#### INTEGRATED SAFEGUARDS DATASHEET APPRAISAL STAGE

#### I. Basic Information

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Report No.: AC3935

#### 1. Basic Project Data **Country:** Philippines Project ID: P113159 Project Name: Additional Financing for Rural Power Task Team Leader: Arturo S. Rivera Estimated Appraisal Date: October 16, Estimated Board Date: December 16, 2008 2008 Managing Unit: EASTE Lending Instrument: Adaptable Program Loan Sector: Renewable energy (50%); Power (50%) Theme: Infrastructure services for private sector development (P);Rural services and infrastructure (P);Environmental policies and institutions (P) IBRD Amount (US\$m.): 40.00 IDA Amount (US\$m.): 0.00 GEF Amount (US\$m.): 0.00 PCF Amount (US\$m.): 0.00Other financing amounts by source: Borrower 0.00 Financing Gap 0.00 0.00 Environmental Category: F - Financial Intermediary Assessment Simplified Processing Simple [] Repeater [] Is this project processed under OP 8.50 (Emergency Recovery) Yes [] No [] or OP 8.00 (Rapid Response to Crises and Emergencies)

### 2. Project Objectives

The objective of the proposed APL is to assist the country in making available affordable and reliable electricity services to meet the needs of rural communities in a sustainable manner. However, electrification must be viewed as an important component-but by no means the only one-of overall rural development efforts. With financing from the Bank and other donors, the government is presently carrying out projects to provide other infrastructure (notably roads and water supply), social facilities and other rural development support. The APL for the rural power project would complement a range of these ongoing and planned efforts for rural development in the country.

### **3. Project Description**

The project components, which would be demand-driven, would include the following:

- (a) rural electrification subprojects;
- (b) partial credit guarantee fund; and
- (c) capacity building.

#### I. Rural Electrification Subprojects

(a) Decentralized Electrification: This will include small scale energy generation and distribution of basic electricity services to households, public centers (e.g. schools, health clinics) and productive applications. For purposes of testing different business models, these customers would be classified into two broad categories: concentrated and dispersed. The least-cost electrification solution for the concentrated users is normally a minigrid (or microgrid depending on the number of connections) powered by a centralized generation system, usually diesel, hydro and/or biomass power. For the dispersed users who are remote from the grid, the least-cost solution is normally individual photovoltaic (PV) systems, notably solar home systems (SHS). The first phase APL is intended to support systematic piloting of market-based electrification services at a sufficient scale and visibility, and generate needed interest and support by the private sector and municipalities.

#### Small scale energy generation and minigrids

The strategy for this subcomponent is to group the target barangays into "market packages" of sufficient critical mass for business operations. Depending on the characteristics of each package, one or more minigrids may be installed. For example, several barangays could be linked into one minigrid powered by a single hydro resource or the barangays could each have their own microgrids powered by small diesels.

In any case, the business model is for a single entity to be contracted to provide longterm services to all customers in the entire package. Consistent with the provisions of the EPIRA, qualified third parties would be allowed to provide energy services in the unserved franchise areas of the incumbent ECs. These parties could be private rural energy service companies (RESCO), qualified NGOs or local cooperatives organized for this specific purpose. An important objective of APLI is to pilot these various types of service mechanisms and adopt the most successful ones for the subsequent phases. To the extent possible, the priority packages for project support are those that are commercially viable in themselves and require only non-financial incentives. It is recognized, however, that many of the offgrid communities have very low-income consumers, and that some form of "smart" subsidies may need to be provided by the government to enable the subprojects to be implemented. The preinvestment studies for two of the market packages have recently been completed. A transaction task force will be established at

DOE and, with the assistance of transaction advisors, prepare bidding documents and model contract, along with marketing activities, including consultations with potential investors, investment promotion/road shows.

#### Stand-alone Renewable Energy Systems

For dispersed users that are not feasible to connect to the grids, this subcomponent will make available funds for direct purchase various capacities of PV systems through private vendors and NGOs. The solar PV subcomponents would include individual solar home systems, community or commercial sector applications including battery charging stations, schools, health clinics and other social institutions, community water supply, offices, shops, restaurants and other commercial facilities. Recognizing the generally low

incomes of dispersed users and the still high capital costs of PV systems, the project will provide, through GEF and government funds, subsidies to lower the cost to consumers, and financing to spread out the payments. The suppliers would offer small PV system options (e.g. 20-60 Wp) sufficient to provide basic services to households. Competing vendors would be enticed to do business through incentives that include assistance in market development and capacity building, product promotions and other risk-reducing activities funded by the GEF grants. These grants would be supplemented with government subsidies to bring PV system prices close to the willingness-to-pay levels of consumers.

Further, to remove the barrier of credit access, this subcomponent would provide a line of credits to financial intermediaries (such as rural banks and micro-finance institutions) to enable them to provide consumer loans for the PV systems and financing of incremental working for dealers. In addition, as elaborated below, GEF funding would support the provision of training in PV financing operations and partial credit risk guarantees for the suppliers and users of PV systems.

(b) EC Grid Subcomponents: this subcomponent of the project will include support for the transformation of participating ECs through financially viable investments and other measures aimed at:

(i) Improving power supply system safety, reliability, efficiency and power quality for existing customers, through rehabilitation and capacity upgrades of the existing supply system and, in pursuance of EPIRA, acquisition of existing subtransmission assets from the National Transmission Corporation (Transco);

(ii) Removing supply system constraints and thus allowing additional customers to be supplied within financially viable grid service areas;

(iii) Encouraging institutional development of ECs, through implementation and adoption of efficient and effective staff organization structures, adoption of progressive, objective and transparent policies for staff hiring and promotions, performance based compensation packages to improve productivity and accountability of staff and management; and

(iv) Providing the necessary hardwvare, software, motor vehicles, tools and equipment to improve employee productivity, safety and efficiency of customer service provision.

#### II. Partial Credit Guarantee Fund

One of the key barriers for renewable energy development is the lack of medium and longer term commercial debt financing, which is in turn attributable to the stringent collateral requirements of the commercial banks. This has already been recognized in the UNDP-GEF project for Capacity Building to Remove Barriers to Renewable Energy Development (CBRED) in the Philippines, which includes a Loan Guarantee Fund, but does not cover solar PV. Under this project, a GEF-financed partial credit risk guarantee fund would be established to provide grant funds to financiers of renewable energy technology (RET), notably solar PV, to partially cover loan losses incurred in the provision of loans to RET purchasers and suppliers. As it is more efficient and effective for the two funds to be consolidated under one execution agency and one Project Management Office (PMO) at DOE, UNDP would be the implementation agency for the GEF trust fund for this component.

#### **III.** Capacity Building

(a) Reduction of market barriers to the commercialization of renewable energy technologies

This component would mainly be financed by GEF to cover the reduction of market barriers to the commercialization of RETs suitable for offgrid electrification through a comprehensive range of activities to build capacity on RET matters in the various energy agencies (DOE, SPUG, NEA, ERC), the financial intermediaries (DBP and other commercial banks, rural banks, microfinance institutions, etc) and private participants (solar PV companies, ECs, NGOs, etc); reduce investment risks by more detailed characterization of market packages; and develop and operationalize policies on subsidies, tariffs, regulation and integration of RETs into the missionary electrification program. Taking into account the lessons learned from similar projects in other countries, the technical assistance component to reduce market barriers to the commercialization of RETs would be front-loaded during the first phase of APL.

(b) Non-renewable energy subproject appraisal/supervision

This component would be financed under the Bank loan to strengthen the capacity of DBP to appraise and supervise non-renewable energy subprojects, notably those for EC transformation.

## **4.** Project Location and salient physical characteristics relevant to the safeguard analysis

The project is spread all over the country, with most sub-projects located in Mindanao. While the road systems to be upgraded are mainly national roads, these are existing ones needing major rehabilitation and reconstruction work. Thus it is expected that there will be little disturbance on the natural ecosystems traversed by these roads.

#### 5. Environmental and Social Safeguards Specialists

Ms Maya Gabriela Q. Villaluz (EASRE) Ms Victoria Florian S. Lazaro (EASSO)

6. Safeguard Policies Triggered	Yes	No
Environmental Assessment (OP/BP 4.01)	Х	
Natural Habitats (OP/BP 4.04)		Х
Forests (OP/BP 4.36)		Х
Pest Management (OP 4.09)		Х
Physical Cultural Resources (OP/BP 4.11)		Х
Indigenous Peoples (OP/BP 4.10)		Х
Involuntary Resettlement (OP/BP 4.12)		Х
Safety of Dams (OP/BP 4.37)		Х
Projects on International Waterways (OP/BP 7.50)		Х
Projects in Disputed Areas (OP/BP 7.60)		Х

#### **II. Key Safeguard Policy Issues and Their Management**

#### A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts: DBP has made significant progress in advocating private-public partnerships on rural electrification with emphasis on the use of new and renewable energy sources. The proposed additional financing operation will provide scale-up financing under DBP's pipeline including new and renewable energy projects as well as distribution and subtransmission at ECs. There are no changes in the PDOs since the additional financing would finance similar sub-projects as the ongoing ones under APL1.

The environmental assessment process was undertaken in accordance with the Environmental and Social Safeguards Policy Framework adopted in APL1. The same Safeguards management framework defines a set of guidelines for undertaking environmental assessment has been applied to all RPP projects regardless of funding source. For RPP, the same safeguards framework need not be revised as it has mainstreamed during project preparation and implementation a set of due diligence guidelines in complying with the safeguards requirements of the Bank. This framework addresses the EA requirements set by the government (Presidential Decree (PD) 1151, Presidential proclamation 2146, DAO 03-30). This is complementary to World Bank OP 4.01 and includes environmental screening and scoping, impact assessment, development of an environmental management plan, monitoring and public disclosure and consultation.

The assessment process will produce Initial Environmental Examination (IEE) reports and EMPs for the additional sub-projects. For the second batch of sub-projects, the IEEs will be prepared during implementation. The impacts are expected to be similar to those for the earlier RPP-APL1 projects which include impacts associated with construction (waste management, traffic and accidents, erosion, removal of trees, air and noise pollution, localized flooding) and operation (dust, odor and noise, waste from generator and employees, flooding of area near site, fire and safety, and management of cut materials). 2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

The project is specifically designed to support environmentally and socially sustainable renewable energy projects which will not generate any significant long term or indirect environment impacts. As practiced in RPP-APL1, all additional projects will follow methods and processes defined in the Social and Environment Safeguards Policy Framework which includes preventing long term environmental impacts to occur.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

The project was designed with environmental enhancement in mind and thus the project alternatives which include choosing the best design or alignment that will not create significant environmental effects.

Environmental Assessments. For programmatic initiatives such as RPP- APL1, subprojects need to be screened to identify environmental impacts. As part of its enhanced social and environmental management system, to be integrated in full EAs are risk assessments for sub-projects located in environmentally critical areas.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described. The project impacts anticipated are manageable and not environmentally significant. These are shown below along with their attendant mitigation measures.

Construction phase

Impact: Minimal erosion from site preparation and spoil management.

Mitigation Measures: Dry season construction activities, spoil management plan. Impact: Demolition and construction wastes

Mitigation Measures: Proper recycling and disposal of debris as they are generated. Impact: Safety of workers and pedestrians.

Mitigation Measures: Protective equipment, fencing of areas, safety nets to prevent falling debris.

Impact: Traffic congestion.

Mitigation Measures: Hauling of debris in non-rush hour. Assign workers to direct traffic.

Impact: Dust from construction site activities.

Mitigation Measures: Regular watering in affected areas.

Impact: Noise

Mitigation Measures: Use of new and well-maintained earthmoving equipment.

Impact: Waste management from construction workers.

Mitigation Measures: Sanitation facilities and proper waste collection and disposal. Impact: Local flooding

Mitigation Measures: Provision of adequate drainage system.

Operation of Upgraded Roads

Impact: Ponding of storm water

Mitigation Measure: Adequate drainage system.

Impact: Air emissions from vehicles

Mitigation Measure: Smooth flow of vehicles to prevent traffic congestion. Lining of vegetation along the road right of way.

Impact: Noise pollution.

Mitigation Measure: Establishment of buffer zones and road barriers.

Impact: Solid waste from facility.

Mitigation Measure: Treatment of wastewater in facility and proper waste collection and disposal.

Impact: Flooding impacting area and building.

Mitigation Measure: Drainage system and good building design.

Impact: Health and safety for residents and visitors.

Mitigation Measure: Design of building and safety equipment.

Collection and transport of construction materials and debris

Impact: Quarrying

Mitigation Measure: Quarrying will be conducted in stable areas and relevant permits will be secured for its operation.

Impact: Transport of materials and maintenance of equipment.

Mitigation Measure: Regular maintenance and management of equipment, cement plant and cleaning of vehicles.

Impact: Traffic and congestion.

Mitigation Measure: Assign workers to direct traffic, traffic plan and ensuring sufficient parking area for operational vehicles at construction sites.

The mitigating measures for construction and other impacts as well as the monitoring costs (odor, noise, workers health, site safety and hygiene) will be included in the project cost and in the construction contracts.

Implementation arrangements: The sub-borrowers would be primarily responsible for compliance with the environmental and social safeguard policies by preparing the EAs and other safeguards documents and securing proper implementation of the ECC and EMP. Implementation of the environmental management plan during construction will be undertaken by the construction contractors as an obligation under their contracts to be supervised by the sub-borrowers.

Institutional Responsibilities: The DBP shall be responsible for ensuring the completeness and accuracy of all the RPP-APL1 environmental and social reports to be submitted to the Bank and that the EMP is properly incorporated into the construction contracts. The DENR, through its environmental unit will perform an oversight function to ensure that environmental covenants in the Loan Agreement are complied with.

EA approval: The IEEs and EMPs for the first year of the additional financing have been approved by DENR.

Monitoring, auditing and reporting: Monitoring, auditing and reporting procedures related to the EA implementation, covering both biophysical and socio-economic parameters, are described in the EMP.

Capacity to implement safeguards: DBP has extensive experience in the preparation and implementation of similar World Bank projects. Through the implementation of RPP-APL1, DBP has developed effective working procedures and extensive experience with Bank procedures for preparing and implementing similar investment activities.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people. The proposed project has strong support from the residents and government authorities at the national and local levels with strong commitment. Several public consultations were done during the EA work, including the residents. The following approaches were taken for public consultation (a) consultation meetings with local residents, communities, local government representatives, and (b) questionnaire analysis of public opinion supplemented by interviews.

The environmental documents were publicly disclosed on October 2, 2008 at the Knowledge Development Center of the World Bank Manila Office and on October 2, 2008 at the InfoShop in Washington. Project related information and the EA documentations were also disclosed in the project area during public consultation processes and to the general public from June 25 to October 2, 2008.

#### **B.** Disclosure Requirements Date

Environmental Assessment/Audit/Management Plan/O	)ther:
Was the document disclosed prior to appraisal?	Yes
Date of receipt by the Bank	06/25/2008
Date of "in-country" disclosure	10/02/2008
Date of submission to InfoShop	10/02/2008
For category A projects, date of distributing the Executiv	ve
Summary of the EA to the Executive Directors	
<b>Resettlement Action Plan/Framework/Policy Process:</b>	
Was the document disclosed prior to appraisal?	
Date of receipt by the Bank	
Date of "in-country" disclosure	
Date of submission to InfoShop	
Indigenous Peoples Plan/Planning Framework:	
Was the document disclosed prior to appraisal?	
Date of receipt by the Bank	
Date of "in-country" disclosure	
Date of submission to InfoShop	
Pest Management Plan:	

Was the document disclosed **prior to appraisal?** 

Date of receipt by the Bank Date of "in-country" disclosure Date of submission to InfoShop

\* If the project triggers the Pest Management and/or Physical Cultural Resources, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.

If in-country disclosure of any of the above documents is not expected, please explain why:

# C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment	
Does the project require a stand-alone EA (including EMP) report? Y	es
If yes, then did the Regional Environment Unit or Sector Manager (SM) Y	es
review and approve the EA report?	
Are the cost and the accountabilities for the EMP incorporated in the Y	es
credit/loan?	
The World Bank Policy on Disclosure of Information	
Have relevant safeguard policies documents been sent to the World Bank's Y	es
Infoshop?	
Have relevant documents been disclosed in-country in a public place in a Y	es
form and language that are understandable and accessible to project-affected	
groups and local NGOs?	
All Safeguard Policies	
Have satisfactory calendar, budget and clear institutional responsibilities Y	es
been prepared for the implementation of measures related to safeguard	
policies?	
Have costs related to safeguard policy measures been included in the project Y	es
cost?	
Does the Monitoring and Evaluation system of the project include the Y	es
monitoring of safeguard impacts and measures related to safeguard policies?	
Have satisfactory implementation arrangements been agreed with the Y	es
borrower and the same been adequately reflected in the project legal	
documents?	

### D. Approvals

Signed and submitted by:	Name	Date
Task Team Leader:	Mr Arturo S. Rivera	10/02/2008
Environmental Specialist:	Ms Maya Gabriela Q. Villaluz	10/02/2008
Social Development Specialist Additional Environmental and/or Social Development Specialist(s):	Ms Victoria Florian S. Lazaro	10/02/2008
Approved by:		
Regional Safeguards Coordinator: Comments:	Mr Jose Vicente Zevallos	10/24/2008
Sector Manager: Comments:	Mr Aurelio Menendez	10/24/2008