Project Information Document/ Identification/Concept Stage (PID)

Concept Stage | Date Prepared/Updated: 10-Sep-2019 | Report No: PIDC191990

BASIC INFORMATION

A. Basic Project Data

Project ID	Parent Project ID (if any)	Environmental and Social Risk Classification	Project Name
P171037		Low	Quality Assurance Capacity Building for the Off-Grid Solar Sector
Region	**Country**	**Date PID Prepared**	**Estimated Date of Approval**
OTHER	World	10-Sep-2019	
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Investment Project Financing	Collaborative Labeling and Appliance Standards Program (CLASP)	Collaborative Labeling and Appliance Standards Program (CLASP)	

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	0.80
Total Financing	0.80
Financing Gap	0.00

DETAILS

Non-World Bank Group Financing

Trust Funds	0.80
Energy Sector Management Assistance Program	0.80

B. Introduction and Context

Country Context

Country context for the initial focus countries: Haiti, Kenya, Nigeria, Madagascar, Rwanda and Uganda.

Haiti

Haiti has a population of 10.4 million inhabitants. It is classified as a fragile- and conflict-affected state[1] with considerable development challenges. Haiti is beset by widespread poverty and inequality, economic decline and unemployment, institutional weakness, poor governance, and recurrent conflict. It is vulnerable to natural disasters.[2] As of today, only one in three Haitians has access to electricity, and even that is sporadic and unreliable. Especially in rural areas, access is very limited (17% versus 53% in urban areas) and is highly skewed towards higher income quintiles, with an increasing number of informal and illegal connections.

However, and this is important to note that the current President Jovenel Moïse and his administration are very committed to renewable energy in response to Haiti's numerous development challenges. They have recently modified the country's electrification strategy (previously focused only on grid electricity) to integrate mini-grid and off-grid solutions, with a specific emphasis on smart mini-grids and solar home systems (Government's Roadmap for Electricity Sector issued in April 2017). President Moïse and his administration have further launched the "Caravan of Change" initiative that envisages sustainable solutions to chronicle malnutrition and poor health. Under the Caravan of Change initiative, Government is partnering with private sector to provide Solar Home Systems and other off-grid solutions to the population. The Caravan is scheduled to touch every department of the country before the end of the president's term in 2022. The president's commitment together with his promise to electrify the country in the next couple of years is regularly featured in the media and has since sparked an excitement for renewable energy amongst Haitians.

[1] The World Bank Group's (WBG) Fragile, Conflict and Violence Group (formally the Center on Conflict, Security and Development CCSD) annually releases the Harmonized List of Fragile Situations. 'Fragile Situations' include countries or territories with (i) a harmonized CPIA country rating of 3.2 or less, and/or (ii) the presence of a UN and/or regional peace-keeping or political/peace-building mission during the last three years. Haiti meets both criteria – with a WBG CPIA of 2.875 in FY18.

[2] Verner, Dorte; Heinemann, Alessandra. 2006. Social Resilience and State Fragility in Haiti: Breaking the Conflict-Poverty Trap. en breve; No. 94. World Bank, Washington, DC. © World Bank: https://openknowledge.worldbank.org/handle/10986/10311

Kenya

Kenya is the global leader in the adoption of off-grid solar technology, with approximately nearly 10 million people now meeting their basic electricity needs (Tier 1) with quality-verified off-grid solar products. The Kenyan government has now included off-grid access into its 2018 Kenya National Electrification Strategy (KNES). Kenya has also adopted national standards for off-grid solar products that are harmonized with Lighting Global Quality Standards.

Nigeria

Millions of Nigerians do not have access to grid electricity, relying instead on polluting lighting sources such as kerosene lanterns, candles, and torches. The situation in rural areas is particularly acute with only 41.1%

grid access rate. And even among those who have access to the grid, 40% are 'under-electrified' – meaning they have less than 12 hours of grid electricity per day.

Nigeria is implementing a quality assurance framework for component-based systems. These systems are not currently covered by Lighting Global Quality Standards – but we are working closely with the Quality Assurance team to work on this framework with a goal to harmonize them at the global level in due time.

Madagascar

Access to grid electricity in Madagascar is currently estimated to be less than half the sub-Saharan African average, with considerable disparities between urban and rural areas. This is due in large part to the country's high surface area, which results in low population density outside urban areas. Recognizing that large swaths of the country may remain beyond the reach of the national grid, perhaps even in the long term, the government of Madagascar is embracing the potential offered by off-grid solar technologies. Indeed, preliminary analyses suggest that off-grid solar solutions would be the least-cost electrification option for nearly 60 percent of Malagasy households through 2030. ESMAP supported a market assessment and provided technical assistance to strengthen the Quality Assurance Framework in Madagascar.

Rwanda

Off-grid solar is poised to play a major role in meeting Rwanda's target of electrifying 70% of households by mid-2018. At present, only about a quarter of households have access to electricity. New grid connections are costly and the existing electric grid is heavily-burdened. In light of this, the Rwandan Ministry of Infrastructure (MININFRA) has recognized that low-consumption households can be served more efficiently and cost-effectively by off-grid systems.

Uganda

In Uganda, only about 8% of the rural population has access to the national grid, and for those that do have it, average consumption is very low (<30 kWh/month) – likely due to low affordability of service. Furthermore, new connections are typically quite high at about $200 per connection.

Under the Rural Electrification Strategy and Plan (RESP) (2013-2022), the Government of Uganda has set a target to increase rural electricity access to 22% by 2022 through a mix of grid and off-grid services. Furthermore, in their 2016/17 National Budget the Government of Uganda declared that producers of solar, wind and geothermal energy will be allowed relief on VAT incurred on their business inputs, in order to reduce the cost of production of alternative sources of energy.

Lighting Africa is supporting the Uganda National Bureau of Standards (UNBS) in adopting and enforcing internationally recognized standards aligned with Lighting Global's Quality Standards. ESMAP helped establishing a Working Capital Facility and Guarantee Facility, as well as strengthening the Quality Assurance Framework and Consumer Awareness Campaign.

Sectoral and Institutional Context

General Sectoral and Institutional Context

The off-grid energy market is characterized by products with varying levels of quality and durability. Some are designed and manufactured well, while others fall short of expectations for safety, durability, and performance. At the same time, key markets for these products generally lack strong consumer protection frameworks, meaning warranties are difficult to access, regulations are non-existent or not enforced, and the courts offer little recourse when products malfunction. These same markets seek to serve some of the most vulnerable consumers, for whom purchasing a solar product can be a major decision and investment. Spending limited funds on a poor-quality product can be devastating, and poor-quality products can lead to "market spoilage" in which consumers lose trust in an entire type of technology because of their—or their neighbor's—negative experience with it.

In this environment, product testing and standards provide quality assurance for the market and improve consumers' access to good-quality products. Reliable information about the performance, durability, and safety of products is necessary to the smooth functioning of any product market, all the more so for complicated last-mile markets featuring innovative, albeit low-margin businesses. Such information enables purchasers to compare product offerings across manufacturers, investors to reduce risk, and governments to effectively regulate commerce.

Over the past 10 years, Lighting Global, a World Bank Group program, has developed and maintained the world's most widely recognized QA framework for pico-solar products and solar home system (SHS) kits up to 350 watts. Lighting Global's QA framework focuses on consumer protection, while serving a broad market audience and meeting many diverse stakeholder needs.

Sectoral and Institutional Context for the initial focus countries: Haiti, Kenya, Nigeria, Madagascar, Rwanda and Uganda.

Haiti

To support Government objectives, in October 2017, the WB approved two projects financed by the Scaling Up Renewable Energy Program in Low Income Countries (SREP) and the Clean Technology Fund (CTF), both part of the Climate Investment Funds (CIFs). The SREP-funded Renewable Energy for All Project (P156719, US$ 19.62 million) and the CTF-funded Modern Energy Services For All Project (P154351, US$ 15.65 million) jointly aim at scaling-up renewable energy and off-grid energy access in Haiti. The projects are expected to expand access for rural households through leveraged investments in micro and mini-grids, and village level systems by closely collaborating with the private sector. Therefore, the projects also target an improved environment for private investment in clean energy, by supporting the development of adequate regulatory frameworks and quality standards enforcement. One major vehicle is the Off-Grid Electricity Fund (OGEF)

that was established under the CTF-Project, is managed by a local financial institution FDI and an International Fund Manager Bamboo Capital Partners and that will provide a total of US$ 17.22 million in the form of equity, debt, working capital and grants to off-grid solar companies and mini-grid operators.

Kenya

In FY18 the WB approved the "Kenya Off-Grid Solar Access Project" (P160009), with the objective of increasing access to modern energy services in underserved counties of Kenya. The proposed project is expected to provide electricity services to approximately 277,000 households (close to 1.3 million people), 1,097 community facilities, and 380 boreholes. Subcomponent 2A focuses in particular on Stand-alone Solar Systems for Households (IDA $42 million equivalent) and will support off-grid electrification of households in the 14 target counties where a stand-alone solar system is the most appropriate technology to deliver energy services, leveraging Kenya's unique off-grid solar market dynamics and innovations. The subcomponent provides incentives for solar off-grid companies currently operating in the more densely populated areas of Kenya to expand to underserved counties and provide services to the off-grid households in these counties. These services, provided through portable SHS, are well-suited to some of the population in the underserved counties, as the households do not always live in permanent structures. In addition, affordability is ensured by allowing the households to pay for systems over time. Subcomponent 3A focuses on Stand-alone Solar Systems for Community Facilities (IDA US$25 million equivalent). This subcomponent supports the provision of electricity services to community facilities in remote areas in underserved counties. A private sector contractor is competitively selected for each service territory to supply, install, and maintain stand-alone solar systems in community facilities. A total of about 1,100 facilities could be reached through this subcomponent.

Nigeria

In FY18 the WB approved the "Nigeria Electrification Project" (P161885) with the objective of increasing access to electricity services for households, public educational institutions, and underserved (MSMEs) micro, small, and medium enterprises. The project comprises of four components. The first component, solar hybrid mini grids for rural economic development will be implemented under a market-based private sector led approach to construct, operate, and maintain economically viable mini grids, supported by subsidies that reduce initial capital outlays. It consists of following sub-components: (i) minimum subsidy tender for mini grids; and (ii) performance-based grants program. The second component, stand-alone solar systems for homes and MSMEs goal is significantly increase the market for stand-alone solar systems in Nigeria in order to provide access to electricity to more than one million Nigerian households and MSMEs at lower cost than their current means of service such as small diesel gensets. It consists of following sub-components: (i) market scale-up challenge grants; and (ii) performance-based grants. The third component, energizing education objective is to provide reliable, affordable, and sustainable power to public universities and associated teaching hospitals. The fourth component, technical assistance is designed to build a framework for rural electrification upscaling, support project implementation as well as broad capacity building in Rural

Electrification Agency (REA), Nigerian Electricity Regulatory Commission (NERC), Federal Ministry of Power, Works, and Housing (FMPWH), and other relevant stakeholders.

Madagascar

In FY19 the WB approved the "Least-Cost Electricity Access Development Project (LEAD)" (P163870), with the objective of increasing access to electricity services for households, enterprises, and health facilities in Madagascar. Component 2 (IDA US$55 million equivalent) will engage financial institutions, off-grid solar (OGS) companies and contractors to scale up the rollout of stand-alone solar PV systems for households, enterprises, and health facilities. This will expand access to electricity to lower-income households and areas that do not have sufficient density or load diversity to justify grid or mini-grid extension given prevailing costs or those that are simply too far from the existing grid or mini-grid network. Subcomponent 3c "Market Development Support" will support the improvement of the enabling environment for the development of the OGS market in Madagascar through the (i) Minimum product standards and quality assurance, including establishing an adequate policy and regulatory framework for the OGS sector, with the intention of providing clear rules to companies and their investors, protecting consumers, and ensuring subsidy and taxation regimes are optimized and (ii) Consumer education and awareness to help overcome consumers' lack of understanding of the comparative advantages of OGS products over fuel-based lighting, their initial reservations regarding the adoption of new technology, their inability to make informed purchasing decisions and identify quality products, their potential for productive use and income generation, and a lack of information on how to access the said products, particularly when combined with efforts to support the distribution of quality products.

Rwanda

In FY17 the WB approved the Renewable Energy Fund (P160699) project, with the objective of increasing electricity access in Rwanda through off-grid technologies and facilitate private sector participation in renewable off-grid electrification. The project uses existing country systems and promotes private sector investments to ensure sustainability of the approach. The GoR, as the Borrower, takes the currency risk and onlend (for the line of credit and direct financing component) and transfer (for the technical assistance component) the project funds in local currency (Rwanda franc) to Development Bank of Rwanda (BRD), which will administer the Renewable Energy Fund (REF). The project is structured around two components—Component 1: Line of Credit and Direct Financing for Off-grid Electrification and Component 2: Technical Assistance, Capacity Building, and Project Implementation Support.

Uganda

In FY15 the WB approved the "Uganda Energy for Rural Transformation III" (P133312), with the objective of increasing access to electricity in rural areas of Uganda. Component 2 "Off-grid Energy Access" (US$25 million: US$14.3 million equivalent IDA, US$8.2 million GEF, US$2.5 million GoU) covers off-grid energy access, including the installation of solar PV systems for public institutions in rural areas; business development support; provision of credit facilities to enhance electricity access; and quality standards enforcement support. This component will finance necessary consultancy services, capacity building

activities, and operations costs. The component will be implemented by several IAs—Ministry of Health (MoH), Ministry of Water and Environment (MoWE), Ministry of Education, Science, Technology and Sports (MoESTS), the Private Sector Foundation Uganda (PSFU), and UECCC—under the coordination of the Project Coordination Unit (PCU) within the Ministry of Energy and Mineral Development (MEMD).

Sectoral and Institutional Context of other countries of focus:

Regional standards for off-grid solar products in West Africa: ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE)

ECOWAS countries (Economic Community of West African States)

In FY19 the WB approved the "Regional Off-Grid Electrification Project (ROGEP)" (P160708) with the objective of increasing electricity access of households and businesses using modern stand-alone solar systems through a harmonized regional approach. The project focuses on 19 West African and Sahel countries and has 2 main components.

(1) Develop a will transfer and share knowledge of technological innovations and new business models across the region, in a harmonized manner, which will serve to improve the enabling environment for stand-alone SHS in the region. (1a) Entrepreneurship Technical Support 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. Entrepreneurship Financial Support subcomponent will support entry of new solar businesses. (1b) Barrier Removal for Challenging Markets subcomponent will set targeted financial incentives to entrepreneurs and businesses operating in challenging markets, such as countries in the Sahel region. (2) Access to Finance for Stand-alone Solar System Businesses component.

Other additional countries: Burundi, Congo DRC, Ethiopia, Pakistan, Yemen, Vanuatu.

Burundi

Burundi Access to Sustainable Energy - P164435 – 2019 (planned)

DRC

Electricity Access and Services Expansion Project - P156208 - 2017

Ethiopia

Ethiopia Electrification Program (ELEAP) - P160395 - 2018

Pakistan

Sindh Solar Energy Project - P159712 - 2018

Yemen

Yemen Emergency Electricity Access Project - P163777 - 2018

Vanuatu

Rural Electrification Project Stage II - P160658 - 2017

Relationship to CPF

Relationship to CPF for the initial focus countries: Haiti, Kenya, Nigeria, Madagascar, Rwanda and Uganda.

Haiti

The proposed project is fully aligned with the World Bank Group's Country Partnership Framework (CPF) for FY2016–FY2018 (Report No. 98132-HT) discussed by the World Bank Board of Executive Directors on September 29, 2015. The proposed project will contribute to CPF focus area of Inclusive Growth by supporting the development of greater economic opportunities beyond Port-au-Prince, increasing energy access, supporting the development of renewable energy, and increasing access to finance and promoting financial inclusion. It will support Haiti's competitiveness and productivity by promoting private-sector growth through energy investments. The proposed Project also supports GOH's vision for the energy sector, included in the Strategic Plan for the Development of Haiti (SPDH), which sets a path for Haiti to become an emerging economy by 2030, including the ambitious goal of universal electricity access. Furthermore, the proposed Project supports GOH's National Roadmap (2014), which highlights the need for investing in RE and off-grid energy access.[1] The proposed Project also supports Haiti's Intended Nationally Determined Contribution (INDC) commitment to expand RE generation to 47 percent of the generation mix by 2030.

[1] The Road Map calls for (i) improving EDH performance and for dual efforts to build the national grid while supporting mini-grid and off-grid solutions for electrification; (ii) a diversification of Haiti's generation mix with indigenous renewable energy sources and (iii) MTPTC to implement the present SREP-funded project, as well as the related CTF-funded Modern Energy Services for All Project. http://www.sgcm.gouv.ht/feuilles-de-route/

Kenya

The proposed project is aligned with the Country Partnership Strategy (CPS, FY14–18), whose overarching goal is the sustainable reduction in poverty and an increase in shared prosperity. The strategy highlights three domains of engagement: (1) Competitiveness and sustainability—growth to eradicate poverty; (2) Protection and potential—human resource development for shared prosperity; and (3) Consistency and equity—delivering a devolution dividend. The "Kenya Off-Grid Solar Access Project" directly links to these

domains as it provides energy services to households and energy and water services to public institutions/community facilities.

Nigeria

The proposed project is aligned with the Country Partnership Strategy (CPS, FY14 – FY17) for Nigeria. In particular, the first strategic cluster of the CPS is "promoting diversified growth and job creation by reforming the power sector, enhancing agricultural productivity, and increasing access to finance." The CPS identifies several objectives within this strategic cluster which the proposed project intends to support: (i) "increasing installed power generation and transmission capacity…and providing access to improved energy service"; (ii) "expanding financing opportunities for SMEs"; and (iii) "strengthening the ability of Development Finance Institutions to mobilize private finance for key sectors of the economy."

Madagascar

The proposed project contributes to Focus Area II 'Promote Inclusive Growth' of the current Country Partnership Framework (CPF) (FY2017–21) and will contribute to the achievement of the area's Objective #8 ('Improved Access to Energy and Transport'). The CPF for Madagascar highlights that, of all household and community-level factors, electrification is one of the most robust predictors of welfare gains with electrification efforts recognized as a critical success factor for the country's overall poverty reduction strategy. Accordingly, the CPF puts electrification among its key priorities while stipulating that (a) additional resources that may materialize during the CPF period be dedicated to electrification programs and (b) the programs be sustained beyond 2021. The proposed project contributes to the GoM's target of doubling electricity access in the country by 2021 through efficient least-cost investments in both grid and off-grid solutions and to the objective of further streamlining sector governance in the interest of scaling up private sector investments in electricity access.

Rwanda

The proposed project is aligned with the World Bank Group FY 2014–2018 Country Partnership Strategy (CPS) for Rwanda and the World Bank's twin goals of reducing poverty and boosting shared prosperity. Increased energy access in Rwanda through greater private sector participation will foster economic growth and directly support the CPS's objective identified under the first theme, which calls for 'accelerating economic growth that is private sector driven' and places energy investments as a high priority to tackle high costs and low reliability of energy. The provision of electricity through mini-grids and larger solar systems for productive uses will contribute to the objective of the second theme, which is 'improving the productivity and incomes of the poor through rural development and social protection.' The proposed project will provide electricity access to rural households that are predominantly poor, thereby enhancing their ability to participate and contribute to the economic development of Rwanda. Moreover, the project is also aligned with the World Bank Group's Energy Directions Paper, which is designed to help client countries secure affordable, reliable, and sustainable energy supply needed to meet the World Bank's twin goals.

Uganda

The proposed project supports the World Bank Group's twin goals of poverty eradication and promotion of shared prosperity. It is also fully aligned with the priorities set under the Country Assistance Strategy (CAS) for the period FY11-15, which emphasizes transformational operations and related investments. The project will help reduce poverty and promote shared prosperity by providing people with access to electricity in rural Uganda. Moreover, the CAS places particular emphasis on infrastructure development, agricultural poverty, and access to markets and skills development. Its Outcome No. 2.1 aims at reducing the unmet demand for electricity and increasing access to electricity for the rural population, including through grid extensions and the harnessing of renewable energy resources (on-grid and off-grid).

C. Project Development Objective(s)

Proposed Development Objective(s)

The objective of the small grant is to provide Quality Assurance (QA) for technical standards and specifications of off-grid solar products, as energy access solutions to national governments.

Key Results

PDO Indicators

PDO Indicator 1: number of client countries receiving techincal assistance support on QA as a result of this project.

Baseline: 0

End target: 5

Intermediate Indicators

Intermediate indicator 1: number of client countries developing, adopting and implementing QA standards as a result of this project.

Baseline: 0

End target: 2

Intermediate indicator 2: number of government officials and relevant stakeholders (providing in-country support for QA work) trained (in-person or through webinars) as a result of this project.

Baseline: 0

End target: 25

Intermediate indicator 3: number of market check tests performed to verify product performance in the field and accurate representation in the marketplace.

Baseline: 0

End target: 15

Intermediate indicator 4: number of new or revised documents submitted to the IEC.

Baseline: 0

End target: 1

Intermediate indicator 5: internal memo or report documenting research findings.

Baseline: 0

End target: 2

D. Preliminary Description

Activities/Components

The overall QA program operated by CLASP has seven closely integrated components, as summarized in Table 1. Only a subset of the QA work will be financed by this small grant, namely a portion of each of the following technical assistance components: Test Methods & Standards, Market Surveillance, National Policy Support and Capacity Building, and Research.

Table 1. Components of the Quality Assurance Program

Components	Key Activities
Test Methods & Standards*	• Advise governments on the development of a QA framework for component-based SHS • Validate test methods and conduct related technical research • Engage industry, governments, and other stakeholders on the development and maintenance of international test methods and quality standards

Test Lab Network	• Train lab personnel and provide ongoing technical support to test labs • Manage relationships with labs in the Lighting Global Lab Network • Coordinate inter-laboratory comparison ("round robin") testing • Facilitate contacts between governments and test labs, including product testing for government-sponsored programs
Product Certification	• Oversee all aspects of the evaluation of pico-PV products and SHS kits • Issue verification letters and related documentation to compliant products • Develop, refine, and implement program policies
Market Surveillance*	• Conduct market check testing and market observations in the client countries to safeguard markets and protect the integrity of the program • Follow up with manufacturers to address cases of non-compliance • Notify governments and program partners when products are delisted due to non-compliance
Marketing & Communications	• Maintain a public listing of quality-verified (QV) products • Strengthen and better communicate to product suppliers the value proposition for product certification • Reach out to investors, distributors, donors, and other institutions to help them better leverage the QA framework in their businesses and programs
National Policy Support and Capacity Building*	• Provide technical assistance to governments interested in adopting and implementing quality standards to protect consumers • Expand the capacity of government and practitioners in the client countries across the sector on QA for off-grid solar products
Research*	• Monitor levels of compliance with national standards to track progress, target scarce resources, and identify lessons to apply elsewhere • Survey consumers in the client countries to assess the value of the quality standards and identify ways to improve their effectiveness

* Denotes a component funded under this World Bank grant

Each of these four components are described in greater detail below.

Test Methods & Standards

Test methods and standards form the foundation for the QA framework, as they are the means by which products are evaluated. The program uses test methods described in IEC Technical Specification 62257-9-5:2018 and quality standards for pico-solar products and SHS kits that are currently managed by the program. CLASP will manage all of these documents through engagement with sector stakeholders and with the IEC, which is expected to adopt quality standards for these products in 2019. CLASP will also focus on aiding the development of a QA framework for component-based SHS; such a framework is a strategic priority for rural electrification efforts in several client countries. CLASP is well positioned to serve in an advisory and coordinating capacity and to facilitate IEC adoption of technical specifications for component-based SHS. CLASP will also conduct technical research as needed to validate and refine test methods for off-grid solar products to ensure that they remain relevant and accurate. Specific activities will include:

- Advising governments on the development of a QA framework for component-based SHS
- Validating test methods through laboratory testing and desk research
- Engaging with industry, governments, and other stakeholders through meetings, teleconferences, and written correspondence on the development and maintenance of international test methods and quality standards, particularly through engagement in the IEC process

Market Surveillance

Market surveillance is a critical yet too often neglected component of the QA program. CLASP will conduct market check testing to ensure that products that meet the standards in a laboratory setting also deliver on their promise in the field. CLASP will also inspect product packaging and the websites where products are sold to check that QV products are being represented accurately in the marketplace. CLASP will follow up with manufacturers to address cases of suspected non-compliance and delist products that no longer comply with the Quality Standards. This grant will allow CLASP to increase its market surveillance activities, which will bolster trust in the program and better protect consumers. A robust market surveillance function can also be an asset to institutions—both public and private—that align their standards with the Lighting Global Quality Standards, as explained in the following section. Specific activities will include:

- Visiting retail shops to inspect products and their packaging and reviewing marketing materials on manufacturer and distributor websites to identify possible cases of non-compliance
- Flagging individual products for check testing, purchasing samples of these products, and testing them in a laboratory to identify possible cases of non-compliance
- Following up with manufacturers to address possible cases of non-compliance
- Conducting additional product/packaging inspections or check testing to investigate and resolve possible cases of non-compliance

- Notifying governments and other program partners when products are delisted due to non-compliance

National Policy Support and Capacity Building

Governments have a key role to play in helping to expand markets for quality off-grid solar energy systems. They can use the QA framework as a basis for their tax and duty policies, voluntary market stimulation programs, and mandatory product standards and regulations to protect consumers. Aligning with international standards reduces the time and resources needed to develop and implement these policies and gives consumers expanded access to global product innovations.

Initiatives in more than 20 countries around the world are using the Lighting Global Quality Standards to ensure they support only quality products. Ethiopia, Kenya, Rwanda, and Tanzania have adopted mandatory quality standards, and many other countries are now also in the process of developing standards for off-grid solar products. Building on its nearly two decades of experience advising governments on product standards, CLASP is providing technical assistance to governments interested in adopting and implementing quality standards to protect consumers of off-grid solar products. With this grant, CLASP will expand its capacity to provide this assistance and engage directly with government officials from bureaus of standards, regulatory agencies, ministries of trade, customs authorities, and other agencies.

In addition, CLASP will work on building the capacity of government officials and other practitioners, including consultants (individuals and consulting companies) that could be hired to support in-country quality assurance efforts, local NGOs, and others. Trainings cover topics including appropriate timing and sequencing of standards-related interventions, the components of effective standards programs and typical roles of various government agencies, global best practice related to standards implementation and compliance, and discussion on how these practices can be adapted to local circumstances. CLASP will connect governments that request information on product end of-life/e-Waste management with relevant resources. Specific activities will include:

- Helping to facilitate country-level workshops bringing together relevant government, industry, and institutional stakeholders to establish a shared vision for QA in the off-grid solar sector
- Supporting World Bank in developing country-level roadmaps or action plans that lay out who needs to do what and when
- Providing technical assistance to governments on the formulation and implementation of standards, including remote review of technical documents and attendance at technical committee meetings
- Delivering content for regional or national trainings for government officials on global best practice related to standards compliance

Research

CLASP will conduct a mix of field and desk research to measure progress and evaluate activities to ensure that the program remains well aligned with the needs of the sector as it evolves. There is a significant need for consumer research to update our understanding of levels of consumer satisfaction, what information is

needed to make well-informed purchase decisions, and whether the Quality Standards are meeting consumers' needs. Consumer research could also complement other methods for estimating the relative size of the markets for QV and non-QV products.

An important area of inquiry for CLASP will be research into the integration of solar home systems and appliances with other forms of electrification, such as from the centralized grid, in order to smooth the multiple pathways by which consumers can reach higher tiers of electricity access. This research project will include interviews with a diverse set of stakeholders in the client countries and a techno-economic modeling exercise. Specific activities will include:

- Consumer research to measure levels of compliance with national standards and to assess the value of the quality standards and identify ways to improve their effectiveness
- Interviews with select technology developers, financiers, development professionals, and program sponsors to gather data on possible routes to enhanced energy access
- Techno-economic modeling and analysis

Environmental and Social Standards Relevance

E. Relevant Standards

ESS Standards		Relevance
ESS 1	Assessment and Management of Environmental and Social Risks and Impacts	Relevant
ESS 10	Stakeholder Engagement and Information Disclosure	Relevant
ESS 2	Labor and Working Conditions	Relevant
ESS 3	Resource Efficiency and Pollution Prevention and Management	Relevant
ESS 4	Community Health and Safety	Not Currently Relevant
ESS 5	Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Not Currently Relevant
ESS 6	Biodiversity Conservation and Sustainable Management of Living Natural Resources	Not Currently Relevant
ESS 7	Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
ESS 8	Cultural Heritage	Not Currently Relevant
ESS 9	Financial Intermediaries	Not Currently Relevant

Legal Operational Policies

Safeguard Policies	Triggered	Explanation (Optional)

Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

The project includes standalone technical assistance activities funded by a small grant from a recipient executed trust fund. At the concept stage, no specific environmental and social impacts are expected based on the activities outlined. The anticipated outcomes of the project related to changes in decision-making and behaviors are not financed by the Bank or are not directly subject to the World Bank Environmental and Social Policy for Investment Project Financing. The project will include no physical works and anticipated risks and impacts related to working conditions (including health and safety) are expected to be negligible. The current scope of engagement planned under the project includes borrower focusing on adopting the international standards of off-grid solar products and engaging with manufacturers on market surveillance and compliance. The stakeholder engagement will also cover consumers (on a limited scale) for estimating the relative size of quality verified and non-quality verified markets.

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Borrower/Client/Recipient

Borrower :	Collaborative Labeling and Appliance Standards Program (CLASP)

Implementing Agencies

Implementing Agency :	Collaborative Labeling and Appliance Standards Program (CLASP)		
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