

FINANCING MINI-GRIDS IN THE PHILIPPINES

LGU GUARANTEE CORPORATION

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CHALLENGES IN THE ENERGY SECTOR

- 1.2 Billion people globally have no access to electric grid^{1/}
- In the Philippines, the level of electrification stood at 89.6% as of July 31, 2016 leaving 2.36 Million households without electricity and many other areas with a limited service of only 4 to 6 hours per day^{2/}
- As of December 2016, the household electrification level in the country has reached 90.5% but providing service to the last 9.35% will be expensive and challenging^{3/}
- Therefore, adoption of mini-grids is an option to ensure full household electrification in the country.

^{1/}Bloomberg Ne w Energy Finance and Lighting Global, an Innovation of the World Bank Group in cooperation with Global Off-Grid Lighting Association. (2016). *Off-Grid Solar Market Trends Report for 2016*.

^{2/}IRENA.(2017). *Accelerating renewable mini-grid deployment: A study on the Philippines*, International Renewable Energy Agency, Abu Dhabi.

^{3/}Department of Energy

FINANCING BARRIERS

- Perceived risks and low rate of return on Renewable Energy (RE) projects
- Low capacity to pay of consumers
- Remoteness of consumers' location
- Logistical complexities

FINANCIAL INSTRUMENTS

INSTRUMENT	USES	PROS	CONS
Grants	Reduce project cost and provide long-term finance	<p>Relatively simple to implement</p> <p>Does not require on-going administration</p>	<p>Low levels of leverage as grants directly replace possible private financing</p> <p>No return on capital that could be used to finance further projects</p>
Equity	Funds pre-investment cost as risk capital	<p>Can pay for itself</p> <p>Potential gains to be realized are a strong incentive for project viability</p>	<p>High returns are required to compensate for risk</p> <p>Low levels of leverage as equity directly replace possible private financing</p>

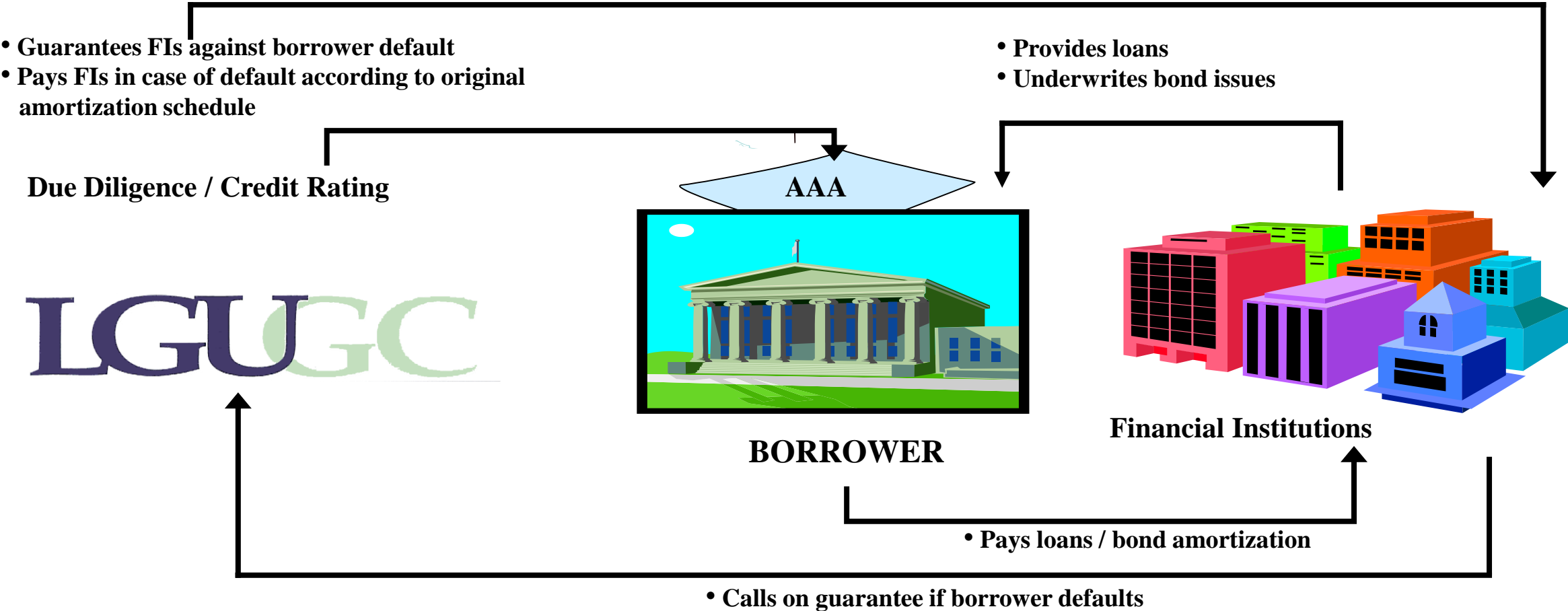
FINANCIAL INSTRUMENTS

INSTRUMENT	USES	PROS	CONS
Debt	<p>Reduces project costs</p> <p>Provides long-term finance</p>	<p>Obligation to repay creates incentives for project viability</p> <p>Repayment of principal frees funds for further support to RE projects</p>	<p>Need for due diligence to verify ability of project to repay loan increases transaction costs</p> <p>Leverage is limited and may crowd out potential providers of debt</p>
Asset-backed securities	<p>Project financing through bond offerings rather than loans</p>	<p>Longer tenor and possible lower cost</p> <p>Potential to bundle projects together in a single security can reduce risks and financing costs</p>	<p>Sophisticated markets are required to be able to analyze and price the risk associated with this type of security</p>

FINANCIAL INSTRUMENTS

INSTRUMENT	USES	PROS	CONS
<p>Small-scale project financing: Microfinancing</p>	<p>Provides customers with credit to purchase RET hardware (typically Solar Home Systems (SHS))</p>	<p>Allow RET developers to receive payment on installation of systems, reducing need for up-front financing</p>	<p>Microfinance institutions may be unwilling to lend for purchases of RET hardware as loan terms are longer than typical loans and dependent on household incomes for repayment</p> <p>High transaction costs</p>
<p>Guarantees</p>	<p>Guarantee a part of the losses incurred by a project in the event of a specified event occurring</p>	<p>A high degree of leverage can be achieved as a relatively small commitment of funds can mobilize significant quantities of private investment</p>	<p>Appropriate accounting for and approval of the resulting contingent liabilities is required, which may be complicated by difficulties in assessing the associated risks</p>

THE LGUGC GUARANTEE TEMPLATE



FINANCING FACILITIES OF PARTNER BANKS FOR RE PROJECTS

- Bank of the Philippine Islands (BPI) Sustainable Energy Finance (SEF) Program
 - Purpose: Provide financing opportunities for investment in technologies aimed at improving the efficiency of energy generation, energy distribution and energy use
 - Financing Options
 - Capital Expenditure Financing – for fixed asset acquisition (i.e. new plant or building construction, expansion or modernization of operations and acquisition of machinery and equipment)
 - Working Capital Financing – for short-term financing needs of manufacturers or traders of Energy Efficiency (EE) and RE (i.e. purchase of raw materials)
 - Leasing – for financing the use of an asset or equipment over a specified period of time

FINANCING FACILITIES OF PARTNER BANKS FOR RE PROJECTS

- Development Bank of the Philippines (DBP) Financing Utilities for Sustainable Energy Development (FUSED) Program
 - Purpose: To contribute in the increase access to electricity services through financing in order to help achieve inclusive growth and poverty reduction
 - Eligible Projects
 - Development and construction of energy generation or mini-grid rural electrification projects thru conventional and renewable energy resources
 - Power distribution and transmission projects that will improve power supply system safety, reliability, efficiency such as reduction of system losses and power service quality for existing customers through rehabilitation and upgrading of distribution system
 - Purchase of necessary equipment (hardware and software), service vehicles, tools and other non-network projects (e.g. office building, warehouse) to improve efficiency and service delivery

FINANCING FACILITIES OF PARTNER BANKS FOR RE PROJECTS

➤ LANDBANK Renewable Energy Lending Program

- Purpose: Provides financing to renewable energy/energy-efficient projects and supports the national government's thrust of promoting RE development, utilization and commercialization, and accelerating investments in the energy sector
- Eligible Projects
 - Renewable Energy Projects as defined under Republic Act 9513 (Renewable Energy Act of 2008)
 - Biofuel
 - Other RE projects (i.e. Hybrid Systems, Fabrication/Manufacturing of RE Technologies, equipment and components)
 - Energy Efficiency Projects

Thank you!

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