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. <u>Project Cost:</u> 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.	<u>As of 3Q 2013:</u> The implementation of the Integrated Geoscientific Survey was already started by FEDS on August 2013 with the conduct of detailed geological and geochemical surveys over Banton and Balut Islands. The Surface Exploration studies were performed by their technical staff and with the assistance of our GEMD personnel. Right after its completion, it was followed immediately by the geophysical (CSMT) survey in Banton Island, Romblon on 11 September 2013. Moreover, FEDS also submitted their Pre-Survey Reports: a. Review of available and existing data of Banton and Balut Island; and, b. Remote sensing and aerial photo interpretation report on 26 September 2013 as prescribed in the TOR set forth by the division. To date, CSMT survey in Balut Island is on-going. The CSMT equipment was mobilized on 04 November 2013 while CSMT survey in Banton was completed on 25 October 2013. Further, the activities contained in the Work Program are still within the timetable and sufficient to finalize and to come up with an integrated resource assessment and geothermal resource model. On the other hand, bidding for the Contract-Out Service for Integrated Geoscientific Survey of the 3rd area (Maricaban Island) is now on-going and is scheduled for opening on 19 November 2013. This is the third time it was offered for bidding due to the lack of participating bidder and the disqualification of the lone bidder. (Included in the report are: 2013 3Q accomplishment, implementation status of detailed resource assessment of selected low-enthalpy geothermal areas, 3Q financial status report)

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
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. <u>Project Cost:</u> Total Project Cost: Php 1,006,675.00 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	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 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.	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 installations; and, 3) Extend services to scattered households in far flung sitios.	<u>As of 3Q 2013:</u> 1) Installed 4,142 PV SHS out of the 6,460 HH target 2) Completed the conduct of Rapid Rural Appraisal in 6,460 HHs 3) Completed the procurement of RE systems and services for the 6,460 HHs 4) Competed the conduct of LGU/EC technician's training 5) Completed the conduct of social preparation and community organizing 6) Conducted physical inspections of 831 HHs out of the 4,412 installed

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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. <u>Project Cost:</u> 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	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 3Q 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 - Awarded Certificate of Registration with Notice to Proceed to one (1) bioethanol project – Balayan Distillery, 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 – Econergy Corporation - Monitored/ Inspected two (2) biodiesel production plant and conducted sampling of CME product for compliance to the Philippine National Standards (PNS) and monitoring under JAO 2008-1, Series of 2008: Bioenergy 8 Corporation, Freyvonne Milling Services - Based on the results of capacity validation of nine (9) accredited CME production plants conducted in the 2Q of 2013, further processed registration/ accreditation of additional capacities of 70.3 million liters annually: Chemrez Technologies, Inc. (from 75 to 90 million liters), Pure Essence International, Inc. (from 60 to 72 million liters), Mt. Holly Coco Industrial Co., Ltd. (from 50 to 60 million liters), Tantuco Enterprises (from 30 to 60 million liters), JNJ Oleochemicals, Inc. (from 60 to 63.3 million liters) - Conducted sampling of esterified used vegetable oil relative to the project entitled “Pilot Study on the Perforance of Engines of Light Vehicles using 4% Esterified Used Vegetable Oil” - Launched the biofuel project with the University of the Philippines Visayas Foundation Inc. (UPVFI) entitled “Bioethanol Production from Macroalgae and Socio-ecological Implications” in September 2013 2) Biofuels manufacturing plants inspected, monitored and accredited or endorsed - Conducted inspection/ site visit of two (2) biodiesel and sampling of CME for compliance to the PNS and monitoring under JAO 2008-1, Series of 2008 3) IEC initiatives - Conducted initial consultations among major

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
					stakeholders (oil companies, CME producers, and car manufacturers) relative to the proposal to increase the biodiesel blend mandate from 2% to 5% (B2 to B5) - Launched the “B5 Testing on Public Utility Jeepneys” with the National Biofuel Board – member agencies and UP-National Center for Transportation Studies (UP-NCTS) - Conducted “Regional Public Consultation for the Proposed Increase in Biodiesel Blend, Draft National Biofuels Program 2013-2030, and Biofuels Information, Education, and Communication (IEC) Plan” in Luzon (Metro Manila), Visayas (Palo, Leyte), and Mindanao (Davao City) with the National Biofuel Board-member agencies and concerned stakeholders - Presentation of Biofuels Updates and NBB Plan in the SPW of DOLE held on September 2013

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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 sectors/hydrogen.	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 - 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)	<u>As of 3Q 2013:</u> *NGVPPT:* Deliverable #1: Facilitate the deployment of 200 CNG buses by 2013 1) Seven (7) accredited CNG bus operators 2) 61 CNG buses acquired by Accredited Bus Operators - 34 units with valid franchise, one unit is non-operational due to accident - 27 units awaiting issuance of franchise by LTFRB 3) Agreed in principle with LTFRB to facilitate the processing of drop and substitution applications for the replacement of 68 diesel buses with new CNG buses to complete the targeted 100 units 4) Secured commitment of accredited bus operators for drop and substitution of 68 diesel-fed buses with CNG-fed buses 5) On-going negotiation of PNOC-EC and bus operators for the CNG Gas Sale and Pricing Mechanism Deliverable #2: Facilitate the establishment of CNG refueling stations to provide fuel for the CNG buses 1) PNOC-EC has bidded-out the procurement of equipment and civil works for the 2 modular CNG stations 2) PSPC is in the final stage of notifying SC-38 Consortium on the transfer of GSPA to PNOC-EC 3) Target completion date of the 2 modular stations is by April 2014 Other related activities: 1) Monitoring of the operation of the CNG Daughter Station 2) On-going inter-agency coordination for the formulation of standards, policy and regulations: - CNG Cylinder Requalification – ongoing review of ISO 19078 for Adoption as Philippine National Standard on CNG Cylinder Requalification by DTI-BPS Technical Committee 6 - Exemption of HM Transport from the City Government of Manila ban of buses entering the City proper without garage within the City 3) Renewal of Certificate of Accreditation of: - Green Star Transport Inc. - BBL Transport Inc *Auto-LPG Program:* 1) 13,211 auto-LPG taxis and 218 dspensing stations

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
					nationwide 2) Completed the “On-road Performance Test for Alternative Fuel Vehicles (auto-LPG fed and electric – powered jeepneys)” in cooperation with UP-Vehicle Research and Testing Laboratory (VRTL) 3) Completed the process flowchart for the registration of LPG converted taxi 4) Procured 3 units of portable LPG point-leak detector equipment 5) Coordination with other government agencies on “Phase-out of old PUVs and Decongestion Program of Metro Manila,” etc. 6) Conducted Capacity Building of Auto-LPG TWG members and Bureau of Fire Protection Inspectors on October 24-25, 2013 at TESDA 7) Requested DTI-BPS (TC 44) for review of PNS 05:1983 of the Code of Practice for utilization of LPG in Vehicles 8) Conducted IEC on Alternative Fuels: Bauan, La Union and General Santos City

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
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: Php 25,000,000.00 FY 2015: Php 25,000,000.00 FY 2016: Php 25,000,000.00	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 3Q 2013:</u> 1) Information, Education and Communication (IEC) Campaign - Under the IEC campaign of the Bright Now! Program, EECD staff served as resource speakers/lecturers in fourteen (14) in-house seminars/briefings on power and fuel conservation with 1,270 attendees from the academe, households, commercial and industrial establishments and government office buildings. 2) Recognition Award - Don Emilio Abello Energy Efficiency Award (DEAEEA) A total of 936 energy consumption reports of 117 companies were evaluated to determine the recipients of the 2013 DEAEEA. The awards will be given to outstanding companies and energy managers who have undertaken or are responsible in implementing energy efficiency and conservation programs to achieve substantial savings in their energy consumption. 3) Implementation of the Government Energy Management Program (GEMP) With the implementation of Administrative Order Nos. 103, 110, 117 and 126, the government was able to achieve a savings of 233 GWH or Php 1.8 Billion in electricity and 7,524,783.94 liters of oil or P279 Million in transport fuel from September 2005 to May 2013 resulting from the reduction in annual consumption of electricity and gasoline by 10%. In support to this policy, national government agencies are required to regularly submit their consumption reports to the DOE. At the same time, certificates of verification on the energy efficiency and conservation measures adopted were issued in 25 complying government agencies with total energy savings of 4,464,343.24 kWh which is equivalent to Php28 Million for the year 2012. Seminar on Energy Efficiency and Conservation in Government Agencies was also conducted at Cebu Business Hotel, Cebu City on September 26, 2013 with 120 energy conservation officers and administrative staff and followed by the conduct of energy pot check in four (4) regional government

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
					offices, namely: Department of Science and Technology; Department of Budget and Management; National Economic and Development Authority and Cebu Normal University. 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 conducted energy audit in the following sugar mills: Lopez Sugar Central and Central Azucarera dela Carlota, Inc 5) ESCO Accreditation - Evaluated the application of Thermal Solutions, Inc. (TSI) for the renewal of ESCO Accreditation with DOE. TSI is a service-oriented company primarily engaged in industrial air-conditioning and refrigeration trading and services. 6) UP-National Engineering Center (NEC) Seminar on Fuel Conservation and Efficiency in Road Transport - The DOE in partnership with the University of the Philippines – National Engineering Center (UP-NEC) conducted the last series of the seminar on Fuel Efficiency and Conservation in Driving on July 19, 2013 at Sydney Hotel, General Santos City and Forum on Alternative Fuels and Vehicles Test and Energy Efficiency in Road Transport on August 16, 2013 at the Audio-Visual Room of the UP-National Engineering Center. The said activities were attended by 261 public utility drivers, government and private fleet drivers and operators and LGU drivers. The main objective of the seminar is to create awareness on the importance of fuel efficiency in the road transport sector with focus on the promotion of proper driving habits and vehicle maintenance. 7) EU-Switch - 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. Presentation of the draft EE&C Roadmap of the

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
					Philippines prepared by EU-Switch Asia Consultant, Mr. Mark Lister will be presented on November 15, 2013.

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
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 3Q 2013:</u> A. Monitoring and Enforcement - Conducted focused inspection in Zamboanga province on August 26-31, that includes Pagadian and Isabela cities and different municipalities of Zaboanga del Sur and Sibugay B. Communication advocacies - 04 July 2013 Activities that include the conduct of Multi-Sectoral Advocacy (MSA) Campaigns on Oil Industry. Pilot Testing on Retail Price Monitoring and administrative concerns - 31 July Re: Preparatory activities for the conduct of MSA, co-production with radio and television, review and assessment of communication advocacy, feedback mechanism and schedule of liquidation of funds - 08 August 2013 Re: Arrangements for the MSA - Conducted 8 MSA in the following areas: Zamboanga City, Cagayan de Oro City, Pampanga, Bulacan, Dumaguete, Cebu City, Calapan City, Batangas City - Conducted 8 briefings for LGUs on LPP and LPG laws, rules and regulatins and actual hands-on calibration of dispensing pumps in gas stations C. Public/Private Sector Partnerships Met with: - TCCPA (3); NBB (2); Additive (1); Industry (2); Engine manufacturers (1); ASTI meetings (2); TCPPF (2); Promulgated and adopted PNS for Transportation of Petroleum Products by Pipeline (27 Aug); Review update PNS/FS 003:2006 Auto-LPG D. Other Support Activities - IEC with the Academe: Conducted IEC in International Electronics and Technical Institute in San Pedro, Laguna on 25 September - OIMB Capacity Building: Attended consultative workshop on Verification, Inspection and Sealing of Fuel Dispensers (02 Aug) at ITDI-DOST

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.	

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
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 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. <u>Project Cost:</u> 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	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 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	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. It will also create local capability that would eventually contribute to the reduction of the costs of developing wind power projects in the country.	<u>As of 3Q 2013:</u> 1) Micrositing - Pampanga - Nueva Ecija 2) Conducted monitoring - Brgy. Tagbac, Lubang, Occidental Mindoro - Sitio Bliss, Brgy. Malasin, San Jose City, Nueva Ecija - Brgy. East Poblacion, Pantabangan, Nueva Ecija - Brgy. Fatima, Pantabangan, Nueva Ecija

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
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 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	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 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	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 on optimum working parameters for the highly specialized AutoLPG tests using the prescribed equipment 4) Strict compliance to ensure quality and safe AutoLPG	<u>As of 3Q 2013:</u> The implementer submitted the status of the project's procurement of equipment. Most of the equipment already have purchase orders are waiting delivery.

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
			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		

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
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 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	Main Objective: To fully develop standards and management programs on Health, Safety, Security, and Environment (HSSE) for the existing and 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	1) Hiring of qualified consultants contracted out to undertake the implementation and/or realization of the objectives of this project proposal 2) Inventory 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	*No submission (as of 27 November 2013)

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
		safety in the facilities and operations within the gas chain. <u>Project Cost:</u> Total Project Cost: Php 6,872,000.00 FY 2013: Php 160,000.00 FY 2014: Php 4,430,000.00 FY 2015: Php 2,282,000.00	4) To have a Department Circular institutionalizing the technical standards provided in the HSSE manual that would become the basis for enforcement and 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	manual that would be the basis for enforcement and compliance among operators of natural gas facilities 7) Training needs assessment report 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	

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
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 pipeline service guided by acceptable technical standards and codes of practice. <u>Project Cost:</u> Total Project Cost: Php 5,000,000.00	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 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.	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 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	<u>As of 3Q 2013:</u> A Notice of Award was issued by BAC (resolution No. 084) to Merritt Advisory Partners, Inc. in the amount of Php 2,974,664.00, approved by Sec. Petilla on 05 September 2013. A Contract for Consultancy Services between ODE-OIMB and Merritt Advisory Partners, Inc. was signed on 04 October 2013. 1) Field Exposures and Technical Briefings - Visit to UP NIGS (meeting with Dr. Carlo Arcilla) - Familiarization/ Orientation of the existing operation of Bonifacio Gas Corp. (LPG distribution, storage and pipeline network within Bonifacio Global City) - Discussion with Makati City Engineer's Office on the available resources of the local government mobilized and/or subsequently put in place in response to the Bangkal/ FPIC incident 2) Lecture Series - Training Seminar on "Piping and Pipeline Integrity Management System to Comply ASME B31" conducted by Handal Consulting & Training 3) Case Study - To meet representatives of the following institutions/ companies as part of the Case Study activity of the project (November 25-29, 2013): Thai Ministry of Energy, Thai Petroleum Pipeline Co., Ltd., Petroelum Institute of Thailand (PTIT), PTT Natural Gas Distribution Co., Ltd.

Project Title	Implementing Unit	Description	Objective/s	Outputs	Accomplishments
				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 technical staff upon the completion of the project.	

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	<u>As of 3Q 2013 (as submitted by EUMB):</u> Completed processing the demand payments of Fumaco, Inc., JORM Environmental Services, Inc., Cleanway Technologies and DY Infotech with the exception of Philips Electronics and Lighting, Inc. and Philippine Green Building Council relative to the completion of the PEEP in 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.	

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
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 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	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 3Q 2013:</u> 1) EC-Partial Credit Guarantee (PCG) Program - For this period, there are 17 existing booked EC accounts under the ECPCG Program with total loan amount of Php 2.212 billion and total loan releases amounting to Php 1.739 billion (implementer provided breakdown of the stated amounts). In addition to these accounts, there are 3 committed EC accounts in the Program namely PALECO, BOHECO II, and AKELCO, representing more loan amount of Php 532.90 million (implementer provided breakdown of said amount). 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. 2) Capacity Building and Implementation Support Program - For the quarter ending 31 September 2013, DOE engaged a consultant who will prepare the Borrower's Completion Report on ECSLRP. Moreover, DOE sponsored the Training on Small Area Load Forecast on 3-6 September 2013 at Dusit Thani Hotel in Makati City. Said training was attended by 30 participants from 14 ECs, DOE and NEA.

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
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 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$	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 Evaluation	<u>As of 3Q 2013:</u> - Jointly with the Department of Trade and Industry (DTI) and the United Nations for Industrial Development Organization (UNIDO), six (6) Industrial Users and Experts Training on Pumping Systems Optimization, Steam Systems Optimization and Compressed Air Systems Optimization were conducted in Cagayan de Oro City, Bulacan, Laguna and Pampanga with 231 participants from industrial associations, professional organizations, equipment vendors, energy service companies and energy consultants, universities and government agencies. The project aims to improve energy efficiency in the industrial sector through the provision of tools and capacity building on energy management system and energy system optimization. It introduced, among others, the application of ISO 50001 Energy Management Standard framework to selected industrial sectors such as chemicals, food & beverage, iron & steel, and pulp & paper.

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
		20,000,000.00; Department of Energy – US$ 4,000,000.00)			

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
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 will be implemented from October 1, 2009 to September 30, 2013. <u>Total Project Cost:</u> US$ 6,000,000.00	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 children in terms of higher achievement scores.	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 27 November 2013)

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
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 <u>Total Project Cost:</u> (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	<u>As of 3Q 2013:</u> 1) Identification of four (4) new sites - Lung Center of the Philippines - Rizal Park - National Power Corporation in Bulacan Area - SM Mall of Asia Parking Lot 2) Conducted site investigation in 4 sites

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
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 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)	*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 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		<u>As of 3Q 2013:</u> 1) Loan agreement between DOF and ADB was signed on 27 September 2013 2) Tripartite MOA among DOE-DOF-LBP is being finalized 3) Project marketing and briefing with LGUs 4) Project Implementation Consultant (PIC) procurement - Technical evaluation completed - Financial proposal evaluated on 18 September 2013 5) Procurement of E-Trikes (Package 1:3,000 units) - Opening of Technical Proposals submitted by the four (4) bidders on 22 August 2013

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
		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	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 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		

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
			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 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		

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
			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 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,		

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
			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 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 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 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	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 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.	<u>As of 3Q 2013:</u> The project implementer attended the tender opening and contract signing in Japan.

Project Title	Fund Source	Description	Objective/s	Components	Accomplishments
		The project will be implemented from February 2013 to November 2015.	in the province of Ifugao.		

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 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*	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; 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;		<u>As of 3Q 2013:</u> The project implementer attended the tender opening and contract signing in Japan.

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