FY 2013: Ongoing Foreign-Assisted Projects

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
1. Philippine Energy Efficiency Project (PEEP)	Asian Development Bank and GoP	The Philippine Energy Efficiency Project (PEEP) is a project of the Philippine Government which is being implemented by the Philippine Department of Energy (DOE). It involves a series of activities that aims to reduce electricity consumption in the residential and public sectors, reduce the peak load power demand, reduce health risk associated with residual mercury and kerosene (in the off grid areas) and establish a certification process for energy and environmentally efficient commercial buildings. The Asian Development Bank (ADB) is supporting the project by way of a loan and grant assistance. PEEP has a total approved budget of US$ 46.5M consisting of a loan component amounting to US$ 31.1M, a grant component amounting to US$ 1.5M and Philippine Government counter-part fund of US$ 13.9M. The Loan Agreement between the Philippine Government and ADB took effect in May 2009. The International Institute for Energy Conservation (IIEC) was contracted in March	The current key objectives of the project are: 1) Retrofitting of about 135 government Buildings with energy efficient lighting systems (EELS) and the establishment of a model for large-scale implementation in the public sector; 2) Distribution of 8.6 Million Compact Fluorescent Lamps (CFLs) amongst residential consumers nationwide; 3) Successful demonstration of efficient street lights and traffic lighting in local government units; and the establishment of a model for standardizing public lighting and large scale implementation; 4) Expansion of the capacity of Lighting and Appliance Testing Laboratory (LATL) to conduct efficiency testing on a wider range of appliances and the accreditation of the laboratory to ISO 17025; 5) Procurement of a Lamp Waste Management Facility (LWMF) and the establishment of a business model for	The components of PEEP are as follows: Component 1.1: Retrofit of Government Office Buildings Component 1.2: National Residential Lighting Program Component 1.3: Public Lighting Retrofit Program Component 1.4: Energy Efficiency Testing and Lamp Waste Management Component 2.2: Efficient Building Initiative Component 3: Communication and Social Mobilization The current composition of the project components is the result of the reassessment and re-evaluation conducted by DOE on PEEP in the 2nd quarter of 2011 which was approved by ADB on 26 October 2011 and by the National Economic Development Authority (NEDA) and the Department of Finance (DOF) on	As of 4Q 2013 (as submitted by EUMB): Processed demand payments of Philips Electronics and Lighting, Inc. for the release of the 10% retention amounting to P2,875,430.12 representing 10% of the contract price of P28,754,301.22 on the retrofitting of street lighting with LED including Photo Controls of 1,484 MMDA street lights within Metro Manila being completed last 27 June 2013.

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
		2010 to serve as Project Implementation Support (PIS). The project implementation period is extended up to March 2013 while the loan validity period is up to June 2013 <u>Total Project Cost:</u> (loan/grant/GoP): Php 2,092,500,000 (US$ 46.58M) Loan: US$ 31.10M (Php 1,399.5M) Grant: US$ 1.50M (Php 67.5M) GoP: US$ 13.9M (Php 625.5M)	collection of lamp waste and the operation of the facility; 6) Establishment of an efficient building rating system in the Philippines for new and retrofitted buildings.	28 October 2011.	
2. Electric Cooperative System Loss Reduction Project (ECSLRP)	World Bank – Global Environment Facility (GEF)	ECSLRP involves the following: 1) Use of IMC to attract private investors to manage and operate eligible ECs under long-term, performance-based contracts, and to mobilize private finance without recourse to the government; 2) Facilitate ECs' access to affordable commercial loans through the provision of partial credit guarantee coverage (up to 80%); and 3) Provides capacity building and technical assistance to support the implementation of	ECSLRP aims to achieve significant and sustained energy efficiency improvements in ECs in order to provide current and prospective viable EC customers with reliable and least-cost power supply over the long term through removal of barriers to entry of private sector investments in system loss reduction.	The components of ECSLRP are as follows: 1) Partial Credit Guarantee Program 2) Capacity Building	<u>As of 4Q 2013:</u> 1) EC-Partial Credit Guarantee (PCG) Program - As of 31 December 2013, there are 19 existing booked EC accounts under the ECPCG Program with total loan amount of Php 2.565 billion corresponding to about Php 2.052 billion committed guarantee exposure of the ECPCG Fund. There were also three (3) committed EC accounts in the Program namely BOHECO II, AKELCO and GUIMELCO representing additional loan amount of Php 445.75 million. These ECs have already signed the loan and guarantee agreements but have yet to draw their loans as said ECs are either complying with the documentary requirements of NEA or waiting ERC approval of their CAPEX application.

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
		the PCG Program such as technical assistance to key stakeholders (DOE, NEA, ECs, ERC, LGUGC and financial intermediaries) to ensure and facilitate project implementation, monitoring and evaluation. The project implementation is 9 years (November 2004 to 31 December 2012, extended to 31 December 2013) <u>Total Project Cost:</u> (grant): US$ 12M			
3. Philippine Industrial Energy Efficiency Project (PIEEP)	UNIDO and Co-financing of the DOE, Land Bank, Bank of Philippine Islands and Development Bank of the Philippines	The project will train Filipino national experts in both the optimization of steam, compressed air and pumping systems and in energy management while at the same time introducing these concepts to participating industrial enterprises that will directly benefit from the project implementation. Outputs will include greenhouse gas emission reductions from savings in the use of fuel and electricity attributable to systems improvements undertaken by the participating industrial enterprises. The project will also build capacity	The project aims to introduce ISO 50001 energy management system along with system optimization approach for improvement of industrial energy efficiency of the Philippines.	The components of PIEEP are as follows: 1) Energy Management (Integration of Energy Management System/ ISO50001) 2) Systems Optimization (Steam, Compressed-air, Pumping Systems) 3) Enhancement of Financial Capacity (EE Financial Criteria) 4) Project Management 5) Monitoring and	<u>As of 4Q 2013:</u> Jointly with the Department of Trade and Industry (DTI) and the United Nations for Industrial Development Organization (UNIDO), two (2) National Awareness Workshops on Energy Management System were conducted in Davao and Taguig City with 142 participants from industrial associations, professional organizations, equipment vendors, energy service companies and energy consultants, universities, and government agencies. Plant visits were conducted by DOE and PIEEP audit team and UNIDO esperts at Mindanao Corrugated Fiber Board, Inc., United Pulp and Paer Corp., PAG-ASA Steel Works, Inc., Steel Asia Corporation and Nestle Philippines to conduct system performance assessment of compressed air systems and provide technical operational improvements in their respective company firms.

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
		for industries in order to introduce an energy management standard – ISO 50001 – an international energy management standard published early 2011. Compliance with this new ISO standard will provide an incentive for continuous attention to improved energy use efficiency. <u>Project Cost:</u> Total Project Cost: US$ 27,166,065.00 UNIDO-GEF: US$ 3,166,065.00 Co-financing: US$ 24,000.000.00 (National Commercial Banks – US$ 20,000,000.00; Department of Energy – US$ 4,000,000.00)		Evaluation	
4. Alliance for Mindanao and Multi-Regional Renewable/Rural Energy Development III (AMORE III) Program	USAID, Winrock International, SunPower Corporation and DOE	AMORE III is a partnership program among USAID, Winrock International, SunPower Corporation and DOE that supports the Philippines' Energy Sector Reform Agenda on rural electrification using renewable energy. As such, DOE provides policy direction, monitoring and supplemental co-shared funds on its off-grid rural electrification projects sourced-out from Energy Regulations No. 1-94, as amended.	The project aims to contribute to the improvement of the quality of life of 28,813 households and about 59,527 students in selected regions in the Philippines through: 1) Improved quality and continuous access to lighting at household level through renewable energy; 2) Better family health conditions in terms of less cases of waterborne diseases; and, 3) Improved school performance of	1) Households with access to solar PV technology and micro hydro power - 8,867 households including those given through micro hydro power 2) Households/Individuals with access - 19,946 households 3) Schools electrified through solar PV technology - 174 schools, equivalent to about 59,527 students	* No submission (as of 28 February 2014)

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
		The project will be implemented from October 1, 2009 to September 30, 2013. Total Project Cost: US$ 6,000,000.00	children in terms of higher achievement scores.		
5. Philippine-Japan Project for Introduction of Clean Energy Using Solar Power Generating System	Japan Grant Aid	The project shall demonstration of the effectiveness and efficiency of net metering-connected solar photovoltaic power systems under Republic Act No. 9513 Total Project Cost: (grant): 600 Million Yen	The project aims for the adaptation to and mitigation of climate change as well as on the Improvement of access to clean energy	Solar PV Generating Facility	As of 4Q 2013: 1) Conducted additional technical studies in the four (4) beneficiary sites.
6. Market Transformation through Introduction of Energy Efficient Electric Vehicle Project	Asian Development Bank	Energy efficient electric vehicles are a new technology with the promise to transform the way energy is used by today's internal combustion engine (ICE) vehicles. For net energy importing countries, such as the Philippines, electric vehicles can dramatically reduce the country's dependence on imported energy resources, which in turn will reduce short term price volatility and improve long term energy security. This technology has also created the opportunity to transition into an environment, where vehicles no longer generates harmful air and noise pollution and can be powered by indigenous renewable	*Objectives:* - On a macro-level, project aims to reduce transport sector's annual petroleum consumption by 2.8% (based on 20 million barrels per year consumption in 2010) or an equivalent of 89.2 million liters per year; and, - Avoided CO_2 emissions is estimated at 259,008 tons per year by shifting to 100,000 electric tricycles. *Impact Outcome:* The impact of the project will be sustainable energy use by the transport sector, and the outcome will be the transformation of the tricycle industry through large-scale adoption of locally made		As of 4Q 2013: 1) Monitoring and inspection of LGUs demonstrating EVs. • 20 E-Trike Pilot units in Mandaluyong City. 2) Review and validation activities on Tricycle Operations • Coordinated with the Development Academy of the Philippines (DAP) on the profiling of tricycle operations made on target LGUs. 3) Project Approval • Monetary board approval and DOJ opinion were secured paving the way to loan effectiveness on 13 Dec. 2013. • Tripartite MOA signed by DOE Sec. Petilla and LBP President, awaiting signature of DOF Secretary. 4) Procurement Activities • Evaluated the proposals for PIC. • Failed negotiation with the first-rank firm for the PIC on 09 Dec. 2013. • Bidding and evaluation of proposals on the Supply and Delivery of 3,000 E-Trikes (Package 1). ✓ Opening of Price Bids of the three (3)

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
		energy resources such as solar, hydropower or geothermal. <u>Project Cost:</u> US$ 504 million (Php 21.672 billion) *ADB Loan:* US$ 300 million (Php 12.9 billion) *CTF Loan:* US$ 100 million (Php 4.3 billion) *Gov't Counterpart:* US$ 99 million (Php 4.257 billion) *CTF Grant:* US$ 5 million (additional US$ 4 million out of the US$ 5 million CTF Grant shall be allocated for Solar Charging Facilities) (Php 215 million) <u>Duration:</u> Five (5) years <u>Schedule of Implementation</u> Yr. 1: 3,000 units Yr. 2: 17,000 units Yr. 3: 30,000 units Yr. 4: 30,000 units Yr. 5: 20,000 units	energy-efficient e-trikes. *Outputs:* The project has five outputs: 1) Complete e-trike units delivered to LGUs accompanied by a standard 5-year warranty and after sales services; 2) Lithium-ion battery supply chain with associated support services established; 3) Solar charging stations pilot on selected areas; 4) Material recovery from internal combustion engine (ICE) tricycles and used batteries; and, 5) Successful communication, social mobilization, and technology transfer. *Output 1: E-Trike units.* The project will deliver 100,000 complete E-Trike units to selected cities and areas to replace ICE tricycles. The supply contract will include a standard warranty on mechanical and technical performance of the E-Trikes and after-sales services. The risk performance period (5 years or 80,000 km whichever comes first) will be borne by the battery manufacturer. All E-Trikes will be clearly		technically qualified E-Trike Suppliers on 05 Dec. 2013. ✓ E-Trike Project Ad Hoc Committee (ETPAC) evaluated the Price Bid proposals. ✓ E-Trike Project Ad Hoc Committee (ETPAC) presented to the DOE-BAC on 19 Dec. 2013, the result of Price Bid Evaluation. ✓ Awaiting final recommendation from DOE-BAC for submission to ADB for the issuance of No Objection Letter (NOL). • Conducted 6 IECs / promotional activities and LGU consultations. 5) Financial Requirement / Arrangements • Conducted coordination meetings among DOE, DOF, LBP, BIR, and ADB on the formulation of appropriate financing scheme for the Project. 6) Conducted 24 consultation meetings with LTO, partner LGUs, concerned agencies, transport groups, and other stakeholders.

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
			marked with a "battery supplied by" (similar to "Intel Inside" in computers) label to make consumers aware of the brand and obligations of the suppliers under the project. *Output 2: Battery supply chain.* The project will initiate creation of a lithium-ion battery supply chain in the Philippines by creating an initial substantial market. The transformation objective is to attract reputable international suppliers that have supplied at least one large global vehicle brand. *Output 3: Solar charging stations.* The project will establish (1) on a pilot basis five off-grid solar charging stations – 200 kilowatts each – either as a cluster or stand-alone and (2) certain number of grid connected charging station. The solar charging stations will be sufficient to support the electricity needs of 1,000 E-Trikes. Some pilot solar charging stations will be in island locations that are easily accessible		

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
			and will adopt large number of E-Trikes under the project, for example, Puerto Princesa. In all areas, certain number of grid-connected charging stations will be included to reduce the "range anxiety" of drivers. Private sector will be encouraged to invest in solar charging stations and in some cases, where feasible, the aggravated demand of the drivers will be converted into an equivalent 5-year power purchase agreement to reduce off-take of potential private investors. In addition, existing electric utilities will be encouraged to establish charging stations as commercial operation. *Output 4: Material Recovery*. The Project will ensure that mechanism for the collection and disposal of existing tricycles to be replaced with the E-Trikes supplied under the Project in each participating city or municipality (a) follows the requirements under the CDM guidelines of United National Framework Convention on		

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
			Climate Change (UNFCCC); and (b) is acceptable to DOE, ADB and the respective LGU. Used batteries (lead-acid ones from ICE tricycles and lithium-ion ones from E-Trikes) will also be recovered. *Output 5. Communication, social mobilization, and technology transfer.* All stakeholders will be educated about the project – its benefits, technical parameters, costs, and market potential of E-Trikes. This includes specific training of the drivers on use and maintenance of E-Trikes and technical training to other stakeholders to develop local human resources to support local industry development.		

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
7. Mini-Hydropower Development Project in the Province of Ifugao	Japan International Cooperation Agency	The Provincial Government of Ifugao (PGI) has a pending application for the development of proposed Likud Hydropower Project. Since the LGU of Ifugao has no financial and technical capability to implement the project and as no concrete plans where to get fund for the implementation of said project, the assistance of JICA, through this project, would achieve the purpose of preserving the Rice Terraces, provide job opportunities, and help stabilize the power supply in the area. <u>Project Cost:</u> DOE: Php 1,329,000.00	The main objective is the construction and development of proposed Likud Hydropower Project to sustain Rice Terraces Conservation Fund and Prevent Removal of the Ifugao Rice Terraces from the List of the UNESCO World Heritage in danger. The specific objectives of the project are as follows: 1. To further develop the technical capability of HOEMD staff in the preparation and evaluation of comprehensive Feasibility Study as well as the vasic and detailed design of Civil Structures and Electro Mechanical	Project Activities: 1. Review the feasibility study, engineering design, plans, drawings, and preparation of bidding documents in cooperation with JICA; 2. Facilitate the issuance of necessary permits and contract relative to the development of project; 3. Conduct of monitoring activities during civil construction, installation and commissioning of Electro	Conducted preparatory activities for the groundbreaking ceremony in January 2014 and capacity building / training for DOE and LGU of Ifugao.

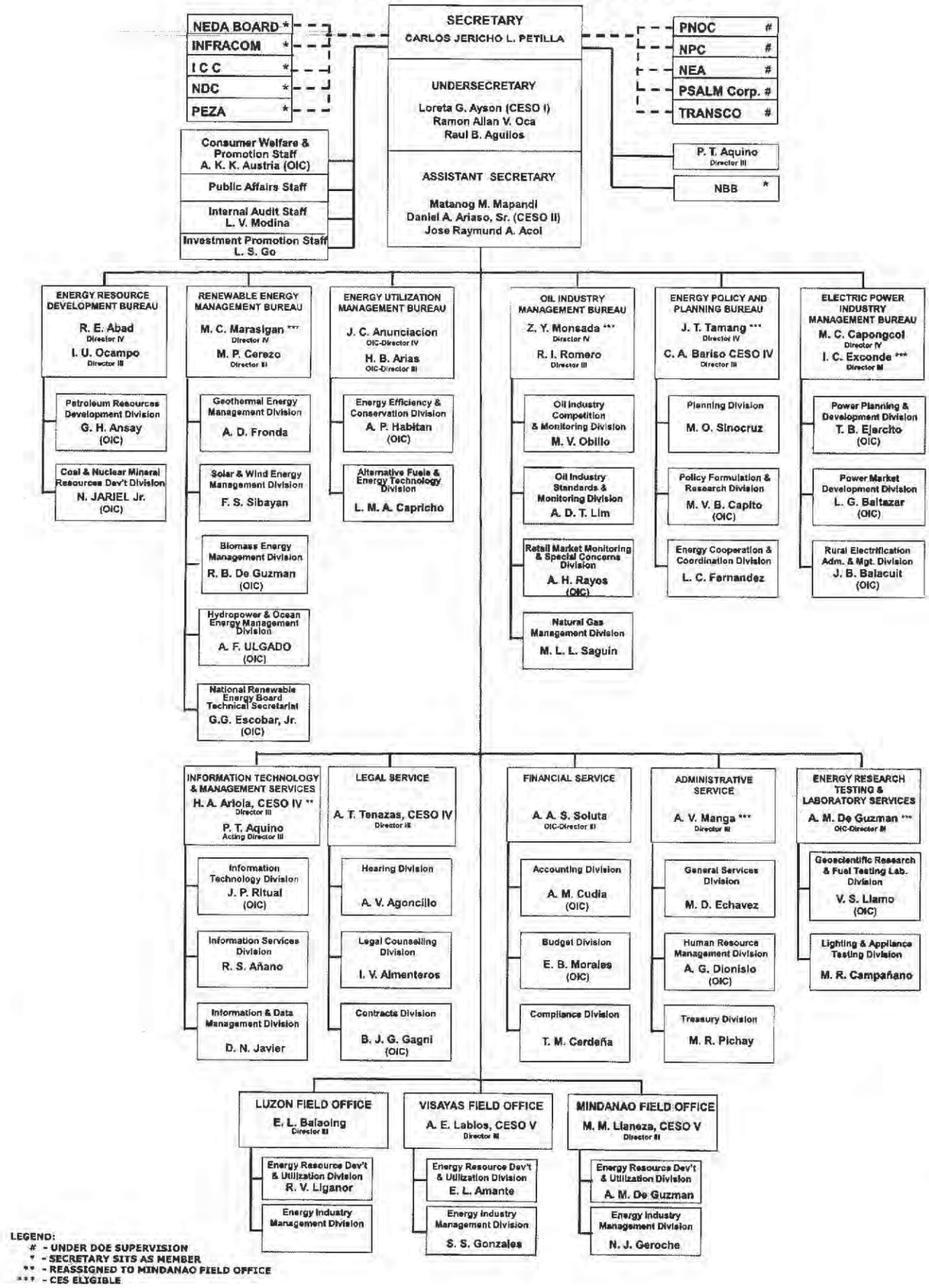
Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
		JICA: US$ 3,934,000.00 The DOE will provide necessary counterpart personnel for the project including the office space for the dispatched expert. JICA, on the other hand, will provide the following inputs: 1. Dispatch of expert to the Philippines 2. Training and study tour abroad 3. Project promotion meeting or seminar in the Philippines The project will be implemented from February 2013 to November 2015.	Equipment; 2. To develop technical skills in the supervision and monitoring of ongoing construction of hydropower projects in the country; 3. To accelerate and promote the development of hydropower resources in the province of Ifugao; and, 4. To encourage the Municipal LGU's and the private sector to actively participate in the development of hydropower resources in the province of Ifugao.	Mechanical Equipment; 4. Study tours and trainings for HOEMD personnel on hydropower technology; and, 5. Conduct an extensive IEC program for all stakeholders to achieve sustainability of hydropower projects.	

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
8. Mini-Hydropower Development Project in the Province of Isabela	Japan International Cooperation Agency	With the government's thrust of accelerating hydropower development, the potential of hydropower along existing irrigation systems throughout the country is being envisioned as a major source for small capacities. And in the light of the implementation of the National Irrigation Sector Rehabilitation and Improvement Project (NISRIP) by the National Irrigation Administration (NIA) covering the period 2012 to 2018, a parallel study to determine the hydropower potential of the 39 irrigation systems as well as the selection of the most feasible sites and the construction of a demonstration or pilot	Generally, the project aims to study the potential as to the technical feasibility and economic viability of hydropower projects along irrigation canals administered by the National Irrigation Administration (NIA) to support the hydropower development program of the DOE and help attain its "Renewable Energy Policy Framework" target. Specifically, the project aims to: 1. Preparation of a study to determine the feasibility of hydropower development in irrigation systems throughout the country;		Conducted preparatory activities for the groundbreaking ceremony in March 2014 and capacity building / training for DOE and LGU of Isabela.

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
		plant was deemed feasible and recommended. <u>Project Cost:</u> *Phase I* DOE: Php 198,000.00 JICA: US$ 25,000.00 *Phase II* DOE: PHP 814,000.00 JICA: US$ 464,000.00 *Phase III* DOE: Php 609,000.00 JICA: US$ 640,000.00 *Phase IV* DOE: Php 1,640,000.00 JICA: US$ 5,124,000.00 The project will be implemented from January 2013 to December 2017.	2. To strengthen the technical capability of the HOEMD staff in the conduct of hydropower resource assessment and the preparation of feasibility study that will also enhance their capability to evaluate hydropower projects technically, financially and economically; 3. To accelerate hydropower energy development in the Philippines to ensure energy security towards energy self-sufficiency; 4. To acquire technical capability in the supervision and monitoring of the implementation and construction of a hydropower plant; 5. To acquire or enhance skills in the Operation and Management of hydropower system installed along irrigation canal; and, 6. To promote hydropower development scheme along irrigation facilities. <u>Outputs:</u> 1. Pre-feasibility, feasibility and detailed studies of hydropower sites along irrigation systems nationwide 2. Database of potential and feasible hydropower		

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
			development sites along National Irrigation Systems of the country 3. One (1) Hydropower Demonstration Plant along a selected irrigation canal		

DEPARTMENT OF ENERGY



LEGEND:
- # - UNDER DOE SUPERVISION
- * - SECRETARY SITS AS MEMBER
- ** - REASSIGNED TO MINDANAO FIELD OFFICE
- *** - CES ELIGIBLE

FY 2013: Ongoing Locally-Funded Projects

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
1. Detailed Resource Assessment of Low Enthalpy Geothermal Areas	Geothermal Energy Management Division – Renewable Energy Management Bureau (GEMD-REMB)	The project will be implemented in four (4) years starting 2011. The project is related to the locally-funded project entitled *"Resource Assessment of Low Enthalpy Geothermal Resource in the Philippines"*, which started in 2007 until 2011 but was terminated in 2009 due to budget constraints. Project Cost: Total Project Cost: Php 63,046,000.00 FY 2012 Approved Budget: Php 20,288,000.00 (FY 2012 cum: Php 1,403,000.00) FY 2013 Approved Budget: Php 10,144,000.00 (FY 2013 (BP 202): Php 30,438,000.00) (FY 2014 (BP 202): Php 30,220,000.00)	The project aims to conduct a detailed assessment of three (3) potential low enthalpy geothermal areas identified in previous field appraisals particularly for power generation application in the remote areas hosting the resource. These resources may be developed for power generation, and yield other uses in the tourism and agricultural sector.	1) Identify the factors needed in the development of low enthalpy geothermal resources for power generation that will serve as the template for future similar projects; 2) By the end of the geological, geochemical and geophysical surveys, drilling targets and the drilling of slim holes should be done on the most promising geothermal area; and 3) Additional geoscientific data gathered on the Philippine low-enthalpy geothermal resources.	As of 4Q 2013 1. Completed CSMT report of Banton Island after CSMT survey on 25 October 2013. 2. Bid proposals for the contracted-out geoscientific survey of the 3rd area - Maricaban Island. 3. BAC resolution for the awarding of contract to FEDS Energy Resource and Development Service Inc. for the Maricaban Island Integrated Geoscientific Survey. 4. Notice of Award (NOA) and Notice to Proceed (NTP) to FEDS on 02 and 13 December 2013, respectively. 5. Completed CSMT report of Balut Island after CSMT survey on 18 December 2013. 6. Establishment of a Work Program after FEDS conducted an inception workshop on 23 December 2013. The tentative schedule for geoscentific survey will commence on 10 February 2014. To date, the implementer is currently drafting the Terms of Reference and the Contract for "Contracted-Out Slimhole Drilling Services" to be conducted in the most promising area among the three (3) candidate geothermal areas. Once finalized, it will be forwarded to BAC for pre-procurement process. (Included in the report are: Project implementation's status, 4Q 2013 Accomplishment Report, Project's Financial Status as of 31 December 2013, and CY 2014 Work Plan.)
2. Household Electrification Program (HEP) in Off-Grid Areas Using Renewable Energy	Solar and Wind Energy Management Division – Renewable Energy Management Bureau (SWEMD-REMB)	The project will be implemented in seven (7) years in line with the objective of achieving a 90 percent household electrification level by 2017. Project Cost: Total Project Cost: Php 1,006,675.00	The HEP serves as one of the strategies of the National Government to provide house lighting in off-grid sitios which cannot be viably connected to the conventional grid by the distribution utilities or electric cooperatives. With about 4 million	1) Institutionalize community organizing through enhanced capability of Barangay Power Associations (BAPA) in project management and operation and maintenance of RE systems; 2) Rehabilitate in-operational RE	As of 4Q 2013: 1) Installed 6,276 PV SHS out of the 6,460 HH target (16% more of the target of 5,400 households); 2) Completed the conduct of Rapid Rural Appraisal in 14,560 HHs; 3) Completed the procurement of RE systems and services for the 3,400 HHs (HEP 2012-2nd Batch) through the issuance of Notice of Award, Procurement Contract and Notice to Proceed; 4) Competed the conduct of five (5) LGU/EC technician's trainings in Baguio City, Davao City, Puerto Princesa City, Dumaguete City and

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
		FY 2012 Approved Budget: Php 116,041,000.00 (FY 2012 cum: Php 171,368,000) FY 2013 Approved Budget: Php 126,770,000.00 Proposed Budget: 2014: Php 139,440,000.00 2015: Php 153,388,000.00 2016: Php 168,727,000.00 2017: Php 185,600,000.00	potential house connections to be energized until year 2017, the HEP is expected to augment the rural electrification program target of realizing 90% house connection-level electrification by 2017. While promoting judicious utilization of RE technologies for rural electrification, house beneficiaries as well as beneficiary LGUs and ECs are likewise appropriately capacitated on the technical and social (management and organizational) aspects of solar PV and MHP systems.	installations; and, 3) Extend services to scattered households in far flung sitios.	Marinduque; 5) Completed the conduct of social preparation and community organizing in 186 sitio beneficiaries; 6) Conducted technical inspection and physical inventory of 3,140 HHs out of the 6,276 HHs.
3. Biofuels Program	Biomass Energy Management Division – Renewable Energy Management Bureau (BEMD-REMB)	This project aims to promote the use of biofuels (biodiesel ang bioethanol) as cleaner alternative fuel, develop the national biofuels development plan, to conduct techno-economic and viability study for expanded utilization of biodiesel (power generation, marine transport and industries) and to conduct vehicle performance testing for higher biofuel-blends and resource assessment of other viable biofuel feedstocks.	The project aims to implement the Biofuels Law, Biofuels Manufacturing Plants Inspection and Monitoring and to conduct Sectoral Meetings, Consultations and IEC Activities.		<u>As of 4Q 2013</u> 1) Implementation of the Biofuels Act of 2006 (RA 9367) • Monitored monthly production/ sales of accredited nine (9) biodiesel and four (4) bioethanol production plants • Issued Renewable Energy Certificate to one (1) bioethanol project – Roxol Bioenergy Corporation and Certificate of Accreditation to one (1) biodiesel project – Phoenix Petroleum Phil., Inc. • Conducted evaluation, site inspection/ validation, and sampling of CME product for compliance to the Philippine National Standards (PNS) of one (1) biodiesel project applications – Phoenix Petroleum Phils., Inc. • Monitored/ Inspected nine (9) bioethanol production plant and conducted sampling of CME product for compliance to the PNS and monitoring under JAO 2008-1, Series of 2008: ✓ Phil. Biochem Products, Inc. ✓ Pure Essence International, Inc.

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
		Project Cost: Total Project Cost: Php 176,612,000.00 FY 2012 Approved Budget: Php 16,824,000.00 (FY 2012 cum: Php 88,568,000.00) FY 2013: Php 35,892,000.00 FY 2014: Php 13,140,000.00 FY 2015: Php 19,506,000.00 FY 2016: Php 19,506,000.00			✓ Golden Asian Oil International, Inc. ✓ Chemrez Technologies, Inc. ✓ Bioenergy & Corporation ✓ JNJ Oleochemicals, Inc. ✓ Tantuco Enterprises, Inc. ✓ Freyvonne Milling Services ✓ Mt. Holly Coco Industrial Co., Ltd. • Monitored / inspected two (2) bioethanol production plant and conducted sampling of ethanol product for compliance to the PNS and monitoring under JAO 2008-1, Series of 2008; ✓ Roxol Bioenergy Corporation ✓ Green Future Innovations, Inc. (Note: Monitoring and sampling of ethanol product in Leyte Agri Corp. and San Carlos Bioenergy, Inc. was postponed due to Typhoon Yolanda) • Conducted capacity validation of one (1) accredited CME production plant with application for increase in capacity; ✓ Phil Biochem Products, Inc. • Conducted sampling of esterified used vegetable oil relative to the project entitled "Pilot Study on the Performance of Engines of Light Vehicles using 4% Esterified Used Vegetable Oil". • Project fund released to Cavite State University (CavSU) for the Biogas Projects; ✓ Biogas Technology Assessment in he Philippines ✓ Hands-on Training on the Construction of Biogas Digester in General Santos City 2) Biofuels manufacturing plants inspected, monitored and accredited or endorsed • Issued Renewable Energy Certificate to one (10) bioethanol project – Roxol Bioenergy Corporation; and Certificate of Accreditation to one (1) biodiesel project Phoenix Petroleum Phil., Inc. • Monitored / inspected nine (9) biodiesel production plant and conducted sampling of CME product for compliance to the PNS monitoring under JAO 2008-1, Series of 2008. • Monitored / inspected two (2) bioethanol production plants and conducted sampling of ethanol product for compliance to the PNS and monitoring under JAO 2008-1, Series of 2008.

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
					3) IEC initiatives • Participated in FAO's BEFs ASEAN & BEFs Rapid Appraisal Projects Introductory Meeting • Conducted the "6th Asia Biomass Energy Workshop" in cooperation with NEF-Japan. • Conducted the "Waste to Energy Workshop" in cooperation with EU-SWITCH. • Forged a MOA with PIA for the IEC campaign Advocacy Plan for National Biofuels Program for 2013-2014. (Included in the report are: 4Q 2013 Accomplishment Report and CY 2014 Work Plan.)
4. Alternative Fuels for Transportation and Other Purposes	Alternative Fuels and Energy Technology Division – Energy Utilization Management Bureau (AFETD-EUMB)	The project aims to reduce dependence on imported oil, to contribute to energy security through fuel diversification and to provide more environment-friendly alternatives to fossil fuels. <u>Project Cost:</u> Total Project Cost: Php 118,476,000.00 FY 2012 Approved Budget: Php 9,597,000.00 FY 2013 Approved Budget: Php 20,340,000.00 FY 2014: Php 20,440,000.00 FY 2015: Php 24,942,000.00 FY 2016: Php 24,942,000.00	The following items are the project's objectives: 1) Program implementation on the use of Compressed Natural Gas in the transport sector initially through the pilot project; 2) Promotion of the diversification of the country's fuel resources in the transport sector; development of standards; 3) Carrying out information, Education, and Communication (IEC) nationwide on the use of Liquefied Petroleum Gas in transport; and 4) Research study on the potential of hydrogen as energy source for the transport, industrial, and commercial	1) Natural Gas Vehicle Program for Public Transport (NGVPPT) (Duration: 2008-2018) - 200 commercially operating CNG bus units by April 2014 - Two (2) units of Modular CNG Stations to be located in Biñan, Laguna and Batangas City - Annual Average Reduction of CO_2 Emission: 26,872 Metric Tons 2) AutoLPG - Promoted adoption of LPG as alternative fuel for transport - Established a national data on the emission factor for transport sector using alternative fuels - Established a monitoring and evaluation protocol for the use of auto-LPG	<u>As of 4Q 2013:</u> NGVPPT: 1. Inspected one (1) CNG bus 2. Conducted one (1) site visit at H. M. Transport, Inc. 3. Issued one (1) renewal of Certificate of Accreditation. 4. Evaluated and validated 1 of the proposed Modular CNG refilling station 5. Conducted 12 IEC Activities on the promotion of Alternative Fuels Program. 6. Inspected / visited 1 site of accredited bus operator. 7. Submitted report of accredited participants. 8. Continued 5 coordination meetings with SC38, PSPC, and PNOC-EC on the allocation of GSPA and/or decommissioning of the Mamplasan CNG Daughter Station with concerned NGVPPT Stakeholders. Auto-LPG Program: 1. Conducted on-road and laboratory engine performance tests for three (3) units of AFVs under MOA with UP. 2. Concluded techno-economic viability study report by UP on Auto LPG and other AFVs. 3. Conducted training workshops on 06 Feb. and 23-24 Oct. 2013 on proper conversion for TWG members and project implementers including representatives from Visayas and Mindanao Field Offices. 4. Conducted one (1) leak spot check in NCR with auto LPG converted vehicles. 5. Coordinated with Field Offices on the conduct of

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
			sectors/hydrogen.	- Annual Average Reduction of CO_2 Emission: 223,390 Metric Tons 3) Electric Vehicles (see List of FAPs on the E-Trike Project) 4) Clean Development Mechanism (CDM)	IECs on Alternative Fuels. 6. Conducted 12 IEC Activities on the promotion of Alternative Fuels Program 7. Conducted three (3) Auto-LPG TWG meetings. Clean Development Mechanism (CDM) 1) Identified four (4) LGU linkages (Quezon City, Puerto Princesa, Mandaluyong City, and Davao) with ADB Consultants. 2) Attended two (2) forums on CDM.
5. National Energy Efficiency and Conservation Program	Energy Efficiency and Conservation Division – Energy Utilization Management Bureau (EECD-EUMB)	This program aims to make energy efficiency and conservation (EE&C) a way of life. Specifically, the program aims to cushion the impact of increases in prices of petroleum products and electricity through the implementation of energy efficiency and conservation measures, promote cost avoidance/savings on fuel and electricity without sacrificing productivity, get firm savings commitments from identified sector groups and help protect the environment. <u>Project Cost:</u> Total Project Cost: Php 179,361,000.00 FY 2012 Approved Budget: Php 12,302,000.00 (FY 2012 cum: Php 75,509,000.00) FY 2013: Php 28,852,000.00 FY 2014:	The project aims to further strengthen and promote energy efficiency and conservation in the commercial, industrial, residential, transport, agricultural, and power industry sectors.	Energy saving equivalent to 10% of the annual final energy demand consumption (2011 - 2030) ✓ Energy Savings = 69,100 KTOE (3,455 KTOE/yr) ✓ Deferred Capacity = 6,780 Mwe (339 Mwe/yr.) ✓ CO2 Reduction = 178,980 KTCO2 (8,949 KTCO2/yr)	<u>As of 4Q 2013:</u> 1) Information, Education and Communication (IEC) Campaign • *Seminar / In-house Briefing* Under the IEC campaign of the Bright Now! Program, EECD staff served as resource speakers/lecturers in 15 activities including forum, workshops, seminars, etc., that benefitted around 1,164 participants from the government, private, and transport sectors, households, academe, among others. • *Tri-media Campaign* A 30-seconder TVC on Phantom Load was produced by PIA to cater a wide scope of audience particularly the residential and transport sectors on the promotion of conservation and efficient utilization of energy resources. It was aired nationwide in three (3) TV Networks, namely: PTV 4 on 07 Dec. 2013, TV 5 on 09 Dec. 2013 and GMA 7 on 10 Dec. 2013, with a total of 73 spots in two (2) weeks airing period. Also, the Phantom Load print ad was published in a Special Supplement on 09 Dec. 2013 issues of PDI and Manila Bulletin on 16 Dec. 2013 issue of the Philippine Star, and on 13 & 14 Dec. 2013 issues of the Business World. • *Facilitators' Training on Energy Efficiency and Conservation – Usapang Climate Change* EECD in cooperation with the Development Academy of the Philippines (DAP) was able to complete two (2) sessions of the Facilitators'

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		Php 25,000,000.00 FY 2015: Php 25,000,000.00 FY 2016: Php 25,000,000.00			Training on Energy Efficiency and Conservation – Usapang Climate Change in Subic Bay, Freeport Zone, Olongapo and Tagaytay City. It was attended by 70 selected science teachers and coordinators in secondary public schools in Metro Manila. The training involves the presentation of the background of the project and includes the Philippine response, specifically of the energy sector, to the climate change concerns. The session also include an orientation and the walk-through of the DOE website wattMatters.org.ph 2) Recognition Award *Don Emilio Abello Energy Efficiency Award (DEAEEA)* The DOE handed out awards to 58 commercial and industrial establishments and 27 outstanding energy managers for their notable and significant contribution in the implementation of energy efficiency and conservation measures and best practices in reducing their energy consumption during the awarding ceremony of DEAEEA held at MERALCO Fitness Center in Pasig City on 06 Dec. 2013. The annual event was jointly organized by PNOC, NPC, MERALCO, Petron Corp., Chevron Phils., Inc., Pilipinas Shell Petroelum Corp., Energy Development Utilization Foundation Inc., Energy Efficiency Practitioners Association of the Phils., and the Philippine Energy Conservation Center, Inc. The companies accounted for the generated savings of 54,892,784 liters of oil equivalent (LOE) and monetary savings of Php 2,134,780,370 and 88,333,216 kilograms CO_2 avoidance. 3) Government Energy Management Program (GEMP) Seminars on Energy Efficiency and Conservation in Government Agencies were conducted in the cities of Cagayan de Oro, Tacloban, Baguio, and Pampanga with 210 energy conservation officers and administrative staff and followed by the conduct of energy spot check in 55 regional government offices

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					4) Energy Management and Energy Audit Services Jointly with the Sugar Regulatory Administration's project on Energy Efficiency/ Conservation and Commercial Cogeneration in the Sugar Milling Sector, the Energy Audit Team together with the FOE-VFO conducted energy audit in the following sugar mills located in Negros Occidental: • Victorias Milling Company, Inc. – 04 -13 Nov. 2013 • Universal Robina Corporation-Southern Negros Development Corporation (URC-SONEDCO) – 22-30 Nov. 2013 Likewise, two (2) walk-thru energy audits were conducted by EECD team at the BIR-Makati City Branch and PNOC Alternative Fuel Corporation at Mariveles, Bataan. 5) ESCO Accreditation Evaluated and processed the application of Design Science and Electro-Systems Industries, Inc. for ESCO Accreditation. This is in accordance with the D. C. No. 2008-09-0004 dated 24 Sep. 2008, requiring ESCOs engagement in any energy efficiency related performance contracting business to apply for a certificate of accreditation with the DOE. Meeting with ESCOPHIL Officers was held on 27 Nov. 2013 at DOE-AVR to discuss the revival of ESCOPHIL, an association established to promote and organize firms engaged in the energy service industry. 6) ASEAN-Japan Energy Efficiency Partnership (AJEEP) Conference on Energy Efficiency Technologies in the Philippines The DOE, in cooperation with the Japan Business Alliance for Smart Energy Worldwide (JASE-W), ASEAN Centre for Energy (ACE), and the Ministry of Economy, Trade and Industry (METI), Japan, hosted the Conference on Energy Efficient Technologies in the Philippines (Business Sourcing and Matching Opportunities) held on 30 Oct. 2013 at Dusit Thani Manila, Makati City. It was attended by 200 participants, including building experts from Japan, officials from different government agencies, and energy efficiency and conservation practitioners

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
					from the academe, private sector. In connection with the conference, site visits were also conducted in St. Luke's Hospital, QC, Greenbelt 3, 6750 Office Bldh. And Glorietta 3, together with ACE and JASE-W experts. 7) ASEAN+3 Nationally Appropriate Mitigation Action (NAMA) The DOE, together with ACE and Korean Energy Management Corporation (KEMCO) is currently implementing a project for energy intensive industries under the ASEAN+3 NAMA. The ASEAN+3 NAMA Cooperation Programme aims to strengthen the cooperation of member states, promote capacity building and information sharing and set up the basis for a common NAMA system in the ASEAN Region. The program intends to assist possible NAMA projects for selected ASEAN+3 member states with support from the Korean government. The DOE assisted Korean Team Expert in the conduct of energy audit in Steel Asia Manufacturing Corporation in Bulacan and Central Azucarera Don Pedo in Batangas, as preparatory requirement under the ASEAN+3 under NAMA. 8) EU Switch Asia Policy Support Programme In partnership with the European Union Switch Asia Policy Support Programme, a Stakeholders' meeting was organized and conducted by DOE on 10 Dec. 2013 at F1 Hotel Manila, Taguig City for the presentation of the draft Energy Efficiency and Conservation Roadmap prepared by EU-Switch Asia Consultant, Mr. Mark Lister. It was attended by 36 representatives from the government and private sector. The ongoing EU-funded Switch Asia Policy Support Programme in the Philippines aims to promote sustainable development, strengthen national and regional policy frameworks to shift towards more sustainable consumption and production patterns and resource efficiency in the Philippines.

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6. Oil Industry Deregulation Management Program	Oil Industry Management Bureau (OIMB)	This program is basically earmarked to ensure effective enforcement of Executive Order 377 providing for the smooth coordination among all government agencies concerned in the implementation of RA 8479. It will provide guidance and assistance to new industry participants, undertake activities that will contribute in strengthening consumer protection. It will continually educate and inform the public and key sectors of society on the benefits of deregulation in the oil industry and provide technical support to the programs and activities of the LPG and Liquid Fuels Task Forces. <u>Project Cost:</u> Total Project Cost: Php 142,921,000.00 FY 2012 Approved Budget: Php 9,908,000.00 (FY 2012 cum.: Php 83,324,000.00) FY 2013: Php 12,060,000.00 FY 2014: Php 13, 295,000.00 FY 2015: Php 17,121,000.00 FY 2016: Php 17,121,000.00	The main objective of the project is to successfully implement the Downstream Oil Industry Deregulation Law.	1) Verification of existence/operation of new players; 2) Conduct of site visits for prospective storage for stockpiling; 3) Distribution of calibrating buckets to selected LGUs to check accuracy of delivery of dispensing pumps in gasoline stations; 4) Coordination meetings for the implementation of the Gasoline Station Lending and Financial Assistance Program (GSLFAP); 5) Conduct of management and skills training for the establishment and operation of gasoline stations; 6) Granting of low interest loans through the Gasoline Station Lending and Financial Assistance Program (GSLFAP) to qualified applicants who wish to put up a gasoline station business; 7) Other coordination meetings/IEC to inform various stakeholders of the recent updates in the rules and regulations governing the downstream petroleum industry (DPI); 8) Strengthening and Advancing a Favorable	<u>As of 4Q 2013:</u> A. Monitoring and Enforcement • Conducted mini Focused inspection in Bukidnon and Cagayan de Oro City on 5-9 Nov. 2013. B. Communication advocacies • Conducted 19 Consumer Forums • Conducted 2 trainings on calibration C. Public/Private Sector Partnerships • Attended: 2 Senate Budget Hearings; 2 Congress DOI Hearing / Briefing; 3 Industry Stakeholders Meeting; 2 Meetings with DTI; 2 Meetings with PIP; 1 Meeting with BSP; 2 Meetings with NBB; and, 1 NPCC-TWG Meeting. D. Other Support Activities *IEC Academe:* • Conducted IEC in Ilocos Norte Agricultural College (INAC) and in Mariano Marcos State University in Ilocos Norte. *Development of Ad Materials/Publication:* • Participated in the drafting and finalization of the DTI, DA, DOH, DENR, DOE, Joint Administrative Order (JAO) No. 13-1, Series of 2013, Amendment to the DTI, DA, DOH, DENR, DOE JAO No. 1 Series of 1993 (JAO 1, s.2013) Otherwise known as the Implementing Rules and Regulations of R. A. No. 7581 (Price Act) Published on 19 Dec. 2013 at the PDI. *Conduct of other activities on Downstream Oil Industry (DOI) by the Field Offices:* • 1 Dialogue with OIMB. • 1 LPP/LPG Joint Inspection Gen San LGU. • 2 Price Monitoring Meetings in Bacolod and Leyte. • 1 Assessment in Southern Leyte. • 1 Auto LPG Training • 1 Octane / Sulfur Training Auto LPG. Dispensing Compliance Monitoring • 1 LPG Refilling Butane – Canister Meeting *OIMB Capacity Building:* • NEDA (Training on Pricing)

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
				Market Environment through the Efficient and Effective Implementation of an LPG Industry Program (Safe LPG); 9) LPG Steering Committee Meetings and other coordination meetings to enhance consumer welfare; 10) Focused Inspection (Integrated Approach); 11) Communication Plan for the DOI - 2nd Phase activities relative to the development and implementation of a ComPlan; 12) Conduct of Activities on Facilities and Petroleum Products' Standards Development and Formulation; 13) Ad Materials/Press Releases; and 14) Seminars and Conferences.	• Capacity Building on Regulatory and Technical Framework for Pipeline System, Alitagtag, Batangas (Included in the report is CY 2014 Work Plan.)
7. Detailed Wind Resource Assessment Project	Solar and Wind Energy Management Division – Renewable Energy Management Bureau (SWEMD-REMB)	The project is targeting 40 sites in 20 provinces to be accomplished within eight (8) years. The project will commence in 2013. The DOE is jumpstarting a detailed wind resource assessment activity in selected areas with potential resources and no existing wind	Generally, the project aims to identify viable sites for wind power development in the country. Specifically, it aims to: 1) Undertake and sustain the conduct of detailed wind resource assessment in potential sites of the country 2) Update the national wind database	The project will enhance the identification of viable sites that are ready for the development and implementation of commercial wind power projects that can be at both on-grid and off-grid or on-shore and off-shore areas thereby mitigating the adverse effect of global warming through the reduction of FHF emissions.	<u>As of 4Q 2013:</u> 1) Conducted micrositing of sites potential for wind resource assessment under ADB QLW TA in four (4) areas: • Abra de Ilog, Occidental Mindoro • Bulalacao, Oriental Mindoro • Nasugbu, Batangas • Sebaste – Culasi, Iloilo 2) Conducted inspection and decommissioning of met mast installation in Brgy. Tagbac, Lubang, Occidental Mindoro. 3) Consolidated data generated met mast installations.

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
		development initiatives. The activity aims to address the gaps of the country's wind database which would be utilized by project developers/ investors in conceptualizing, designing and evaluating wind energy projects. Project Cost: Total Project Cost: Php 39,182,000.00 FY 2013: Php 4,130,000.00 FY 2014: Php 5,255,000.00 FY 2015: Php 5,781,000.00 FY 2016: Php 6,359,000.00 FY 2017: Php 6,994,000.00	containing resource data that are necessary in planning, design and implementation of wind energy projects 3) Build local capability/ expertise on various activities of wind resource assessment as well as in the development of wind power projects 4) Offer to prospective wind developers the identified viable wind areas for commercial development and implementation pursuant to RA 9513	It will also create local capability that would eventually contribute to the reduction of the costs of developing wind power projects in the country.	4) Processed extension of MOA for the conduct of wind resource assessment in Pantabangan, Nueva Ecija. 5) Processed MOA between DOE and CSLU – AREC for the transfer and maintenance of met masts in the province of Nueva Ecija. 6) Updating of Philippine Wind Energy atlas under the ADB QLW TA.
8. Establishment of Technical Capability on Quality Testing of LPG Autogas as Alternative Fuel	Geoscientific Research and Testing Laboratory – Energy Research Testing and Laboratory Services (GRTL-ERTLS)	The project will be implemented for two (2) years, from 2013 to 2014. The project aims to address the pressing concerns on the Auto LPG fuel quality in the Philippines. The DOE laboratory has the technical capability and qualified analysts to analyze the physical and chemical	This project aims to enable DOE-Oil and Gas Section, GRTL to be equipped to carry out detailed physical and chemical analyses of the AutoLPG being supplied to the market to ensure adherence to the parameters set under the Bureau of Product Standards (BPS), DOE and Technical Committee on Petroleum Products	1) Acquired scientific equipment that will establish the technical capability and equip the DOE Oil and Gas Section to conduct fuel quality testing of AutoLPG 2) Methods/ parameters/ protocols scientifically tested and validated applicable for the implementation of PNS for AutoLPG 3) Manual of procedures	As of 4Q 2013: Seven (7) technical equipment delivered, installed and partially commissioned and installed centralized gas lines: 1. Reid Vapor Pressure 2. Copper Strip Corrosion Aparatus 3. Wickbold Combustion Apparatus 4. Relative Density Apparatus 5. Hydrogen Sulfide Set-Up 6. Volatility & Residue Testing Apparatus 7. Automatic Glass Still (Included in the report is CY 2014 Work Plan.)

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
		requirements of Auto LPG but the laboratory is not equipped with scientific equipment for the analysis. Procurement of analytical equipment shall be used to ensure product compliance to quality standards under PNS/DOE QS 005:2005. The establishment of this technical capability would be the first of its kind. <u>Project Cost:</u> Total Project Cost: Php 23,800,000.00 FY 2013: Php 23,570,000.00 FY 2014: Php 230,000.00	and Additives (TCPPA). In doing so, quality and safe AutoLPG will be available to the public. Specific Objectives: The project intends to meet the following objectives: 1) To procure/acquire scientific and analytical equipment that will fully equip the GRTL-DOE Oil and Gas Section in the analysis of detailed chemical and physical compositions of AutoLPG. 2) To validate the prescribed PNS international test methods set by BPS, DOE and TCPPA for the analysis of AutoLPG 3) To build database for Philippine AutoLPG quality parameters 4) To complement DOE's program on the use of AutoLPG as alternative fuel and to put in place the PNS set by the DOE, BPS and TCPPA	on optimum working parameters for the highly specialized AutoLPG tests using the prescribed equipment 4) Strict compliance to ensure quality and safe AutoLPG	
9. Health, Safety, Security and Environment (HSSE) Program for Natural Gas Facilities in the Philippines	Natural Gas Management Division – Oil Industry Management Bureau (NGMD-OIMB)	The project will be implemented for two and a half (2.5) years starting April 2013 and will end on September 2015. The anticipated	Main Objective: To fully develop standards and management programs on Health, Safety, Security, and Environment (HSSE) for the existing and	1) Hiring of qualified consultants contracted out to undertake the implementation and/or realization of the objectives of this project proposal 2) Inventory and	<u>As of 4Q 2013:</u> 1) Conducted kick-off meeting with identified government agencies to complement the proposed HSSE Inspection Team together with members from DOE TWG on HSSE on natural gas 2) Signed / Approved Special Order to serve as legal basis for the members of the DOE HSSE TWG

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
		increase in number of projects for natural gas calls for an urgency to establish an HSSE standard and program in support to the policy direction of the government. Gas industry networks and their associated technologies are fundamentally dependent on industry standards to ensure consistency and continuity among all the various elements. Standards are used to establish procedures and properties relevant to processes and requirements. The Health, Safety, Security, and Environmental standards to be established will provide assurance in safety, increase efficiency in operations, and strengthen the implementation of the regulatory function of DOE, through NGMD, on the construction, operation, and maintenance of existing and incoming gas facilities and ensured compliance of safety in the facilities and operations within the gas chain. <u>Project Cost:</u> Total Project Cost: Php 6,872,000.00	incoming natural gas facilities in the Philippines. Specific Objectives: 1) To develop local standards for the natural gas facilities (CNG station, LNG terminal/ hub, regasification facility, pipeline and other ancillary facilities) in the Philippines 2) To identify, assess, manage and minimize HSSE risks in natural gas facilities during construction, operation and maintenance 3) To come up with a HSSE manual covering but not limited to the detailed procedures, standards, audit items, risk assessment and management, corrective/ preventive actions that will enable proper implementation/ management of HSSE programs by operators of natural gas facilities 4) To have a Department Circular institutionalizing the technical standards provided in the HSSE manual that would become the basis for enforcement and	accounting of local and international HSSE best practices on natural gas facilities which can be locally adopted in the HSSE manual for compliance of operators of natural gas facilities 3) Established local standards for the natural gas facilities 4) Drafted the HSSE manual covering but not limited on procedures, audit items, risk assessment and management, corrective/ preventive actions, emergency response programs for stakeholders and government regulators and approval 5) Established and institutionalized HSSE Management Team that will oversee the continuous improvement of the natural gas facilities HSSE manual, plans and programs 6) Drafted the Department Circular for approval that will institutionalized the technical standards provided in the HSSE manual that would be the basis for enforcement and compliance among operators of natural gas facilities 7) Training needs assessment report	3) Finalized the Terms of Reference for consultant services and drafted the contract for consultants for review by the Legal Services. Submitted to BAC the request for consultant services. (Included in the report is CY 2014 Work Plan.)

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
		FY 2013: Php 160,000.00 FY 2014: Php 4,430,000.00 FY 2015: Php 2,282,000.00	compliance of operators/ owners of natural gas facilities 5) To conduct inventory of local and international HSSE best practices on natural gas facilities that will form part in the HSSE manual 6) To organize a team that enable continual improvement of the HSSE standards and system 7) To identify and design training programs that will effectively address the needs and implement a continuous capacity building for regulators	highlighting the identified skills needed to effectively implement the HSSE standards and regulation for the natural gas industry and matrix of designed training program for the regulators 8) Training reports of relevant trainings participated on HSSE standards and regulation 9) HSSE Implementation Plan and Program	
10. Capacity Building on Regulatory and Technical Framework for Pipeline Systems	Oil Industry Standards and Monitoring Division – Oil Industry Management Bureau (OISMD-OIMB)	The project will be implemented for one (1) year. Through the project, OISMD-OIMB personnel will participate in series of extensive courses and technical trainings, site visits and operations hands-on as introduction to technical and regulatory concepts, frameworks and actual field applications of established pipeline systems. Emphasis shall be given on ensuring public safety and efficiency in	Objectives: 1) To support the conduct of classroom-type lectures and trainings from experts coupled with field and on-site exposures/ visits and hands-on experiences on the design, operation and regulation of networked pipeline systems 2) To improve the existing capacity of the DOE-OIMB to address, implement and support the technical and regulatory aspect for	1) As a comprehensive capacity and capability upgrading program, it is expected that the OIMB staff shall: a) Undergo a series of academic/ technical trainings through classroom-type of lectures/ seminars b) Participate in field exposure and familiarizations exercises of pipeline systems c) Observe application of technical standards and codes of practice to existing pipeline systems, both in the Philippines and in	<u>As of 4Q 2013:</u> A Contract for Consultancy Services between DOE-OIMB and Merritt Advisory Partners, Inc. was signed on 04 October 2013. 1) Training Module / Classroom Lectures and Training The training was conducted on No. 2013 at Noni's Resort in Alitagtag, Batangas. The training was conducted by Handal Consulting and covered the following areas: • Introduction to Pipeline System • Strength Integrity for Sustained / Occasional Loads • Material Selection • Welding Aspect • Pipe Corrosion, Assessment and Protection • Risk Assessment Overview • Maintenance and Repair • Pipeline Case Studies

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
		pipeline service guided by acceptable technical standards and codes of practice. Project Cost: Total Project Cost: Php 5,000,000.00	pipeline monitoring and regulation 3) Draft policy instruments and regulations supportive of pipeline development in the Philippines 4) Identification of and compilation of relevant regulations and technical standards for pipeline design, construction, operation and maintenance and code of practice.	selected countries known for operating extensive pipeline systems for the transport of petroleum products d) Establish membership to professional organizations 2) Establish professional relationships or network with experts, both technical and legal, through direct meetings, orientations or participation in conferences and seminars related to pipeline systems and operations 3) Achieve improvement in the office equipment and capability supportive of the expanded role of the OIMB 4) Design a working draft Philippine pipeline regulations including pipeline system 5) Design an IEC program and implementation support mechanism including approaches to encourage private sector investment or public-private partnership to expand pipeline systems in the country As such, a core group of in-house pipeline experts will be formed from the OIMB aside from the generalists or support	Each participant was awarded a Training Certificate after the Training 2) Training Materials and Participants' Training Kits Each participant was provided with: • Training materials / presentation • T-shirt, ID and writing materials 3) Field Exposures • Makati City Hall A meeting with Engineers from Makati City Engineers Office, led by Engr. Annabelle Maniego, was held at the DOE Conference Room on 23 Oct. 2013. The meeting basically focused on the steps undertaken by Makati City Government to address the pipeline leak. During the meeting, it was learned that the Makati City Government does not have a copy of the pipeline layout which could be a concern since a lot of buildings and infrastructures are being built in the City. While the Local Government has created a Task Force West Tower, it was informed that the City Engineers would need to be technically equipped to be able to monitor pipeline operations. As a forward measure, the Makati City Engineers suggested that the PNOC be involved in the formulation of pipeline regulation given the company's experience and expertise in the pipeline operations. • UP National Institute of Geological Studies The DOE team visited the UP NIGS laboratory on 21 Oct. 2013. The DOE also met with Dr. Carlo Arcilla. The meeting with Dr. Arcilla basically focused on the circumstances that led to the discovery of the pipeline leak by UP NIGS. • Bonifacio Gas Corp. The DOE team met with Mr. Dennis Palomar, General Manager, Bonifacio Gas Corporation on 22 October 2013. After the briefing, the DOE were invited to visit the BGC gas tank facility in Fort Bonifacio and a BGC Client also in Bonifacio Global City.

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
				technical staff upon the completion of the project.	4) Foreign Case Studies / Technical Familiarization Visits to: Thai Petroleum Pipeline Co. Ltd. (Thappline), PTT Natural Gas Distribution Co. Ltd. (PTT NGDD), and Petroleum Institute of Thailand (PTT) in Thailand on 25-30 Nov. 2013. Meetings arranged for the DOE delegates, composed of Mr. Alvin David T. Lim, Ms. Eleanor Hainto, and Ms. Rona Macas include: • Courtesy Call / Meeting with Phili. Amb. Jocely Batoon-Garcia, 25 Nov. 2013 • Meeting with Thailand Ministry of Energy, 26 Nov. 2013. DOE delegates were welcomed by Deputy Permanent Secretary Dr. Kurujit • Meeting with Thappline on 27 Nov. 2013. Agenda includes meeting with the Managing Director and Philippine Operation Manager, Company Presentation on their pipeline integrity management system, and visit to Thappline's SCADA and LKK Terminal. • Meeting with PTT on 28 Nov. 2013, participated by PTT NGD Vice President Tanguy Moulin-Fournier. (Included in the report is CY 2014 Work Plan.)