Regional Off-Grid Electrification Project (ROGEP)

Component 2: Access to Finance

Due to the strategic importance of energy in achieving the Sustainable Development Goals (SDGs), ECREEE is preparing to implement the proposed Regional Off-Grid Electrification Project (ROGEP), with support from the World Bank and its Lighting Africa Program. ROGEP aims to enhance electricity access in West Africa and Sahel region, through standalone solar systems (solar lanterns, solar home systems, solar water pumps, solar mills, solar sewing machines, etc.). The World Bank has provided ECREEE a Project Preparation Advance for the preparation phase. ECREEE has set up a Project Implementation Unit, discussing with stakeholder and identifying the major challenges and mitigation measures towards creating the off-grid market in West Africa.

The project, with an estimated overall budget of USD 200 million, covers 19 countries: Benin, Burkina Faso, Cabo Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Sierra Leone, Senegal, Togo, Cameroon, CAR, Chad, and Mauritania.

ROGEP comprises two major components, with respective sub-components:

Component 1 - Supporting the acceleration of the Regional Market

- **Subcomponent 1 A:** The Enabling Environment
- **Subcomponent 1 B:** Entrepreneurship Support
- **Subcomponent 1 C:** Risk Mitigation Facility

Component 2 - Access to Finance

This component will facilitate access to debt financing in support of the off-grid solar equipment market. Through a combination of credit lines instruments, it will channel short to medium term loans to the following three main categories of borrower: (i) solar equipment distributors supplying products to households and productive end-users of solar equipment; (ii) households and productive end users of solar equipment; and (iii) energy service companies[1] electrifying public institutions, such as schools and health centers. This will help solar equipment distributors and energy service companies active in this market to scale up their operations as they become bankable and graduate from reliance on donor support and equity funding. This will also crowd-in Commercial FIs (CFIs) to the solar equipment sector. Provision of debt funding under Component 2 has a strong synergy with Component 1 which provides capacity building and better access to grant and equity financing and risk mitigation. Thus Component 2 seeks to address a key bottleneck that limits the growth of the off-grid solar market in the 19 countries covered by ROGEP.

Solar equipment distributors form a key part of the value chain. These companies need working capital to finance equipment purchases, and receivables resulting mainly from PayGo schemes. As such, they may need to borrow international currencies such as USD or Euro, or if feasible local currency to match their local currency cash streams. Loan tenors may vary from under one year for equipment cash sale through two or three years to cover PayGo receivables, to five to seven or more years to cover productive end users.

Productive end users of off-grid solar equipment are in scope for ROGEP since productive uses of solar power contribute strongly to economic growth and generate employment. Productive uses of solar power may be found in the agriculture sector, for example farms using solar water pumps, and mills, in a variety of commercial and industrial SMEs that require a reliable source of power for machinery, and in the tourism sector. Productive end users are also a key focus for commercial lenders as they may offer a superior established track record, and have capability to provide collateral as security for loans. They may also produce commodities priced in USD or export products, giving them the capacity to borrow in USD or euro.

The off-grid public institutions market is currently under-served as it presents additional challenges to those of commercial markets. Credit risk is higher because most schools and health centers rely to some extent on public funding, which creates additional cash flow uncertainties. Moreover, the typical commercial PayGo model where service is cut off in the event of non-payment may not be politically acceptable in the public institutions market.

Risk mitigation in the form of risk sharing between donors including the World Bank Group and commercial lenders is an essential feature of Component 1c that will help encourage commercial lenders into this market. The off-grid solar market in West Africa is under-developed and evolving rapidly. Commercial lenders are not always familiar with this market and the additional perceived risks must be added to the general risk of SME lending in any sector. Solar equipment companies often do not have a sufficient track record or balance sheet to attract commercial lending without such risk mitigation.

Accordingly, Component 2 includes the following two sub-components:

- Sub-Component 2.A. - Credit Line through BOAD;
- Sub-Component 2.B. - Credit Line through EBID;

[1] Solar Equipment Distributors sell products that meet standards set by Lighting Africa. Energy Service Companies sell products, systems and services that meet contractually defined KPIs

Sub-component 2.A. – Credit line through West African Development Bank (BOAD).

Through this sub-component, the World Bank will lend to BOAD. This will serve the eight countries in the UEMOA region. BOAD will on-lend the funds at market rates to be determined by BOAD in line with its other lending operations to commercial FIs, utilizing the following two financing channels: (i) commercial banks and if feasible leasing companies, MFIs and solar energy debt funds; (ii) A specialized debt fund to be set up and managed by BOAD Titrisation with the objective of tapping the UEMOA capital market to finance solar equipment receivables. Risk cover for this debt fund will be provided under Sub-component 1.C. BOAD Titrisation will seek approval to operate in ECOWAS countries outside of UEMOA, thus potentially extending the reach of this financing channel. Figures 1 and 2 below illustrate the structure of these two financing channels.

1. **Sub-component 2.B. - Credit Line through Ecowas Bank for Investment and Development (EBID).** Through this sub-component, the World Bank will lend to EBID. This will cover all the ECOWAS countries. Similar to Sub-Component 2.A. above, EBID will on-lend the funds at market rates to be determined in line with its other lending operations to commercial FIs. These may include commercial banks, leasing companies, MFIs and solar energy debt funds. Figure 1 below illustrates the structure of this Sub-Component.

Figure 1. Commercial FI Channel

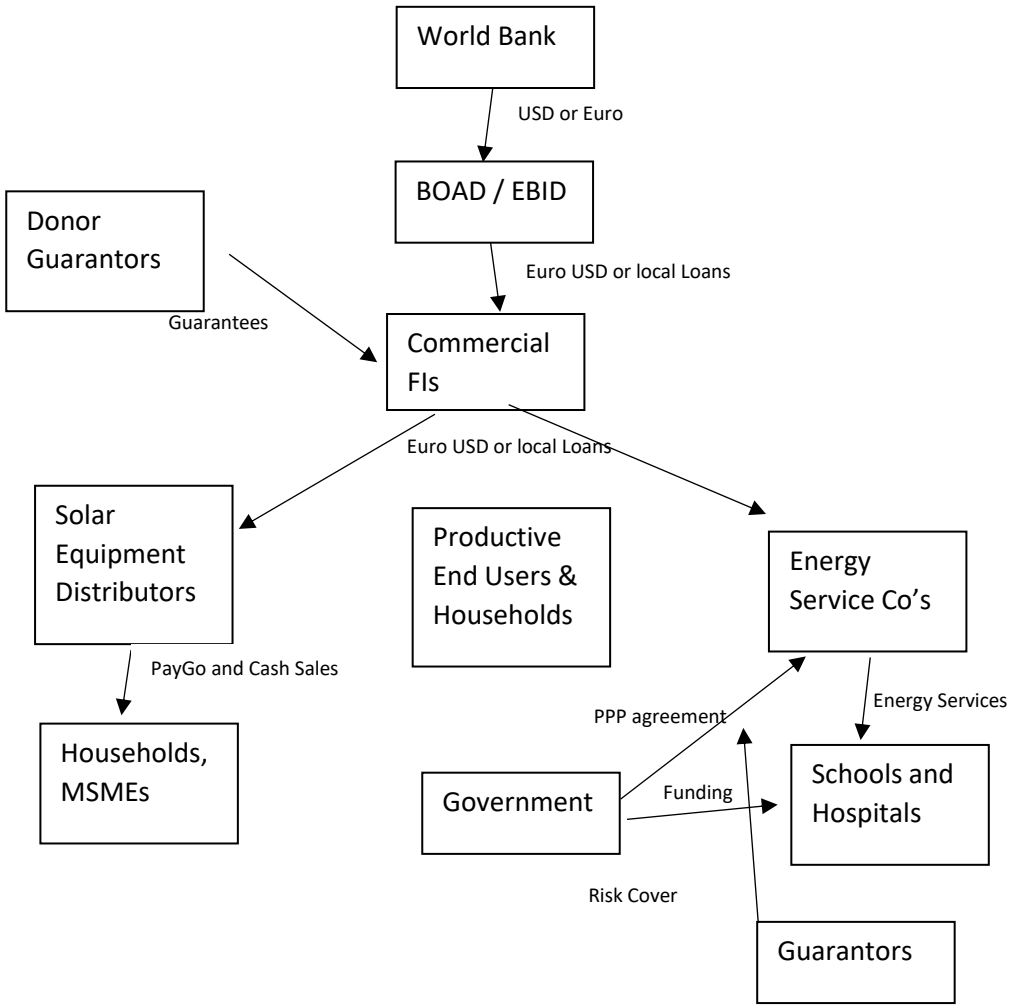
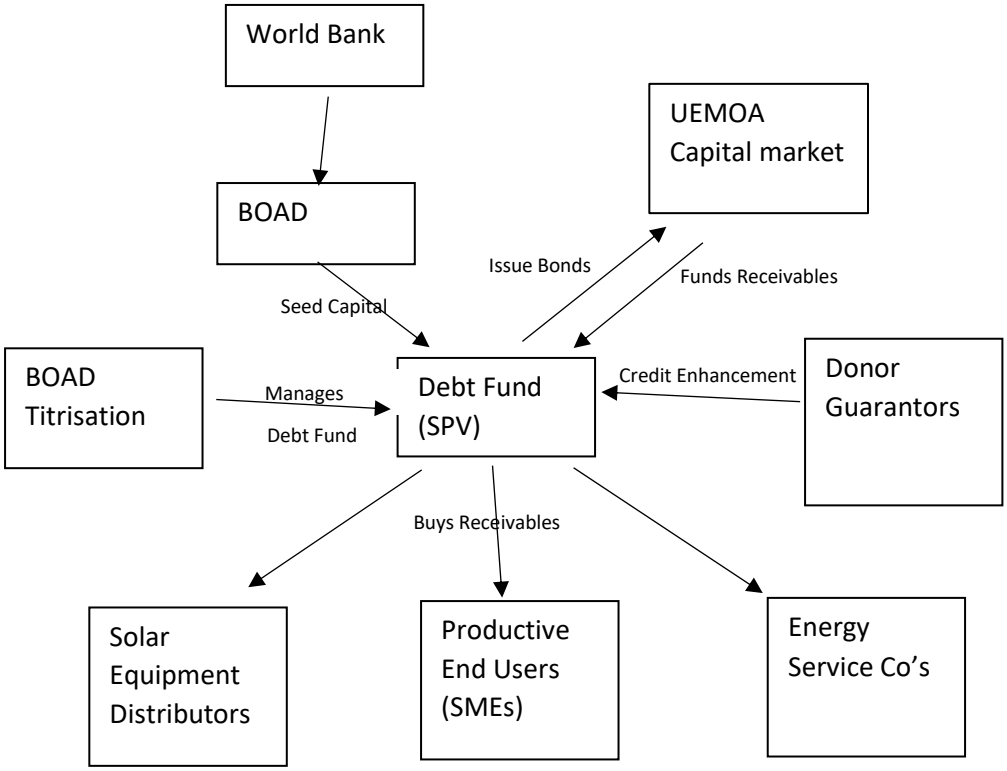


Figure 2 Debt Fund Channel with Capital Market Funding



Roles and Responsibilities in Component 2

The roles and responsibilities of the main organizations involved in Component 2 of ROGEP are therefore as follows:

- As PIU, ECREEE will help structure and set up the credit lines and risk mitigation facilities in coordination with the World Bank and the other Finance Institutions (FIs). ECREEE will coordinate the activities under Components 1 and 2 to maximize the synergies between them. Once the credit lines and risk mitigation facilities become operational, ECREEE will work closely with the Regional Development Banks (EBID and BOAD) to monitor the operation of the credit lines. ECREEE will also manage the risk mitigation facility framework and bring together the combinations of guarantors required for each of the commercial FIs that require risk sharing.
- The World Bank will lend funds to regional development banks and will monitor Component 2 performance with the assistance of ECREEE and the Development Banks;
- The regional development banks BOAD and EBID will act as wholesale lenders and on-lend the funds to commercial FIs which may include commercial banks, a specialized debt fund, leasing companies and MFIs;
- The commercial FIs will act in a retail lending capacity, providing loans to the three categories of borrower described above.
- BOAD Titrisation will manage a specialized solar energy debt fund that will tap capital markets to purchase receivables from solar equipment distributors, and energy service companies.