

**PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE**

Report No.: PIDC243

Project Name	Philippines Renewable Energy Development (P118994)
Region	EAST ASIA AND PACIFIC
Country	Philippines
Sector(s)	Other Renewable Energy (60%), Energy efficiency in power sector (40%)
Lending Instrument	Financial Intermediary Loan
Project ID	P118994
Borrower(s)	Development Bank of the Philippines
Implementing Agency	LGU Guarantee Corporation, Department of Energy
Environmental Category	F-Financial Intermediary Assessment
Date PID Prepared	15-Mar-2012
Estimated Date of Appraisal Completion	05-Nov-2012
Estimated Date of Board Approval	28-Mar-2013
Concept Review Decision	Track II - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

The Philippines is an archipelago country of 7,107 islands in Southeast Asia with a population of 96-million and a per capita gross national income (atlas method) of US \$2,170 in 2011. After economic growth of 7.6% in 2010, growth slowed to 4.2% in the first three quarters of 2011, falling short of Government targets and lagging the performance of many of the country's neighbors. The slowdown underscores that, while there is strong potential for development, the economy remains less resilient than regional peers – with relatively greater dependence on a few key export sectors (especially semi-conductors) and inadequate and uneven public investment. And despite impressive economic growth overall since 2001, poverty over that period has actually increased, from 24.9% in 2003 to 26.5% in 2009 (the latest available figure). The near-term outlook for economic performance is uncertain; there are some positives – strong macroeconomic fundamentals, steady and growing remittances (10% of GDP), and a booming business process outsourcing (BPO) sector; and some challenges – inadequate public investment, high public sector debt, insufficient tax collection, and persistent poverty (because economic growth has not been inclusive). In this context, Government efforts to ensure adequate public and private investment in infrastructure is critical, and the power sector must be a key area of focus.

Sectoral and Institutional Context

The Philippines has experienced more than two decades of significant change in the electricity sector. As a consequence of major supply crises in the sector in the 1980s and 1990s, the Philippines passed the Electric Power Industry Restructuring Act (EPIRA) in 2001; this law has fundamentally transformed the electricity sector from one with significant public sector ownership and operation of key components (generation, transmission) and with little competition, to one that is almost completely privately owned and operated and with significant and growing competition. EPIRA created the E Regulatory Commission (ERC) to regulate retail electricity tariffs, transmission and distribution services and tariffs and to monitor market competition, established the Wholesale Electricity Spot Market (WESM, which currently is in commercial operation in Luzon and the Visayas), and transferred National Power Corporation (NPC – previously, the main national power utility) state assets and liabilities to the Power Sector Assets and Liabilities Management (PSALM) Corporation. PSALM has executed a major program of generation asset sales, appointment of private IPP Administrators (IPPAs) to manage efficiently and compete in the market the energy generated by independent power producers that signed power purchase agreements (PPAs) with NPC prior to the start of the power sector reform program, and the concession for the country's high-voltage transmission network.

The country does not have an integrated, national electricity transmission network. There are three major regional grids (Luzon, Visayas, and Mindanao), and many smaller islands with isolated grids. Where there are connections between and among islands, these are often with limited exchange / transmission capacity, and even the integrated transmission network is subject to conditions of significant constraints (including the DC link between the Luzon and Visayas networks). In this geographical context, 139 electricity distribution companies operate. 20 of these utilities are privately owned, are primarily urban distributors, and include the largest distribution companies in the country – Meralco (serving Manila), Davao Light & Power (Davao City), and Visayas Electricity Company (VECO, in Cebu City). 119 electric cooperatives provide the bulk of electricity services in smaller cities and in rural areas. Despite challenging geography, these service providers are reaching most of the country. The Government considers the country to be fully electrified at the barangay (village or district) level, but there are many sitios (enclaves) that do not meet the Government definition of “electrified” (which can include electrification of some public facilities by photovoltaic (solar) installations). And household electrification is a work-in-progress – the penetration rate of 83% means that over 3-million households remain unconnected.

Based on the assessment of the Department of Energy (DOE) power generation dependable capacity is 14,500 MW as of 2011. Gross generation was 67,743 GWh – of which about 27% was from renewable sources, and another 29% from domestically produced natural gas. Annual per capita consumption is about 600 kWh (low by the standards of middle income countries) and prices are high by regional standards – only Japan, among the larger countries of East Asia, has average tariffs higher than that of 15.5 cents/kWh of the Philippines (average for all distribution companies, data from ERC 2010). High electricity tariffs in the Philippines bear some explanation. First, it is important to recognize that one of the impacts of EPIRA has been to eliminate almost all subsidies (and cross-subsidies) that had prevailed previously. Generators (and therefore, ultimate consumers) face market prices for coal, natural gas, and oil. This accounts for some of the differences in electricity prices when compared with, say, Indonesia (where tariffs are set below cost and the Government makes a multi-billion dollar, annual transfer to keep PLN whole). Having said that, the sector continues to pay for some of the mistakes of the past. Because of economic booms and busts, the country is only now working off a significant surplus of generation in the Luzon market. Certain contractual rigidities (including those related to the 2,700 megawatts of gas-fired capacity in Luzon) also increase average generation costs. The country has an admirable mix of generation, with hydro, geothermal, and natural gas-fired plants being critical parts of the overall portfolio, but this capacity was not cheap to build, as generation capital costs even for conventional power plants are at the high end of the range for East Asia. Transmission and distribution costs are also not low, given the challenging geography of the archipelago.

Generation investment in the electricity sector since the mid-1990s has been private sector-led and has not been insignificant. Thousands of megawatts of capacity have been purchased from the state by private firms including Aboitiz, FirstGen, San Miguel, and AES. Thousands more megawatts have been built, or are under construction, by those firms and others like GN Power, Kepco, Steag, and a collection of local firms. Outside of Mindanao, electricity supply is adequate, and even improving (particularly in the Visayas grid); but there are medium-term concerns about supply adequacy in the key Luzon market. In hydro-dependent Mindanao, there are growing energy shortages and the island's electricity customers risk being plunged into the dark in the event of a drought unless new generation is built to increase reserve levels.

In this setting, Government strategy is to push through the remaining elements of market reform and generation privatization, electrify 90% of households by 2017, manage electricity costs and the related price risk to consumers, accelerate reform and restructuring of the electric cooperatives, and ensure that a diversified mix of new generation is developed that reflects, in part, the Philippines' bountiful endowment of renewable energy resources. Two challenges may be especially highlighted. First, despite significant potential for renewables, over 75% of all credible generation projects under construction or development are coal-fired, and will rely on imported coal. Second, moving new power plants from development to actual construction will be underpinned by creditworthy buyers for that power – and of the country's 119 electric cooperatives, less than half would meet a reasonable creditworthiness test at this time. Any strategy to meet electricity demand, improve the quality of power supply, and expand access in a sustainable manner will need to address the twin challenges of lessening the country's dependence on coal-fired power plants for incremental generation needs, and improving EC finances (with loss reduction and energy efficiency measures at the heart of financial strengthening efforts).

In this context, in December 2009, the CTF Trust Fund Committee approved the Philippines CTF Investment Plan, with an allocation of \$250-million. The World Bank Group is the implementing partner for the other \$125-million. \$50-million is intended for support of bus rapid transit projects in Cebu and Manila. The remaining \$75-million is grouped together in a separate annex covering renewable energy and energy efficiency, with IBRD and IFC identified as the implementing partners. The IBRD/IFC-supported activities covered by Annex 1 of the Philippines CTF investment plan envision support to renewable energy generation and energy efficiency investments. IFC is the implementing partner for \$30-million in CTF that will support renewable energy generation and demand-side energy efficiency. The latter involves a risk-sharing facility in which CTF will take first loss and commercial banks and IFC will share second loss risks.

For activities where IBRD is the implementing partner, \$45-million in CTF is intended to support renewable energy development, and supply-side energy efficiency, at the level of the rural electric cooperatives (EC's). These are the areas currently supported by the Rural Power Project, with Development Bank of the Philippines (DBP) as the implementing agency. Electric cooperatives are additionally currently supported through the Electric Cooperative System Loss Reduction Project (ECSLRP), a GEF-financed project that is built around the Electric Cooperative Partial Credit Guarantee (EC-PCG) program.

Since the plan was approved, the country's government has changed, and the schedule for much of the country's public investment spending was disrupted amidst a long transition period. There is now a renewed focus on investment in general and, within the energy sector, a priority on leveraging climate investment funds like the CTF to spur sustainable development of the sector.

Relationship to CAS

This project would contribute to meeting CAS Strategic Objective 2, "Improved Investment Climate," by helping to increase and improve energy services delivery, bolster sector institutions, and support investment.

II. Proposed Development Objective(s)

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The higher order objective of the proposed project is to assist the Philippines in meeting the demand for electricity and to increase access to electricity in a sustainable manner. The Project Development Objective is to increase renewable energy generation in all

parts of the Philippines, including in off-grid areas, and to bolster private sector lending to electric cooperatives that are focused on operational and financial efficiency. It is expected that thereby ECs will be able to provide service to more customers and with better quality, while at the same time becoming more creditworthy and therefore better able to develop and/or purchase bulk renewable energy.

Key Results

Achievement of the development objective will be assessed by 1) the projected energy, in kilowatt-hours, to be generated by the renewable energy capacity that is financed by the project; 2) energy loss reduction achieved as a result of investment in EC's, in kilowatt-hours; and 3) the number of electric cooperatives that achieve creditworthiness as a result of engagement in the project (as measured by the new credit risk rating system).

III. Preliminary Description

Concept Description

The proposed project is a follow-up to both the Rural Power Project (RPP) and the Electric Cooperative System Loss Reduction Project (ECSLRP). It seeks to build on the more promising aspects of RPP – namely, the on-lending window within DBP for investment support to renewable energy and EC energy efficiency projects; and ECSLRP – namely, the Electric Cooperative Partial Credit Guarantee (EC-PCG) program. Approval of feed-in tariffs (FITs), and other aspects of the support framework for renewable energy stemming from the Renewable Energy Act 2008, is expected to jumpstart private sector investment in renewable energy. DBP's on-lending window will be oriented toward ensuring that marginal projects that qualify for FITs, and good projects that do not because they are in off-grid areas, can still have the possibility of being financed. By adding to the number and geographic scope of renewable energy generation projects in the Philippines, the project will accelerate the development of the renewables sector. In the new project, targeting of the DBP activities will be sharpened, to ensure no crowding out of private sector funds. Loan pricing, including DBP mark-ups, will be reviewed to ensure that credit markets are not distorted and that the internal costs of operating the window are fairly compensated. CTF resources will be integrated in such a fashion that the CTF is used where it will have the greatest impact (including, but not exclusively, in terms of the leveraging of other funds).

The proposed project will also expand the capacity of the program to back lending to the EC sector. The EC-PCG program, after a slow start, has now emerged as the preferred mechanism of commercial banks to gain exposure to the EC sector. The program currently provides partial credit guarantees backing up to 80% of the principal and 3 months interest of loans to qualified EC's. Across the portfolio and the pipeline, there are now about 50 EC's in the program. 17 loans have been closed or are about to be closed. There will be a number of critical points of evolution, however. Enhancing the current program, which was capitalized by a GEF grant, will be done with either IBRD, CTF, or a combination of both. This will have implications for the cost of the program, and opens up possibilities for tweaking the technical approach. Another important change concerns DBP. Currently, DBP also has IBRD-provided financing that is available to EC's. An important change will be that origination of DBP lending to EC's will be done through the EC-PCG program (at present, regional branches of DBP originate loans to EC's). This will ensure integration of both the on-lending and guarantee schemes, and eliminate the potential for competition between LGUGC and DBP. Additionally, EC-PCG pricing will be reviewed to ensure that by the end of the project, the program can continue to run without continued external support to program running costs.

The proposed project will have two components. The preliminary cost estimate is about 450-million of which \$150-million is to be provided by IBRD and up to \$45-million by CTF. The balance is expected to come from private sector investors (debt and equity) and from counterpart agencies (DBP and LGUGC).

Component 1: Financing of an increase in the guarantee capacity of the EC PCG program. IBRD and/or CTF resources will be used in some form to increase the capacity of the EC PCG program to back commercial lending to the EC sector. These additional resources will complement technical changes that have been (and will be) made in the current program to stretch the \$12-million in resources that are now available to back loans (at a 1:5 leveraging ratio, the current program has potential exposure of \$60-million; additional debt and equity that is uncovered amounts to at least \$40-million). All of the technical parameters of the program will be reviewed with the objective of ensuring maximum leverage – a key consideration, given that the demand for borrowing by EC's is at least \$250-million annually, and this number will increase with governance and financial performance improvements in the EC sector. The program manager will be LGUGC. Possibilities for expanding the facility using IBRD or CTF or both will be considered. Loans supported by the project will support EC investments in loss reduction and performance improvement, and will help EC's to expand their systems, thus contributing to the country's electrification effort.

Component 2: Financing of a Line of Credit, to be managed by Development Bank of the Philippines, for support to renewable energy and energy efficiency investments. This component will be managed by DBP. The instrument will be a financial intermediary loan (FIL). It is expected that this component will manage the majority of both the IBRD and CTF funds, with the focus being on supporting economically sound renewable energy projects that 1) do not qualify for feed-in tariffs, because they are not connected to the main grid; or 2) do qualify for feed-in tariffs, but will not be financially viable without the inclusion of a CTF tranche and/or require loan tenor that is unavailable from private commercial lenders. Projects that can be financed from private sources under the approved FITs will not be eligible for CTF support. Allocation of \$110-million IBRD and \$40-million CTF is being considered for renewable energy, and an additional \$30-million in IBRD that will co-finance loan packages supported by the EC-PCG program managed by LGUGC. Investments will be supported in renewable energy projects (potentially, solar, wind, small hydro, and geothermal) and in electric cooperative loss reduction and performance improvement projects.

Components 1 and 2 will support financing mechanisms that will be designed to respond to market-generated demands for debt or guarantees. Project development will be largely (but not exclusively) driven by the private sector. In the case of renewable energy, existing mechanisms managed by the DOE facilitate identification and assessment of potential projects. The DOE has issued hundreds of "service contracts" which give developers limited development rights for renewable projects in specific areas. The finalization of FITs (expected in 2012) will add a critical piece to the equation and will simplify the project development process, by making two issues – the price, and the offtaker/counterparty risk – much more clear. For the EC-PCG program, existing mechanisms are proving effective in building a large pipeline of EC borrowing requests. An inter-agency mechanism, involving individual EC's, NEA, ERC, DOE, and LGUGC, has emerged to develop 5-year distribution network investment plans, and in parallel shepherd these plans through the EC Board, NEA, and ERC approval processes, and the EC-PCG financing process. At this time the EC-PCG program has about 30 EC's in its development pipeline (in addition to the 17 deals that have been done or are imminent) and the aggregate demand for guarantees exceeds the remaining capacity of the program by a significant degree.

IV. Safeguard Policies that might apply

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

V. Tentative financing

Financing Source	Amount
Borrower	220.00
International Bank for Reconstruction and Development	140.00
IBRD Guarantee	40.00
Clean Technology Fund	50.00
Total	450.00

VI. Contact point

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