



Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 1-February-2019 | Report No: 134386



BASIC INFORMATION

A. Basic Project Data

Country Western Africa	Project ID P160708	Project Name Regional Off Grid Electrification Project (P160708)	Parent Project ID (if any)
Region AFRICA	Estimated Appraisal Date February 5, 2019	Estimated Board Date March 28, 2019	Practice Area (Lead) Energy & Extractives
Lending Instrument Investment Project Financing	Borrower(s) ECOWAS Center for Renewable Energy and Energy Efficiency (ECREEE), West African Development Bank (BOAD)	Implementing Agency ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), West African Development Bank (BOAD)	

Proposed Development Objective(s)

PDO for SOP1 is to increase electricity access of households and businesses using modern stand-alone solar systems through a harmonized regional approach.

Components

- 1A: Enabling Environment
- 1B: Entrepreneurship Technical Support
- 1C: Entrepreneurship Financing Support
- 1D: Barrier Removal for Challenging Markets
- 2A: Line of Credit for Stand-alone Solar Businesses
- 2B: Contingent Grant Facility for CFI

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY NewFin1

Total Project Cost	333.7
Total Financing	333.7
of which IBRD/IDA	150.00
Financing Gap	0.00



DETAILS NewFinEnh1

World Bank Group Financing

International Development Association (IDA)	150.00
IDA Credit	140.00
IDA Grant	10.00

Non-World Bank Group Financing

Trust Funds	114.70
Clean Technology Fund	74.70
Energy Sector Management Assistance Program	40.00
Equity (private investors)	69.00

Environmental Assessment Category

FI-2-Financial Intermediary

Concept Review Decision



Decision

The review did authorize the team to appraise and negotiate

B. Introduction and Context

Regional Context

- 1. Regional cooperation is critical to end extreme poverty and boost shared prosperity in the broader West Africa and Sahel region.** This region is diverse—economically, culturally, and ecologically—presenting both opportunities and challenges for regional cooperation. Countries in the region have moved forward politically and economically toward greater cooperation for its prosperity. In this regard, the first effort at integration was made in 1945 with the creation of the CFA franc that brought the francophone countries of this region into a single currency union. Later, on May 28, 1975, 15 countries came together through the treaty of Lagos to promote economic integration across the region by forming the Economic Community of West African States (ECOWAS)¹. Forty years later, ECOWAS is still promoting economic cooperation and regional integration as a tool for accelerated development of the West African economy as per ECOWAS Vision 2020². Using the CFA franc as common currency the West African Economic and Monetary Union (WAEMU/ UEMOA³) was established with the treaty signed in Dakar on January 10, 1994 among West African coastal and Sahel states.
- 2. In December 2014, five Sahelian countries established the G5 Sahel to coordinate policies and strategies for development and security.** These five Sahelian countries—Burkina Faso, Mali, Mauritania, Niger, and Chad—share a common history, geography, culture and face similar developmental challenges arising from landlocked geography, low population density, and little state presence in rural areas. One of the guiding principles of the G5 is to coordinate actions to address high levels of poverty, anemic economic growth, and socioeconomic indicators that are below those of neighboring countries.
- 3. Forming regional economic communities had a positive impact on income convergence in this region⁴.** Regional integration helps income convergence between poor and rich economies through three key factors. First, integration encourages capital and labor mobility, which increases productivity and output. Second, agreements on free trade areas and customs unions provide the potential to increase trade volume among the integrated countries. Finally, regional integration promotes the spread of technology and knowledge through the exchange of goods and ideas. While income convergence depends on several factors and cannot be only attributed to regional integration, eight countries within WAEMU have the highest income convergence rate in Sub-Saharan Africa. Income differences have narrowed at an average rate of 19.6 percent between WAEMU’s richest and poorest countries over 15 years³. Income differences have also narrowed within the ECOWAS, at a rate estimated 11.4 percent³.
- 4. Around 50 percent of the population in West Africa, including the Sahel region, still lives on less than**

¹ Benin, Burkina Faso, Cabo Verde, Côte d’Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Sierra Leone, Senegal, and Togo

² The ECOWAS Vision 2020 is a resolution adopted by ECOWAS in June 2007 to significantly raise the standard of living of the people through conscious and inclusive programs.

³ Benin, Burkina Faso, Côte d’Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo.

⁴ African Economic Outlook, 2016. AfDB, OECD, UNDP.



US\$1.90 per day,⁵ although there are significant disparities across the region, with over 65 percent of population in countries such as Liberia, Guinea-Bissau, and the Central African Republic living below US\$1.90 per day compared to 11 percent in Mauritania. Overall, the West Africa region has persistent levels of poverty, with over 70 percent of the population living below US\$3.10 per day. West Africa is also home to around 33 percent of the continent's population, with around 17 percent of the land area. The region accounted for 28 percent of Africa's GDP in 2015—at US\$1,606 billion based on a purchasing power parity (PPP) valuation.

5. **Intra-regional trade takes place but is mainly informal and considered to be well below its potential.** Further enhancing intra-regional trade is important for establishing opportunities for economies of scale and to allow goods and resources to flow from areas of abundance to areas of deficit. Tariffs as well as import and export restrictions through bans or quotas are also critical barriers to regional trade. Many West African countries regularly impose such restrictions either to protect local producers and industries (import restrictions) or to account for short-term food security concerns (export restrictions). ECOWAS adopted a common external tariff (CET) in January 2015 to attain near complete integration by 2020. The CET is aimed at minimizing lost revenues that may arise from competition in external tariff rates between the member states.⁶ But the region has yet to fully benefit from this CET policy, and initiatives promoting such integration are welcomed by the community. The ECOWAS countries continue to progress toward further regional integration and economic cooperation, including cross-border movement of people as well as economic and monetary integration.

6. **Several Countries in West Africa and the Sahel are affected by fragility, conflict and violence (FCV).** Poverty and fragility are increasingly interlinked as conflicts reduce GDP growth by two percentage points per year, on average. Responding effectively to FCV requires a differentiated approach. This will require sophisticated solutions that deepen and broaden support for both low and middle-income countries with sustained engagement and tailored responses from the Bank. Tackling the development dimensions of fragility, conflict and violence requires doing business differently. The Bank's new FCV approach underpins innovative financing, analytical expertise and more strategic knowledge management.

7. **Working at a regional level to improve private sector capacity for creating jobs in service sector is crucial.** The development of a regional market has the potential to contribute to inclusive growth along three principal focus areas: (a) improved rural-urban links to facilitate trade and create jobs, (b) the development of local skills to modernize capacity to supply consumer goods and serve local demand, and (c) enhanced institutional capacity and improved business regulatory framework and tax regime to promote trade and develop entrepreneurs.

Sectoral and Institutional Context

8. **Sub-Saharan Africa suffers from an overwhelming deficit in access to electricity.** About 600 million people in Sub-Saharan Africa do not have access to electricity, resulting in overall electrification rate of about 43 percent. The access deficit is even further pronounced in countries such as the Central African Republic, Chad, Guinea Bissau, Liberia, Niger, and Sierra Leone. West Africa has been experiencing the most rapid energy demand growth of the Sub-Saharan regions, at more than 6 percent per year on average, in part because of the rapidly growing population.⁷

⁵ The World Bank defines extreme poverty as living on less than US\$1.25 per day and moderate poverty as less than US\$2 a day.

⁶ African Economic Outlook 2017. AfDB. OECD. UNDP.

⁷ IEA and World Bank. 2015. *Sustainable Energy for All 2015 - Progress Toward Sustainable Energy*.



Additionally, the current national and global energy policies for the electrification of Africa are not sufficient to allow for an alleviation of electricity poverty by 2040. In other words, with the current electrification rate, more than two decades will be required to end energy poverty in Sub-Saharan Africa.⁸

9. **More than 50 percent of the population in West Africa and the Sahel lacks access to electricity.** Of the 406 million people residing in these 19 countries, it is estimated that 208 million inhabitants have no access to electricity, about 70 percent of whom live in rural areas. Of the 198 million people with access to electricity services, about 67 percent reside in urban areas, but they also suffer from unreliable electricity supply. While electricity access is substantially confined to the urban areas in most of these countries, about 33 percent of people living in urban areas and well within the reach of grid network, at present do not have access to electricity. Electricity in the region remains among the costliest in the world, at US\$0.25 per kWh, more than twice the global average.⁹

10. **The electrification rate of public institutions such as schools and health clinics is very low and efforts made to electrify them have been insufficient.** In the most recent survey carried out by the United Nations Educational, Scientific and Cultural Organization in 2014, data compiled from 46 countries in Sub-Saharan Africa showed that “the vast majority of schools” report lack of electricity in nearly all countries. In contrast, data on electricity access in health care facilities are rarely collected or reported. Discussions with internal World Bank teams and some clients point to a low electrification status of health facilities—especially for primary care and basic child and mater

11. **Lack of electricity access contributes to increased greenhouse gas emissions due to increased reliance on carbon-intensive fuels such as firewood, kerosene, and diesel.** A typical rural household, whose basic energy needs could be met by a 25 W stand-alone solar system, emits about 0.37 tCO₂ per year through use of conventional modes of energy. Furthermore, kerosene and diesel are expensive alternatives for the poor to meet their basic electricity needs.

12. **West Africa and the Sahel regions are yet to benefit significantly from the innovative solar PV technologies and disruptive business models compared to East Africa.** PAYGO solar businesses provide household-scale solar energy with a payment scheme tailored to the budgets of bottom-of-the-pyramid customers. By allowing poor households to pay for solar products in small increments, PAYGO makes solar a viable solution. As the backbone of PAYGO solar systems is integration with mobile money, adequate policy and infrastructure is a key enabler to scale stand-alone solar systems. It is estimated that digital payment-enabled solar units could bring distributed, renewable electricity to 15 million households and 75 million people by 2020.¹⁰ Mobile coverage, mobile access and availability of mobile money are key drivers determining the suitability of a country market for PAYGO services. Lessons from East African countries in this regard could help West Africa leapfrog its development phase.

13. **Uptake of stand-alone solar systems in the West Africa and the Sahel region has been low and faces several barriers from both demand and supply side.** These barriers stem from the perception that the West African market

⁸ Ouedraogo, Nadia S. 2017. “Modeling Sustainable Long-term Electricity Supply-Demand in Africa.” *Applied Energy* 190 (C): 1047–1067.

⁹ <https://www.worldbank.org/en/news/feature/2018/04/20/regional-power-trade-west-africa-offers-promise-affordable-reliable-electricity>.

¹⁰ Off-Grid Solar Market Trends Report 2016.



is fragmented. There are many countries with small sizes, dispersed population, lack of appropriate policy and regulatory environments, absence of supporting ecosystems for the solar industry, poor access to finance, and lack of clear information on the demand and customer segments. Although the private sector can play an important role in tackling the power crisis in Africa,¹¹ especially through renewable energy investments, solar manufacturers and importers who presently drive the stand-alone solar systems industry consider it a riskier proposition to enter into smaller markets and absorb all up-front costs of market creation. Considering the level of fragmentation prevailing in West Africa, regional initiatives are expected to address such barriers and offer the much-needed economies of scale to seed a regional market, create the necessary supporting ecosystem and enabling environment, and attract the solar companies and investors into the region.

14. **The project is informed by a regional off-grid solar market assessment, which identified about 31 million households or about 180 million people who can be provided with electricity using stand-alone solar systems in West Africa and the Sahel regions.** Though these solar systems would range from 1W to 350W per household, in aggregate, it could be equivalent to about 2 GW of capacity using solar PV based technology coupled with storage facilities. The potential value of the household solar market is estimated to be about US\$ 6.6 billion.

15. **The proposed project will promote disruptive technologies through innovative business models by developing a regional market in the West Africa and the Sahel regions, which have been so far too fragmented.** The 19 project countries represent a geographic size equivalent to Brazil (8.5 million sq. km and 200 million people), but with almost double the population size. Hence a regional approach can attract larger market players to benefit all the countries of this region. This initiative will be beneficial for the larger economies of this region, as it will develop markets beyond their country territories. The project aims at enhancing electricity access through stand-alone solar systems, such as solar lanterns, solar home systems (SHS), solar water pumps, solar mills, and other solar productive use technologies. It will do so mainly by addressing key barriers to private sector participation in promoting stand-alone solar systems electrification in the region by creating a favorable ecosystem and by addressing the access to finance barrier—key impediments to develop stand-alone solar market identified by the market assessment report.

16. **A regional program can help create a sustainable market for stand-alone solar systems in the West Africa and the Sahel regions.** The West Africa and Sahel regional market currently represents about 12 percent of worldwide sales with over 2 million systems sold in 2017 and over 500 local companies dealing with stand-alone solar systems—at various stages of growth in 19 project countries.¹² A regional program can leverage the region's economies of scale and harmonize policies and business procedures to scale impact. A regional program could help all project countries adopt a regional standard on quality assurance (QA) framework and related import and tax regulations to establish a regional market. This will increase trade in the West Africa and Sahel region and create new jobs. A regional access to finance facility could support private companies operating in multiple countries.

17. **To develop a regional market, the project will** (a) identify policy barriers affecting the growth of the stand-alone solar market and create awareness within the government policy makers on the benefit of removing such policy barriers, and provide targeted support for barrier removal in challenging markets; (b) help the countries adopt the CET to facilitate cross-border trade of stand-alone solar products; (c) develop regional standards on quality assurance

¹¹ Muzenda, Dambudzo. 2009. "Increasing Private Investment in African Energy Infrastructure." Background paper presented at NEPAD-OECD Africa Investment Initiative. November 11–12, 2009.

<https://www.oecd.org/investment/investmentfordevelopment/43966848.pdf>.

¹² Analysis by ECREEE.



(QA) framework of stand-alone solar products to facilitate supply of eligible products across the 19 project countries; (d) build human capital by providing training to develop adequate and required skills through a structured entrepreneurship development facility, which will ensure reliable service to the beneficiaries and will create employment opportunities at the local level; (e) provide access to finance to solar companies and to beneficiaries in this new line of business, and provide financial support to entrepreneurs; and (f) reduce risk of promoting new technologies and business models.

18. The project will be implemented in collaboration and partnership with IFC, MIGA and several other donors. Given the significant reduction of cost of solar technology and its potential impact on increasing electricity access, many donors are working in this space. The Bank, through its flagship program “Lighting Africa” is working jointly with IFC in promoting standalone solar electrification in SSA. In addition, the project will build on existing platforms such as ECREEE’s entrepreneurship facility. There are between 2 and 7 active projects (excluding World Bank projects) in each of the 19 countries, and hence the project design will emphasize on collaboration and will complement existing interventions. The IDA Private Sector Window (PSW) managed by IFC and MIGA will be effectively used to benefit PSW eligible project countries.

19. Global lessons learned demonstrate that universal electricity access can be achieved following multiple complementary tracks:¹³ (a) ensuring grid-based electrification, where the grid is extended beyond urban and peri-urban areas, (b) ensuring community-level mini- or micro-grid systems, and (c) supporting markets to promote stand-alone solar systems. The rollout of a large-scale grid-based electrification program requires high-level and sustained government support and commitment. Common challenges include: maintaining electricity generation capacity, continuous investment to maintain reliability, high cost of supplying consumers in rural and remote communities, and so on. Mini-grids can electrify distant communities without waiting for the distribution network to reach them. Geographic conditions can make mini-grids a much lower-cost electrification option than extending the grid network. However, the low consumption patterns of rural communities and the need to subsidize connection costs remains a barrier. Stand-alone solar systems can meet the electricity needs of households, businesses and public institutions that lack access to electricity connection (grid or mini-grid) or have poor reliability (unreliable grid). The stand-alone solar systems include (a) solar lanterns enabling partial or full Tier 1 electricity access; (b) Solar Home Systems (SHS) typically powering several lights as well as energy-efficient appliances and enabling full Tier 1–Tier 3 electricity access; and (c) component-based solar systems, where PV module, battery, lights, inverter, wiring, and so on are compiled independently. These systems are modular and can meet larger loads. In addition to electrifying households, these systems are currently used to electrify schools, health centers and by productive users, such as solar water pumps for drinking water and irrigation.

20. The Bank has provided financing to several countries in Africa to increase access to electricity through stand-alone solar systems. Projects financed by the Bank in recent years with stand-alone solar components include: Ethiopia: Electricity Network Reinforcement and Expansion Project (P119893), Niger: Solar Electricity Access Project (P160170), Rwanda: Renewable Energy Fund Project (P160691), Zambia: Electricity Service Access Project (P162760), and Kenya: Off-Grid Solar Access Project (P160009). All these projects have adopted a market-based approach, implemented by the private sector, to extend access to electricity to the people.

21. Regional organizations with the ability to motivate and influence their member countries have been considered as most suitable to implement this project. Regional organizations will be able to encourage their

¹³ Charting the Path Toward Sustainable Energy for All in the Sahel: A Focus on Access to Electricity - Alliance for the Sahel, August 2017.



member countries to learn from each other and adopt suitable business-friendly policies to help create the market. Regional development banks are suitable as regional financial intermediary (FI) as it can support CFIs across multiple countries and allow private solar companies benefit from a larger contiguous regional market that is supported by cross-border trade policies and CET policies promoted by the project.

22. **ECREEE is a specialized technical agency that supports several countries in West Africa and the Sahel in mainstreaming renewable energy and energy efficiency policies in ECOWAS' regional activities.** ECREEE has a harmonized regional approach to achieve universal electrification, access to modern cooking solutions, and system loss reductions in the distribution sector and to create instruments for financing sustainable energy projects. ECREEE's mandate is to focus on activities at the regional level that can assist and add value to member states' activities in renewable energy and energy efficiency. It has strong links with regional and international centers of excellence, international finance and technology partners, and bilateral and multilateral agencies and development banks. Given ECREEE's mandate and relationship with most countries in the West Africa and Sahel region, there is considerable advantage in making ECREEE the implementing agency of the proposed ROGEP to implement activities to develop an enabling business environment and develop entrepreneurship capacity to help develop a regional market.

23. **The West African Development Bank (*Banque Ouest Africaine de Développement, BOAD*) is the common development finance institution of the member states of WAEMU.** It was established by an agreement signed on November 14, 1973 and became operational in 1976. BOAD's primary objective is to promote balanced development of its member states and foster economic integration within West Africa by financing priority development projects. Its member states include Benin, Burkina Faso, Côte d'Ivoire, Guinea Bissau, Mali, Niger, Senegal, and Togo. BOAD benefits from its experience of implementing World Bank-funded WAEMU Affordable Housing Finance (P161658) Project. BOAD also has credible lines of credit established with CFIs in its member countries that could benefit the private solar companies to access finance. BOAD is a suitable regional development bank that can play the role of an FI to extend line of credits to eligible CFIs. The private stand-alone solar companies and end consumers will then access working capital financing and/or debt financing from their preferred CFIs.

Proposed Development Objective(s)

Development Objective(s) (From PAD)

24. PDO for SOP1 is to increase electricity access of households and businesses using modern stand-alone solar systems through a harmonized regional approach.

Key Results

- People provided with new or improved electricity service/ (of which female)
- Households provided with access to electricity through stand-alone solar systems/ (of which female headed households)
- SMEs provided with access to electricity through stand-alone solar systems/ (of which women led SMEs)
- GHG emission reduction
- Regional Standard of Quality Assurance (QA) framework for stand-alone solar systems prepared and adopted by ECOWAS
- Policy Recommendation on ECOWAS Common External Tariff focused on stand-alone solar systems prepared



- Local community events in participating countries for consumer awareness
- Market observatory indicator: Country-specific information on volume, price, and type of products disseminated

Project Description

25. ROGEP is designed as a robust and integrated regional program based on series of projects (SOP) placing Renewable Energy and Energy Access at the heart of the development of a sustainable ecosystem with a strong transformational potential.

26. The ROGEP SOP includes interventions that need to be implemented at regional and country levels. The ROGEP SOP1 focuses on key regional interventions to develop a regional platform—on which the subsequent projects would be implemented. The ROGEP SOP1 will focus on supporting and developing viable business ecosystems in the project countries through a regional-level initiative. The main ROGEP SOP1 components are (a) Developing a regional stand-alone solar system market and (b) Providing access to finance for stand-alone solar system businesses.

27. This program aims at providing clean energy access to countries with good solar resources at affordable conditions and with a good quality thanks to (i) the harmonization of the regulatory framework, (ii) the standardization of the technical specifications and (iii) the aggregation of the market at a regional level. It supports also the development of local solar businesses relying on innovative standalone solar systems (benefiting households but also companies with new products such as solar pumps) with disruptive business models (based on the ‘pay as you go’ model which is still nascent in the West Africa region).

28. This program has a high mitigation potential as the lack of electricity access - with an average of more than 50% of people not having access to electricity in the region -contributes to increased greenhouse gas emissions due to increased reliance on carbon-intensive fuels such as firewood, kerosene, and diesel. Bridging the energy access gap with innovative solar energy technologies will substantially reduce GHG emissions.

29. The ROGEP SOP1 will use market observatory indicators to identify the progress made by each country and would accordingly identify regional and country-specific interventions to be supported under subsequent projects. The subsequent projects could be similar to Niger Solar Electricity Access Project (NESAP) P160170, where dedicated support would be provided to respective project countries to adopt and implement the regional policies and standards developed under ROGEP SOP1. Depending on readiness to allocate national IDA for solar market development and increase electricity access, multiple countries would be combined in subsequent ROGEP SOPs.

30. The project has two main components: (1) develop a regional market and (2) access to finance for stand-alone solar businesses. The first component is divided into four subcomponents: (1A) enabling environment, (1B) entrepreneurship technical support, (1C) entrepreneurship financial support, and (1D) barrier removal for challenging markets. The second component is divided into two subcomponents (2A) line of credit for stand-alone solar businesses, and (2B) contingent grant facility for commercial financial institutions. ECREEE will implement component 1A, 1B, 1C and 1D. BOAD will implement component 2A and 2B. In addition, ROGEP SOP1 will partner with IFC’s Small Loan Guarantee Program (SLGP) that will enable eligible CFIs to benefit from this guarantee facility.

31. **Enabling Environment (1A):** ECREEE will implement this component in partnership with national governments of 19 project countries. ECREEE will follow a consultative process with its focal persons in the Ministry of Energy of all project countries and other ROGEP stakeholders to implement this component. ECREEE will undertake



project launch workshops in all the 19 countries soon after the project is effective to ensure participation of national, regional and international stakeholders in each project country.

32. ECREEE will strengthen regional energy access policy to influence national energy access policies of each country in a harmonized manner. This component will benefit the project countries by transferring and sharing knowledge on technological innovations and new business models at the same time. Success stories of one country will be used to motivate others to adopt new policies and change mindsets. More specifically, this subcomponent of the project under ROGEP SOP1 will finance the following – (i) Establishment and operation of a Project Implementation Unit (PIU) in ECREEE; (ii) Policy and analytical work to influence energy access policy in the region, especially in the areas of addressing trade barriers, promoting quality and standards for off-grid products, promoting mobile money, etc.; (iii) Establishment of a network of entrepreneurship support centers to support entrepreneurship development in the off-grid space, (iv) Training and Knowledge exchange programs, (v) Promotional campaigns and consumer awareness programs to promote solar standalone systems, (vi) Capacity building of banks and financial institutions; and (vii) development of new business models for promoting the use of standalone solar systems for electrification of public institutions (schools, health clinics, and so on) and for productive use (water pumping, irrigation, and so on) applications. ECREEE will implement the above activities in collaboration with the participating countries, and other agencies /consultants. These are further detailed in the Project Operation Manual (POM).

33. **Entrepreneurship Technical Support (1B):** This subcomponent will provide differentiated support to entrepreneurial businesses across the enterprise development life cycle (start-up, early stage, growth, and maturity). The technical support will seek to enhance the capacity, skills, and expertise of eligible businesses. This subcomponent will also remove information and knowledge barriers to attract new players to the stand-alone solar system market. The entrepreneurship technical support facility will be coordinated with the ECOWAS certification scheme for PV installers/technicians and will be framed within the ECOWAS Renewable Energy and Energy Efficiency private sector support facility that ECREEE has successfully operated since 2015. This subcomponent of the project, under ROGEP SOP 1, will finance the following – (i) Entrepreneurship and business training to start-ups and early-stage ('Stage 1'¹⁴ and 'Stage 2') stand-alone solar businesses in the participating countries; (ii) Customized business acceleration support in form of technical assistance to early-stage ('Stage 2') businesses—those that have advanced beyond start-up stage but are still developing and iterating their business model, adapting technology, and finalizing product marketing strategies; (iii) Facilitation of entry to the solar industry for successful local businesses that are operating in non-solar industries; (iv) Targeted training for women entrepreneurs in all categories mentioned above. All the technical assistance and advisory work mentioned above will be implemented by ECREEE in partnership with selected organizations.

34. **Entrepreneurship Financing Support (1C):** Matching grants will be offered to startup ('Stage 1') businesses to support entry of new solar businesses. This funding would be up to US\$25,000 to assist these entrepreneurs to develop their ideas into viable businesses or develop and test market their products. Each business receiving a grant would be required to provide some level of matching cash contribution to demonstrate their own commitment to the proposal. Grants would be provided on a milestone basis to eligible, competitively selected businesses and would be limited to use on specific eligible activities defined during project implementation. Stage 2 businesses operational in the region that are interested in expanding their activities to another ROGEP country might receive matching grant support as well. The solar entrepreneurs will follow commercial practices as approved in the World Bank

¹⁴ Solar companies are divided into three Stages based on the level of expertise, capacity and size. Detail of the company Stages are provided in Annex 2.



Procurement Regulations for IPF Borrowers.

35. **Barrier Removal for Challenging Markets (1D):** Targeted financial incentives would be provided to entrepreneurs and businesses operating in challenging markets, such as countries in the Sahel region. Left alone to commercial incentives, solar businesses will tend to operate solely in vibrant economies and will tend to ignore challenging markets. To ensure equitable geographical reach, solar businesses operating in challenging markets will receive grant funding support under this component. Upon submission of a satisfactory “market entry” business plan, companies will receive market entry grant support to facilitate their move into the challenging market. At the operational stage, following a successful market entry, the solar businesses will be eligible for performance-based grants, which will help in keeping solar products affordable to the end consumers. These performance-based grants would encourage blending with commercial financing that reduces the business’s cost of capital. The level of grant financing to be allocated to businesses will be determined at the implementation phase and based on specific barriers each business would face in operating a solar business in a specific country. The project monitoring and evaluation framework will be used to identify countries/markets which are falling behind development of the other project countries and would become eligible to benefit from this component accordingly. More details on the application process and evaluation leading to a decision on providing the targeted incentive are available in the Project Operations Manual

36. **Line of Credit for Stand-alone Solar Businesses (2A):** This component will facilitate access to debt financing in support of the stand-alone solar systems market. This component will support (a) solar equipment distributors supplying stand-alone solar products to households and productive end users, (b) households and productive end users of solar equipment, and (c) energy service companies¹⁵ electrifying public institutions, such as schools and health centers. Women entrepreneurs will have equal level of access to financing.

37. The World Bank will lend IDA SUF funds to BOAD, which may on-lend the funds through the following four financing channels: (a) commercial banks, (b) leasing companies, (c) MFIs, and (d) debt funds. The on-lending would be at or near market terms that cover the cost of funds, operating costs, hedging costs if any, and a profit element to be determined by BOAD in line with its other lending operations to eligible CFIs. BOAD will identify CFIs based on eligibility criteria set in ROGEP Project Operations Manual (POM). The CFIs would indicate the number, size, and type of deals they expect to support using the line of credit. CFI’s request to extend financing support to solar companies operating in a ROGEP country but outside of the WAEMU region will be reviewed by BOAD on a case-by-case basis. BOAD meets the requirements set out in the Guidelines for Financial Intermediary Financing.¹⁶ Detail assessment of BOAD performance is provided in annex 6 of the PAD. The World Bank will lend euro to BOAD on IDA SUF terms.¹⁷ These are the same as IBRD terms for middle-income countries.

38. **Contingent Grant Facility for Commercial Financing Institutions (2B):** The contingent grant facility will provide comfort to the CFIs lending to businesses providing innovative solar technologies following disruptive business models. The businesses promoting stand-alone solar systems do not have long track record and hence are affected with high risk perception. The contingent grant facility will provide comfort to the CFIs against promoting

¹⁵ Solar equipment distributors sell products that meet standards set by Lighting Africa. Energy service companies sell products, systems, and services that meet contractually defined key performance indicators (KPIs).

¹⁶ http://intresources.worldbank.org/INTOPCS/Resources/380831-1360104418611/Guidance_Note_FIF.pdf.

¹⁷ As of May 2018, IDA SUF funds in U.S. dollars are at an interest rate of LIBOR+0.7 percent with a 0.25 percent front-end fee and 0.25 percent commitment fee. A swap to a fixed rate loan can likely be arranged. Euro loans are available at a spread over EURIBOR.



products which are innovative, have higher efficiency and increased reliability, which will ultimately support end consumers with access to electricity through stand-alone solar systems. Types of implementation risks covered by this facility is provided in annex 2 of the PAD and detailed in the Project Operations Manual (POM). This facility will be structured to support 'Stage 2' and 'Stage 3' solar companies to raise debt capital from CFIs and raise investment capital. This facility leverage about 3 times of financing in loan and equity from CFIs and solar businesses. By providing cover for technology and innovative business model risks, CTF support will be complementary to risk facilities covering commercial and political risks that may be offered by other donors under the ROGEP platform.

39. The contingent grant facility will support lending to 'Stage 3' solar companies by covering up to 50% of the loan principal in case of a default resulting from the non or under performance of the underlying technology. The facility will offer a higher level of cover for 'Stage 2' companies of 80% of loan principal, also in case of technology risk. The higher level of cover for 'Stage 2' companies reflects the increased challenges 'Stage 2' companies face to meet lender requirements for sufficient businesses track record and loan collateral. This, along with component 2A, will support lending to these businesses and provide more comfort to the market on the underlying technology. As the financial intermediary, BOAD will administer the contingent grant facility as needed by the CFIs, whereby if the solar companies cannot generate sufficient revenues, which can be attributed to the technology, resulting in an inability to pay debt obligations. BOAD, through the contingent grant facility, can provide the CFIs with funds to cover their losses on such loans, up to the prescribed limits of 50% or 80% as the case maybe. Annex 2 provides more details on the structure of the facility.

ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT

F. Project location and salient physical characteristics relevant to the E&S risk management analysis (if known)

40. This is a regional project and it will be implemented across 15 ECOWAS member countries (Benin, Burkina Faso, Cabo 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).

41. In each country, the locations of solar systems will be nation-wide. The project has two main components focusing on building regional capacity to (1) develop a regional market and (2) to provide access to finance to the standalone solar businesses, to scale up the current pace of electrification. The first component, implemented by ECREEE, is further divided to focus initiatives related to enabling environment and entrepreneurship support activities. The second component will provide access to finance through a regional development bank, BOAD that will onlend to eligible commercial financial intermediaries: (a) commercial banks, (b) leasing companies, (c) MFIs, and (d) debt funds.

42. Beneficiaries will be private sector solar companies engaged in importing, sales, and installation of standalone solar equipment for households, small businesses and public buildings. The project implementing agency is the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECEEE) and the credit recipient is the West African Development Bank (BOAD). BOAD will on-lend to partner financing institutions ("retail FIs") during project implementation to on-lend to solar businesses. In addition, ECREEE will extend grant funding to solar companies under subcomponent 1C and 1D that are at start up stage or working in challenging markets such as Sahel countries.

43. The project will provide solar PV based standalone electrification equipment to households and commercial enterprises. Private sector service providers will also enter in concession agreement with government to electrify a small group of public institutions as a pilot activity under component 1A. In most cases, the solar panels will be



installed on the beneficiaries' rooftop. Solar panels could also be installed on the ground of commercial enterprises and some public institutions. This type of solar projects involve minimal civil works and comprise mainly solar generation equipment installation and electro mechanical works. Specific locations of such equipment installations are not known. Manufacturing of solar equipment will not be financed under this phase of the project.

44. While specific impacts of specific solar equipment installation subprojects is not known at this time, based on the nature of business activities in this sector that will be supported by the project, key environment and social risks are expected to include waste management (disposal and recycling of solar panels and used solar equipment, and especially lead acid and lithium ion batteries, which are considered hazardous waste), water quantity and quality for panel washing, safety of OHS practices for solar companies' workers, and labor issues (potential instances of child or forced labor, absence of proper grievance redress and fair terms of employment).

45. Land-related issues are not expected to be significant. In general, land acquisition leading to economic and/or physical displacement is not expected to occur in the project and, in case of commercial solar equipment installations would be done on willing-seller-willing-buyer basis. Communities or individuals may provide voluntary land donation that will require a proper protocol which is set out in the ESRM Sector Guide for Off-Grid Solar (as described below). They may also be small-scale land management and use for installation of panels, if installed on the ground. In case of public institutions, any subprojects that would require land acquisition, including through voluntary donation, would not be supported to avoid any risk of involuntary resettlement or displacement (this shall be specified in the financial agreement for ROGEP). As the PV systems will be installed mostly on public and private sector buildings, written consent from the building users/owners will be taken and documented. Similar procedures would be adopted for ground mounted systems.

46. Additionally, some gender-related risks might involve gender-based violence, risk of underserving/ excluding female-headed households, and the need to close gender gaps in income generating opportunities, access to credit, and in health services and outcomes in project countries.

47. The project also plans to address potential impacts on other vulnerable groups in terms of an inclusive approach to providing access to electricity to undeserved rural areas, the poorest parts of the population within communities, marginalized groups such as refugees and people with disabilities etc. The project looks at this aspect as an opportunity for more socially sustainable outcomes.

Rationale for classification as Category FI-1, FI-2, or FI-3:

48. The World Bank environment and social technical standards and management system requirements applied to this project will be governed by the provisions of OP/BP 4.03 (World Bank Performance Standards for Private Sector Activities). The approach will be consistent with the policy provisions for projects involving financial intermediaries (FIs). The project is a Financial Intermediary (FI) project and is categorized as **FI-2** in accordance with OP/BP4.03. This categorization is based on the review of the prospective project activities and an expectation that, in accordance with BP4.03 paragraph 21, potential adverse environmental and social risks or impacts will be few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures.

G Environmental and Social Specialists on the Team

1. Alexandra C. Bezeredi, Lead Social Development Specialist (GSU06)
2. Ekaterina Grigoryeva (GEN07)



POLICIES THAT APPLY

49. The requirements applied to this project will be governed by the provisions of World Bank OP/BP 4.03 (Performance Standards for Private Sector Activities). The approach is consistent with the policy provisions for projects involving financial intermediaries (FIs). In line with OP4.03, approach to implementation of environment and social risk management measures for ROGEP is that of putting in place and continually strengthening a formal Environmental and Social Management System (ESMS). ECREEE, BOAD, CFIs, private sector solar companies, specialized environment and social consulting firms, and experts will play important roles.

50. For FI investments, the requirements for the ESMS are governed by the relevant principles of Performance Standard 1 in relation to such systems. All FIs involved must also manage the working conditions of their workforce in accordance with relevant aspects of Performance Standard 2 on Labor and Working Conditions. However, PSs 3 thorough 8 would not be applicable to this project as the investment/ lending activities under it do not constitute project, corporate finance, or other type of smaller high-risk transactions where these PSs would apply. Activities under this project can be classified as lower-risk MSME finance in one specific sector with typically moderate risks and will therefore be managed using other tools that will, however, incorporate core underlying principles of all PSs.¹⁸ Further explanation of PS applicability is provided below.

E&S Policies	Triggered?	Explanation (Optional)
Applicable Performance Standards	Yes/No?	Explanation (Optional)
PS1 (Assessment and Management of Environmental and Social Risks and Impacts)	Yes	<p>PS1 requires all FIs involved in the projects to have an Environmental and Social Management System (ESMS). ESMS shall incorporate, as appropriate for the project circumstances, relevant principles and elements of an ESMS described in PS1, more specifically policies, procedures, institutional capacity and training, management commitment, and reporting. All these elements of the ESMS must ensure that project-specific E&S risks and impacts are adequately addressed. Such a system will include processes and implementation capacity within the multilevel project structure to manage key identified E&S risks and impacts.</p> <p>ECREEE, BOAD, CFIs, private sector solar companies, specialized environment and social consulting firms, and experts are expected to play important roles in implementation of the ESMS.</p> <p>Specifically, minimum Applicable E&S Requirements for solar companies (to be incorporated in financing agreements) that shall be applied (i) by BOAD to the funds extended to the CFIs who will in turn</p>

¹⁸IFC Interpretation Note on FIs (used by the World Bank as a source of good practice (https://www.ifc.org/wps/wcm/connect/38d1a68049ddf966af3cbfda80c2ddf3/IN+on+FIs_Revised+April+11+2017.pdf?MOD=AJPERES))



apply them to solar companies and (ii) by ECREEE as part of extending grants to solar companies will be as follows:

A. Compliance with national environmental, social, and labor regulations in countries where they operate

B. E&S exclusion criteria:

1. Production or activities involving forced labor¹
2. Production or activities involving child labor²
3. Cross-border trade in waste and waste products, unless compliant to the Basel Convention and the underlying regulations³
4. Confirmed cases of occupational, health, and safety incidents or accidents
5. Confirmed cases Gender Based Violence/Sexual Exploitation and Abuse
6. Confirmed cases of discrimination of vulnerable groups, including gender and disability

Footnotes

1. Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.
2. Employees may only be taken if they are at least 15 years old, as defined in the ILO Minimum Age Convention (C138, Art. 2), and ratified by each country. Children under the age of 18 will not be employed in hazardous work. Children will not be employed in any manner that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.
3. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, usually known as the Basel Convention, is an international treaty that was designed to reduce the movements of hazardous waste between nations. Hazardous waste, as defined under the convention, will not be traded cross-border. Under Basel Convention, "hazardous wastes" are defined as (a) Wastes that belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III; and (b) Wastes that are not covered under paragraph (a) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export, import or transit. National definition of hazardous wastes for Nigeria under Basel Convention can be found here:
<http://www.basel.int/Countries/NationalDefinitions/NationalDefinitionsofHazardousWastes/tabid/1480/Default.aspx>

C. Minimum E&S risk mitigation policies, procedures, and tools:

Each solar business shall be required to have an "ESMS" at its level to be comprised at a minimum of:

1. Policy/ procedure and records on occupational health and safety
2. Human Resource policy (including code of conduct for workers and grievance mechanism for workers)
3. Waste management policy or procedures
4. Stakeholder engagement plan and grievance mechanism
5. Solar businesses shall also be encouraged to put in place a formal environmental and social policy



Applicability of ESMS: As the project funds will be provided to support off-grid solar lending (specified end use of funds) the ESMS requirement will be applied to BOAD at the institutional level in terms of their ability to ensure adequate E&S risk management due diligence, monitoring and reporting policies, processes, and capacity covering commercial FIs availing their credit lines. At the level of the Commercial Financial Institutions as well as at the level of ECREEE when providing grant funds to solar businesses, the ESMS requirement will apply to ROGEP funds.

The ESMS will also incorporate a grievance mechanism at ECREEE and BOAD level that will accept and address complaints and concerns regarding relevant operations in a manner accessible and understandable for affected parties. Grievance mechanism must be required for ECREEE and BOAD in the Financing Agreement and shall be approved by the Bank.

PS2 (Labor and Working Conditions)	Yes	All financial institutions involved will manage the working conditions of their own workforce in accordance with relevant aspects of Performance Standard 2 on Labor and Working Conditions, as required by para. 17(b) of BP 4.03. To that extent, they will be required to have adequate labor management procedures and policies.
PS3 (Resource Efficiency and Pollution Prevention)	No	N/A
PS4 (Community Health, Safety, and Security)	No	N/A
PS5 (Land Acquisition and Involuntary Resettlement)	No	N/A
PS6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources)	No	N/A
PS7 (Indigenous Peoples)	No	N/A
PS8 (Cultural Heritage)	No	N/A
Projects on International Waterways OP/BP 7.50	No	The project will not involve any impacts on international waterways.
Projects in Disputed Areas OP/BP 7.60	No	The project is not carried out in disputed areas.

KEY E&S ISSUES AND THEIR MANAGEMENT

A Summary of Key E&S Issues



1. Describe any E&S issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

51. Key environment and social risks include waste management (disposal and recycling of solar panels, used SHS units, and lead acid and lithium ion batteries), OHS and labor issues for solar companies' workers, risks related to gender issues and inclusion of vulnerable groups. Land-related issues are not expected to be significant, apart from potential voluntary land donation or very minor temporary physical or economic displacement where panel installations may be on the ground for private sector users and businesses and those will require a proper protocol. Any installations involving land acquisition or donation with regard to public buildings would not be supported by ROGEP.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

52. While key E&S issues are limited and their magnitude is mostly proportionate to the small size of subprojects to be implemented by solar businesses. However, some risks are systemic and expected to manifest themselves frequently. This includes, among others, an important issue of safe disposal/ recycling of used batteries (both lead-acid and lithium ion). Compounded with the e-waste challenges coming from other industries in Africa, e.g. automotive, used battery recycling and disposal is becoming one of the key challenges for scaling-up off-grid solar energy in Africa. ROGEP's design will include a TA component that will aim to develop and test strategic and practical solutions within the project's context.

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

53. In consideration of "no project" alternative, while the project is expected to have a number of moderate but identifiable environmental and social (E&S) risks, it is also seeking to bring positive outcomes for local livelihoods of communities and also represent a more sustainable and cleaner power source based on renewable energy in places where other sources of energy are not easily available.

54. In consideration of other / alternative energy sources, the project is a renewable energy project and thus presents positive environmental externalities compared to the diesel-based generation. The proposed project will bring in positive environmental impact, not only by avoiding greenhouse gas emissions but also by reducing local air pollution emissions. This will lead to reduction in local pollution from the use of diesel, kerosene, candles and biomass (firewood) that are used as alternative sources of energy.

4. Describe measures taken by the borrower to address E&S policy issues. Provide an assessment of borrower capacity to plan and implement the measures described:

55. BOAD currently has in place institutional E&S risk management systems that cover all their operations, and that include specific provisions for lending through commercial financial institutions, as well as institutional capacity that supports their implementation:

- BOAD has put in place the following elements of an institution-wide ESMS: (i) institutional E&S policy and procedures that incorporate the approach to lending through FIs (current version dated May 2015);¹⁹ (ii) manual for assessment of financial sector operations, which further elaborates BOAD's procedures for FI lending; (iii) assessment questionnaire for FIs that BOAD lends to, that must be filled out and submitted by all financial institutions that apply for BOAD's funding.
- However, since BOAD has to date had a sector-specific credit line, current policy provisions are not

¹⁹ *Politiques operationnelles et procedures d'intervention de la banque ouest africaine de developpement en matiere de gestion environnementale et sociale dans le financement des projets, "Prêts d'investissement sectoriels et prêts à des intermédiaires financiers"*



adapted to the specific E&S risk aspects of lending in the off-grid solar sector, as opposed to cross-sectoral credit lines for MSMEs, microfinance, or housing. Therefore, BOAD – with assistance from ECREEE - has prepared an ESRM Sector Guide for Off-Grid Solar that will be required for use by FIs that will avail ROGEP credit line. This Guide would be aligned with the existing institutional E&S risk management systems of the two institutions and be also built into the ROGEP Operations Manual. This Guide addresses E&S risks in the off-grid solar sector and provide requirements and tools for the CFIs and the borrowing solar companies. E&S sector guides are a good practice to complement the general institutional E&S risk management systems in the financial sector, and BOAD may continue to improve their institutional systems in the future by developing additional sectoral guidance should they design credit lines in other sectors (e.g. agriculture or services).

- In terms of institutional capacity, BOAD currently has six staff and consultants dedicated to environmental and social issues within its Department of Operations (Directorate for the Environment and Climate Finance). Directorate for Enterprises and Financial Institutions is situated in the same department, which makes coordination on E&S risk management for those types of operations more efficient. BOAD will be required to strengthen its E&S capacity with at least one social specialist and assign clear responsibilities for ROGEP to E&S team staff members.

56. ECREEE - as an implementing agency for ROGEP – is strengthening its E&S team and now has a part-time E&S specialist within the project PIU. The specialist has taken on this role in addition to the core role of financial sector specialist He has adequate skills and background in E&S risk management for the financial sector operations and had taken a reputable international training in this area (UNEP FI). Additionally, the PIU has a full time qualified gender expert who also acts as a social expert. ECREEE would be expected to strengthen the team with a dedicated environmental expert.

57. Based on the overall project design and the assessment of the existing E&S risk management systems of key implementing entities, there are two core elements of the E&S risk management system design for the project that are expected to ensure that project-specific risks are adequately addressed as follows:

- a. Operational level: Lending to solar companies will require participating commercial financial institutions who will lend to solar companies to put in place and implement E&S screening and monitoring procedures commensurate to the scope and nature of E&S risks and impacts to ensure that solar companies adequately manage relevant risks and impacts at their level – such as OHS and labor issues related to their own workforce - and as part of their interactions with customers during and after equipment installation process. This is applicable for the lending components implemented through BOAD, as well as the grant components implemented by ECREEE. This will be complemented by the ESRM Sector Guide for Off-Grid Solar that will be required for use by FIs that will avail ROGEP credit line (as mentioned above). This Guide would be aligned with the existing institutional E&S risk management system of BOAD and be also built into the ROGEP Operations Manual both to confirm BOAD’s adoption and application of the Guide and apply it to ECREEE’s grant financing for solar businesses.
- b. Strategic E&S risk management and capacity building: Some of the key risks associated with the project are systemic and cannot be addressed at the operational level alone. Examples include waste management/ used battery recycling solutions at the level of countries and region, gender issues, overall E&S capacity building for participating CFIs and solar companies, and knowledge exchange for key stakeholders. To the extent, with support from BOAD, ECREEE as the implementing agency of the ROGEP project has designed this Environment & Social Risk



Management Strategy incorporated in the ROGEP Operational Manual prepared by ECREEE with special focus on the risks, mitigation factors and capacity building of stakeholders. The Strategy is an important element of the overall strategy of ROGEP in creating access to energy in the region. The implementation of ROGEP will be done in such so as not to pose any risks to the environment and the society that is expected to benefit. The Strategy, and its supporting budget, focuses on identification, avoidance and mitigation of the risks associated with the operations of the project and the businesses along the value chain, including the end users. ECREEE will be mostly responsible for the implementation of the Strategy with support and participation from BOAD.

58. Gender issues are also a key preoccupation in the ROGEP, that is cross-cutting through all project components. Lack of access to electricity service disproportionately impacts women, because of their reliance on electricity to fulfill household chores, which in many contexts are seen as primarily the responsibility of women. Increasing access to sustainable electricity services through renewable off-grid technologies can result in positive development outcomes for women in the ECOWAS region. In addition to improving development outcomes for women through improving access to electricity, the project also includes a specific gender action plan that aim to close gender gaps in economic opportunities and access to credit through targeted actions and specific indicators that will monitor outcomes of these actions in project countries.

Training / Capacity Building

Training and capacity building are key to ensure implementation of the above approach. Environment & Social Risk Management Strategy (incorporated in ROGEP Operations Manual by ECREEE) will address the following capacity needs (with budget allocated by ECREEE for these activities):

- Awareness on E&S issues among key stakeholders
- Enhancing institutional capacity for ESRM in the financial sector (BOAD, CFIs)
- Capacity of solar companies for ESMS implementation
- Addressing strategic technical issues such as waste management, gender, supply chain sustainability etc.
- E&S operational monitoring and audits, as needed
- Citizen / end user engagement

Role of the World Bank

The Bank will assist ECREEE and BOAD in fulfilling their respective roles, and in particular: (i) assist and advise on improving and enhancing Environmental and Social Management Systems during project implementation, including capacity building activities; (ii) review annual consolidated E&S Performance Report submitted by ECREEE and BOAD as required by BP4.03 paragraph 26; (iii) conduct supervision activities at the World Bank's discretion, as commensurate with the ongoing needs of the project.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure, with an emphasis on potentially affected people:

The concept stage and appraisal stage ISDSs are prepared and disclosed by the Bank as the source of summary information on the Bank's findings regarding environmental and social issues. BOAD will disclose the ESRM Sector Guide for Off-Grid Solar on its website, to supplement the elements of institutional ESMS already disclosed by them. ECREEE will also disclose the Environment & Social Risk Management Strategy on its



website. During project preparation, the approach was consulted upon with a wide range of stakeholders, specifically during a consultation event held in Accra on June 27, 2018.

B. Disclosure Requirements (N.B. The sections below appear only if corresponding policy is triggered)

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank

Date of submission to World Bank External Website

For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
N/A

"In country" Disclosure

Comments

As part of its preparation of the project under OP/BP4.03, the Bank assesses E&S risk management systems and plans for capacity building for the FIs (in this case ECREEE for grant financing and BOAD). Based on this assessment, strengthening of existing systems and capacity is recommended and should follow the principle of continuous improvement to ensure that ESMS enables ECREEE and BOAD to meet E&S requirements for the project. For this project, such assessment and recommended improvements (E&S Action Plan, or ESAP) are included in the Project Appraisal Document (PAD). Once key elements of the ESMS – such as E&S policy, procedures, and capacity - are in place and satisfactory to the Bank, the Bank approves the ESMS in a memorandum and includes the ESAP in the project Financing Agreements. In line with the overall design of this project, such approval is expected to be completed before negotiations. This approach allows the project an opportunity to enhance E&S systems and capacity. This is expected to ensure effective implementation and tangible outcomes for E&S risk management.

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting) (N.B. The sections below appear only if corresponding safeguard policy is triggered)

OP/BP 4.03 - WB Performance Standards for Private Sector Activities

Does the project require a stand-alone EA (including EMP) report?

No

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

N/A

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

N/A



The World Bank Policy on Disclosure of Information

Have relevant E&S policies documents been sent to the World Bank's External Website?

No

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

No

All E&S Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to E&S policies?

Yes

Have costs related to E&S policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of E&S impacts and measures related to E&S policies?

No

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

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APPROVAL

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