on SSMP 2 – KEPCO 136 and SSMP 3 – KEPCO 72 contracts, having a total of 14 market packages shared between two contractors, has shown far better progress. A total of 1,007 public facility installations have already commissioned, and the balance scheduled for 2Q 2010. HH sales too had commenced, reaching 154 SHS by end of 1Q 2010.

Five (5) ECs targeting a total of 97 barangays are presently participating under the initiative for solar PV electrification in Mindanao using RAES funding. Public facility installations in 15 barangays had been commissioned by 31 March 2010, with the balance either awaiting inspection or under installation. HH sales had yet to commence.

Meanwhile, RPP pursues aggressively the piloting of PV Mainstreaming within the Distribution Utilities. This piloting is seen as the most feasible approach to scale up household electrification using solar PV systems. The mainstreaming aims to adopt the fee-for-service PV business model for distribution utilities. A Transaction Consultant shall be engaged under the Project to promote the Mainstreaming Project with the DU and reach an Agreement on their participation to implement the business model in their respective target areas unviable for grid extension.

**C. Implementation of E.R. 1-94 Program**

As specified under Energy Regulations 1-94 (ER 1-94) as amended, the DOE ensures that communities hosting generating facilities or energy resource development projects are benefited. It is a way of recognizing the contribution of host communities for sharing and using their territory to put up generating facilities to energize the rest of the country.

ER 1-94 provides for funds that can be accessed by host communities to further foster progress in their respective areas. However, availment of such benefits requires host communities to submit proposals which may be under any of the following: electrification fund (EF), development and livelihood fund (DLF) and reforestation, watershed management, health and/or environment enhancement fund (RWMHEEF).

From May 2010 to October 2010, the DOE approved 78 projects with a total amount of PhP95,979,446.54 funded under E.R. 1-94 program from which 69 projects were funded under EF amounting to PhP72, 978,155.28, 4 under DLF amounting to PhP12,884,870.41 and 5 under RWMHEEF amounting to PhP10,116,420.85.

*Table 28 - Summary of Financial Benefits as of October 2010 (In PhP Billion)*

The total accrued financial benefit from inception is PhP 6.77 billion from which PhP 4.48 billion was obligated for the implementation of projects. The available funds as of October 2010 stood at around PhP2.29 billion.

Particulars	EF	DLF	RWMHEEF	Total
Accrued Financial Benefit	2.54	2.96	2.27	6.77
Approved	2.33	0.94	1.21	4.48
Available/Collectible Balance	0.21	1.02	1.06	2.29

**D. NPC SPUG’s Missionary Electrification**

Pursuant to Section 70 of the EPIRA, NPC shall perform the missionary electrification function through the Small Power Utilities Group (SPUG) and shall be responsible for providing power generation and its associated power delivery systems in areas that are not connected to the transmission system. The missionary electrification function shall be funded from the revenues from sales in missionary areas and from the universal charge to be collected from all electricity end-users as determined by the ERC.

*Table 29 - Subsidy Requirement in Missionary PhP’000*

Components	2009	2010	2011	2012	2013
OPEX	8,512,293	8,069,228	9,690,127	11,617,399	9,735,449
CAPEX	9,413,742	5,344,598	4,853,818	3,911,286	3,915,158
Total Missionary Generation	17,566,035	13,413,826	14,543,945	15,528,685	13,650,607
Remote Area Electrification	500,255	464,994	633,739	604,291	172,125
<b>Sub-Total (MEDP)</b>	<b>18,066,290</b>	<b>13,878,820</b>	<b>15,177,683</b>	<b>16,132,976</b>	<b>13,822,732</b>
NPC-SPUG True Up	10,481,009	-	-	-	-
Bantayan Request for Rate Reduction	40,737	42,573	38,028	39,745	41,487
<b>Total</b>	<b>28,588,036</b>	<b>13,921,393</b>	<b>15,215,711</b>	<b>16,172,720</b>	<b>13,864,219</b>
<b>Projected Energy Sales(MWh)</b>	<b>58,195,499</b>	<b>60,818,520</b>	<b>63,379,667</b>	<b>66,240,881</b>	<b>69,145,088</b>

Anent thereto, The NPC-SPUG filed on 15 May 2009 a petition for the availment from the UC-ME for the period 2009-2013 under ERC Case No. 2009-028 RC. In the said petition, NPC-SPUG proposed the subsidy requirements under the DOE approved and adopted MEDP 2009-2013 to support its operation and capital projects in missionary areas as summarized in Table 29. Equivalent peso/kWh UC-ME is summarized in Table 30.

On 17 August 2009, the ERC provisionally approved the said petition in the amount of PhP0.0978/kWh effective the following month billing period. The ERC likewise directed PSALM to release the amount of PhP5.69 billion to NPC-SPUG to fund its operations for the year 2009.

*Table 30 - Subsidy Requirement in Missionary Areas – PhP/kWh Equivalent*

<b>Components</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Missionary Generation	0.3018	0.2206	0.2295	0.2344	0.1974
Remote Area Electrification	0.0086	0.0076	0.0100	0.0091	0.0025
<b>Sub-Total (MEDP)</b>	<b>0.3104</b>	<b>0.2282</b>	<b>0.2395</b>	<b>0.2436</b>	<b>0.1999</b>
NPC-SPUG True Up	0.1801	-	-	-	-
Bantayan Request for Rate Reduction	0.0007	0.0007	0.0006	0.0006	0.0006
<b>Total</b>	<b>0.4912</b>	<b>0.2289</b>	<b>0.2401</b>	<b>0.2442</b>	<b>0.2005</b>

*Note: NPC-SPUG Adopted the DOE projected energy sales.*

On 16 August 2010, a year after the provisional approval, the ERC resolved and issued a final and permanent authority for the UC-ME in the amount of PhP0.0454/kWh resulting from the following evaluation:

- Operating expenses

The ERC adjusted the operating expenses based on NPC-SPUG’s certified results of operation for 2009 with the actual operating expenses amounting to PhP6.76 billion. The approved operating expenses in the amount of PhP5.24 billion which excludes: 1) other purchased power amounting to PhP279.99 million considering that the power supply agreement entered into by NPC-SPUG was not approved by the ERC; 2) depreciation; and, 3) other benefits and allowances (PhP102.65 million) and miscellaneous operating costs (PhP956.36 million) due to NPC-SPUG’s failure to submit sufficient evidence to substantiate these expenses. Subsidy allocated to NPPs and QTPs were both considered by the ERC.

- Capital Expenditures

The ERC granted additional CAPEX Fund amounting to PhP533.28 considering priority for electrification projects and provision for remote and unviable areas’ electrification projects. The amount was lower than the ERC proposed PhP599.76 million. The revision was effected by the ERC since it noted that NPC-SPUG’s actual capital expenditures for the years 2003-2008 was much lower than the budget it approved earlier in ERC Case No. 2002-165 with the Decision released in 26 June 2003.

In its decision, the ERC specifically noted that the amount approved should be strictly applied for CAPEX only. Relative thereto, the ERC directed NPC-SPUG to submit an annual report on the implementation of its missionary electrification projects containing the list of projects undertaken, location of the projects, period of completion and the actual amount utilized to complete the project.

- Recovery of Losses (True-Up Mechanism)

NPC-SPUG proposed to recover its losses amounting to PhP10.48 billion which were not included in the UC-ME allocation for the years 2003-2007. The true-up adjustment includes recovery of other power supply, debt services and uncollected 2<sup>nd</sup> GRAM and 2<sup>nd</sup> ICERA. The said amount however, was excluded by the ERC from the proposed cost recovery due to: 1) NPC-SPUG opted to advanced these costs from the NPC main grid and acquire loans



instead of filing a petition to recover the UC-ME shortfalls; 2) failure of NPC-SPUG to secure ERC approval for its supply contract with Mid-Island Power and for its debt services; and 3) the 2<sup>nd</sup> GRAM and 2<sup>nd</sup> ICERA costs were already reimbursed by PSALM. Subsequent adjustments in the fuel costs and incremental currency rates adjustments will be addressed in NPC-SPUG's GRAM and ICERA applications.

In summary, the Permanent Authority provided by the ERC authorized PSALM to release the amount of Php2.76 billion per year to NPC-SPUG to fund its operations for the year 2010 to 2013, subject to true-up mechanism adjustment while directing all DUs and the NGCP to collect a UC-ME charge in the amount of Php0.0454/kWh from the consumers starting August 2010 billing period for remittance to PSALM.

## **E. Challenges**

The main challenge of the Program is the focus on the country's total barangay energization in as much as the government has to prioritize the electrification of barangays over sitios. However, there is a very high demand for sitio electrification being pursued by local government units. Considering that funding allocations of the program are geared to address the unenergized barangays, constant and numerous overtures by local officials to energize sitios are slowing down the attainment of the Program's ultimate goal.

Large portions of the remaining unenergized barangays are mostly remote and with disperse households which are more difficult to energize, requiring extensive resources, time and efforts. Many of the previously electrified barangays particularly those of solar projects were found to be short lived due to absence of a strong sustainable mechanism. The ER Program is now spearheading the development of various innovative service delivery mechanisms towards achieving greater access to electricity services

Amidst the various challenges being experienced, the ER Program continues to develop and initiate various innovative solutions involving policy-making, program integration, coordination and monitoring of all electrification projects and partnerships schemes.

## **VII. THE RENEWABLE ENERGY ACT**

The following section contains development on the specific provisions of Republic Act No. 9153 or the Renewable Energy (RE) Act of 2008 which has to be implemented in concurrence with the reform framework of the EPIRA.

### **A. Feed-in Tariff**

Pursuant to Section 7 of the RE Act, the ERC approved the Feed-In Tariff (FIT) Rules on last 12 July 2010. The Rules establish the FIT System which is one of the incentive mechanisms in the RE Act intended to accelerate the exploration and development of renewable energy resources. It offers guaranteed payments over a definite period of time to RE developers utilizing renewable energy resources such as wind, solar, run-of-river hydro, biomass, and ocean.

Following are the highlights of the FIT Rules

- Coverage – the Fit Rules shall apply only to on-grid areas. For the off-grid areas, the ERC may consider implementing separate RE incentive mechanism consistent with Section 12 and 15(h) of the RE Act, through issuance of a separate resolution.
- FIT determination – the FIT shall be a fixed tariff to be recommended by the NREB and approved by the ERC. The FITs (rates) which are technology specific, size

specific, and may be differentiated between peak and off-peak hours, shall have duration of 20 years, subject to adjustment to account for inflation of foreign currency exchange fluctuations. The FITs to be set shall be also subjected to degression to encourage the developers to invest at the initial stage and hasten deployment of renewable energy.

- FIT Allowance - The NGCP or DUs shall allocate the renewable energy among all its customers or electricity end-users. In turn, all electricity end-users are obligated a Peso/kWh charge referred to as Feed-In Tariff Allowance (FIT All). The proceeds of the FIT Allowance go to a fund to be administered by NGCP from which payments to the FIT-eligible RE Developers shall be taken.

The FIT Rules became effective on August 12, 2010, 15 days after its publication in a newspaper of general circulation. The ERC is currently awaiting the submission of NREB of its recommended tariffs until on November 4, 2010, considering NREB's request for a 60-day extension. The ERC committed to come out with the final FIT rates three (3) months from submission of NREB.

## **B. Establishment of RE Market**

In compliance with the DOE's mandate under the RE Law, it issued Department Circular No. 2010-02-0001 which created a Steering Committee on the Establishment of Renewable Energy (RE) Market. The Steering Committee is tasked to formulate and establish the framework that will govern the operation of the RE Market. To complement the secretariat needs of the Steering Committee, a Joint-PEMC Secretariat has been formed through Department Order No. 2010-06-0012. The Joint Secretariat is composed of members from the DOE's Electric Power Industry Management Bureau (EPIMB), Energy Policy and Planning Bureau (EPPB) and Renewable Energy Management Bureau (REMB); and PEMC's Billing, Settlement and Metering Department (BSMD), Corporate Planning Group (CPG), Information Systems Technology Group (ISTG), Market Assessment Group (MAG) and Trading Operations Group (TOG). The PEMC provides secretariat and technical support to facilitate the operationalization of the RE Market.

Currently, the DOE is actively coordinating with PEMC and the NGCP in the determination of the maximum penetration limit and procedures for the qualification and registration of eligible RE facilities with intermittent RE resources. Several discussions had been undertaken already by DOE and PEMC on the regulatory framework of the RE Market including the study of different RE Market models and trading of RE Certificates. The RE Market shall be the venue of the issuance, trading and monitoring of RE Certificates to comply with the Renewable Portfolio Standard (RPS).

## **C. Renewable Portfolio Standards (RPS)**

As defined under the RE Act, the RPS refers to a market-based policy that requires electricity suppliers to source an agreed portion of their energy supply from eligible RE sources. The purpose of the RPS is to contribute to the growth of the renewable energy industry by diversifying energy supply and help address environmental concerns of the country by reducing greenhouse gas emissions. This will be imposed on all electric power industry participants, serving on grid areas, on a per grid basis upon determination by the New and Renewable Energy Board (NREB). As provided by the IRR of the RE Law, the DOE shall formulate the RPS Rules which shall include the following:

- a. Priority connections to the grid for electricity generated from emerging RE Resources such as wind, solar, ocean, run-of-river hydropower and biomass power plants within the territory of the Philippines;

- b. The priority purchase and transmission of, and payment for, such electricity by the grid system operators;
- c. Determine the fixed tariff to be paid to electricity produced from each type of emerging renewable energy and the mandated number of years for the application of these rates, which shall not be less than 12 years;
- d. Application of the FiT to the emerging RE Resources to be used in compliance with the RPS. Only electricity generated from the wind, solar, ocean, run-of-river hydropower, and biomass power plants covered under RPS, shall enjoy FiT; and
- e. Other rules and mechanisms that are deemed appropriate and necessary by the ERC, in consultation with the NREB, for the full implementation of the FiT system.

The technical working group on the RPS is currently working on the draft rules and is expected to be released after undergoing consultations with the stakeholders.

## **LIST OF ANNEXES**

**Annex 1 – List of Privatized Generating/Operating Plants**

Name of Plant	Rated Capacity (MW)	Location	Bid Date	Winning Bidder	Winning Bid Price (Million US\$)
Talomo	3.5	Davao	25 March 2004	Hydro Electric Development Corp.	1.37
Agusan	1.6	Agusan	04 June 2004	First Generation Holdings Corp.	1.53
Barit	1.8	Camarines Sur	25 June 2004	People’s Energy Services Inc.	0.48
Cawayan	0.4	Sorsogon	30 September 2004	Sorsogon II Electric Cooperative, Inc.	0.41
Loboc	1.2	Bohol	10 November 2004	Santa Clara International Corp.	1.43
Pantabangan-Masiway	112	Nueva Ecija	06 September 2006	First Generation Hydro Corp.	129.00
Magat	360	Isabela	14 December 2006	SN Aboitiz Power	530.00
Masinloc	600	Zambales	26 July 2007	Masinloc Power Partners Ltd.	930.00
Ambuklao-Binga	175	Benguet	28 November 2007	SNAP Hydro	325.00
Tiwi-Makban	747.53	Albay, Laguna/Batangas	30 July 2008	AP Renewables	446.89
Panay and Bohol *	168.5	Iloilo, Bohol	12 November 2008	SPC Power Corporation	5.86
Amlan	0.8	Negros Oriental	10 December 2008	ICS Renewables Inc.	0.23
Calaca Coal-Fired Thermal Power Plant	600.0	Batangas	08 July 2009	DMCI Holdings Inc.	361.71
PB 117*	100	Campostela Valley	31 July 2009	Therma Marine	14.00
PB 118*	100	Agusan Del Norte	31 July 2009	Therma Marine	16.00
Limay*	620	Limay, Bataan	26 August 2009	San Miguel Energy Corporation	13.50
Palinpinon-Tongonan Geothermal Power Plants	305.0	Negros Oriental, Leyte	02 September 2009	Green Core Geothermal Inc.	220.00
Naga LGBT*	55	Panay	16 October 2009	SPC Power Corporation	1.01
BacMan	150	Albay/Sorsogon	05 May 2010	Bac-Man Geothermal Inc.	28.25
<b>TOTAL MW to be privatized - PHILIPPINES</b>			<b>4,348.33</b>	<b>Total Proceeds</b>	<b>\$3,026.67</b>
<b>Total Luzon Visayas</b>			<b>3,222.23</b>		
<b>TOTAL MW to be privatized in Luzon and Visayas</b>			<b>3,778.23</b>		
<b>Level of Privatization in Luzon and Visayas</b>			<b>85.00%</b>		

\*Turned-over IPPs

Note: Angat Hydro Power Plant was removed from the list of privatized plants after Supreme Court Issued its Order on 9 August 2010 denying the motion filed by PSALM to lift the May 24 order to stop the sale

Source: PSALM

**Annex 2 – NPC/PSALM DAA Applications Over/Under-Recoveries (in PhP)**

PERIOD COVERED	RATE APPLICATION	DAAS FILED (AMOUNT)		
		LUZON	VISAYAS	MINDANAO
Jan 2007-Apr 2008	10th GRAM		3,599,652,295	900,679,253
	9th ICERA		384,530,163	(518,708,976)
May-Jun 2008	11th GRAM		340,580,441	(132,239,683)
	10th ICERA		11,508,839	(57,494,009)
Jul-Sept 2008	12th GRAM		1,064,587,010	335,089,300
	11th ICERA		2,986,975	(84,990,100)
Oct-Dec 2008	13th GRAM	10,242,338,156	7,030,282,609	(388,628,024)
	12th ICERA	(11,448,832,222)	431,698,285	(747,582,097)
Jan-Mar 2009	14th GRAM	7,748,764,621	1,875,827,373	(134,704,314)
	13th ICERA	1,088,588,303	35,193,748	(70,525,934)
Apr-Jun 2009	15th GRAM	3,235,456,012	202,920,421	245,028,990
	14th ICERA	6,590,850,033	1,621,706,093	243,752,623
Jul-Dec 2009	16th GRAM	7,958,363,957	292,610,049	508,507,412
	15th ICERA	8,093,791,477	211,190,830	180,571,840
Jan-Apr 2010	17 <sup>th</sup> GRAM	1,606,694,646	768,610,082	1,444,081,942
	16th ICERA	390,198,880	65,608,722	117,277,643
<b>Total for Remaining GRAM and ICERA</b>		<b>35,506,213,863</b>	<b>17,939,493,935</b>	<b>1,840,115,866</b>
<b>Total GRAM and ICERA</b>			<b>55,285,823,664</b>	
<b>Unrecovered ACA for August 2010 Billing</b>			<b>155,263,250</b>	
<b>GRAND TOTAL</b>			<b>55,441,086,914</b>	

**Annex 3 – NGCP Related Petitions to ERC**

<b>ERC Case No.</b>	<b>Date Filing</b>	<b>Particular</b>	<b>Status</b>												
2010-014 RC	Feb.22, 2010	Approval of the ancillary services procurement agreement (ASPA) between NGCP & TMI (PB 117)	<p>October 4, 2010-Approved with the following applicable rates:</p> <table border="0"> <tr> <td><b><u>Rate Component</u></b></td> <td><b><u>Rates</u></b></td> </tr> <tr> <td>Capacity Fee</td> <td>0.43192</td> </tr> <tr> <td>Fixed O&amp;M Fee</td> <td>0.32524</td> </tr> <tr> <td>Energy Fee</td> <td>0.14891</td> </tr> <tr> <td><b>Total</b></td> <td><b>0.90607</b></td> </tr> <tr> <td><b>Fuel Cost</b></td> <td><b>Pass thru cost</b></td> </tr> </table>	<b><u>Rate Component</u></b>	<b><u>Rates</u></b>	Capacity Fee	0.43192	Fixed O&M Fee	0.32524	Energy Fee	0.14891	<b>Total</b>	<b>0.90607</b>	<b>Fuel Cost</b>	<b>Pass thru cost</b>
<b><u>Rate Component</u></b>	<b><u>Rates</u></b>														
Capacity Fee	0.43192														
Fixed O&M Fee	0.32524														
Energy Fee	0.14891														
<b>Total</b>	<b>0.90607</b>														
<b>Fuel Cost</b>	<b>Pass thru cost</b>														
2010-011 RC	Feb.05, 2010	Approval of the ancillary services procurement agreement (ASPA) between NGCP & TMI (PB 118)	<p>October 4, 2010-Approved with the following applicable rates:</p> <table border="0"> <tr> <td><b><u>Rate Component</u></b></td> <td><b><u>Rates</u></b></td> </tr> <tr> <td>Capacity Fee</td> <td>0.39962</td> </tr> <tr> <td>Fixed O&amp;M Fee</td> <td>0.32783</td> </tr> <tr> <td>Energy Fee</td> <td>0.14891</td> </tr> <tr> <td><b>Total</b></td> <td><b>0.87636</b></td> </tr> <tr> <td><b>Fuel Cost</b></td> <td><b>Pass thru cost</b></td> </tr> </table> <p>The proposed rates for the capacity (MW) dispatch beyond the contracted capacity were denied, instead the charge should be equal to the rates applicable within the contracted capacity.</p> <p>The rate to be paid by NGCP as ancillary service cost should be passed o to its customers in accordance with approved “Ancillary Services-Cost Recovery Mechanism (AS-CRM)”. Considering that the final rates approved are lower that the provisionally granted, NGCP is directed to recalculate the ASPA rates from its effectivity using the rates as approved and to submit to the Commission the refund scheme relative to the difference between the final and provisional rates, from the time the provisional rates were implemented to the time these rates approved herein. Lastly, NGCP is also directed to submit within 20 days from receipt of the order, its Dispatch Protocol for Ancillary Service including a discussion for dispatching PB 118 for a prolonged period of time despite the nature of ancillary service.</p>	<b><u>Rate Component</u></b>	<b><u>Rates</u></b>	Capacity Fee	0.39962	Fixed O&M Fee	0.32783	Energy Fee	0.14891	<b>Total</b>	<b>0.87636</b>	<b>Fuel Cost</b>	<b>Pass thru cost</b>
<b><u>Rate Component</u></b>	<b><u>Rates</u></b>														
Capacity Fee	0.39962														
Fixed O&M Fee	0.32783														
Energy Fee	0.14891														
<b>Total</b>	<b>0.87636</b>														
<b>Fuel Cost</b>	<b>Pass thru cost</b>														
2010-009RC	January 26, 2010	Approval of the Implementation of the Construction of the Connection Assets Associated with the 2x300 MW Coal Fired Power Plant of GN Power Mariveles Coal PP Limited Co. (GNPOWER)	<p>April 12, 2010-Approved the joint application subject to the following conditions:(1) The proposed Connection Charges that NGCP shall impose to GNPOWER will be subject to verification and confirmation by the Commission on the annual application of NGCP’s Connection Charges and Residual Subtransmission Charges; and (2) the proposed projects will be further optimized based on its actual use during the reset process for the next Regulatory Period following the procedures stated in the RTWR and other relevant issues of the Commission.</p>												
2009-153 RC	November 13, 2009	Approval of Connection Charges and Residual Subtransmission Charges for calendar year 2009 on the excluded services covering the existing Subtransmission Assets of the NGCP with prayer for provisional authority	<p>No status update as of report period.</p>												
2009-160RC	November 16, 2009	Approval of Maximum Allowable Revenue (MAR) for the calendar year 2010 in accordance with the Alternative Form of Rate Setting Methodology	<p>The Commission in its order on January 20, 2010 provisionally authorized NGCP to recover the amount of Php44,991.45 Million as its Maximum Annual Revenue for the Regulatory Year 2010. The monthly adjustment in its rates which is governed by the OATS Rules was verified annually by the Commission through the Rate Adjustment and Verification process under RTWR. Further, ERC on July 15, 2010 issued the Draft</p>												

**Annex 3 – NGCP Related Petitions to ERC**

ERC Case No.	Date Filing	Particular	Status
		under the Rules for Setting Transmission Wheeling Rates (RTWR), with prayer for provisional authority	Determination ERC issued an order October 4, 2010 to set evidentiary hearing on October 7 and 8, 2010.
2009-161RC	November 16, 2009	Approval of Force Majuere (FM) Event Regulated FM Pass Through for the Sabotage in Mindanao in accordance with the Rules for Setting Transmission Wheeling rates, with prayer for provisional authority	No status update as of report period.
2009-180RC	December 18, 2009	Approval of the Maximum Annual Revenue for the Third Regulatory Period (2011-2015) of the NGCP during the Regulatory Reset Process for the Third Regulatory Period in accordance with the alternative form of Rate Setting Methodology under the RTWR.	On August 17, 18 and 20, 2010 the ERC conducted Public Consultations on the /draft Determination for the Third regulatory reset of NGCP.
2010-043	May 20, 2010	Approval of the Nulling and Tindalo S/S,Expansion Projects, with prayer for provisional authority	No status update as of report period.
2010-044RC	May 20, 2010	Approval of San Esteban-Laoag 230 kv Transmission Project (Stage 1: Laoag S/S Expansion/Reconfiguration Project) with prayer for issuance of provisional authority	No status update as of report period.
2010-046RC	May 20, 2010	Approval of Kalayaan-New Makban 230 kv Transmission Project (Stage 1: Laoag S/S Expansion/Reconfiguration Project) with prayer for issuance of provisional authority	No status update as of report period.
2010-047RC	May 20, 2010	Approval of Dasmariñas EHV S/S Expansion Project with prayer for the issuance of provisional authority	No status update as of report period.
2010-048RC	May 20, 2010	Approval of the New Antipolo 230 kV S/S Project with prayer for the issuance of provisional authority	No status update as of report period.
2010-056RC	June 03, 2010	Approval of the Northeastern TransmissionDevelopment Project (MAGAPIT CAPACITOR) with prayer for provisional authority	No status update as of report period.



**Annex 3 – NGCP Related Petitions to ERC**

<b>ERC Case No.</b>	<b>Date Filing</b>	<b>Particular</b>	<b>Status</b>
2010-057RC	June 03, 2010	Approval of the Luzon S/S Reliability Project-1 with prayer for provisional authority	No status update as of report period.
2010-058RC	June 03, 2010	Approval of the New Naga-Banilad 138 kV Transmission Line Project with prayer for provisional authority	No status update as of report period.
2010-059RC	June 03, 2010	Approval of Reliability Compliance Project-1-Mindanao (Phase-III-Mindanao Shunt Reactors and with prayer for provisional authority	No status update as of report period.
2010-060RC	June 03, 2010	Approval of Visayas S/S Expansion Project-1 with prayer for provisional authority	No status update as of report period.
2010-061RC	June 03, 2010	Approval of Tayabas S/S Expansion Project-1 with prayer for provisional authority	No status update as of report period.
2010-065RC	June 15, 2010	Approval of Force Majeure (FM) Event Regulated FM Pass Thru for the Lightning at Matnog Repeater Station and Sabotage in Mindanao in accordance with the RTWR with prayer for provisional authority	No status update as of report period.
2010-091RC	July 26, 2010	Approval of Taytay (Dolores) S/S Upgrade Project, with prayer for provisional authority	No status update as of report period.
2010-112 RC	September 24, 2010	Approval for Force Majeure (FM) Event Regulated FM Pass Through for the typhoons Ondoy and Peping and sabotage in Mindanao, in accordance with the RTWR, with prayer for provisional authority	

**Annex 4 – Summary of MERALCO 2010 Residential Unbundled Power Rates**

0 to 200 kWh (PhP/kWh)										
BILL SUBGROUP	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Generation	4.0539	4.9047	5.8183	6.7582	5.4862	5.5740	5.6334	6.0769	5.4113	4.3604
Transmission	0.7281	0.8773	0.7369	0.8195	0.7742	0.6201	0.9082	1.0067	0.9594	0.9750
System Loss	0.5761	0.7062	0.7755	0.8445	0.7193	0.6911	0.7011	0.7515	0.6491	0.5435
Distribution *	1.8832	1.5017	1.5017	1.8555	1.8555	1.8555	1.8555	1.8555	1.8555	1.8555
Subsidies**	0.1249	0.1264	0.1388	0.1474	0.1555	0.1487	0.1219	0.1106	0.1368	0.1442
Universal Charge	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0479
<b>TOTAL***</b>	<b>7.4665</b>	<b>8.2166</b>	<b>9.0715</b>	<b>10.5254</b>	<b>9.0910</b>	<b>8.9897</b>	<b>9.3204</b>	<b>9.9015</b>	<b>9.1124</b>	<b>7.9265</b>
201 to 300 kWh (PhP/kWh)										
BILL SUBGROUP	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Generation	4.0539	4.9047	5.8183	6.7582	5.4862	5.5740	5.6334	6.0769	5.4113	4.3604
Transmission	0.7281	0.8773	0.7369	0.8195	0.7742	0.6201	0.9082	1.0067	0.9594	0.9750
System Loss	0.5761	0.7062	0.7755	0.8445	0.7193	0.6911	0.7011	0.7515	0.6491	0.5435
Distribution *	2.1868	1.8053	1.8053	2.2306	2.2306	2.2306	2.2306	2.2306	2.2306	2.2306
Subsidies**	0.1249	0.1264	0.1388	0.1474	0.1555	0.1487	0.1219	0.1106	0.1368	0.1442
Universal Charge	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0479
<b>TOTAL***</b>	<b>7.7701</b>	<b>8.5202</b>	<b>9.3751</b>	<b>10.9005</b>	<b>9.4661</b>	<b>9.3648</b>	<b>9.6955</b>	<b>10.2766</b>	<b>9.4875</b>	<b>8.3016</b>
301 to 400 kWh(PhP/kWh)										
BILL SUBGROUP	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10
Generation	4.0539	4.9047	5.8183	6.7582	5.4862	5.5740	5.6334	6.0769	5.4113	4.3604
Transmission	0.7281	0.8773	0.7369	0.8195	0.7742	0.6201	0.9082	1.0067	0.9594	0.9750
System Loss	0.5761	0.7062	0.7755	0.8445	0.7193	0.6911	0.7011	0.7515	0.6491	0.5435
Distribution *	2.4731	2.0916	2.0916	2.5844	2.5844	2.5844	2.5844	2.5844	2.5844	2.5844
Subsidies**	0.1249	0.1264	0.1388	0.1474	0.1555	0.1487	0.1219	0.1106	0.1368	0.1442
Universal Charge	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0479
<b>TOTAL***</b>	<b>8.0564</b>	<b>8.8065</b>	<b>9.6614</b>	<b>11.2543</b>	<b>9.8199</b>	<b>9.7186</b>	<b>10.0493</b>	<b>10.6304</b>	<b>9.8413</b>	<b>8.6554</b>
Over 400kWh (PhP/kWh)										
BILL SUBGROUP	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Generation	4.0539	4.9047	5.8183	6.7582	5.4862	5.5740	5.6334	6.0769	5.4113	4.3604
Transmission	0.7281	0.8773	0.7369	0.8195	0.7742	0.6201	0.9082	1.0067	0.9594	0.9750
System Loss*	0.5761	0.7062	0.7755	0.8445	0.7193	0.6911	0.7011	0.7515	0.6491	0.5435
Distribution	2.9718	2.5903	2.5903	3.2006	3.2006	3.2006	3.2006	3.2006	3.2006	3.2006
Subsidies**	0.1249	0.1264	0.1388	0.1474	0.1555	0.1487	0.1219	0.1106	0.1368	0.1442
Universal Charge	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.1003	0.0479
<b>TOTAL***</b>	<b>8.5551</b>	<b>9.3052</b>	<b>10.1601</b>	<b>11.8705</b>	<b>10.4361</b>	<b>10.3348</b>	<b>10.6655</b>	<b>11.2466</b>	<b>10.4575</b>	<b>9.2716</b>
* Includes Distribution, Supply and Metering Charges ** Subsidies covered by customers consuming 101 kWh consumption and up *** Total rates excluding Government Taxes <b>Source: MERALCO Website</b>										

**Annex 5 - Lifeline Rates for PIOUs under PBR**

DU/ERC Case Number/Date of Decision	Per Last Approved Rate		New Lifeline Level and Rate	
	kWh Consumption	Level of Discount	kWh Consumption	Level of Discount
<b>Dagupan Electric Corporation (DECORP)</b> <i>ERC Decision Case No. 2009-018RC, 29 March 2010</i>	0-30	50%	0-20	100%
	31-40	20%	21-30	50%
	41-50	5%	31-40	20%
			41-50	5%
	Subsidy Rate to Non-Lifeline Customer	PhP0.0758/kWh	PhP0.0890/kWh	
<b>Cagayan Electric Power and Light Co., Inc. (CEPALCO)</b> <i>ERC Decision Case No. 2009-017RC, 26 March 2010</i>	0-20	50%	0-20	100%
	21-30	45%	21-30	50%
	31-50	40%	31-50	40%
	51-60	35%	51-60	30 %
	61-80	30%	61-80	20 %
	81-90	25%	81-90	10 %
	91-100	20%	91-100	5 %
	Subsidy Rate to Non-Lifeline Customer	PhP0.0979/kWh	PhP0.0981/kWh	
<b>Cotabato Light and Power Company, Inc. (CLPC)</b> <i>ERC Decision Case No. 2009-006RC, 30 March 2009</i>	0-35	50%	0-20	100%
	36-40	45%	21-35	50%
	41-45	40%	36-40	45%
	46-50	35%	41-45	40%
	51-55	30%	46-50	35%
	56-60	25%	51-55	30%
	61-65	20%	56-60	25%
	66-70	15%	61-65	20%
	71-75	10%	66-70	15%
	76-80	5%	71-75	10%
			76-80	5%
Subsidy Rate to Non-Lifeline Customer	PhP0.0855/kWh	PhP0.0741/kWh		
<b>Mactan Electric Company, Inc. (MECO)</b> <i>ERC Decision Case No. 2009-008RC, 30 March 2009</i>	0-20	50%	0-20	100%
	21-25	45%	21-25	50%
	26-30	40%	26-30	40%
	31-35	35%	31-35	30%
	36-40	30%	36-40	20%
	41-45	25%	41-45	15%
	46-50	20%	46-50	10%
	51-55	15%	51-55	10%
	56-60	10%	56-60	5%
	61-65	5%	61-65	5%
	Subsidy Rate to Non-Lifeline Customer	PhP0.0528/kWh	PhP0.0963/kWh	
<b>Iligan Light and Power Company, Inc. (ILPI)</b> <i>ERC Decision Case No. 2009-009RC, 30 March 2009</i>	0-40	50%	0-20	100%
			21-30	50%
			31-40	40%
	41-50	45%	41-50	30%
	51-60	40%	51-60	20%
	61-70	35%	61-70	10%
	71-80	30%	71-80	5%
	81-90	20%	81-90	5%
	91-100	10%	91-100	5%
Subsidy Rate to Non-Lifeline Customer	PhP0.0096/kWh	PhP0.0878/kWh		
<b>La Union Electric Company, Inc. (LUECO)</b> <i>ERC Decision Case No. 2010-031RC, 15 June 2010</i>	0-25	50%	0-20	100%
	26-50	10%	21-25	50%
	51-70	5%	26-35	40%
			36-45	30%
			46-55	20%
			56-65	10%
			66-70	5%
Subsidy Rate to Non-Lifeline Customer	PhP0.0504/kWh	PhP0.0654/kWh		

**Annex 5 - Lifeline Rates for PIOUs under PBR**

DU/ERC Case Number/Date of Decision	Per Last Approved Rate		New Lifeline Level and Rate	
	kWh Consumption	Level of Discount	kWh Consumption	Level of Discount
<b>Tarlac Electric, Inc. (TEI)</b> <i>ERC Decision Case No. 2010-029RC, 15 June 2010</i>	0-20	100%	0-20	100%
	21-25	50%	21-25	50%
	26-30	45%	26-30	45%
	31-35	40%	31-35	40%
	36-40	35%	36-40	35%
	41-45	30%	41-45	30%
	Subsidy Rate to Non-Lifeline Customer	PhP0.0881/kWh	PhP0.0780/kWh	
<b>Cabanatuan Electric Corporation (CELCOR)</b> <i>ERC Decision Case No. 2010-030RC, 15 June 2010</i>	0-30	40%	0-20	100%
			21-30	30%
	31-40	30%	31-40	20%
	41-50	20%	41-50	10%
	51-60	10%	51-60	
	61-75	5%	61-75	5%
	Subsidy Rate to Non-Lifeline Customer	PhP0.0770/kWh	PhP0.0889/kWh	
<b>Ibaan Electric and Engineering Corporation (IEEC)</b> <i>ERC Decision Case No. 2010-041RC, 28 June 2010</i>	0-25	50%	0-20	100%
	26-30	35%	21-30	30%
	31-35	25%	31-50	5%
	36-40	15%		
	41-50	10%		
	Subsidy Rate to Non-Lifeline Customer	PhP0.1858/kWh	PhP0.1396/kWh	
<b>Visayan Electric Company, Inc. (VECO)</b> <i>ERC Decision Case No. 2010-042RC, 28 June 2010</i>	0-20	100%	0-20	100%
	21-25	50%	21-30	65%
	26-30	40%	31-40	50%
	31-35	35%	41-50	40%
	36-40	30%	51-60	30%
	41-45	25%	61-70	20%
	46-50	20%	71-80	15%
	51-55	15%	81-90	10%
			91-100	5%
	Subsidy Rate to Non-Lifeline Customer	PhP0.0746/kWh	PhP0.0886/kWh	
<b>Davao Light and Power Company, Inc. (DLPC)</b> <i>ERC Decision Case No. 2010-036RC, 15 June 2010</i>	0-40	50%	0-20	100%
	41-50	45%	21-35	50%
	51-60	40%	36-40	45%
	61-70	35%	41-45	40%
	71-80	30%	46-50	35%
	81-90	20%	51-55	30%
	91-100	10%	56-60	25%
			61-70	20%
			71-80	15%
			81-90	10%
			91-100	5%
Subsidy Rate to Non-Lifeline Customer	PhP0.0720/kWh	PhP0.0752/kWh		

**Annex 6 – Status of Rules Changes Proposal in RCC**

Proposed Changes	Rationale of Changes	Status
Amendments to the WESM Metering Standards and Procedures Manual for the establishment of Metering Service Provider (MSP) Performance Measurement	<ul style="list-style-type: none"> <li>To provide and establish the procedural steps, criteria and standard to measure the overall performance of MSP.</li> </ul>	Approved by the PEM Board on 25 August 2010.
Amendment to the WESM Rules and WESM Manual on Information Disclosure and Confidentiality (IDC) for the enhancement to the rules on information disclosure and transparency.	<ul style="list-style-type: none"> <li>to incorporate the information that will be provided by the MO to the participants, as directed by the ERC, to enhance the transparency of the market and to address the issues regarding information disclosure and transparency which were raised by the Special WESM Rules Review Committee (SWRRC).</li> </ul>	Approved by the PEM Board on 25 August 2010.
Amendments to the Metering Market Manual	<ul style="list-style-type: none"> <li>To provide a calculation scheme for missing metering point data in case of non-availability and/or failure of both registered main and alternate revenue meters.</li> <li>To amend the formula for allocating the Transformer Core Loss in order to allocate it equitably/proportionately to the metering point consumption in hourly energy.</li> </ul>	The PEM Board approved the proposed amendments on 25 August 2010.
Changes to the WESM Rules and PEM Audit Manual for the process of implementing new or modifying existing software for the WESM	<ul style="list-style-type: none"> <li>to enable PEMC to implement software changes through the Information and Communication Technology (ICT) Change Management Process, as well as to facilitate and simplify the process of software changes to shorten the processing time without compromising proper levels of approval.</li> </ul>	The PEM Board approved the proposed amendments on 05 October 2010.
Changes to the WESM Rules concerning Dispute Resolution provisions and Dispute Resolution Market Manual (DRMM).	<ul style="list-style-type: none"> <li>to enhance the process and address the procedural gaps in the WESM Rules and DRMM by incorporating appropriate provisions in the Implementing Rules and Regulations (IRR) of the Alternative Dispute Resolution (ADR) Act of 2004, which was promulgated in December 2009, and the Special Rules of Court on ADR, which took effect on October 30, 2009.</li> </ul>	The PEM Board approved the proposed urgent changes on 25 August 2010.
Amendments to the WESM Dispatch Protocol Manual, Issue 5.0	<ul style="list-style-type: none"> <li>to support the software enhancement that will allow fixed HVDC scheduling in order to reduce the frequency of HVDC-related pricing errors and to provide flexibility to accommodate future policies on HVDC operation.</li> </ul>	On 05 October 2010, the PEM Board submitted to the RCC the proposed amendments for further discussion to include the remaining concerns of the NGCP-SO
Amendment to the WESM Manual on the Methodology for Determining Pricing Errors and Price Substitution due to Congestion for Energy Transactions in the WESM	<ul style="list-style-type: none"> <li>to make the provisions in the Manual consistent with the ERC Decision (dated 16 February 2009) and Order (dated 17 August 2009) in ERC Case No. 2008-051 RC on the supplemental application for the approval of the price determination methodology for the WESM, as well as to harmonize the methodology with the WESM Rule Clause 3.10.5 on declaration of pricing error notices (PEN).</li> </ul>	Approved by the RCC on 13 October 2010 and will be subsequently submitted to the PEM Board for approval.
Changes to the WESM Dispatch Protocol Manual, Issue 5.0 and Procedure for Determining Ex-Post Nodal Energy Prices, Issue 1.0, for the Removal of Contingency List from the Ex-Post (RTX) Process.	<ul style="list-style-type: none"> <li>In order to conform with Clause 3.10.6 (d) of the WESM Rules as well as to address the frequency of occurrence of constraint violation coefficients and pricing errors arising due to contingency constraints imposed by the SO. The proposed changes are deemed urgent and necessary to the WESM Visayas commercial operations.</li> </ul>	The RCC approved the aforementioned proposal on 13 October 2010 and will be subsequently submitted to the PEM Board for approval.
Changes to the Administered Price Determination Methodology Manual. The PEMC submitted the proposed changes in order	<ul style="list-style-type: none"> <li>To reflect the actual dispatch of the generator during market intervention or suspension in the Administered Price Determination methodology.</li> <li>To avoid or eliminate the adverse effects of abnormal market results in one region to influence the other region that has normal market results</li> <li>To eliminate the cross subsidy between two regions</li> </ul>	Approved by the RCC on 13 October 2010 and will be subsequently submitted to the PEM Board for approval.

**Annex 6 – Status of Rules Changes Proposal in RCC**

Proposed Changes	Rationale of Changes	Status
	<ul style="list-style-type: none"> <li>To mitigate the impact of pricing during market intervention or market suspension thereby preserving the prices of one region with normal results.</li> <li>The proposed changes are deemed urgent and necessary to the WESM Visayas commercial operations.</li> </ul>	
New Manual for the criteria and guidelines for the issuance of pricing error notices (PEN) and conduct of market re-run.	<ul style="list-style-type: none"> <li>To establish and define the categories and criteria for determining the occurrence of pricing errors, guidelines in conducting market re-run and the timetable for the publication of pricing error notices and market re-run results.</li> <li>The proposed New WESM Manual is deemed urgent and necessary to the WESM Visayas commercial operations.</li> </ul>	Approved by the RCC on 13 October 2010 and will be subsequently submitted to the PEM Board for approval.
Changes to the WESM Metering Standards and Procedures Manual for the Removal of Application of Site Specific Loss Adjustment (SSLA) for Generators.	<ul style="list-style-type: none"> <li>To ensure that the generated energy to be recognized by the Market must be net of transformer loss and plant station service consumption energy.</li> </ul>	
Proposed addition of IPP Administrator as another category of WESM Membership.	<ul style="list-style-type: none"> <li>The Masinloc Power Partners Co. Ltd. (MPPCL) submitted their proposed WESM Rules Amendment to include IPP Administrator as an additional category for WESM Membership/Trading Participant to recognize the existence of IPP Administrators as a new type of market participant which do not specifically meet the description of either a Generation Company or Customer as defined in the WESM Rules..</li> </ul>	The RCC, however, viewed that there is no need to amend the WESM Rules to create a separate category for IPPA since the definition of the Generation Company under the WESM Rules encompasses the functions of the IPPA. Following the position expressed by the RCC, the MPPCL decided to withdraw their proposal
Amendments to address the generator issues with the “Must-Offer” Rule.	<ul style="list-style-type: none"> <li>The Aboitiz Power Corporation submitted its proposed amendments to the WESM Dispatch Protocol Manual, Issue 5.0 and to the Manual of Procedure on Start-up and Shutdown of a Generating Unit to include additional case for cancellation of bids, to allow fast-start generators to revise or cancel their offers, to improve or revise the compensation mechanism to reflect payment of short-run marginal costs at Pmin, and to include coal supply and quality and preventive maintenance as allowable constraints to the Maximum Available Capacity.</li> </ul>	

**Annex 7 – Luzon WESM Generators Registration Status**

Generator Company	Registered <sup>a</sup>	Registered MW	No. of Registered Resources
All Generators	30	11,652	34
1. 1590 Energy Corporation	1	225	1
2. Amlan Power Hydro, Inc.	1	76	1
3. AP Renewables, Inc.	2	276	2
4. FGP Corporation	1	500	1
5. First Gas Power Corporation	1	1,000	1
6. First Gen Hydro Power Corporation	2	112	2
7. Hedcor, Inc.	2	4	2
8. Masinloc Power Partners Co. Ltd.	1	620	1
9. National Irrigation Administration	1	6	1
10. NPC (Trading Teams)	2	396	2
11. Northwind Power Dev't Corporation	1	27	1
12. PANASIA Energy Holdings, Inc.	1	620	1
13. PSALM (NPC-IPPs) (Trading Teams)	3	2,199	7
14. Quezon Power Philippines (Limited) Company	1	459	1
15. San Miguel Energy Corporation	1	1,294	1
16. SEM - Calaca Power Corporation	1	660	1
17. SN Aboitiz Power - Benguet, Inc.	1	100	1
18. SN Aboitiz Power - Magat, Inc.	1	380	1
19. South Premiere Power Corporation	1	1,200	1
20. Strategic Power Development Corporation	1	400	1
21. Therma Luzon Inc.	1	764	1
22. Trans Asia Power Generation	1	50	1
23. Other IPPs	2 <sup>b</sup>	284	2

Source:PEMC

**Annex 8 – Luzon WESM Customers and Suppliers Registration Status**

<b>Customers</b>	<b>Number of Customers</b>	<b>Registered<sup>c</sup></b>
All Customers	144	38
1. Private Distribution Utilities	11	6
2. Rural Electric Cooperatives - direct members	44	28
3. Other Utilities/Bulk User	89 <sup>d</sup>	4
<b>Suppliers</b>	<b>Number of Suppliers</b>	<b>Registered<sup>a</sup></b>
All Suppliers	5	5
1. Team (Philippines) Energy Corp.	1	1
2. Aboitiz Energy Solution, Inc.	1	1
3. Trans Asia Oil and Development Corp.	1	1
4. Angeles Power inc.	1	1
5. AES Philippines Inc.	1	1
6. First Gen Energy Solutions, Inc.	1	1

Source:PEMC

**Notes:**

- a) Registered as Direct Members, unless otherwise specified
  - b) Registered as Indirect Members
  - c) Registered as either Direct or Indirect Members
  - d) Estimated # of directly connected customers (other than private DUs and ECs)
- The customers that have not yet registered in the WESM are supplied either through bilateral power supply contracts with generators, or through the default wholesale supply arrangement with the NPC and the PSALM Corporation.



**Annex 9 – Registration Status in Visayas (Trial Operations Program)**

	No. of Participants		Installed Capacity / Estimated Demand, MW	
	EXPECTED	Registered Participants	EXPECTED	Registered Capacity / Demand
<b>Generators</b>	<b>20</b>	<b>12</b>	<b>2,003</b>	<b>1,879</b>
<b>Customers</b>	<b>58</b>	<b>32</b>	<b>1,257</b>	<b>1,080</b>
<i>Private Distribution Utilities</i>	4	3	352	337
<i>Electric Cooperatives (excluding 3 offgrids)</i>	28	23	690	631
<i>Directly Connected Customers</i>	21	3	136	36
<i>Economic Zones</i>	3	3	77	77
<i>Government Owned Facilities</i>	2	0	2	-
<b>TOTAL PARTICIPANTS</b>	<b>78</b>	<b>44</b>	<b>3,260</b>	<b>2,959</b>

Source:PEMC

**Note:** For the Visayas participants, most have registered as Direct Members while some as Indirect Members.

**Annex 10 - Electric Cooperatives Registration in the Visayas WESM**

Direct EC WESM Members			Indirect EC WESM Members	EC WESM Applicants
No.		Start of Trading		
1	INEC	26-Nov-06	ABRECO	NUVELCO
2	CASURECO II	6-Dec-06	AURELCO	CAGELCO I
3	ALECO	26-Jul-07	CENPELCO	CAGELCO II
4	BENECO	26-Apr-08	ISECO	QUEZELCO I
5	TARELCO I	26-May-08	PELCO I	QUEZELCO II
6	SORECO I	26-Jun-08	PRESCO	PELCO II
7	KAELCO	26-Mar-09	PANELCO I	PELCO III
8	ISELCO I	26-Jul-09	PANELCO III	ISELCO II
9	TARELCO II	26-Jul-09	SORECO II	QUIRELCO
10	NEECO II Area I	26-Aug-09	ZAMECO I	IFELCO
11	PENELCO	26-Nov-09		FLECO
12	BATELEC I	26-Dec-09		NEECO I
13	MOPRECO	26-Dec-09		ZAMECO II
14	CASURECO III	26-Jan-10		CASURECO I
15	BATELEC II	5-Mar-10		SAJELCO
16	CANORECO	26-May-10		LUELCO
17	CASURECO IV	25-Jun-10		
18	NEECO II Area II	26-Jul-10		

Source:PEMC

**Annex 11– Capacity Mix by Grid, 1st Semester 2010**

PLANT TYPE	Capacity (MW)		Percent Share (%)	
	Installed	Dependable	Installed	Dependable
<b>Luzon</b>	<b>11,862</b>	<b>10,230</b>	<b>100.00</b>	<b>100.00</b>
Coal	3,849	3,450	32.45	33.72
Oil Based	1,984	1,617	16.72	15.80
Natural Gas	2,831	2,700	23.86	26.39
Geothermal	884	431	7.47	4.21
Hydro	2,280	1,999	19.22	19.54
Wind	33	33	0.28	0.32
Biomass	1	1	0.01	0.01
<b>Visayas</b>	<b>2,064</b>	<b>1,560</b>	<b>100.00</b>	<b>100.00</b>
Coal	442	320	21.40	20.54
Oil Based	615	426	29.82	27.31
Geothermal	964	792	46.72	50.76
Hydro	13	13	0.64	0.84
Biomass	29	9	1.42	0.55
<b>Mindanao</b>	<b>1,971</b>	<b>1,713</b>	<b>100.00</b>	<b>100.00</b>
Coal	232	210	11.77	12.26
Oil Based	594	485	30.15	28.34
Geothermal	103	98	5.24	5.74
Hydro	1,040	918	52.79	53.60
Solar	1	1	0.05	0.06
<b>Philippines</b>	<b>15,896</b>	<b>13,502</b>	<b>100.00</b>	<b>100.00</b>
Coal	4,523	3,980	28.45	29.48
Oil Based	3,193	2,528	20.09	18.72
Natural Gas	2,831	2,700	17.81	20.00
Geothermal	1,952	1,321	12.28	9.78
Hydro	3,333	2,930	20.97	21.70
Wind	33	33	0.21	0.24
Solar	1	1	0.01	0.01
Biomass	30	10	0.19	0.07

Source: DOE

**Annex 12 – Electricity Generation**

<b>LUZON GRID</b>	<b>1st Sem 2010</b>		<b>1st Sem 2009</b>		<b>Difference</b>	
<b>Plant Type</b>	<b>MWH</b>	<b>% Share</b>	<b>MWH</b>	<b>% Share</b>	<b>MWH</b>	<b>%</b>
Coal	10,752,958	43.48	7,465,131	33.98	3,287,828	44.04
Oil-based	1,564,602	6.33	994,211	4.53	570,391	57.37
Natural Gas	8,991,548	36.36	9,438,177	42.97	(446,629)	(4.73)
Geothermal	1,959,019	7.92	1,857,595	8.46	101,424	5.46
Hydro	1,439,233	5.82	2,172,561	9.89	(733,328)	(33.75)
Wind	19,878	0.08	38,413	0.17	(18,535)	(48.25)
Biomass (LFG)	2,421	0.01	355	0.002	2,066	582.01
<b>Total Generation</b>	<b>24,729,659</b>		<b>21,966,442</b>		<b>2,763,217</b>	<b>12.58</b>

<b>VISAYAS GRID</b>	<b>1st Sem 2010</b>		<b>1st Sem 2009</b>		<b>Difference</b>	
<b>Plant Type</b>	<b>MWH</b>	<b>% Share</b>	<b>MWH</b>	<b>% Share</b>	<b>MWH</b>	<b>%</b>
Coal	701,522	16.25	406,718	9.45	294,804	72.48
Oil-based	823,413	19.07	880,982	20.47	(57,569)	(6.53)
Geothermal	2,774,897	64.28	2,989,953	69.48	(215,056)	(7.19)
Hydro	10,024	0.23	23,598	0.55	(13,575)	(57.52)
Biomass	6,941	0.16	1,931	0.04	5,011	259.53
<b>Total Generation</b>	<b>4,316,796</b>		<b>4,303,182</b>		<b>13,614</b>	<b>0.32</b>

<b>MINDANAO GRID</b>	<b>1st Sem 2010</b>		<b>1st Sem 2009</b>		<b>Difference</b>	
<b>Plant Type</b>	<b>MWH</b>	<b>% Share</b>	<b>MWH</b>	<b>% Share</b>	<b>MWH</b>	<b>%</b>
Coal	817,107	21.42	749,704	18.91	67,403	8.99
Oil-based	1,207,872	31.66	722,481	18.23	485,390	67.18
Geothermal	377,700	9.90	420,574	10.61	(42,874)	(10.19)
Hydro	1,411,252	37.00	2,070,251	52.23	(658,998)	(31.83)
Solar	613	0.02	628	0.02	(15)	(2.33)
<b>Total Generation</b>	<b>3,814,544</b>		<b>3,963,638</b>		<b>(149,094)</b>	<b>(3.76)</b>

<b>PHILIPPINES</b>	<b>1st Sem 2010</b>		<b>1st Sem 2009</b>		<b>Difference</b>	
<b>Plant Type</b>	<b>MWH</b>	<b>% Share</b>	<b>MWH</b>	<b>% Share</b>	<b>MWH</b>	<b>%</b>
Coal	12,271,587	37.34	8,621,553	28.52	3,650,034	42.34
Oil-based	3,595,886	10.94	2,597,674	8.59	998,212	38.43
Natural Gas	8,991,548	27.36	9,438,177	31.22	(446,629)	(4.73)
Geothermal	5,111,615	15.56	5,268,122	17.42	(156,506)	(2.97)
Hydro	2,860,508	8.70	4,266,410	14.11	(1,405,901)	(32.95)
Wind	19,878	0.06	38,413	0.13	(18,535)	(48.25)
Solar	613	0.002	628	0.002	(15)	(2.33)
Biomass	9,363	0.03	2,286	0.01	7,077	309.62
<b>Total Generation</b>	<b>32,860,999</b>		<b>30,233,262</b>		<b>2,627,737</b>	<b>8.69</b>

Source: DOE

## Annex 13 –Status of Private Sector Initiated Projects, Luzon

No.	Name of the Project	Location	Project		Proponent	Project Status	Target Completion	Project Status As Of	(C)ommitted/ (I)ndicative
			Rated Capacity (MW)	Fuel/ Energy Source					
1	CFB Coal-Fired Power Plant, Phase II	Mabalacat, Pampanga	50	Coal	Asia Pacific Energy Corporation	<ul style="list-style-type: none"> <li>Obtained the DOE Endorsement; awaiting for release of Environmental Compliance Certificate (E CC);</li> <li>Grid Impact Studies completed on November 2003</li> <li>Need PEZA approval to be able to sell excess power outside the TECO-SEZ complex</li> </ul>	2010	2/20/2008	I
2	Burgos Wind Power Project Unit I - (1 X 6 MW) Unit II - (1 X 40 MW) Unit III - (1 X 40 MW)	Saoit, Burgos, Ilocos Norte	86	Wind	Energy Development Corporation (EDC)	<ul style="list-style-type: none"> <li>Bidding activities are on going</li> <li>Project estimated cost is US\$3.0 Million per MW</li> </ul>	2012	9/7/2010	I
3	4 X 50 MW Wind Farm Power Project	Gen. Nakar, Quezon Province	200	Wind	Energy World International Ltd	<ul style="list-style-type: none"> <li>Already identified proposed site for installing monitoring equipment</li> <li>on going coordination with the DOE-REMB and LGU officials for the setting up of the monitoring equipment</li> </ul>	2013	9/14/2010	I
4	2 X 150 MW Liquefied Natural Gas and Combined Cycle Gas Turbine w/ LNG HUB Terminal	Pagbilao, Quezon	300	LNG	Energy World International Ltd	<ul style="list-style-type: none"> <li>Lease of property for use of the project has been signed with Malory Properties Inc.</li> <li>Initial site investigation and preparation are ongoing</li> <li>Information dissemination on going with LGUs and others for social acceptance</li> <li>With financing from Standard Chartered</li> <li>Project cost for Power Plant is \$250M and for the LNG Hub is \$150M</li> </ul>	Unit I – 2011 Unit II – 2012	9/14/2010	I
5	2 X 17.5 MW Nueva Ecija Biomass Power Project	San Leonardo, Nueva Ecija	35	Biomass	Green Power Nueva Ecija Philippines, Inc.	<ul style="list-style-type: none"> <li>ESA under negotiations with off-takers</li> <li>Land purchased 5.7 Hectares for the power plant and biomass storage area</li> <li>Prelim &amp; Intermediate design of plant finished</li> <li>Biomass supply contract done</li> <li>ECC issued 13 March 2009</li> <li>SEC Registration 29 Sept 2008</li> <li>BOI Registration 19 June 2009</li> </ul>	Unit I - 2012 Unit II - 2013	9/7/2010	I
6	2 X 17.5 MW Pangasinan Biomass Power Project	Pangasinan	35	Biomass	Green Power Pangasinan Philippines, Inc.	<ul style="list-style-type: none"> <li>ESA under negotiations with off-takers</li> <li>Land acquisition under negotiation</li> <li>Prelim &amp; Intermediate design of plant finished</li> <li>Biomass supply contract done</li> <li>SEC registration 29 November 2007 (amended 6 October 2008)</li> <li>BOI registration 25 May 2009</li> <li>ECC - for preparation of Initial Environmental Examination</li> <li>Application of Grid Impact Study submitted to NGCP</li> </ul>	Unit I - 2013 Unit II - N/A	9/7/2010	I

## Annex 13 –Status of Private Sector Initiated Projects, Luzon

No.	Name of the Project	Location	Project		Proponent	Project Status	Target Completion	Project Status As Of	(C)ommitted/ (I)ndicative
			Rated Capacity (MW)	Fuel/ Energy Source					
7	30 MW NorthWind Pamplona Project	Pamplona, Cagayan Valley	30	Wind	Northeast Wind Systems - (NEWS) - (NorthWind Power Development Corporation)	<ul style="list-style-type: none"> <li>• Wind measurement activity is still ongoing. Three years of wind measurement has been performed. Awaiting data from PAGASA for year 2009 in order to assess long-term wind regime</li> <li>• Entered MOA with Cagelco I and II for a joint cooperation for the development of the project</li> <li>• Secured endorsement from the Sangguniang Panlalawigan of the Province of Cagayan</li> <li>• Secured endorsement from the Sangguniang Bayan of the Municipality of Pamplona</li> <li>• Secured endorsements from the officials of the soon-to-be host barangays of Bidduang, Allasitan and Nagattatan</li> <li>• Conducting initial survey of the applied area</li> <li>• Submitted documentation of local CENRO office for project evaluation, issuance of ECC, and foreshore lease agreement</li> <li>• Estimated cost of project is \$ 75 M</li> </ul>	2011	1/6/2010	I
8	40 MW NorthWind Aparri Project	Aparri, Cagayan Valley	40	Wind	Northwind Group of Companies	<ul style="list-style-type: none"> <li>• Conducting feasibility study</li> <li>• Estimated cost of project is \$100 M</li> </ul>	2011	1/6/2010	I
9	2 X 300 MW Coal-Fired Power Plant	Meriveles, Bataan	600	Coal	GN Power	<ul style="list-style-type: none"> <li>• Earth moving and civil works at the Site commenced December 7, 2009 and have continued uninterrupted works resulting in the excavation of over 500,000 cubic meters of soil</li> <li>• BSP approval of loans was received December 9, 2009</li> <li>• Equity investment documents were signed December 10, 2009</li> <li>• The Connection Asset Construction and Maintenance Agreement (CACMA) and Connection Agreement (CA) were signed January 11, 2010</li> <li>• Signing of loan documents is scheduled for January 18, 2010</li> <li>• Closing and funding of the transaction is scheduled for January 22, 2010 pending receipt of an opinion from the Department of Justice on various issues related to the CACMA</li> <li>• Granted ECC by the DENR (April 2007)</li> <li>• EPC contract signed (Feb 2009)</li> <li>• Signed contracts with 13 DUs and some capacity with contestable markets</li> <li>• Contracted 75% of the plant capacity</li> <li>• Purchased Land Site (Sept '07)</li> </ul>	4th Qtr. of 2012	6/9/2010	C
10	Tanawon Geothermal Project	Bacman Geothermal Field, Sorsogon	40	Geothermal	EDC	<ul style="list-style-type: none"> <li>• Geothermal resource is being assessed while discussions with potential EPC contractors and initial civil works are ongoing</li> <li>• Project estimated cost is US\$ 5.0 Million per MW</li> </ul>	2013	9/7/2010	I

## Annex 13 –Status of Private Sector Initiated Projects, Luzon

No.	Name of the Project	Location	Project		Proponent	Project Status	Target Completion	Project Status As Of	(C)ommitted/ (I)ndicative
			Rated Capacity (MW)	Fuel/ Energy Source					
11	2 X 150MW Coal-Fired Power Plant	Sitio Naglatore, Cawag, Subic	300	Coal	Redondo Peninsula Energy Inc.	<ul style="list-style-type: none"> <li>Received an Environmental Compliance Certificate (ECC) from SBMA</li> <li>Received ECC from DENR last Dec. 2008</li> <li>Grid Impact Studies approved by Transco in 2007</li> <li>MOU with NGCP authorizing to connect to 230 kV TL</li> <li>Renewed Certificate of Registration and tax Exemption (CRTE) as a Subic Freeport Zone Enterprise and registered with BOI</li> <li>EPC under negotiation.</li> <li>Land Lease Agreement w/ SBMA under negotiation.</li> <li>Financing under negotiation.</li> </ul>	Unit I – 2012 Unit II – 2013	9/7/2010	I
12	17.5 MW Mindoro Biomass Power Project	Mindoro	17.5	Biomass	Green Power Mindoro Philippines, Inc.	<ul style="list-style-type: none"> <li>SEC Registration 29 November 2007</li> <li>Biomass Supply Assessment done</li> <li>Appropriate site under consideration</li> <li>For preparation of Initial Environmental Examination and Registration with the BOI</li> <li>Owners Engineer and EPC Contractor to be selected</li> <li>Application for Grid Impact Study to be prepared</li> </ul>	2017	2/2/2010	I
13	Kanan B1 Hydro Power Project Unit I – 145 MW (Contained) Unit II – 70MW (Run-off)	Gen. Nakar, Quezon Province	215	Hydro power	Energy World International Ltd	<ul style="list-style-type: none"> <li>Information dissemination on going for social acceptance</li> <li>Payment of water rights annual fee being paid by Energy World Int'l.</li> <li>Close coordination with Gov. Rafael P. Nantes and Mayor Leovigildo Ruzol re: acceptance of the project</li> <li>With financing from Standard Chartered</li> <li>Project Cost is \$350M</li> </ul>	Unit I – End 2012 Unit II – End 2013	9/14/2010	C
14	San Gabriel Power Plant	Sta Rita, Batangas City	550	Natural gas	First Gen Holdings Corp and BG Consolidated Corp.	<ul style="list-style-type: none"> <li>Obtained the DOE Endorsement and Environmental Compliance Certificate</li> <li>Grid Impact Studies completed on 24 May 2007</li> <li>Target of completion was moved from 2011 to 2013 due to global economic crisis</li> </ul>	2013	1/4/2010	I
15	Puting Bato Coal Fired Power Plant	Brgy. Puting Bato West, Calaca, Batangas	135	Coal	Trans Asia Oil and Energy Development Corporation (TAOil)	<ul style="list-style-type: none"> <li>Feasibility Study Stage</li> <li>Initially, only 1 X 135 MW will be installed; however, provisions shall be made for ease of installation of a 2nd 1 X 135 MW unit in the future;</li> <li>In close negotiations with a Chinese equipment supplier for the EPC contract for the construction of the plant;</li> <li>Public Scoping completed last July 2009;</li> <li>Contract with Bacnotan Industrial Park Corp. (owner of the Phoenix Petroterminal and Industrial park) for the purchase of industrial lots signed on January 2010.</li> <li>ECC obtained from DENR in April 2010.</li> <li>Grid Impact Study will be prepared by NGCP in January 2011.</li> <li>MOA with Semirara Mining Corporation for the coal supply is expected to be signed by end of September 2010.</li> <li>MOA with EPC contractor expected to be signed by early October 2010.</li> </ul>	3 <sup>rd</sup> Qtr. Of 2013	9/14/2010	I

## Annex 13 –Status of Private Sector Initiated Projects, Luzon

No.	Name of the Project	Location	Project		Proponent	Project Status	Target Completion	Project Status As Of	(C)ommitted/ (I)ndicative
			Rated Capacity (MW)	Fuel/ Energy Source					
						<ul style="list-style-type: none"> <li>Project cost is PhP 10 Billion</li> </ul>			
16	Kalayaan Pumped Storage Power Plant III (CBK Expansion)	Lumban, Laguna	360	Hydro power	J Power and Sumitomo Corp.	<ul style="list-style-type: none"> <li>Grid Impact Studies completed by TRANSCO</li> <li>ECC acquired April 3, 2009</li> </ul>	2014	1/4/2010	I
17	Mauban Wind Farm Project	Mauban, Quezon	12	Wind	Quezon Power Phils.	<ul style="list-style-type: none"> <li>Gathering of registration requirements</li> </ul>	2014	1/22/2010	I
18	Quezon Power Expansion Project	Mauban, Quezon	500	Coal	Quezon Power Phils.	<ul style="list-style-type: none"> <li>Development stage</li> </ul>	2016	1/22/2010	I
19	Rangas Geothermal Project	Bacman Geothermal Field, Sorsogon	40	Geothermal	EDC	<ul style="list-style-type: none"> <li>Ongoing pre-feasibility activities</li> <li>Project estimated cost is US\$ 4 Million per MW</li> </ul>	September 2015	6/8/2010	I
20	Balintongan River Multi-Purpose Project	General Tinio, Nueva Ecija	30	Hydro power	National Irrigation Administration	<ul style="list-style-type: none"> <li>MOU for the conduct of study and submission of proposal between NIA and Green Square Properties Corporation and Korea Water Resources Corporation</li> <li>Concord Pacific Investment Holdings Limited, Inc. (Concord PIHLI) submitted a draft MOA to undertake the feasibility study last 18 November 2009</li> </ul>	2015	1/6/2010	I
21	Manito-Kayabon Geothermal Project	Bacman Geothermal Field, Sorsogon	40	Geothermal	EDC	<ul style="list-style-type: none"> <li>Ongoing pre-feasibility activities</li> <li>Project estimated cost is US\$ 5.0 Million per MW</li> </ul>	February 2016	6/8/2010	I
22	Pagbilao Expansion	Pagbilao, Quezon	400	Coal	Team Energy Corporation	<ul style="list-style-type: none"> <li>Conducting further studies in view of current events, including the bidding that will be conducted by PSALM for the IPP Administrator for the 700 MW contracted capacity of the Pagbilao Power Substation, and the world-wide financial crisis;</li> <li>Continue constant discussion w/ local Gov't. Officials for possible settlement of real property tax issue.</li> <li>Therma Luzon, Inc. (TLI) appointed as the IPP Administrator</li> </ul>	N / A	12/28/2009	I
23	Pantabangan Expansion	Pantabangan, Nueva Ecija	78	Hydro power	First Gen Hydro Power Corp.		N / A	2/20/2008	I
24	Pagudpud Wind Power Project	Pagudpud, Ilocos Norte	40	Wind	EDC	<ul style="list-style-type: none"> <li>Approval of Work program by EDC Management last 01 June 2010</li> </ul>	N / A	6/8/2010	I

**Total Committed Rated Capacity** 1,115.00

**Total Indicative Rated Capacity** 3,018.50

**Total Rated Capacity** 4,133.50



## Annex 14 –Status of Private Sector Initiated Projects, Visayas

No.	Name of the Project	Location	Project		Proponent	Project Status	Target Completion	Project Status As Of To Date	(C)ommitted/ (I)ndicative
			Rated Capacity (MW)	Fuel/ Energy Source					
1	3 X 82 MW CFB Power Plant Expansion Project <i>Unit I - (1 X 82 MW)</i> <i>Unit II - (1 X 82 MW)</i> <i>Unit III - (1 X 82 MW)</i>	Brgy. Daanlungsod, Toledo City, Cebu	246	Coal	Cebu Energy Development Corporation (Global Business Power Corp)	<ul style="list-style-type: none"> <li>Groundbreaking on January 2008</li> <li>Engineering Procurement &amp; Construction contract signed January 2008</li> <li>ECC for the 138 KV Double Circuit Transmission Line Project granted July 10, 2009</li> <li>Overall site construction progress is 88.5%</li> <li>UNIT 1 synchronization to grid is June 9, 2010, start of reliability run is from May 26 - June 25, 2010</li> <li>UNIT 2 reliability run from May 26 - June 25, 2010</li> <li>UNIT 3 accomplishment is 55%, synchronization date is Jan. 2011</li> </ul>	Unit I - March 2010 Unit II - June 2010 Unit III - Jan 2011	6/11/2010	C
2	Cebu Coal-Fired Power Plant, Phils <i>Unit I - (1 X 100 MW)</i> <i>Unit II - (1 X 100 MW)</i>	Naga, Cebu	206	Coal	KEPCO SPC Power Corporation (KSPC)	<ul style="list-style-type: none"> <li>Start of construction December 2007</li> <li>Total accomplishment as of March 2010 is 85.41% from 81.35% as of January 2010</li> <li>ERC approved the PSCs for the following off-takers: NORECO 1 &amp; 2, CENECO, NOCECO and VRESCO</li> <li>Awaiting for final approval from ERC for CEBECO 1 &amp; 2, and MECO</li> <li>Plant construction is currently proceeding, with Doosan Heavy Industries as EPC Contractor</li> <li>Signed PSC with an aggregator (iN2)</li> <li>Contracted 171 MW out of the 200 MW installed capacity</li> </ul>	Unit 1 - Feb. 2011 Unit 2 - May 2011	6/10/2010	C
3	2 X 17.5 MW Panay Biomass Power Project	Brgy. Cabalabaguan, Mina, Iloilo	35	Biomass	Green Power Panay Philippines, Inc.	<ul style="list-style-type: none"> <li>BOI registration 19 June 2009</li> <li>ESAs with local cooperatives ILECO 1 &amp; ILECO II signed; preparation for ERC presentation on-going</li> <li>Land acquisition under negotiation</li> <li>Stakeholders' consultation completed</li> <li>ECC issued 6 July 2009</li> <li>Preliminary &amp; Intermediate design of plant finished</li> <li>Biomass supply contract done</li> <li>SEC registration 19 June 2009</li> <li>Capitalization Cost Php 193M</li> <li>Application for Grid Impact Study submitted to NGCP</li> </ul>	Unit I - 2011 Unit II - 2012	2/2/2010	C

**Annex 14 –Status of Private Sector Initiated Projects, Visayas**

No.	Name of the Project	Location	Project		Proponent	Project Status	Target Completion	Project Status As Of To Date	(C)ommitted/ (I)ndicative
			Rated Capacity (MW)	Fuel/ Energy Source					
4	Nasulo Geothermal	Nasuji, Valencia, Negros Oriental	20	Geothermal	Energy Development Corporation (EDC)	<ul style="list-style-type: none"> <li>Ongoing discussions on power plant facilities and technical consultancy contracts</li> <li>Project estimated cost is US\$ 5.0 Million per MW</li> </ul>	2013	6/8/2010	C
5	2 X 82 MW CFB Power Plant <i>Unit I - (1 X 82 MW)</i> <i>Unit II - (1 X 82 MW)</i>	Brgy. Inгоре, La Paz, Iloilo	164	Coal	Panay Energy Development Corporation (Global Business Power Corp)	<ul style="list-style-type: none"> <li>Land acquired on August 2008</li> <li>Land conversion approved by Department of Agriculture on July 2009</li> <li>Environmental Compliance Certificate (ECC) acquired August 2008</li> <li>ECC acquired August 2008</li> <li>Test Pile started June 1, 2009</li> <li>Piling and other civil works currently ongoing</li> <li>The project will be embedded to PECO but will also sell to other DUs</li> <li>PEDC will finance its connection to TL as agreed with NGCP</li> </ul>	Unit I - Sept 2010 Unit II - Dec 2010	8/27/2009	C
6	Aklan Hydropower Project	Libacao, Aklan	41	Hydropower	CalEnergy International Ltd.	<ul style="list-style-type: none"> <li>Project abandoned due to legal and business considerations</li> </ul>		9/7/2010	I
7	17.5 MW Negros Biomass Power Project Phase 2	Negros	17.5	Biomass	Green Power Negros Philippines, Inc.	<ul style="list-style-type: none"> <li>SEC Registration 14 January 2010</li> <li>Biomass Supply Assessment done</li> <li>Appropriate site under consideration</li> <li>For preparation of Initial Environmental Examination and Registration with the BOI</li> <li>Owners Engineer and EPC Contractor to be selected</li> <li>Application for Grid Impact Study to be prepared</li> </ul>	2014	2/2/2010	I
8	Villasiga HEP	Sibalom, Antique	8	Hydropower	SUNWEST Water & Electric Co., Inc.	<ul style="list-style-type: none"> <li>Permit to cut trees and Road Right of Way for the local roads were approved last November 27, 2009 by Sec. Atienza</li> <li>25.55 Km. Access Road is 68.28% completed</li> <li>Additional requirements for quarry permit are already on process thru coordination with the DENR</li> <li>Ongoing construction of facilities</li> <li>Ongoing construction of access road</li> <li>Ongoing hauling of heavy equipment to project site</li> </ul>	Dec. 2012	1/4/2010	I

**Annex 14 –Status of Private Sector Initiated Projects, Visayas**

No.	Name of the Project	Location	Project		Proponent	Project Status	Target Completion	Project Status As Of To Date	(C)ommitted/ (Indicative)
			Rated Capacity (MW)	Fuel/ Energy Source					
9	Dauin Geothermal	Dauin, Negros Oriental	40	Geothermal	EDC	<ul style="list-style-type: none"> <li>Ongoing resource assessment and feasibility studies</li> </ul>	2017	6/8/2010	I
10	Southern Leyte Geothermal Project (formerly Cabalian Geothermal Project)	Southern Leyte	40	Geothermal	EDC	<ul style="list-style-type: none"> <li>Ongoing resource assessment and feasibility studies</li> </ul>	2019	6/8/2010	I
11	17.5 MW Samar Biomass Power Project	Samar	17.5	Biomass	Global Green Power PLC	<ul style="list-style-type: none"> <li>SEC Registration 29 November 2007 (amended 10 October 2008)</li> <li>Biomass Supply Assessment done</li> <li>Appropriate site under consideration</li> <li>For preparation of Initial Environmental Examination and Registration with the BOI</li> <li>Owners Engineer and EPC Contractor to be selected</li> <li>Application for Grid Impact Study to be prepared</li> </ul>	2015	2/2/2010	I

**Total Committed Rated Capacity      671.00**  
**Total Indicative Rated Capacity      123.00**  
**Total Rated Capacity                      794.00**

## Annex 15 –Status of Private Sector Initiated Projects, Mindanao

No.	Name of the Project	Location	Project		Proponent	Project Status	Target Completion	Project Status As Of To Date	(C)ommitted / (I)ndicative
			Rated Capacity (MW)	Fuel/ Energy Source					
1	Sibulan Hydroelectric Power (Unit 1 - 16.5 MW) (Unit 2 - 26 MW)	Sta. Cruz, Davao del Sur	42.5	Hydropower	Hedcor Sibulan, Inc.	<ul style="list-style-type: none"> <li>As of January 7, 2010, the project is 83% complete since it started construction on June 25, 2007</li> <li>12 MW already online providing power to Davao Light</li> <li>Transmission Service Agreement with the NGCP signed as of 2008</li> </ul>	Unit 1 – March 2010 Unit 2 - August 2010	6/11/2010	C
2	Bunker Fired Power Plant	Tablon, Cagayan de Oro	20	Oil	Mindanao Energy Systems, Inc. (MINERGY)	<ul style="list-style-type: none"> <li>No actions yet on this project, still waiting for the approval by the ERC on the Power Supply Agreement (PSA)</li> </ul>	4Q of 2010	1/4/2010	I
3	27.5 MW Tamugan Hydropower Project  (20 MW Tamugan Plant & 7.5 MW Panigan Plant)	Baguio District, Davao City	27.5	Hydropower	HEDCOR	<ul style="list-style-type: none"> <li>Obtained certificate of endorsement from the DOE</li> <li>Registered as a pioneer project with the BOI</li> <li>Completed Grid Impact Study by the TransCo</li> <li>Signed a MOA with the Indigeneous People</li> <li>Issued a Free and Prior Informed Consent (FPIC) by the National Commission of Indigenous Peoples (NCIP) December 2005</li> <li>Ready for construction</li> <li>Negotiated with the landowners affected by the hydropower development</li> <li>Signed MOAs with barangays, Wines, Tawan-Tawan, Tambobong, Tamugan Proper, Carmen, Cadalian, Tamayong</li> <li>Secured ECC from DENR last March 2009</li> <li>Favorable decision from National Water Resources Board (NWRB) last July 2009</li> </ul>	July 2011	1/7/2010	I
4	Agus 3 Hydroelectric Plant	Lanao del Norte	225	Hydropower	Lanao Hydropower Development Corporation	<ul style="list-style-type: none"> <li>Udated feasibility study; secured ECC; signed Joint Sales agreement with NPC</li> <li>Legal issue on whether NPC can enter into Sales Agreement with the proponent.</li> </ul>	2011	2/20/2008	I
5	2 X 100 MW Southern Mindanao Coal Fired Power Station	Maasim, Sarangani	200	Coal	Conal Holdings Corp.	<ul style="list-style-type: none"> <li>Construction of Phase I (100MW) starts at the end of the first quarter of 2010</li> <li>Construction of Phase II (100MW) will start within 18 to 24 months after the commencement of construction of Phase I</li> <li>Project Cost is \$450 M</li> <li>ECC issued last April 2009</li> </ul>	Phase I - 2013 Phase II - 2014	9/7/2010	I

**Annex 15 –Status of Private Sector Initiated Projects, Mindanao**

No.	Name of the Project	Location	Project		Proponent	Project Status	Target Completion	Project Status As Of To Date	(C)ommitted / (I)ndicative
			Rated Capacity (MW)	Fuel/ Energy Source					
6	Cabulig Mini-Hydro Power Plant	Plaridel, Jasaan, Misamis Oriental	8	Hydropower	Mindanao Energy Systems, Inc. (MINERGY)	<ul style="list-style-type: none"> <li>RE Service Contract was already secured from the DOE</li> <li>Civil work construction started in November 2009</li> <li>Supply of electro-mechanical equipment for awarding (due diligence to prospective supplier already conducted); target awaiting date is January 2010</li> </ul>	June 2011	1/4/2010	C
7	17.5 MW Cagayan de Oro Biomass Power Project	Cagayan de Oro	17.5	Biomass	Green Power Cagayan de Oro Philippines, Inc.	<ul style="list-style-type: none"> <li>SEC Registration 14 January 2010</li> <li>Biomass Supply Assessment done</li> <li>Appropriate site under consideration</li> <li>For preparation of Initial Environmental Examination and Registration with the BOI</li> <li>Owners Engineer and EPC Contractor to be selected</li> <li>Application for Grid Impact Study to be prepared</li> </ul>	2013	2/2/2010	I
8	Tagoloan Hydropower	Bukidnon	68	Hydropower	Luzon Hydro Corp.	<ul style="list-style-type: none"> <li>Completed feasibility study</li> </ul>	2012	2/20/2008	I
9	17.5 MW Davao Biomass Power Project	Davao	17.5	Biomass	Global Green Power PLC	<ul style="list-style-type: none"> <li>SEC Registration 14 January 2010</li> <li>Biomass Supply Assessment done</li> <li>Appropriate site under consideration</li> <li>For preparation of Initial Environmental Examination and Registration with the BOI</li> <li>Owners Engineer and EPC Contractor to be selected</li> <li>Application for Grid Impact Study to be prepared</li> </ul>	2017	2/2/2010	I
10	Mindanao 3 Geothermal	Kidapawan, North Cotabato	50	Geothermal	EDC	<ul style="list-style-type: none"> <li>Project schedule (Dec. 2011) was moved due to the financial crisis and operational priorities</li> <li>Ongoing resource assessment</li> <li>Project estimated cost is US\$ 5.0 Million per MW</li> </ul>	July 2014	6/8/2010	C
11	5 MW Camiguin Island Wind Power	Camiguin	5	Wind	EDC	<ul style="list-style-type: none"> <li>Approval of Work Program by EDC Management last 01 June 2010</li> </ul>	N / A	6/8/2010	I

**Total Committed Rated Capacity**      **100.50**  
**Total Indicative Rated Capacity**      **580.50**  
**Total Rated Capacity**                      **681.00**

**Annex 16 - ERC-Approved Capital Expenditure Projects (April 2010 – September 2010)**

APPLICANT	PROJECT	DESCRIPTION	RATIONALE	PROJECT COST (MPhP)	DATE APPROVED
<b>Meralco Electric Company (MERALCO)</b>	Replacement of Transformer Bank No. 1 at Sta. Mesa Substation	Procurement and installation of an 83 MVA, 110 kV - 34.5 kV power transformer with an On-Load-Top-Charger (OLTP) to replace the defective Transformer Bank No. 1 at Sta. Mesa substation	To prevent widespread power interruption in the areas covered by the Sta. Mesa substation	73.29	April 19, 2010/ May 21, 2010
	Replacement of Transformer Bank No. 5 at Balintawak Substation	Procurement and installation of an 83 MVA, 110 kV - 34.5 kV power transformer with an On-Load-Top-Charger (OLTP) to replace the defective Transformer Bank No. 5 at Balintawak substation	To prevent widespread power interruption in the areas covered by the Balintawak substation	69.08	
	Uprating of Power Transformer Bank at Sta. Rosa Substation	Procurement and installation of one (1) 83 MVA, 110 kV - 34.5 kV three (3) phase power transformer with OLTP to uprate the 50 MVA Sta. Rosa Transformer Bank	To prevent widespread power interruption within the Laguna Technopark Inc., educational institutions, and residential and commercial customers in Laguna	78.54	
	Expansion of the First Philippine Industrial Park (FPIP) 115 kV - 34.5 kV Substation	Procurement and installation of one (1) 83 MVA, 110 kV - 34.5 kV three (3) phase power transformer with OLTP including two (2) units of outdoor type Circuit Breakers (CB) and associated disconnected switches, switchgear and capacitor bank to expand the First Philippine Industrial Park's (FPIP) 115 kV - 34.5 kV substation.	To accommodate the increase in load within the industrial park and applications from commercial and residential customers in Sto. Tomas, Batangas and Calamba, Laguna	145.90	
	Construction of Laguna International Industrial Park-Rohm Electronics Philippines, Inc. (LIIP-ROHM) 115 kV Line	Construction of a 115 kV line within the Laguna International Industrial Park-Rohm Electronics Philippines, Inc. (LIIP-ROHM)	To improve reliability required by a power sensitive electronics company	98.82	
<b>Angeles Electric Corporation (AEC)</b>	Procurement and Installation of Automatic Voltage Regulators (AVRs)	Procurement and installation of Automatic Voltage Regulators (AVRs) for the Angeles Ice Plant and Marquee Mall	To provide adequate, safe, efficient and reliable electric service to new customers	6.908	May 24, 2010/ June 7, 2010
	Design and Construction of Electric Power Distribution System (EPDS)	Construction of 13.8 kV and 115/230 volts distribution system for the Sameerah, Punta Verde and Nouveau Subdivisions	To provide adequate, safe, efficient and reliable electric service to new customers	20.34	
<b>Isabela II Electric Cooperative, Inc. (ISELCO II)</b>	Replacement and Installation of 10 MVA Power Transformer	Replacement and installation of 10 MVA power transformer at the Roxas substation with the following components: 1) 69 kV High Voltage Protection, and 2) 13.2 kV switchgear and accessories	To attain distribution system reliability and capacity for the existing energy requirement	20.40	June 21, 2010/ July 8, 2010

APPLICANT	PROJECT	DESCRIPTION	RATIONALE	PROJECT COST (MPhP)	DATE APPROVED
Agusan Del Sur Electric Cooperative, Inc. (ASELCO)	Installation of a new 10 MVA Substation and Construction of Twenty-Seven Kilometers (27 km.) 69 kV Line	Installation of a new 10 MVA substation in Rosario and Construction of twenty-seven kilometers (27 km.) 69 kV line from San Francisco to Rosario, Agusan del Sur	To address load growth	59.43	August 31, 2010/ September 15, 2010
	Upgrading of Trento Substation from 5 MVA to 10 MVA	Upgrading of the Trento substation from 5 MVA to 10 MVA	To address load growth	22.12	
	Conversion of V-Phase Line to Three (3) Phase Line and Construction of Additional Seven kilometers (7 km.) single Phase Line including the installation of Capacitor Banks	Conversion of V-Phase to line to three (3) phase line in Sampaguita, Sta. Josefa and Veruela, Agusan del Sur and construction of additional seven kilometers (7 km.) single phase line along the Josefa to Veruela area to make it a three (3) phase line including the installation of capacitor banks	To address load growth	2.92	
	Rehabilitation and Replacement of Wooden to Concrete Poles	Rehabilitation and replacement of wooden poles with concrete poles in the entire coverage area	To improve system reliability and efficiency	18.60	
Agusan Del Sur Electric Cooperative, Inc. (ASELCO)	Installation of Feeder Meters	Installation of feeder meters in eight (8) distribution feeders served by three (3) substations	To improve system reliability and efficiency	4.59	
	Procurement of Logistic Equipment and Engineering Software	Procurement of hot line and lineman tools and equipment, thermal scanners and engineering software for technical analysis including boom trucks and communication tools	To improve system reliability and efficiency	8.68	
	Installation and Replacement of Kilowatt-hour Meters and Service Drop Wires	Installation of new kWhr. Meters of various types and classes, feeder metering devices and replacement of service drop wires	To improve system reliability and efficiency	22.52	
	Procurement, Upgrading and Replacement of Overloaded Distribution Transformers	Procurement of the following: 1) Seventy (70) units of 15 kVA transformers, 2) Seventy (70) units of 25 kVA transformers, 3) Thirty (30) units of 37.5 kVA transformers, and 4) Thirty (30) units of 50 kVA transformers. These transformers are for installation to different distribution feeder starting 2009 to 2013	To reduce system loss and improve transformer load management	10.46	
			<b>TOTAL</b>	<b>662.61</b>	