Philippines: Mitigation of Climate Change through Increased Energy Efficiency and the Use of Clean Energy

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<thead>
<tr>
<th>Project Name</th>
<th>Mitigation of Climate Change through Increased Energy Efficiency and the Use of Clean Energy</th>
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<tr>
<td>Project Number</td>
<td>43207-012</td>
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<tr>
<td>Country</td>
<td>Philippines</td>
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<tr>
<td>Project Status</td>
<td>Closed</td>
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<tr>
<td>Project Type / Modality of Assistance</td>
<td>Technical Assistance</td>
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<tr>
<td>Source of Funding / Amount</td>
<td>TA 7754-PHI: Mitigation of Climate Change through Increased Energy Efficiency and the Use of Clean Energy</td>
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<tr>
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<td>Japan Special Fund $700,000.00</td>
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<td>Technical Assistance Special Fund $225,000.00</td>
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| Strategic Agendas          | Environmentally sustainable growth |
| Drivers of Change          | Inclusive economic growth           |
| Sector / Subsector         | Governance and capacity development |
| Gender Equity and Mainstreaming | Some gender elements               |

**Description**

This will cover activities under the broad umbrella of energy efficiency and clean energy, where large investment are needed to support government's plan. The project's concept paper was approved last year and ADB recruit a range of individual consultants to prepare the proposed components. The proposed components for study are:

1. **energy efficiency:** distribution (as hire purchase) of energy efficient appliances (TV, air-conditioners, fridges and fans). These component may also finance scaling up the public-lighting and efficient buildings components of the Philippine Energy Efficient project. However, in September 2012, after extensive consultations with the national government, ADB's proposal for Energy Efficiency was dropped. The proposal for the Philippine Energy Efficient project was dropped, and a solar rooftop project, with a revised scope, was agreed and included in the updated Country Investment Plan for the Philippines.

2. **market for electric vehicle:** distributing (lease or hire purchase) about 20,000 electric tricycles replacing 2 stroke and 4 stroke tricycles that are common in metro-Manila (200,000 units) and across the country (3,500,000 units). Tricycles produce about 10 million tons of CO2 in the Philippines. The ensuing loan, Market Transformation through Introduction of Energy-Efficient Electric Vehicles Project (the e-trike project) was approved on 11 December 2012. The balance of the TA fund is being used to assist the EA in: (i) promoting and marketing the e-Trikes to the local government units; (ii) launching industry meetings on the technical aspects of the project; (iii) strengthening capacity of DOE staff on procurement and implementation; (iv) preparing a report and outline of an Operations Manual highlighting procedural flows, timelines, documentation and other requirements, procurement, financial, and logistical plans; (v) providing technical support in the establishment and pilot operation of the charging infrastructure including the installation of solar charging stations; and (vi) providing technical and administrative support to secure UNFCCC registration.

3. **quality engines.** CO2 Emission from the motorcycles and tricycles alone accounts for more than 10 million tons per year. By 2030, coal power plants will contribute more than 90% of the total CO2 emissions. Emissions from the transport sector represents 30% of all pollution, and a large part is contributed by the inefficient old form of public transport tricycles (3.5 million) and Jeepneys (250,000) with poor quality engines. CO2 Emission from the motorcycles and tricycles alone accounts for more than 10 million tons per year.

An alternative scenario with net increase of emission by only about 15% to 30% by 2030 is possible with about 10% to 15% increase in energy efficiency across all sectors and increased use of renewable energy. Energy efficiency, the key component of this alternative scenario, is also an essential tool for lessening the impact of possible increase in electricity prices, caused by the universal charge that may be imposed on all customers to finance the proposed incentives for renewable energy. The Government is committed to energy efficiency, and has developed the energy efficiency roadmap during the 2008 Philippine Energy Summit through extensive consultation with all stakeholders. Although relatively speaking, because of the high electricity price, clean energy projects are financially more attractive in the Philippines, unfortunately, without broad market transformation new technology, policy, institutions, investors, incentives, consumer awareness and wider consumer acceptance the alternative scenario cannot be achieved.

This will study a range of options for energy efficiency and clean energy efficient electric vehicles.

**Impact**

The loan project will reduce power sector's CO2 emissions through (i) efficient use of energy, and (ii) identification of the best technology for solar power (either stand alone or hybrid) and by development of a working model for net metering and feed in tariff allowed by the new Renewable Energy Law.
Description of Outcome

The investment project will contribute the Government’s ongoing initiatives to: (a) improve energy security, (b) increase access to power (c) reduce consumers energy cost through energy efficiency, (d) lower peak demand, and (e) increase society’s awareness of energy efficiency and solar generation.

Progress Toward Outcome

Implementation Progress

Description of Project Outputs

The expected outputs are sector studies, design of pilot projects with complete technical, financial and economic analysis and implementation arrangements for scale up.

Status of Implementation Progress (Outputs, Activities, and Issues)

Geographical Location

Summary of Environmental and Social Aspects

Environmental Aspects

Involuntary Resettlement

Indigenous Peoples

Stakeholder Communication, Participation, and Consultation

During Project Design

ADB has organized various workshops and consultation meetings involving local industry players and interested overseas investors.

During Project Implementation

Project team have undertaken various stakeholders consultations and organized industry meetings and workshops.

Business Opportunities

Consulting Services

Several consultants have been engaged to support the preparation of the e-Trike Project and to assist the executing agency, Department of Energy, during the early start-up of project activities while waiting for the project implementation consultants to be engaged. These consultants were also assisting the EA in (i) promoting and marketing the e-Trikes to the local government units; (ii) launching industry meetings on the technical aspects of the project; and (iii) strengthening capacity of DOE staff on procurement and implementation.

Responsible ADB Officer

Hasnie, Sohail

Responsible ADB Department

Southeast Asia Department

Responsible ADB Division

Energy Division, SERD

Executing Agencies

Department of Energy
PNPC Complex
Merritt Road, Fort Bonifacio
Makati, Metro Manila

Timetable

Concept Clearance
Fact Finding
MRM
Approval
16 Dec 2010
16 Dec 2010

Last Review Mission
21 Dec 2009

PDS Creation Date
26 Sep 2014

Last PDS Update


TA 7754-PHI

Milestones

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<th>Signing Date</th>
<th>Effectivity Date</th>
<th>Closing</th>
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Financing Plan/TA Utilization

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Cumulative Disbursements

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Project Page

https://www.adb.org/projects/43207-012/main

Request for Information

http://www.adb.org/forms/request-information-form?subject=43207-012

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