

Regional Off-Grid Electricity Access Project (ROGEAP)

Context

About 50 percent of the population in Western and Central Africa do not have access to electricity. Of the 406 million people in this region, 208 million lack access to electricity - 70 percent of whom live in rural areas. Of the 198 million people that do have access to electricity, most suffer from unreliable supply and 67 percent live in urban areas. While electricity access is limited and substantially confined to the urban areas, power utilities are struggling to expand access and improve reliability of their supply. The electrification rate of public institutions like schools and health centers, as well as for water pumping and irrigation facilities, is low, and efforts to electrify them in a sustainable manner have been insufficient.

With advancement in solar PV technologies, standalone off-grid solar now has the potential to significantly transform electricity access in Sub-Saharan Africa, in particular for consumers who are far from the grid network. Even those who can expect to gain access to the grid network within a couple of years can use standalone solar systems in the interim, without having to burn kerosene and candles, or live-in darkness, as they wait.

Geographic Scope

The project will serve 15 ECOWAS member countries (Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Sierra Leone, Senegal, and Togo) and 4 other countries (Cameroon, Central Africa Republic, Chad, and Mauritania). The geographic area coverage is equivalent to Brazil.



Project Rationale

Penetration of off-grid electrification companies in Sahel and in Western and Central African markets is low. The objective of the Regional Off-Grid Electricity Access Project (ROGEAP) is to provide project countries with needed support to foster a sustainable and scalable off-grid electrification market to meet the electrification needs of unserved populations. Providing such support requires considering the 19 project countries as a unified market with a more effective enabling environment. Instead of being fragmented into multiple countries, the project will create one large regional market. Aggregating the markets and uniformizing sectorial policies will help make the economies worthwhile for industry players to get involved in the off-grid sector in Western and Central Africa.

Milestones

- Project Preparation Advance provided to ECREEE on April 04, 2017.
- Project (originally called ROGEP) was approved on April 17, 2019.
- Project was restructured with Additional Financing on March 11, 2021
- Project became effective as ROGEAP on March 16, 2021.

Design

ROGEAP has total financing of US\$338.7 million, provided to the Economic Community of West African States (ECOWAS) through; grant financing of (a) US\$15.0 million from the International Development Association (IDA); (b) US\$7.5 million from the Clean Technology Fund (CTF), and (c) US\$40 million from the Dutch Directorate-General for International Cooperation (DGIS). In addition, (d) US\$140.0 million from regional IDA Scale-Up Facility (SUF) credit, and (e) a US\$67.2 million contingent recovery grant is provided to the West African Development Bank (Banque Ouest Africaine de Développement, BOAD). The project is expected to benefit from US\$69.0 million in private capital financing.

The Project has two components focusing on building regional capacity to (1) develop a regional market, and (2) access to finance for stand-alone solar businesses, to scale up the current pace of electrification. ECOWAS will implement the first component through (i) market assessment studies; (ii) identification of policy barriers; (iii) support to countries to harmonize trade policies to promote a regional market of solar products; (iv) support to countries' bureaus of standards with the adoption of a regional quality standard of standalone solar products to help create a regional market of solar products; (v) capacity building for entrepreneurs; (vi) provision of entrepreneurship development facility; (vii) provision of seed funding to local startup entrepreneurs; and (viii) incentives to attract impact investors through provision of matching grants. BOAD will implement the second component and will provide (i) a credit line for commercial financial institutions (CFIs), such as commercial banks, debt funds, micro finance institutions, leasing companies, securitization firms, and others to lend funds to solar companies, and (ii) a guarantee fund to reduce risk exposure of commercial banks that enter the solar market by reducing the payment risk from public institutions to the private electricity service providers.

Lessons Learned

Successful lessons from existing Lighting Africa supported projects will be scaled up under ROGEAP to extend electricity to households and commercial enterprises following a market-based model. Two pilot initiatives are ongoing in Niger and Nigeria to identify suitable mechanisms, including technical specifications and commercial arrangements, to electrify public institutions under the project. Lessons from these pilots will inform the project design.

Funds Allocation

Project Components	IDA Regional Grant	IDA SUF	CTF Grant	CTF Contingent Recovery Grant	Proposed DGIS Grant	Private Sector Equity	Total
Component 1. Develop a Regional Market	15	—	7.5	—	40	—	62.5
1A: Enabling Environment	12	—	1.5	—	4	—	17.5
1B: Entrepreneurship Technical Support	3	—	1	—	3	—	7.0
1C: Entrepreneurship Financing Support	—	—	2	—	3	—	5.0
1D: Barrier Removal for Challenging Markets	—	—	3	—	30	—	33.0
Component 2. Access to Finance for Stand-alone Solar System Businesses	—	140	—	67.2	—	69	276.2
2A: Line of Credit for Stand-alone Solar Businesses	—	140	—	—	—	69	209.0
2B: Contingent Grant Facility for CFIs	—	—	—	67.2	—	—	67.2
Total financing required	15	140	7.5	67.2	40	69	338.7

Implementing Agencies

- Component 1: ECOWAS Commission: Office of the Commissioner for Energy and Mines
- Component 2: BOAD: Directorate of the Private Financing Department