Document of

**The World Bank**

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Report No: PAD2691

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT

IN THE AMOUNT OF US$5.75 MILLION

TO THE

FEDERAL REPUBLIC OF SOMALIA

FOR A

SOMALI ELECTRICITY ACCESS PROJECT

December 22, 2018

Energy and Extractives Global Practice
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective October 31, 2018)

| | | |
|---|---|---|
| Currency Unit | = | Somali Shilling |
| SSH 580 | = | US$1 |

FISCAL YEAR
January 1 - December 31

| | |
|---|---|
| Regional Vice President: | Hafez M.H Ghanem |
| Country Director: | Bella Bird |
| Senior Global Practice Director: | Riccardo Puliti |
| Practice Manager: | Sudeshna Ghosh Banerjee |
| Task Team Leaders: | Patrick Thaddayos Balla, Mohab Awad Mokhtar Hallouda |

## ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| ADRA | Adventist Development and Relief Agency |
| AfDB | African Development Bank |
| BP | Bank Policy |
| CAPEX | Capital Expenditure |
| CEEH | Candlelight for Environment, Education and Health |
| CIP | Capacity Injection Project |
| CPF | Country Partnership Framework |
| CQS | Consultant Qualifications Selection |
| DA | Designated Account |
| DC | Direct Current |
| DFID | U.K. Department for International Development |
| DG | Director General |
| EAFS | External Assistance Fiduciary Section |
| ECoP | Environmental Code of Practice |
| EIRR | Economic Internal Rate of Return |
| ESCF | Energy Sector Coordination Forum |
| ESMAP | Energy Sector Management Assistance Program |
| ESMF | Environmental and Social Management Framework |
| ESRES | Energy Security and Resource Efficiency in Somaliland |
| EU | European Union |
| FCI | World Bank's Finance, Competitiveness and Innovation Global Practice |
| FCV | Fragility, Conflict and Violence |
| FGS | Federal Government of Somalia |
| FiT | Feed in Tariff |
| FM | Financial Management |
| FMIS | Financial Management Information System |
| FY | Fiscal Year |
| GDP | Gross Domestic Product |
| GEEL | Growth, Enterprise, Employment and Livelihoods |
| GHG | Greenhouse Gas |
| GIS | Geographic Information System |
| GM | Grant Manager |
| GNI | Gross National Income |
| GoSl | Government of Somaliland |
| GPOBA | Global Partnership on Output-Based Aid |
| GRS | Grievance Redress Service |
| HIPC | Heavily Indebted Poor Country |
| IA | Implementing Agency |
| ICT | Information Communications and Technology |
| IDA | International Development Association |
| IFC | International Finance Corporation |
| IFI | International Financial Institution |
| IFR | Interim un-audited Financial Reports |
| IMF | International Monetary Fund |

| | |
|---|---|
| IPF | Investment Project Financing |
| IPSAS | International Public-Sector Accounting Standards |
| ISA | International Standards on Auditing |
| ISN | Interim Strategy Note |
| IVA | Independent Verification Agent |
| JNA | Joint Needs Assessment |
| KVA | Kilovolt Ampere |
| kWh | Kilowatt Hour |
| LED | Light Emitting Diode |
| LG | Lighting Global |
| M&E | Monitoring and Evaluation |
| MoE&WR | Ministry of Energy and Water Resources |
| MoEM | Ministry of Energy and Minerals |
| MPF | Multi-Partner Fund |
| MTB | Money Transfer Business |
| MW | Megawatt |
| NDP | National Development Plan |
| NGO | Non-Governmental Organization |
| NIS | Nordic International Support |
| NPP | National Procurement Procedures |
| NPV | Net Present Value |
| NRC | Norwegian Refugee Council |
| ODA | Overseas Development Assistance |
| OGSM | Off Grid Solar Market |
| OP | Operational Policy |
| OPEX | Operating Expenditure |
| PAYG | Pay As You Go |
| PDO | Project Development Objective |
| PDRC | Puntland Development and Research Centre |
| PFM | Public Financial Management |
| PFS | Project Financial Statements |
| PIM | Project Implementation Manual |
| PIU | Project Implementation Unit |
| PLFMIS | Puntland Financial Management Information System |
| PP | Procurement Plan |
| PPA | Public Procurement, Concessions and Disposal Act |
| PPD | Public Private Dialogue |
| PPF | Powering Progress Fund |
| PPSD | Project Procurement Strategy for Development |
| PSAWEN | Puntland State Authority Water Energy and Natural Resources |
| PSC | Project Steering Committee |
| PV | Photovoltaic |
| RBF | Results-based Financing |
| RISE | Regulatory Indicators for Sustainable Energy |
| SBCF | Somali Business Catalytic Fund |
| SCD | Systematic Country Diagnostic |

| | |
|---|---|
| SCoA | Standard Chart of Accounts |
| SCORE | Somali Core Economic Institutions and Opportunities |
| SDG | Sustainable Development Goal |
| SDRF | Somalia Development and Reconstruction Facility |
| SEA | Somaliland Electricity Agency |
| SEAP | Somali Electricity Access Project |
| SE4ALL | Sustainable Energy for All |
| SET | Somalia Energy Transformation |
| SFMIS | Somalia Financial Management Information System |
| SLFMIS | Somaliland Financial Management Information System |
| SHS | Solar Home System |
| Sida | Swedish International Development Cooperation Agency |
| SME | Small and Medium Enterprise |
| SoE | Statement of Expenditures |
| SORT | Systematic Operations Risk-rating Tool |
| SPD | Standard Procurement Documents |
| STEP | Systematic Tracking of Exchanges in Procurement |
| TA | Technical Assistance |
| ToR | Terms of Reference |
| TTL | Task Team Leader |
| UCS | Use of Country Systems |
| UNDB | United Nations Development Business |
| UNDP | United Nations Development Program |
| UAE | United Arab Emirates |
| USAID | United States Agency for International Development |
| WBG | World Bank Group |

## BASIC INFORMATION

| Country(ies) | Project Name | |
|---|---|---|
| Somalia | Somali Electricity Access Project | |
| **Project ID** | **Financing Instrument** | **Environmental Assessment Category** |
| P165497 | Investment Project Financing | B-Partial Assessment |

### Financing & Implementation Modalities

| | |
|---|---|
| [ ] Multiphase Programmatic Approach (MPA) | [ ] Contingent Emergency Response Component (CERC) |
| [ ] Series of Projects (SOP) | [✓] Fragile State(s) |
| [ ] Disbursement-linked Indicators (DLIs) | [ ] Small State(s) |
| [ ] Financial Intermediaries (FI) | [ ] Fragile within a non-fragile Country |
| [ ] Project-Based Guarantee | [✓] Conflict |
| [ ] Deferred Drawdown | [ ] Responding to Natural or Man-made Disaster |
| [ ] Alternate Procurement Arrangements (APA) | |

| Expected Approval Date | Expected Closing Date |
|---|---|
| 20-Dec-2018 | 30-Jun-2022 |

Bank/IFC Collaboration

No

### Proposed Development Objective(s)

The Project Development Objective is to expand access to electricity in targeted urban, peri-urban, and rural communities

### Components

| Component Name | Cost (US$, millions) |
|---|---|
| Electrification of households and businesses through standalone solar home systems | 3.00 |
| Analytical work for enabling electrification through solar-powered/hybrid mini-grids | 1.00 |
| Technical Asisstance, Capacity Building & Project Management | 1.75 |

### Organizations

| | |
|---|---|
| Borrower: | Ministry of Finance, Federal Republic of Somalia |
| Implementing Agency: | Ministry of Finance, Somaliland<br>Ministry of Energy and Water Resources, FGS<br>Ministry of Energy and Minerals, Somaliland |

## PROJECT FINANCING DATA (US$, Millions)

### SUMMARY

| | |
|---|---|
| **Total Project Cost** | 5.75 |
| **Total Financing** | 5.75 |
| **of which IBRD/IDA** | 0.00 |
| **Financing Gap** | 0.00 |

### DETAILS

**Non-World Bank Group Financing**

| | |
|---|---|
| Trust Funds | 5.75 |
| Somalia Multi-Partner Fund | 5.75 |

### Expected Disbursements (in US$, Millions)

| WB Fiscal Year | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|
| Annual | 1.63 | 1.38 | 1.38 | 1.38 |
| Cumulative | 1.63 | 3.00 | 4.38 | 5.75 |

## INSTITUTIONAL DATA

**Practice Area (Lead)**

Energy & Extractives

**Contributing Practice Areas**

Finance, Competitiveness and Innovation, Infrastructure, PPP's & Guarantees

**Gender Tag**

| Does the project plan to undertake any of the following? | |
|---|---|
| a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF | Yes |
| b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment | Yes |
| c. Include Indicators in results framework to monitor outcomes from actions identified in (b) | Yes |

## SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

| Risk Category | Rating |
|---|---|
| 1. Political and Governance | High |
| 2. Macroeconomic | High |
| 3. Sector Strategies and Policies | High |
| 4. Technical Design of Project or Program | Moderate |
| 5. Institutional Capacity for Implementation and Sustainability | High |
| 6. Fiduciary | High |
| 7. Environment and Social | Substantial |
| 8. Stakeholders | Substantial |
| 9. Other | Moderate |
| 10. Overall | High |

## COMPLIANCE

## Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

| Safeguard Policies Triggered by the Project | Yes | No |
|---|---|---|
| Environmental Assessment OP/BP 4.01 | ✓ | |
| Performance Standards for Private Sector Activities OP/BP 4.03 | | ✓ |
| Natural Habitats OP/BP 4.04 | | ✓ |
| Forests OP/BP 4.36 | | ✓ |
| Pest Management OP 4.09 | | ✓ |
| Physical Cultural Resources OP/BP 4.11 | | ✓ |
| Indigenous Peoples OP/BP 4.10 | | ✓ |
| Involuntary Resettlement OP/BP 4.12 | | ✓ |
| Safety of Dams OP/BP 4.37 | | ✓ |
| Projects on International Waterways OP/BP 7.50 | | ✓ |
| Projects in Disputed Areas OP/BP 7.60 | | ✓ |

## Legal Covenants

Sections and Description

No legal covenant

## Conditions

| Type | Description |
|---|---|
| Effectiveness | Somaliland<br>(a) the Recipient has prepared and adopted a Project Implementation Manual, in form and substance satisfactory to the World Bank; and<br>(b) the Recipient has established: (i) the Project Steering Committee; and (ii) the Project Implementation Unit (PIU), all in form and substance satisfactory to the World Bank. |
| Effectiveness | Federal Government of Somalia |

| | |
|---|---|
| | (a) the Recipient has prepared and adopted a Project Implementation Manual, in form and substance satisfactory to the World Bank; and<br>(b) the Recipient has established: (i) the Federal Project Steering Committee; and (ii) the Federal Project Implementation Unit (PIU), all in form and substance satisfactory to the World Bank. |

## PROJECT TEAM

### Bank Staff

| Name | Role | Specialization | Unit |
|---|---|---|---|
| Patrick Thaddayos Balla | Team Leader(ADM Responsible) | Senior Energy Specialist | GEE01 |
| Mohab Awad Mokhtar Hallouda | Team Leader | Senior Energy Specialist | GEE05 |
| Francis Akolu Muthuiya | Procurement Specialist(ADM Responsible) | Senior Procurement Specialist | GGO01 |
| Anjani Kumar | Procurement Specialist | Senior Procurement Specialist | GGO01 |
| Leonard Mutuku Matheka | Financial Management Specialist | Senior FM Specialist | GGO31 |
| Aisha Abdulaziz Mahmoud | Team Member | Energy Consultant | GEE01 |
| Christine Makori | Team Member | Senior Counsel | LEGAM |
| EdithRuguru Mwenda | Team Member | Senior Counsel | LEGAM |
| Sameena Dost | Team Member | Senior Counsel | LEGAM |
| Hilari Asasira | Team Member | Associate Counsel | LEGAM |
| David Loew | Team Member | Young Professional | GEE01 |
| George Ferreira da Silva | Team Member | Finance Officer | WFACS |
| Jean Owino | Team Member | Finance Officer | WFACS |
| Hebatallah Mohamed Mady Abdelz Aboelleil | Team Member | Team Assistant | MNCEG |
| Janerose Muboka Lubisia | Team Member | Team Assistant | AFMSO |
| Juliana Chinyeaka Victor | Team Member | Senior Operations Officer | GEE08 |
| Leonard Ewang Ngumbah Wollow | Team Member | Program Assistant | GEE08 |
| Nathalie S. Munzberg | Team Member | Safeguard Advisor | OPSES |

| | | | |
|---|---|---|---|
| Ndella Njie | Team Member | Operations Officer | AFCTZ |
| Richard Everett | Social Safeguards Specialist | Senior Social Development Specialist | GSU07 |
| Salome Awuor Aganda | Team Member | Team Assistant | AFMSO |
| Sheila Lucrecia Francisco Pene Neves | Team Member | Finance Analyst | WFACS |
| Thilasoni Benjamin Musuku | Team Member | Senior Financial Sector Specialist | GFCAE |
| Tracy Hart | Environmental Safeguards Specialist | Senior Environmental Specialist | GEN01 |
| Thokozani Kadzamira | Team Member | Gender and Energy Consultant | GEE01 |

**Extended Team**

| Name | Title | Organization | Location |
|---|---|---|---|
| Nyabicha Omurwa Onang'o | Financial Management Specialist | Independent Consultant | Kenya |
| Annastacia Wacheke | Financial Management Specialist | Independent Consultant | Kenya |
| Daniel Murphy | Off Grid Energy Specialist | Independent Consultant | United States |
| Haroub Ahmed | Environmental and Social Safeguards Specialist | Independent Consultant | Kenya |
| Simon Karunditu | Energy Finance Specialist | Independent Consultant | Kenya |

SOMALIA
SOMALI ELECTRICITY ACCESS PROJECT

**TABLE OF CONTENTS**

## LIST OF TABLES



## LIST OF FIGURES

## I. STRATEGIC CONTEXT

### A. Country Context

1. **Somalia has a population of about 14 million, of which roughly 60 percent are nomadic and semi-nomadic pastoralists, and 60 percent live in rural areas.** Most Somalis today live in poverty and vulnerability: 2.3 million live on the margins of food insecurity and 1.1 million are internally displaced. Close to three fourths of the Somali population live in poverty, about 43 percent in extreme poverty, and Gross Domestic Product (GDP) per capita was estimated to be only US$446 in 2017, having grown at only 2 percent per year over the last four years. Humanitarian support is a life-saving reality for many in areas that are accessible to Non-Governmental Organizations (NGOs). However, humanitarian action alone cannot develop the sustainable livelihoods necessary for poverty reduction – Somalia needs infrastructure investments to enable basic service delivery to its citizens. Income per capita is 20 to 40 percent higher than GDP per capita due to remittances. Remittances alone in 2016 were estimated at US$1.2–2 billion, equivalent to 23 to 38 percent of GDP. Remittances augment household income and create a buffer against shocks, however, remittances are vulnerable not only to changing habits of diaspora as a new generation comes of age but also to de-risking in the international financial system.

2. **Somalia has been largely decimated in the two and a half decades of conflict following the collapse of the Siad Barre government in January 1991.** Concentrated mainly in Southern Somalia, the conflict destroyed much of the country's governance structure and economic infrastructure – undermining legitimate institutions and creating widespread vulnerability. In 2012, a new Federal Government was established in Mogadishu within the framework established by the Provisional Constitution. Following this political transition, the international community agreed to the Somali Compact with the Federal Government of Somalia (FGS), based on the New Deal, a guiding set of principles for peacebuilding and state building. A successful political transition was matched by parallel progress on the security front. With the help of the 22,000-strong African Union Mission to Somalia (AMISOM) force, Somali forces, including aligned clan militia, liberated parts of Southern Somalia, including strategic urban centers, from Al-Shabaab. Though weakened, Al-Shabaab retains significant terrorist capacity and has focused on asymmetric attacks targeting government and international targets, including in Kenya. While Southern Somalia is still experiencing active conflict, Puntland and Somaliland have remained relatively peaceful, although Al-Shabaab infiltration into Puntland's mountainous areas has been growing.

3. **Somaliland on the other hand has already experienced two decades of major changes in the security sector, political system, economy, regional environment and technology**. In the process, Somaliland and its people have demonstrated impressive resilience and adaptability. Somaliland today bears very little resemblance to the Somaliland emerging from the war and dislocations of the early 1990s. Politically, Somaliland featured very significant innovation in the 1990s, from the Borama Peace Conference to the passage of the Constitution in 1999, which transitioned the government from a clan-based form of representation to a multiparty system. Somaliland also demonstrated its political adeptness with the hybrid governance model it developed, which enshrined the role of customary authorities (clan elders) in the Upper House or Guurti. In a region with various forms of more authoritarian government, Somaliland remained committed to a liberal democratic model. Despite the years of destruction brought on by the civil war, Somaliland has been the site of impressive levels of economic recovery due to: (a) the ability of the government and society to maintain peace and security; (b) a durable social contract ensuring a

sufficient degree of inclusivity and negotiation in matters of politics, disputes, and allocation of resources and employment across clan lines; (c) high flows of remittances from the large Somaliland diaspora; (d) a robust private sector which has emerged since 1991; and (e) a powerful cultural tradition of honoring mutual obligations within extended lineage groups, which facilitates greater social trust, the flow of finances in the form of informal loans or gifts, and mutual indebtedness.[1]

4. **Somalia has a dynamic and highly entrepreneurial private sector that has filled the void of public institutions.** Private providers supply anything from infrastructure, security, health and education services. The economy is dominated by the livestock sector, which generates trade worth an estimated 40 percent of Somalia's GDP, and over 50 percent of exports. Important sources of export earnings include charcoal and agricultural products. The Somali economy relies heavily on overseas development assistance (ODA, US$0.75 billion) and even more on financial remittances from its sizeable Diaspora – estimates range from US$1.2–2 billion – that are sent via service providers, including Money Transfer Businesses (MTBs) that lack appropriate regulation and supervision on the receiving side. The services MTBs provide include international money transfers for purposes of household consumption, on which close to half of urban households in some parts of the region are estimated to depend. MTBs have also acted as quasi-banks, providing a broader range of financial services to a significant proportion of the population. A significant proportion of remittances are not used for immediate expenditures, and are either put into real estate, small businesses, or otherwise reserved or invested. The growth of crowdfunding platforms has created an additional and increasingly popular channel for Somali diaspora to provide financial support to local beneficiaries.

5. **Public finances have improved in recent years, based on increasing formalization of customs arrangements and security.** The Federal Government demonstrated stronger fiscal discipline in 2017, avoiding the accrual of new budgetary arrears, and generating domestic revenues of US$143 million, beyond the target set in the International Monetary Fund (IMF) Staff Monitored Program (SMP). Over 70 percent of revenue collected is from customs duties, although the Government has recently taken steps to implement sales tax collection at the port of Mogadishu and is looking to broaden the tax base in 2018. Despite increasing revenues, the Federal Government remains dependent on development partners to finance capital expenditures (CAPEX). Compensation of employees and spending on goods and services accounted for more than 80 percent of expenditure. Fifty-three percent of the budget was used to compensate employees in 2017 while 34 percent was used to buy goods and services, mainly rations for the security sector.

6. **A foundation is being laid for Somalia's accession to the Heavily Indebted Poor Countries (HIPC) debt relief and associated arrears clearance.** Somalia is in debt distress with significant arrears to International Financial Institution (IFI) including the World Bank, IMF, and African Development Bank (AfDB) that make it ineligible for financing from International Development Association (IDA) and many other concessional financing sources. In turn, this blocks the financing of national programs necessary to lift millions out of food insecurity, vulnerability, displacement, and poverty. Development partners, IFIs and the FGS are currently working to develop a clear and comprehensive roadmap towards IFI normalization and debt relief. With the formalization of relations between the Federal Government and the IFIs comes the prospect of addressing Somalia's substantial arrears, which will need to be cleared in a coordinated

[1] A World Bank Study: Somaliland's Private Sector at a Crossroad -Political economy and policy choices for prosperity and job creation (2016).

manner through a HIPC framework for regular IDA assistance to resume. This is a longer process, but in the short and medium-term, grants are being used to deliver country programs.

7. **The Multi-Partner Fund (MPF) is the primary trust fund for World Bank-assisted operations in Somalia**. The MPF is operating as a ten-year program of support to the Somali transition, (January 2014 – December 2024), and is a vehicle for building and using country systems. It is the World Bank's first programmatic trust fund for Somalia (US$225 million) and is expected to grow through additional donor contributions, with a total expected value of US$350 million. It is currently supported by eleven donors (Commission of the European Communities, Sweden, Denmark, Italy, United Kingdom, Norway, Switzerland, Finland, United States Agency for International Development (USAID), Germany, and the World Bank's State and Peacebuilding Fund).

8. **The MPF is administered by the Country Management Unit (CMU) and operates in close partnership with the Government, donors and international agencies** within the context of the Somalia Development and Reconstruction Facility (SDRF), the framework guiding the implementation of the Somali Compact and the New Partnership Agreement for Somalia. The SDRF is a coordination framework and financing architecture for implementing the Somalia National Development Plan (NDP) in line with the principles of the New Partnership for Somalia. Government and development partners use this platform to provide strategic guidance and oversight of development activities in Somalia. MPF investment priorities are identified through a process of ongoing consultations with the Government and development partners and endorsed by the SDRF.

## B. Sectoral and Institutional Context

9. **The Somali energy sector is one of the most underdeveloped in the region.** Low electrification rates especially in rural areas, high cost of power, high technical and commercial losses, dependency on imported petroleum products for electricity generation, and reliance on biomass resources for cooking mean that only a very small fraction of the Somali population has access to affordable, safe, reliable, and predictable energy services. Both public and private sector energy actors are highly capacity constrained; and weak legal and regulatory frameworks, limited financing and investment, and lack of data for effective decision making continue to hold back sector development.

10. **The ministries of energy are still nascent in directing energy sector policies.** FGS has created a Ministry of Energy and Water Resources (MoE&WR) to define and implement overall energy sector policies and to regulate the sector. The Ministry has limited staff and budget and its energy sector management department is poorly staffed. In Puntland State, the administration does not have a Ministry of Energy. Energy and water policies are instead managed by the Puntland State Authority for Water Energy and Natural Resources (PSAWEN), reporting directly to the Office of the President in Puntland. PSAWEN is an autonomous agency with a mandate to oversee and regulate the electric power industry. However, PSAWEN has limited staff possessing adequate technical expertise to execute this mandate. In Somaliland, a separate Ministry of Energy and Minerals (MoEM) has responsibility for Somaliland energy sector policy, regulations and oversight. Management of the energy and water sectors was reorganized; and water resources were transferred to another Ministry because the MoEM has few qualified staff and limited capacity to manage the sector, including the supervision of the Somaliland Electricity Agency (SEA). Somaliland has a national Energy Sector Coordination Forum (ESCF), chaired by the Minister of Energy and

Minerals and co-chaired by U.K. Department for International Development (DFID). The role of the ESCF is to coordinate the planning, development, implementation and monitoring of the Energy and Extractive Sector Strategy for Somaliland, jointly with government, development partners and other stakeholders.

11. **The FGS has prioritized development of regulations to enable private sector investment in Renewable Energy and Rural Electrification.** The MoE&WR, with support of the World Bank Group (WBG), convened a meeting in February 2018 to identify the key priorities for the Somali Public Private Dialogue (PPD) for the next six months. These include: (a) Drafting Somali National Energy Policy; (b) Drafting Somali National Energy Rules and Regulations; and (c) Drafting a National Electrification Strategy including inter-state energy trade. Other subsequent initiatives to be pursued will particularly center on operationalization of the policy and law, establishing an Energy Regulator to operationalize the rules, regulations and policy including establishing a licensing framework, as well as capacity building to enhance quality standards.

12. **In Somaliland, recent government efforts have led to the emergence of a nascent policy, legal, and regulatory framework through the recent completion of an Energy Policy.** Further, a new Electricity Act is close to ratification[2]. The government's long term plans to develop the energy sector include: analytical work building on existing wind resource studies and implementation of a pilot project, undertaking a reconnaissance study of the geothermal perspective, implementation of a least cost integrated energy plan, development of an electrification strategy, implementation of the power master plan, establishment of a national grid, increasing renewable energy generation, increasing electricity access, and reforming private sector participation through instruments such as a Feed in Tariff (FiT) policy and competitive bidding process.

13. **Today, in urban areas, diesel-powered mini-grids owned by private entities or NGOs account for most of Somalia's power supply[3].** Though estimates vary, the total operational generating capacity across Somalia is estimated at around 103 megawatt (MW) in 2015, serving 270,000 connections. The AfDB in 2014 estimated installed capacity at 11.4 MW in Puntland and 45.5 MW in South-Central.

14. **Of the total current installed capacity in Somaliland** (estimated at below 80 MW in 2018), 2.7 MW is solar/diesel hybrid generation; the renewable energy component having been implemented with funding from the Energy Security and Resource Efficiency in Somaliland (ESRES) project. Following the pilots implemented under the ESRES project, private companies in Somaliland have launched activities to further invest in renewable energy integration in existing mini-grids. The SEA supplies 95 percent of mini-grid electricity in Somaliland. Composed of 12 members, it also sets tariffs and promotes renewables. The growth of private mini-grid energy services providers (all local entrepreneurs) has been accompanied by an increase in mergers and joint ventures, as well as increased integration of renewable energy into their generation mix as the cost of renewable energy technologies have come down.

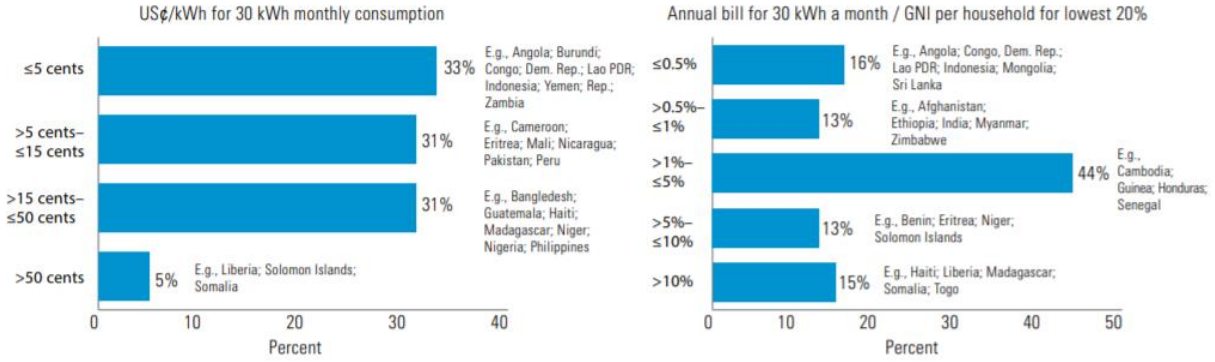
15. **The electricity access rate is estimated at 15 percent[4], meaning that around 11 million Somalis lack access to electricity services.** Urban access is estimated at 33 percent, and rural access at 4 percent. With an average household size of 5.9, this translates to approximately 1.8 million un-electrified households

[2] The Electricity Bill was approved by the Somaliland House of Representatives on April 21, 2018. It would now be signed by the President into law.
[3] Federal Republic of Somalia, "Economic Recovery Plan 2014-2015", p.85.
[4] This includes Southern Somalia; Puntland and Somaliland.

nationwide. Private sector players supply more than 90 percent of power in urban and peri-urban areas using local private mini-grids, having invested in diesel-based systems of between 500 kilovolt ampere (kVA) to 5000 kVA installed capacity per mini-grid. These mini-grids are usually zoned, with each operator building, owning, and operating the generation, transmission, distribution and maintenance, as well as collecting tariffs. However, the electricity access rate varies considerably across Somali territories. In Somaliland, it is estimated at 68 percent overall, with urban and rural electricity access rates estimated at 77 percent and 17 percent respectively.

16. **Somalia's price of electricity can reach a maximum of US$1/kilowatt hour (kWh) - one of the costliest places in the world to buy power.** The World Bank's flagship report on Regulatory Indicators for Sustainable Energy (RISE, 2016) found that Somalia ranks in the upper 5 percent globally for power cost, and in the upper 15 percent globally for power expenditure as a share of gross national income (GNI) per household (see figure below). Somaliland's electricity costs are similarly amongst the highest in the world ranging from US$0.8 – 1.0 per kWh.

**Figure 1. Global Comparison of Absolute Energy Cost and Energy Cost as a Share of GNI per Household**




Source: RISE, 2016.

17. **Current mini-grids could provide a basis for a country-wide interconnected distribution system linked to a national grid with the potential for wheeling and cross-network power sales.** There are, however, significant information gaps regarding the status of the mini-grids, including profiles of incumbent operators (number of customers, hours of service, tariffs, connection costs, generation technology, quality of service metrics, expansion plans), understanding of applicable policy and regulations in the territories, and identification of appropriate greenfield sites for new mini-grid installations. Much could also be done to improve the existing services provided by incumbent operators, including helping to bring on additional generation technology, greening existing technology mix through hybridization, modernizing business models including through the use of smart and/or pre-paid metering technology, and reducing the losses in the distribution system. Incumbent operators could also be supported to densify their customer base within existing service territories. There is significant scope to create an interconnected grid network with existing mini-grids and also support the development of new mini-grid sites throughout the country.

18. **Even so, unfavorable economics imply that it is likely that a large part of Somali population will not be reached by national grid or mini-grids even in the long term.** Many of these locations typically do not

have sufficient demand from small industrial off-takers (for value addition or service-related activities linked to rural livelihoods) to justify the deployment of a mini-grid. A combination of high investments to develop new mini-grids, particularly in lower density localities, coupled with low ability to pay for energy services by households living below the poverty line further undermine the business case for such an approach. Furthermore, livelihoods in large parts of Somalia do not lend themselves to a fixed grid connection; many households are nomadic pastoralists who move from one place to the other in search for pasture and water and food or live in scattered settlements.

19. **Standalone off-grid solutions are therefore a viable complement to mini-grids.** These systems (also referred to as "solar home systems", or SHS in short) typically include solar panels, a rechargeable battery, and light emitting diode (LED) lighting arrays, and many include mobile phone charging capabilities. Larger systems include an interface for connecting appliances such as efficient direct current (DC) radios, televisions, fans, and other small appliances. Replacing traditional fuel-based energy sources (kerosene, candles, diesel generators) with quality solar products has a major positive impact on the local environment and household health, as well as disposable income. Market analysis shows that in Somalia these products are typically sourced from the Middle East and manufactured in China. The quality of these incumbent products is generally low, given that the vast majority have not been manufactured to internationally-recognized norms for this type of technology. Improving the quality of products coming into Somalia, while keeping their cost affordable is therefore a priority action area. The current state of electricity access also demonstrates that there is significant market potential for these technologies.

20. **The supply chain for standalone off-grid solutions currently features five main actors:** (i) professional solar specialists, mostly focused on larger and institutional photovoltaic (PV) systems but also offering smaller consumer PV systems (pico-solar products); (ii) generalist retailers, through whom the bulk of pico-solar supply is channeled, who prioritize lower priced products; (iii) an emerging set of pico-solar specialists, looking to build out Pay As You Go (PAYG) business models and focused distribution networks; (iv) NGOs and humanitarian organizations who offer pico-solar to IDPs and other vulnerable populations, usually for free; and (v) few emerging mobile money and micro-financing operators who see an opportunity to offer financed, mobile-paid solar products alongside their other offerings. Other relevant players include mini-grid operators, who might have a role to play in future standalone distribution, and Liquefied Petroleum Gas (LPG) suppliers, who, with support from development partners, are set to expand their markets as part of an effort to mitigate charcoal use, and whose distribution models may closely overlap with those for small-scale solar. There is very limited data on the number off-grid products in Somalia, compounded by the fact that most sales occur through informal, undocumented channels. A market study undertaken during preparation for this project estimates sales of between 100,000 and 150,000 solar home systems per year, the vast majority of which are low-quality imitation products, especially single-light lanterns, sold by local retailers.

21. **There is a broad range of NGOs active in the sector**. Relief organizations including the Adventist Development and Relief Agency (ADRA), Candlelight for Environment, Education and Health (CEEH), Nordic International Support (NIS) Foundation, Norwegian Refugee Council (NRC), Horn Relief, Puntland Development and Research Centre (PDRC), CARE International and others engage in the off-grid solar sector in two principal ways: (i) commissioning large-scale solar PV systems from local suppliers for their own or project-specific use, thereby injecting cash into the local market; and (ii) procuring lanterns and solar kits which are distributed, often for free, to IDPs and other vulnerable populations, thereby also

injecting cash into the local market, "seeding" the market with potential new solar buyers but also very likely distorting the market by causing "free goods" from relief humanitarian efforts to compete with activities developing commercial markets.

22. **Private-sector suppliers of standalone solar systems in Somalia face significant barriers to growth.** Despite strong potential, the market for off-grid solar continues to suffer from critical gaps and inefficiencies, notably limited access to business and consumer finance, as well as market spoilage due to low-quality imitation products and NGO giveaways. Given local banks' limited appetite for what is still viewed as a nascent and risky sector, most solar businesses are still entirely self-funded or dependent on grants from international donor programs. Businesses are therefore unable to access the necessary debt finance to place larger inventory orders and operate at viable scale. Low consumer purchasing power has meant that consumers have overwhelmingly had to turn to low-cost, low-quality imitation products, which have proven unreliable and non-durable, thereby eroding broader confidence in solar as a technology. These challenges are particularly pronounced for distributors of smaller solar home systems, who have less predictable revenues and less established business models than engineering firms offering larger solar installations to affluent households and business and institutional clients.

23. **The Somali financial sector is also largely unregulated**. There is a limited degree of confidence in Somali financial sector regulatory and supervisory institutions, largely due to an absence of laws and enforcement capacity of regulatory frameworks, high informality, and ongoing insecurity. The lack of regulatory and supervision capacity threatens access of the Somali financial institutions to the global network of correspondent banks needed to channel remittances and ODA. Informal and unregulated provision of money transfers and banking services continues due to the lack of implementation of central bank and financial institutions laws enacted in the country. Some of the financial institutions act as quasi-banking institutions facilitating the transfer of funds within the region, ensuring the transfer of funds for domestic and foreign trade, and offering deposit and credit facilities. Financial institutions operating in Somalia do not hold settlement accounts with central banks for settlement purposes and there are no modern payment systems or anti-money laundering/combating the financing of terrorism (AML/CFT) laws. Mobile network operators also offer unregulated and unsupervised mobile payment services.

24. **Despite the absence of digital and physical infrastructure, the information communications and technology (ICT) and financial services sectors have flourished.** Today, nine out of ten Somalis own at least one mobile phone and seven out of ten regularly use their mobile device to access mobile money services. In terms of mobile penetration, Somalia is in fact outperforming many of its neighbors. Meanwhile, access to traditional banking remains limited, with less than five percent of Somalis actively using bank accounts. Thus, digitization of finance has made mobile money an effective substitute for cash. Based on Somalis mass adoption of technology and use of mobile money services, financial inclusion is a credible goal to support increased resilience and economic opportunity and could help the Somali economy to escape fragmentation of markets.

25. **The World Bank has initiated activities to support electricity planning, investment, and regulation in the sector, as well as off-grid access.** The World Bank is implementing a Somalia Power Sector Development Support (P146618) project to contribute towards developing the fundamental building blocks for establishing a modern energy sector in Somalia. Several activities are underway under this project:

    a. **Somalia power sector master plan development.** This activity will set priorities and sequencing

investment in generation, transmission and distribution over a period of 20 years; and the development of five city power development plans. The plan will also analyze strategies for expanding rural and urban access to electricity to Somali households. This activity will be completed by January 2019.

b. **Renewable energy resource mapping**. This activity will include wind resource models, data bases, and energy potential maps with +/-20 percent certainty on the suitability of specific areas for wind power projects. The wind model for Somalia is very encouraging, but "bankable" wind projects able to attract private investment in the sector will require a higher level of certainty. In addition to wind maps, the World Bank now has high quality solar maps under the Global Solar Atlas project for Somalia. The World Bank would support the government to undertake additional identification studies to provide data to produce high quality wind and solar potential maps.

c. **Market study for off-grid solar.** This activity identifies key opportunities and constraints in launching off grid solar activities in Somalia under the Lighting Africa framework. The study, completed in February 2017, forms part of the basis for developing this project.

26. **The International Finance Corporation (IFC) is implementing additional technical assistance (TA), including support to policy and regulatory reforms for the energy sector and PPD.** The Somalia Public-Private Dialogue forum was launched in June 2016 and received further impetus during the Somalia London conference in May 2017 during which, under the leadership of H.E the President of Somalia, a PPD declaration was signed between the Government and the private sector. Inter alia, this declaration prioritized the development of the renewable energy sector as well as partnership between the public and private sectors. The TA for energy PPD will lead to (i) the formation of an Energy Working Group; (ii) agreement on Terms of References (ToR) for the Working Group including its mandate, legitimacy and links with existing aid architecture; (iii) a common understanding of the main challenges facing government, the private sector and other stakeholders in the energy sector; and (iv) identification of five-six key priority areas with tangible, measurable actions that can be addressed in the short term. The Energy Working Group was formed in February 2018, comprised of members from the FGS MoE&WR; state ministries (except Somaliland); and the private electricity service providers. The FGS agreed to the priority areas discussed above. The PPD inputs will be invaluable in the energy policy making process that would be supported by the project. The IFC would be interested to participate in the investment activities once arrears are addressed and IDA lending resumes.

27. **The IFC is also currently in the early stages of initiation of advisory work on strengthening regulatory frameworks to stimulate private investment, including in the energy sector, in Somalia and Somaliland.** This work will focus on increasing competition by enabling a conducive regulatory environment in sectors through: (i) identification of regulations that prevent or limit entry and expansion in key sectors; and (ii) advice on amendments to regulations and drafting of regulations and guidelines to improve regulatory framework. In the energy sector, there are three priorities for private sector crowding-in: (i) development of city wide grids; (ii) development of off-grid systems market; and (iii) investment in renewable energy, particularly wind and solar.

### C. Higher Level Objectives to which the Project Contributes

28. **The proposed project is aligned with FGS NDP 2017-2019, and Somaliland NDP II 2017-2021 that have a strong focus on tackling poverty and building resilience.** The Federal Government has started preparations for the development of NDP 2020-2024, which will articulate issues relevant to the energy sector. The project supports the FGS's aim to provide access to clean and modern energy services for all Somali people. The NDP relies largely on development assistance from the international community given the under-developed and poor socio-economic status of the country. In July 2017, Somaliland launched its NDP II 2017-2021. The plan references the contribution of energy to achieving Sustainable Development Goals (SDG), as well as its contribution to the achievement of Vision 2030. The Somaliland NDP II 2017-2021 sets out the following goals by 2021: a) to raise access to electricity to at least 85 percent and 25 percent of Somaliland urban and rural households respectively; b) 10 percent of national energy generation to be provided by renewable energy sources; c) a 30 percent reduction in the average tariff; d) increased investment in renewable energy technology, infrastructure and research; e) a reduction of system losses for energy service providers; and f) additional generation of 30 MW[5]. Additionally, Somaliland has significant renewable energy resources which can be exploited to increase energy generation and contribute to tariff reduction.

29. This is also in line with the Systematic Country Diagnostic (SCD)[6] disclosed on May 1, 2018 and the Country Partnership Framework (CPF, FY19-FY22[7]) approved by the Board of Directors on September 25, 2018. The Somalia CPF explicitly identifies energy access as catalytic for unlocking Somalia's growth potential. Focus Area 2 of the CPF aims to broaden economic opportunities and thereby address Somalia's growing problem of exclusion. Somalia's growing young population – 75 percent of the population are under 30 – have little access to economic opportunities, generating security and political risks through rising unemployment. At the same time, the private sector is vibrant and could generate many more opportunities for young people if the regulatory "playing field" enabled new businesses/entrepreneurs, and if small and medium enterprises (SME) had access to more affordable critical inputs like energy and finance.

30. The project is designed to integrate the learnings of the World Bank-IFC Lighting Africa program and showcases Maximizing Finance for Development (MFD) in action in a fragile context. The project design draws on a number of current best-practice off-grid interventions, including: (i) a pilot engagement on standalone solar home systems that is anticipated to further prove and develop the market for future public and private sector engagement; (ii) a public sector intervention to scale-up private sector delivery of energy services; (iii) contribution to further scaling up the World Bank-IFC 'Lighting Africa' model for achieving off-grid electrification, particularly on quality assurance; and (iv) mobilizing external debt from private-sector financial institutions, it provides an important example of MFD implementation in a fragile context.

31. **The project will also contribute to SDG7, which aims to achieve universal access to reliable, affordable, and modern energy services by 2030. (Target 7.1).** As many as 1.1 billion people worldwide still have no

[5] It is estimated that about US$8.3 – 25 million would be required per year for achieving the outcomes chosen in the Energy sector under the Somaliland NDP 2017-2021.
[6] Report number 123807-SO
[7] Report number 124734-SO

access to electricity, according to the latest available statistics (Global Tracking Framework 2015), and SDG7 calls for rapid growth in electrification to achieve universal access by 2030. However, many of those who do not have electricity access today are unlikely to be reached by conventional grid extension solutions in time to meet this goal. In the case of Somalia, as in many other parts of Africa, the development and rollout of affordable, sustainable, and scalable off-grid electrification solutions could accelerate the achievement of the SDG.

## II. PROJECT DEVELOPMENT OBJECTIVES

### A. PDO

32. The Project Development Objective (PDO) is to expand access to electricity in targeted urban, peri-urban, and rural communities.

### B. Project Beneficiaries

33. **The project aims to provide unelectrified Somali households and small businesses in urban, peri urban and rural areas with affordable and reliable energy access.** The project is expected to reach 21,500 households, and provide electricity access to around 113,900 people, around 1 percent of the current off-grid population. Of this number, 56,700 are expected to be women. Solar home system technology funded through the project will provide an average of around 9.4W of generation capacity to each household reached, amounting to a total of around 0.20 MW in expected new capacity. Rural areas in Somalia are characterized by low density of population, high levels of poverty, and nomadic lifestyles. These areas have extremely low or no connectivity to electricity as they are not deemed economically feasible targets for grid extension.

34. **The project aims to support the private standalone solar sector.** There is very limited financing or credit offered along the energy supply chain. Importers are unable to access loans and therefore buy goods with cash up front, limiting their ability to scale and reach new market segments. Manufacturers and foreign-based distributors perceive Somali businesses as high risk, and do not typically offer supplier credit. For consumers, finance for solar off-grid products is undeveloped.

35. **The project supports the development of SMEs contributing to job creation in a nascent economy.** The country has the building blocks in place to develop a strong private sector-based market for off-grid solar products. There is a demonstrated demand and need for electricity and off-grid solar products, and a variety of companies have already demonstrated strong capacity to reach off-grid consumers. Moreover, there is also a strong foundation of entrepreneurial capacity among Somali business people and leaders that can drive this initiative. Therefore, public resources will be used to harness private sector efficiencies by creating appropriate incentives to mitigate the risks of doing business in the country. Such an initiative can also create jobs directly contributing to economic productivity and security in the region.

### C. PDO-Level Results Indicators

36. The PDO-level indicators are the following:

a. People provided with new or improved electricity service (Core Indicator; 113,900 people); and
b. Generation capacity of energy constructed or rehabilitated (Core indicator, 0.20 MW).

## III. PROJECT DESCRIPTION

### A. Project Components

37. **The project will be implemented across the entire Somali peninsula, covering Southern Somalia (Banaadir, Jubbaland, South West State, Hirshabelle and Galmuudug), Puntland, and Somaliland**. While there are tremendous needs with respect to energy access, the fragile and complex operating environment necessitates a selective approach to supporting the effective delivery of affordable and sustainable energy services. Somali's private sector has impressively stepped up to deliver basic energy services in the aftermath of the protracted conflict of the 1990s. Nevertheless, these enterprises often lack the capital and latest technical, financing, and business model insights to scale their businesses. The core proposition of this project is that by leveraging these incumbent capabilities and activities, the overall quality of services they offer to their customers will be improved, especially as they are provided with technical and financial resources needed to deepen and broaden their geographic footprints.

38. **The intention to focus on off-grid standalone solar rather than mini-grids is deliberate considering the limited funding envelope as well as the yet unharnessed potential for the former**. The main technology that will be supported will be Lighting Global (LG) Quality Verified products, whose reliability and affordability should make them attractive options for households currently not connected to the grid. While mini-grids are the de-facto energy service provider of scale in the country, there are several other development partners actively engaged in this space, and the technical and financial resources required to make meaningful investments in this technology are beyond the scope of this project. As a result, mini-grid activities will focus on analytical work that will inform future investment activities and will complement ongoing mini-grid support from other development partners.

39. Substantial market analysis was undertaken on the energy sector in Somalia leading up to and during project preparation. This includes an off-grid lighting market assessment that was financed by the World Bank's Lighting Africa Program and MPF, technical studies related to mini-grids by DFID under its ESRES Project, an energy sector needs assessment by the AfDB, a renewable energy study by United Nations Development Program (UNDP), and a technical study for off-grid solar by the EU.

40. The proposed project will focus on improving energy access via standalone solar solutions for both households and small enterprises given the country and sector context, as well as the modest financing envelope. This will primarily take the form of providing a package of incentives to support local entrepreneurs to develop new ventures or scale up existing activities. The project will especially target existing "first movers" who have already demonstrated independent interest and capability in the solar home systems sector. Two capacity building TAs are also included. First, to support studies and analytics aimed at complementing and building upon ongoing DFID and European Union (EU)-led initiatives around mini-grids, and the findings of the Master Plan that is currently being finalized with World Bank financing; Second, to support capacity building within government agencies, while recognizing the need for robust

third-party support to deliver the project activities.

**Component 1: Electrification of households and small businesses through standalone solar home systems (US$3 million)**

41. This component aims to reduce market barriers for the private sector to provide modern energy access through solar home systems and targets (i) poorer households and small businesses in areas that cannot afford to connect to mini-grid services; (ii) households and businesses in these areas that are not sufficiently close to a mini-grid to be economically connected; (iii) isolated villages and smaller settlements where mini-grids do not make economic sense; and (iv) nomadic pastoralists whose livelihoods do not lend themselves to a fixed electricity connection.

42. The market for solar home systems in Somalia has significant potential. A study conducted in preparation for this project estimated current demand at around 140,000 – 180,000 units for a total value of around US$14 million per year. The total potential (non-annualized) market size for solar home systems up to 500 W was estimated at US$108.4 million, corresponding to around 1.1 million units, and US$79.6 million for systems up to 100 W. This demand is further expected to rise as populations grow, off-grid mobile phone usage increases, and more and more Somalis become aware of the potential benefits of solar technology as a substitute or complement to conventional lighting sources such as candles, kerosene, flashlights, and unreliable mini-grid connections.

43. Nonetheless, the current market situation remains well below its potential. The vast majority of sales to date have come from low-quality, unreliable, and unsustainable imitation products. These are typically brought in via the United Arab Emirates (UAE) or Oman as part of general goods orders by informal, non-specialized traders with limited knowledge of quality solar products and few incentives to promote quality in a highly informal, unregulated, and price-driven market. A small but growing supply side for quality-approved solar devices has begun to emerge as local entrepreneurs have started to capitalize on growing demand for more durable, higher-performing products. To date, these distributors have managed to sell on the order of a few hundred systems (partnering with subsidiaries of established providers of Lighting Global-certified off-grid solar home system products) and have in some cases launched small initial pilots for alternative consumer financing arrangements such as pay-as-you-go to tackle consumer affordability constraints for their products. In addition to these dedicated off-grid distributors, a long tail of more generalist distributors continues to offer off-grid lighting products of variable quality on a more opportunistic basis.

44. Though the early activity of these companies shows promise for the Somali off-grid market, local distributors continue to face significant barriers to scale, including: (i) competition and market spoilage from low-quality imitation products; (ii) low levels of consumer awareness around solar technology, particularly regarding the long-term benefits of high-quality products and how to identify these; (iii) low affordability among end-consumers, exacerbated by limited access to consumer finance; (iv) high costs of rural distribution due to Somalia's large size, low population density, and poor transport infrastructure; and (v) limited access to capital for inventory and investing in business infrastructure, as local banks still prefer lower-risk, safer returns from more established industries.

45. Neither local nor international credit is currently available to Somali solar distributors due to the perceived high risk of doing business in the country. There are several reasons for this, including: (i) unfavorable loan terms and conditions; (ii) lack of capacity and limited understanding of customer needs amongst financial institutions; and (iii) lack of competition among banks. Many individuals and businesses report that they do not have enough or sufficiently reliable information for banks to assess their credit worthiness and cannot meet banks' strict collateral requirements to manage credit risk. As a result, businesses and individuals are largely self-financing and circumvent the formal sector for their financial needs.

46. This component will fund a range of market-building supply- and demand-side interventions in response to these challenges. The proposed interventions (indicative allocations to each intervention are shown based on initial analysis performed during project preparation, but are intended to remain flexible to react to changing market needs) are:

    a. *Results-based Expansion Grants (US$2.2 million)*: Results-based grants to off-grid solar distributors, with payment based on the number of new Lighting Global-approved units sold. These grants will provide distributors with much-needed capital to build internal capabilities, invest in sales and distribution infrastructure, pilot new and innovative businesses and customer service models (including pay-as-you-go models that enable customers to pay in installments, thus spreading out payment over longer periods of time and improving affordability), and build up liquidity to act as collateral for future debt finance from local banks. Expansion Grants will be primarily targeted at businesses specializing in solar home system distribution, or other institutions looking to enter the solar distribution market.

    b. *Upfront Seed Grants (US$0.2 million)*: Since effective results-based financing (RBF) requires that recipients have access to sufficient inventory, funding, and capacity to self-finance initial sales, a complimentary window will offer small upfront (i.e. paid in advance rather than results-based) Seed Grants to support the relatively long tail of smaller or less experienced Somali distributors who are either already active in the solar market or who might enter the market given additional incentives. Seed grants will enable these businesses to build up a minimum of inventory and infrastructure to launch sales and access the results-based Expansion Grant above. In addition, Seed Grant funding will be used to provide a range of business development services (mostly through external consultants) to early-stage Somali business in the off-grid solar sector, including support on designing and implementing off-grid business models (especially pay-as-you-go), preparing financial statements and projections, and connecting and negotiating with international off-grid solar equipment suppliers, industry bodies, and other service providers. Application for Seed Grant eligibility will be streamlined but will nonetheless entail a more rigorous evaluation process since funding is awarded before results are achieved.

    c. *Quality assurance (US$0.1 million)*: Interventions to limit the availability of and demand for poor-quality and/or counterfeit products, including TA activities for national and regional governments, potentially in preparation for eventual adoption of Lighting Global quality standards. The prolonged conflict in Somalia and absence of quality control regulations, standards and policies has turned the country into a hotbed of counterfeit products and dumping site of sub-standard goods. This component will support the recently established

Somali Bureau of Standards as well as quality control initiatives in Somaliland, among others.

d. *Consumer awareness and citizen engagement (US$0.5 million)*: Comprehensive consumer awareness campaigns with the objective of improving household understanding of how off-grid solar technology works, its benefits, how to operate, maintain and dispose of the products, and the importance of quality in solar products and how to identify them. The citizen engagement activities will be based on an understanding of common perceptions of solar products and electricity service, as determined in a series of annual consultations. The feedback received during these consultations will inform the consumer awareness campaign and be disclosed publicly as a summary.

47. The bulk of grant funding to businesses will be deployed in the form of RBF under the Expansion Grant. Well-administered RBF schemes are increasingly popular tools for both catalyzing and cleaning up off-grid solar markets. They work by offering clear financial incentives to distributors for the sale of high-quality (i.e., Lighting Global quality-verified) products on a first-come, first-served basis. This incentivizes distributors to shift away from the sale of ineligible low-quality products, and to expand their distribution networks to capture a larger share of the available funding. Distributors are also incentivized to expand as rapidly as possible as funding is capped and not pre-allocated. There are a variety of customization options available, including the specific formula for incentive calculations, the eligibility criteria for firms and product sales, and reporting and after-sales service requirements. For instance, the size of the incentive might be linked to the size of the system (as defined by Sustainable Energy for All (SE4ALL) multi-tier energy access tracking framework[8]) or whether sales are in urban or rural areas. Firms will be required to keep and share complete records of product sales and commit to providing after-sales service that meets Lighting Global requirements. An independent verification agent (IVA) will be tasked with ensuring companies meet their obligations to customers and correctly report sales submitted to the Expansion Grant.

48. The Expansion Grants and Seed Grants will be managed by a single Grant Manager to be procured separately for Somalia and Somaliland respectively. Eligibility for grant funding will reflect regional considerations (e.g. accessing RBF funds in one region will require evidence that the sale occurred in that region). Procuring independent and experienced third-party Grant Mangers will address Government technical capacity gaps, regional and clan dynamics, and the need to remain impartial and neutral in delivering a successful project. Separate Grant Managers for the two territories will ensure ownership and capacity building for each of the respective governments. Grant Managers will also be required to provide basic ongoing business development services to grant applicants to help strengthen applications and business models and ensure grant funds are being used effectively. Consumer awareness and quality assurance will similarly be separately implemented by FGS and GoSl in Somalia and Somaliland respectively.

49. Outcomes under these activities will be complemented and strengthened by the Somalia Capacity Advancement, Livelihoods and Entrepreneurship through Digital Uplift Program (SCALED-UP)-P168115, currently under preparation by the World Bank's Finance, Competitiveness and Innovation (FCI) Global Practice. SCALED-UP will work with local Somali banks to stimulate commercial lending to underserved sectors (including the off-grid energy sector) through the provision of credit enhancement in the form of

[8] See, for instance, https://www.seforall.org/sites/default/files/MTFpresentation_SE4ALL_April5.PDF.

guarantees and/or low-cost lines of credit. This enhancement will unlock private debt by buying down lender risk in Somalia's still nascent off-grid solar market. In addition, SCALED-UP activities will include assistance to local banks in building a pipeline of both potential lenders and borrowers, making introductions and linkages between banks and businesses, supporting distributors in making loan applications, and supporting financial institutions in performing diligence and evaluating loan applications. As limited access to debt for working capital is a crucial constraint for Somali off-grid companies, Sustainable Development Goal (SEAP) will benefit greatly from enhanced participation of Somali banks in the off-grid sector. Conversely, funding provided through the SEAP grants is expected to strengthen the financial position and growth prospects of local solar distributors, thereby making them less risky clients for local banks. The SEAP team will closely collaborate with FCI during SCALED-UP preparation and implementation to provide technical inputs and ensure harmonization of approaches.

**Component 2: Analytic work for enabling electrification through Solar Powered / Hybrid Mini-grids (US$1 million)**

50. This component will support the mini-grid sector in Somalia. The information available on existing mini-grids is scant, even though they are the default energy provider throughout the country. While the ongoing Power Master Plan Study (Master Plan), financed by the World Bank, will provide some clarity regarding the status quo, additional sector studies will be required to define the appropriate way forward for mini-grid technology. While the Master Plan will provide the long-term vision for the sector, key development partners already have activities underway to support the scale up of mini-grids in Somalia. These include DFID's £20 million ESRES Project, which in its first phase is supporting the hybridization of six mini-grid sites with a £5 million budget. Phase 2 kicked off in November 2018 and will deploy the remaining £15 million. The EU has just completed another six community micro grid installations via the ADRA-implemented Somali Energy Transformation (SET) Project. In Somaliland, the MoEM provided standalone solar systems to schools, key public facilities – education, health and community boreholes in 43 villages. With the considerable activities currently underway by other donors, the objective of this component is to focus on supporting activities that will establish a pipeline of mini-grid projects and define delivery/business models for their implementation.

51. To this end, this component is expected to include the following activities:

    a. Detailed geospatial mapping to undertake a more comprehensive inventorying of the current mini-grid situation in Somalia, identify potential future sites, and estimate future location-specific demand;
    b. Review of property rights and land issues pertaining to energy infrastructure investment;
    c. Pre-feasibility studies for hybridization, operational enhancements, and densification of brownfield (existing) mini-grid sites;
    d. Pre-feasibility studies for greenfield (new) sites identified in geospatial mapping;
    e. Developing structuring options for the financing, operation, and ownership of new mini-grids; and
    f. Defining legal, institutional and financing arrangements for developing mini-grids.

**Component 3: Technical Assistance, Capacity Building and Project Management (US$1.75 million)**

52. This component will support a range of activities to strengthen the capacity of the MoE&WR of the FGS

and the MoEM in Somaliland for overall energy sector management, power and access planning, and implementation of future development projects. These activities will include targeted TA to: (i) develop energy sector studies; (ii) develop energy sector strategies; (iii) review/finalize energy policies; (iv) carry out additional analytical work; (v) improve respective internal ministry infrastructure and systems; (vi) provide capacity building through trainings, workshops, and study tours; and (vii) support the establishment of Project Implementation Units (PIUs) in the respective ministries to oversee Component 2 and potential future IDA-funded projects (see Annex 2 for more details on implementation arrangements and PIUs). The Energy Coordination Unit (ECU) for the FGS will also be supported under this component for overall energy sector management, power and access planning, and implementation of future development projects.

53. Capacity building activities funded under this component will be preceded by a detailed needs assessment exercise in the first year of the project to identify priority interventions. This assessment will build on initial capacity building and TA needs identified during project preparation and as part of the Power Sector Master Plan currently under preparation. These include TA to develop national engineering standards for power generation and distribution, developing a power sector regulatory framework, and training Ministry staff on key policy issues, including:

i. Preparing energy sector policy and planning;
ii. Preparing and promulgating tariff setting and licensing regulations for mini-grid operators;
iii. Establishing engineering standards such as electrical wiring and installation codes;
iv. Setting health and safety standards for workers and consumers in the electricity sector;
v. Conducting feasibility studies;
vi. Performing resource mapping and working with geographic information system (GIS);
vii. Environment and safeguards; and
viii. Fiduciary/Procurement processes.

## B. Project Cost and Financing

54. Project costs amount to US$5.75 million, which will be funded by MPF. The breakdown of funding by component and source is shown in the table below.

**Table 1. Project Costs by Component**

| Project Components | Project cost | IBRD or IDA Financing | Trust Funds (MPF) |
|---|---|---|---|
| Component 1: Electrification of households and small businesses through standalone solar home systems | 3,000,000 | 0 | 3,000,000 |
| Component 2: Analytical work for enabling electrification through solar-powered/hybrid mini-grids | 1,000,000 | 0 | 1,000,000 |
| Component 3: Technical assistance, capacity building and project management | 1,750,000 | 0 | 1,750,000 |
| **Total Costs** | 5,750,000 | 0 | 5,750,000 |
| Total Project Costs | 5,750,000 | | |
| Front End Fees | 0 | | |
| **Total Financing Required** | **5,750,000** | | |

55. Since all project components will be implemented separately in Somalia and Somaliland, project funds need to be allocated separately to each region. The task team has determined the most effective funding allocation by region and informed both FGS and GoSl of the funding allocation as per the rationale that follows: (i) Component 1 activities consist of grant funding to solar distributors as well as mass-market consumer awareness campaigns and quality assurance. Since the absorptive capacity of the off grid solar market (OGSM) as well as the effort required for consumer awareness and question and answer (Q&A) are expected to be similar in both regions, funds for this component are allocated equally; (ii) Component 2 activities involve upstream analytic work such as geospatial mapping and site identification. Since similar studies are expected in both regions, funds for this component are allocated equally; and (iii) Component 3 activities will fund capacity building at both the national and subnational level. Since the territory under FGS covers several subnational administrative units, more funding has been allocated to FGS under this component. The table below summarizes the proposed funding allocation.

**Table 2. Summary of Proposed Funding Allocation**

| Component funding allocation | FGS % | Somaliland % | FGS US$ | Somaliland US$ | Total US$ |
|---|---|---|---|---|---|
| 1. Electrification of households and small business through standalone solar home systems | 50% | 50% | 1,500,000 | 1,500,000 | 3,000,000 |
| 2. Analytical work for enabling electrification through solar-powered/hybrid mini-grids | 50% | 50% | 500,000 | 500,000 | 1,000,000 |
| 3. Technical assistance, capacity building and project management | 66% | 34% | 1,150,000 | 600,000 | 1,750,000 |
| **Total SEAP funding** | | | **3,150,000** | **2,600,000** | **5,750,000** |
| *Proportion* | | | *55%* | *45%* | *100%* |

## C. Lessons Learned and Reflected in the Project Design

### Lessons from SHS & Mini-Grids Projects

56. Over the past decades, the World Bank and other development partners have supported off-grid projects providing access to modern energy services to more remote households, businesses, and institutions that could not be reached by conventional grid expansion. Among the most cited successful examples are projects in Sri Lanka,[9] Bangladesh,[10] Mongolia,[11] Bolivia,[12] Peru,[13] Argentina,[14] and Ethiopia. The project benefits from a long history of World Bank, other donor, and private sector involvement in mini-grids analytical work and technical studies. Lessons from experience gained on previous private-sector off-grid projects include:

57. **Flexibility to adapt to a changing environment is important**. The proposed project has been designed to be flexible to adapt to changes in market conditions and consumer needs. Most of the off-grid electrification programs have evolved over time with important design features changed or new features introduced midcourse. In Bangladesh, both microfinance and fee-for-service models were introduced, but the microfinance model was much more effective to reach households and the fee-for-service model was abandoned. In addition, the market uptake was accelerated significantly, when consumer buyback schemes for purchasing SHS were introduced a few years into the program, reducing the risk perception of the users. Over time, smaller systems were also introduced to serve poorer market segments, as technology advancements reduced the cost and increased the efficiency of SHS. In Ethiopia, by contrast, the original focus was to support distributors of solar lanterns, but over time the project moved toward supporting larger systems. In the Philippines, the dealer-based model of selling SHS fell short of achieving the access targets set by the government, and a fee-for-service model was adopted during the course of

9 Govindarajalu, C., Raihan Elahi, and Jayantha Nagendra. 2008. *Electricity Beyond the Grid: Innovative Programs in Bangladesh and Sri Lanka.* Energy Sector Management Assistance Program (ESMAP), World Bank.
10 Sadeque Z., Raihan Elahi, and Dana Rysankova. *Scaling up Access to Electricity: The Case of Bangladesh*. World Bank Livewire.
11 Jayawardena M., Salvador Rivera, and Chrisantha Ratnayake. 2012. *Capturing the Sun in the Land of the Blue Sky: Providing Portable Solar Power to Nomadic Herders in Mongolia*. World Bank.
12 Reiche K., Dana Rysankova, and Susan Goldmark. 2007. *Output-Based Aid in Bolivia: Balanced Tender Design for Sustainable Energy Access in Difficult Markets*. OBA Approaches, Global Partnership on Output-Based Aid (GPOBA).
13 http://www.worldbank.org/en/results/2014/09/24/peru-brings-electricity-to-rural-communities.
14 Argentina, Renewable Energy in the Rural Market Project, Implementation Completion Report, 2013.

the project. This was also the case in Cambodia. The initial pace of SHS installation was very sluggish, primarily because rural households could not afford the up-front payments to the suppliers. The model was then changed to a 'hire-and-purchase model'. In Mongolia, the project planned for a network of private dealers that would self-finance the purchases of SHS and then sell them to herders. However, there was a midcourse correction as the ability of the private sector to buy in bulk was overestimated, as was their ability to reach widely dispersed herders. Instead, the project adopted the government's parallel program of buying the SHS and then distributing them to herders through far-reaching government channels. In Bolivia, one of the two companies, which were awarded midterm service contracts, declared bankruptcy and the contracts had to be re-awarded midcourse.

58. **Quality control matters.** It is crucial to establish quality assurance of product performance at the beginning of a project to establish credibility and consumer confidence. The need for quality assurance for SHS was determined early in the Bangladesh project. Procurement of the SHS was the responsibility of the microfinance institutions and NGOs, which were to follow established commercial practices. Stringent quality standards were set, including a five-year warranty for batteries, and these quality standards were strongly enforced. In Mongolia, as a result of adoption of international standards for SHS as well as robust after-sales service and warranties, the credibility of these products in the eyes of the consumers was enhanced. The impressive efforts of Lighting Africa in establishing and certifying products has been instrumental in kick-starting the East African market. At the same time, in a fast-evolving technology environment, it is important that the quality standards adapt to reflect the latest available technologies so that they do not become a barrier to introducing more efficient technologies.

59. **Sustainability of the program must be thought through up-front.** While designing off-grid electrification business models, it is advisable to think carefully about sustainability up front and to set up strategy beyond the project life. In designing SHS programs for rural areas in Cambodia, the choice of appropriate system sizes based on robust up-front analysis, suitable delivery approaches, and post installation O&M arrangements had a significant bearing on the efficiency, cost-effectiveness, and sustainability of those programs. In Laos the focus was on the Implementing Agency (IA) carrying the principal responsibility to ensure the sustainability of the SHS program, particularly when installation, operation, and maintenance of the SHS were outsourced to the private sector. Therefore, an appropriate monitoring and evaluation (M&E) system that ensures clearly defined terms of reference as well as establishes appropriate compensation schemes is required.

60. **Cost sharing with consumers is the key to an enduring service delivery model.** The successful experiences in Bangladesh and Mongolia demonstrate that poor households are willing to pay for energy services. The Bangladesh project (through a minimal subsidy per SHS and the leveraging of microfinance institution services) showed that even low-income rural households are willing and able to pay for SHS to have access to improved lighting services. The Mongolia project illustrated that while the affordability of the herder population was limited, there was still a strong willingness to pay for good-quality and reliable products and services if the consumers were well informed and after-sale services were accessible to a dispersed population. The Mongolian experience also showed that payment for SHS created a sense of ownership compared to the distributing of grants. The market-based approach supported by Lighting Africa in 11 countries has also shown strong uptake by households of reliable, affordable, modern, solar-based energy services. The success of Bangladesh and PAYG companies in Kenya has shown that people are able to pay for larger systems as well, as long as the up-front payment can be spread over time.

61. **Mini-grid selection and technical design should be based on rigorous upfront analytic work.** Mini-grids should be deployed where they are the least-cost electrification method. Mini-grids are mostly suited for rural towns/larger villages that: (a) are relatively remote and therefore unlikely to be served by the national grid; (b) are relatively densely populated; and (c) have expected loads that justify the mini-grid investments as opposed to deploying individual household systems. This usually requires a certain size (for example, 100 households plus) and sufficient existing or potential business and institutional loads. Mini-grid potential should ideally be mapped through a least-cost electrification plan and its viability confirmed through detailed feasibility studies. Although mini-grids are typically applied in remote locations, sometimes they can be used as a temporary solution (pre-electrification) in areas where the grid may eventually arrive. In that case, the mini-grids should apply technical standards that would allow future interconnection with the main grid.

**Lessons from other Somalia Projects**

62. The project team has consulted extensively with other World Bank teams responsible for preparing similar projects in Somalia. The Somali Core Economic Institutions and Opportunities (SCORE) Project-(P152241), for instance, included a component of direct funding to the private sector through a designated Somali Business Catalytic Fund (SBCF) with some parallels to interventions proposed under SEAP. Conversations with the SCORE implementation team revealed that in the Somali context fund manager selection entailed several risks that needed to be carefully managed to balance cost with quality. For example, contracting international Grant Managers could conceivably consume significant resources allocated to Component 1 over the lifetime of a multiyear project. At the same time, local capacity gaps and political and clan dynamics mean that a local manager may not generate satisfactory project outcomes. To mitigate this, the current project will ensure that implementing agencies manage costs through a balance of local and regional or international staffing, as well as judicious use of regional or international and local consultants where appropriate.

63. **Incorporate sufficient flexibility in program design to account for the highly unpredictable nature of local events.** Regular cabinet reshuffles, changes of key administrative personnel, and frequent terrorist attacks resulting in mission cancellations, illustrate the need for patience and occasionally changing priorities. Some elements of design which facilitated flexibility in other projects included: (a) the use of implementing partners (internationally recruited firms with local partners) to carry out activities; and (b) formalized methods for communication and feedback (for example, semi-annual project reviews, local staff, and open lines of communication) to take stock of project progress and make adjustments as needed.

64. **Rely on a mix of local staff and Somali expatriates who are present on the ground for implementation support and monitoring of activities.** Without permanent local presence of implementation and monitoring staff, little can be achieved in Somalia. Senior policy makers who are responsible for implementation often lack sufficient support staff. Locally recruited staff will be viewed, as ‘gatekeepers’ to the funds available under this project, and therefore need to be selected with care. The subcomponents under SEAP will rely on government and WBG recruited support staff that helps implement and build local capacity within the public administration.

65. **Be cautious of implementing international best practices given the modest local capacity and**

**governance constraints.** International best practice models are not always suitable in the local context where public capacity is weak; traditional forms of justice are commonly practiced; tribal politics and customs dictate business and resource allocation; and documentation, data and baselines are entirely missing. Solutions should to the extent possible be adapted to suit the local context and implementers must be realistic about what can be achieved. The pacing and sequencing of reforms must also be carefully considered to account for counterpart capacity.

66. **Invest in media communication and public relations since rumors spread easily in an environment with few central data sources, limited literacy and modest English proficiency, and a general lack of objective media and reporting.** WBG projects are high-profile in Somalia and task teams and contractors are sometimes exposed to explicit or implicit pressures to favor individuals or clans. The rumor mill in social media can be malicious and individuals of significant political and social influence sometimes use it to direct attacks on WBG projects, staff and contractors in order to seek advantages. A comprehensive communication strategy will be one of the first activities that SEAP will develop upon effectiveness, and where feasible information will be communicated in Somali language given the limited literacy and proficiency in the English language.

67. **Be aware of the Government's vulnerability to capture by private sector interest.** The private sector in Somalia is powerful and the boundary between business and politics is often blurred. Capacity constraints, low salaries and a largely unregulated private sector create conditions whereby decisions supporting the public good may take a backseat to private interests. Solutions aimed at influencing policy makers must take into consideration the interests of all stakeholders, including "shadow" stakeholders who might wield power and influence behind the scenes.

68. **Strong community engagement throughout the project cycle helps implementation and improves development outcomes.** Community engagement empowers communities to decide how local government resources can be distributed, reduces corruption and improves services as communities are involved in monitoring of projects and conducting social audits. When citizen engagement is supply-driven, good governance is influenced, however when good governance is demand driven and citizens are engaged and involved in the project cycle, development outcomes can be enhanced. The project will aim to engage communities to the extent possible, including a series of annual consultation events, including consultation with women as part of its gender action plan to ensure that citizens are adequately consulted to ensure there needs and concerns are addressed.

## IV. IMPLEMENTATION

### A. Institutional and Implementation Arrangements

69. The operating environment in Somalia is challenging as government institutions are only now beginning to rebuild at the federal and regional levels with semi-autonomous regional member states, which presents project delivery challenges at a national level. Developing capacity within government institutions to provide oversight of the energy sector remains a priority. The proposed project will be implemented by (i) The MoEWR, FGS; and (ii) The MoEM, Somaliland, in close coordination with the federal member states and regions. FGS and GoSl will each competitively procure separate, independent GMs to manage the Expansion Grants and Seed Grants under Component 1a and Component 1b. FGS and

GoSl will be fully responsible for procurement activities in order to foster project ownership, including preparation of ToRs, developing evaluation criteria for selection of firms, and review of deliverables.

70. Project Implementation Units (PIUs) will be established within the Department of Energy at the respective Ministries of Energy in Mogadishu and Hargeisa before the project effectiveness. They will have the overall responsibility for project management, coordinating project implementation, M&E and reporting of results to stakeholders and developing environment and social safeguards frameworks and plans. PIU staff for the project will either be seconded from government or hired as consultants, through a competitive process. Short-term local and international consultants will be recruited to support the PIU as needed. The capacity in the PIUs will be enhanced through on-the-job training and mentoring by the World Bank's technical staff working on fiduciary and safeguards and the task team leader. In areas such as procurement, it may be a challenge to find a specialist already familiar with World Bank policies and guidelines; as such, a procurement specialist from an existing World Bank-assisted project, will be used in the interim while the project procures a specialist. During implementation, an individual consultant will be hired for the first year of the project to build capacity of the new specialist. The implementing entities will develop a Project Implementation Manual (PIM) before the effectiveness of the proposed project to govern technical, financial and procurement functions of the project at the implementing agencies level.

71. The GM will be recruited by the PIU to manage the expansion grant facility and the seed grant facility on behalf of the recipient. The GM will develop the criteria for selection of companies to receive the respective grants and the process of submission, selection, and monitoring and evaluation. The GM will advertise open calls for business proposals, and the businesses will submit a full application that includes a business plan, capital use plan, historical financials, etc. The GM will fully review these applications before taking a decision whether to award the Grant. The GM will also ensure compliance of environmental and social safeguard issues. The independent verification agent (IVA) will be recruited to validate a sample of SHS installations or sales made under the project; gather feedback from consumers frequently, such as through cell phone surveys; verify disbursements of seed grants and results-based grants; ensuring solar companies meet their obligations to customers and correctly report sales submitted to the grant managers. The results of the IVA will be used as a basis for making payments for the RBF. The procurement process for the GM and IVA will commence immediately after signing of the grant agreement and project effectiveness.

**Federal Government of Somalia**

72. The Federal PIU will consist of a small team headed by a Project Coordinator, and at a minimum include a Finance Specialist (from Accountant General Office), Procurement Specialist (at the onset, will use the World Bank-assisted SCORE project procurement specialist), M&E Specialist, an Environment and Social Safeguards specialist, Regional Coordinator (from the Department of Technical, Maintenance and Regional Coordination) under the ministerial set-up linking Federal Government and federal member states, and technical experts (engineers, etc.). The World Bank's Capacity Injection Project (CIP)- P149971 guidelines which provide a harmonized salary structure and used by all World Bank projects and donors will be used.

73. The project will set-up a small and focused Project Steering Committee to provide oversight of the project and take decisions on critical implementation issues. The current committee in place at FGS focuses on

public private dialogue and is not suitable for the purposes of this project. It will be chaired by the Minister of Energy and Water Resources and will include Director General (DG) Energy, Project Coordinator and relevant PIU staff, representatives from the private sector and regional coordinator focal point.

**Somaliland**

74. The PIU will consist of a small team headed by a Project Coordinator, and include a Finance Specialist, Procurement Specialist, M&E Specialist, Environment and Social Safeguards Specialist; Communication Specialist and a Technical Expert. The government proposed that all positions in the PIU will be recruited internally or externally to the Ministry, after discussions with the Civil Service Commission. The salary structure under development by the World Bank's Somaliland Civil Service Strengthening Project (P155123) is expected to be completed and adopted by all World Bank projects and donors by the latter part of 2018. Support from other ministries is likely to happen, especially on financial management (FM) and procurement roles as agreed during project preparation.

75. The project will set-up a small and focused Project Steering Committee to facilitate technical decisions, oversight, and take decisions on critical implementation issues. The current ESCF focuses on fostering coordination among development partners working in the energy sector in Somaliland; and may not be suitable for the purposes of this project. It will be chaired by the Minister of Energy and Minerals and will include DG of the Ministry, Director of Energy, Project Coordinator and relevant PIU staff, representatives from the private sector and regional coordinator focal point.

## B. Results Monitoring and Evaluation

76. The project will design and use a simple M&E system that incorporates the PDO and intermediate indicators to track the performance of project activities and will adopt and integrate several sex-disaggregated results indicators to monitor and assess both progress in implementing gender-related activities, including narrowing of gender disparities identified, and project benefits for women and men. Monitoring of results will be coordinated by the PIUs, which will each have a dedicated M&E specialist (initially a consultant) and develop a detailed M&E plan which outlines timing and responsibility in reporting requirements against the indicators and milestones. Results will be used to inform any adjustments to implementation, including mid-course corrections of the project.

77. Since access to RBF funds under the Expansion Grant will be predicated on the results achieved on the ground, the solar service providers benefitting from the proposed project will be required to maintain a customer database that provides customer contacts and basic profiles, along with repayment history (in the case of PAYG businesses). The service providers will also be required to develop and administer a monitoring plan, including gathering feedback from consumers on a frequent basis, such as through cell phone surveys. The PIUs or the Grant Managers will engage an independent verification agent(s) (IVA) to assess and validate data collection for key performance indicators in the Results Framework; validate a sample of installations made under the project; as well as to conduct assessments in areas where World Bank staff cannot travel due to security restrictions.

78. A baseline survey and end of project survey will be conducted to determine number of people who were provided with new or improved electricity services, consumer awareness and quality assurance of

products. As mentioned above, feedback from consumers will also be collected frequently in relation to the services provided by the project under Component 1.

79. The World Bank Market Assessment of the off-grid lighting sector in Somalia, conducted in 2016-2017, has collected and provided baseline data for the current size of the solar home system market and potential demand for SHS. Assessments will be repeated at least once during the implementation period to evaluate the benefits of the electrification to consumers, sustainability of efforts, and emerging impacts, including gender.

### C. Sustainability

80. Sustainability will depend on supporting the most appropriate technology to the Somali off-grid context, as well as ensuring ongoing quality assurance. All supported household off-grid energy solutions will be required to demonstrate adherence to LG service and technology standards. Quality assurance and consumer awareness enhancement activities under Component 1b and Component 1c will support implementation and acceptance of these standards. Finally, evidence exists that gender-sensitive designs, for example, those that provide increased opportunities for women to engage in productive uses, can also enhance sustainability of the standalone solar home systems.

81. While the primary financing under this project is in the form of direct, non-repayable grants to businesses, these are nonetheless expected to sustainably benefit the off-grid solar sectors in the following ways: (i) grants will be invested by businesses into growth and expansion of sales and distribution networks, building lasting capacity and economies of scale for future operations; (ii) grants will improve the liquidity and overall financial position of businesses, making them more attractive targets for commercial debt from local financial institutions (especially in conjunction with FCI SCALED-UP activities, see Component 1a and 1b description above); (iii) results-based incentive amounts can be revisited and adjusted throughout the project to adapt to changing market needs and avoid distortion; and (iv) since grants will only benefit distributors of Lighting-Global verified high-quality systems, the grants will help redress the imbalance between low- and high-quality products, leading to significant and durable improvements in consumer perceptions and willingness to pay for solar technology. The target ministries will also acquire capacity required to manage energy sector in the long run.

### D. Role of Partners

82. In the mini-grid sector, DFID is currently the most active international development partner through its ESRES project focused on improving mini-grid access and affordability in Somaliland. The first phase of the program recently came to a close, having included: (i) TA support to the Somaliland Ministry of Energy to strengthen regulatory, human resources, ICT and FM support, including four national consultants embedded in the Ministry; and (ii) a solar hybridization program for a selection of existing mini-grids.

83. In the off-grid solar sector, some initiatives are already in place from the World Bank and other development partners that are accessible to solar home systems, though there are no integrated facilities dedicated specifically to this market. The World Bank's SCORE program provides matching grant funding to a range of early stage businesses, including renewable energy businesses, and some of Somalia's emerging solar home systems companies have accessed SCORE funding to launch small PAYG solar trials. Swedish International Development Cooperation Agency (Sida) and Shuraako have been preparing a

guarantee facility aimed at improving access to finance for micro and small businesses (especially youth and women entrepreneurs), that is expected to also be accessible to solar home systems companies. SEAP will continue ongoing coordination with these complementary activities to ensure that funds are used in maximally efficient and mutually reinforcing ways. The table below provides a selection ongoing development partner activity relevant to SEAP.

**Table 3. Selected Donor Programs in Somalia with Complementary Elements to SEAP**

| Program | Activities relevant to SEAP | Amount | Timeline |
|---|---|---|---|
| DFID – Energy Security and Resource Efficient in Somaliland | • TA to GoSl to develop policy and framework for mini-grids<br>• Development of six hybrid mini-grids | £5 million | Early 2015 – December 2018 |
| USAID – Growth, Enterprise, Employment and Livelihoods (GEEL) | • Promotion of inclusive economic growth across Somalia in key productive sectors | US$74 million (<US$2 million for energy) | September 2015 – September 2020 |
| EU / CARE | • Vocational training for jobs related to infrastructure and renewable energy across Somalia | EUR 3.8 million | Launched March 2017 |
| Sida / Shuraako – Somali Credit Guarantee Scheme (SCGS) | • Credit guarantee scheme to assist micro and small businesses (especially women) to access credit<br>• Provides individual guarantees to banks for a fee | US$5 million (TBC) | 2018 |
| World Bank – Somali Core Economic and Opportunities Program (SCORE) | • Improving Somali investment climate and financial institutions<br>• Grants to business in energy, drought resistance, and women owned businesses through SBCF<br>• Target collaboration with banks in 2nd phase | • US$28.5 million total<br>• US$2.5 million remaining under SBCF phase 2 | January 2016 – April 2019 |
| Shuraako / Dahabshiil Bank – Powering Progress Fund (PPF) | • US$750,000 impact fund for incorporating renewable energy applications to enhance existing core operations | US$750, 000 | Launched September 2016 |

84. The project is designed to be able to accommodate contributions from other development finance partners beyond the financing requirements presented here, and has already received expressions of interest from other development finance institutions to provide additional funding to project activities.

## V. KEY RISKS

### A. Overall Risk Rating and Explanation of Key Risks

85. In the context of ongoing conflict, Somali institutions face considerable challenges related to security,

political settlement, and acute capacity constraints. The energy sector is operating within a policy and regulatory vacuum. These challenges create an extremely difficult operating environment. The project's overall risk rating is therefore "high".

86. **Political and governance (High).** There is a significant risk that frequent changes in political leadership/appointees undermine government ownership of the project and slow down initial gains and reforms. The project team will engage with multiple levels of leadership within targeted ministries to ensure broad, institutional ownership to mitigate the risks posed by turnover of political leaders.

87. **Technical design (Moderate).** The domestic market for off-grid solar technology in the country is extremely nascent, and larger international operators have negligible or nonexistent footprints in the country. There is high uncertainty on the geographic and socioeconomic profile of Somali consumers as well as a high cost to serve these consumers due to weak infrastructure, institutions, and local private sector capacity, as well as ongoing insecurity in violence. In addition, local financial customs mean it is difficult for international off-grid companies to transpose their tried-and-tested models to the Somali context, resulting in prohibitively high costs of entry. Due to this high premium on local knowledge, the current project aims to support local entrepreneurs who have already shown some traction on off-grid technology distribution or related industries.

88. The fragile and complex operating environment necessitates a selective approach to supporting the effective, affordable, and sustainable delivery of energy services. Somalia's private sector has impressively stepped up to deliver basic energy services in the aftermath of the protracted conflict of the 1990s. Nevertheless, these enterprises are often lacking the latest technical, financing, and business model insights that could help scale their businesses. The core thesis of the SEAP is to leverage these incumbent capabilities and activities to improve the overall quality of services they offer to their customers, and to provide them with the technical and financial resources required to deepen and broaden their geographic footprint across the territories. The project is designed to provide an appropriate mix of incentives to enable the local private sector to scale up and professionalize its capabilities related to energy service delivery.

89. **Macroeconomic risks (High).** This risk remains high**,** reflecting external vulnerabilities and weak domestic institutions and fiscal space. Key macro risks include drought, commercial bank de-risking or the closure of correspondent banks, or a change in remittance or aid flows which finance both consumption and investment. Despite progress, the Government's fiscal position remains weak and macro-instruments to respond are limited; consequently, the authorities are at risk of structural overreliance on grant-financing. To mitigate these risks the WBG and IMF are collaborating in support of domestic revenue mobilisation, financial sector strengthening and monetary policy.

90. **Institutional capacity (High).** Low capacity within the implementing agencies (Ministries of Energy) risks undermining the ability of recipient-executed project activities to be rolled out in a timely and effective manner. To mitigate this risk, the project will contribute to developing capabilities of sector institutions to oversee private-sector led delivery of energy services.

91. **Fiduciary (High).** This is confirmed in the 2006/2007 Joint Needs Assessment (JNA)-RDP and the public financial management (PFM) Needs Assessment (April 2013) which recognizes that systems that manage

public resources are very weak, exacerbated by a rudimentary, unregulated banking sector with high potential for money laundering and financing of terrorism. While recognizing this, the World Bank would work closely with the Government to support the use of country systems without creating parallel arrangements and hence live up to the 'New Deal' promises of using and strengthening country systems and capacities to allow for greater levels of funding that are jointly administered and which flow through pooled facilities. Frequent FM support missions will be undertaken during implementation to provide on-the-ground FM support to the implementing agencies.

92. **Environmental and social (Substantial).** The main environmental, health, and safety concerns are likely to be associated with recycling and disposing of spent batteries at the end of their useful lives, which usually occurs three to five years after deployment. Rechargeable batteries for storing solar energy may run on nickel-cadmium (Ni-Cad), nickel metal hydride (NiMH), lithium-ion (Li-ion), lead-acid (Pb-A), or lead-gel (Pb-gel). These batteries should not be disposed of in standard landfills because they can create long-lasting environmental and human health impacts (e.g., headaches, abdominal discomfort, seizures and comas, cancers, irritation of skin and respiratory system, burns and damage to skin and eyes, corrosion, etc.). The recycling/disposal process, including de-manufacturing, collection, storage, recycling, transport, and disposal may be a risk, given the scope of the proposed project. In view of anticipated risks associated with recycling and disposal of spent batteries the World Bank's Environmental Assessment Operational Policy (OP/BP 4.01) will be triggered and appropriate safeguard instruments prepared. Given that potential environmental issues may be ephemeral, reversible, and cost-effectively managed, the Environmental Category assigned this project is Category B.

93. The proposed project will not result in land acquisition since the installation of solar systems will take place largely within existing households and small business, and little physical displacement is anticipated. Concerning mini-girds, the project will focus on analytical work, and to identify and develop a pipeline of projects to be financed in future. The proposed project will also undertake consultations for broader stakeholder support, buy-in and gender-related considerations.

94. **Stakeholders (Substantial).** The design of the proposed project is informed by wide consultations with government agencies, development partners, the private sector, and beneficiaries. Their views have been considered to enhance project ownership. However, the risk remains that regions and stakeholders not reached out during the design and or not included in the program may feel left out and those included may have higher expectations for project outcomes than can be supported. To mitigate this risk, a consumer education and awareness and citizen engagement would be implemented taking on board more views from stakeholders. Also, a comprehensive PIM will be developed for each implementing entity to narrate the requirements, procedures, and processes for accessing project funds, as well as various stakeholders' roles and responsibilities.

95. **Other risks (Moderate).** This may include conflict and violence in certain areas, limiting access to the project sites. The project shall use remote monitoring approaches, including hiring independent local verification agent to monitor areas where the Bank team may not reach.

## VI. APPRAISAL SUMMARY

### A. Economic and Financial Analysis

96. An economic analysis has been carried out to assess the economic viability of the project. The economic internal rate of return (EIRR) and net present value (NPV) of the project are calculated using a standard cost-benefit methodology. The economic evaluation is confined to the project activities that generate quantifiable benefits for which an economic value can be clearly identified and measured, notably benefits associated with investments under Component 1. Components 2 and 3 are excluded because of the difficulty in valuing the outcomes of TA.

97. The economic analysis is based on a simple and transparent cost-benefit framework. The main development impact of the proposed project derives from increased access to modern electricity services and a substitution away from lower-quality or more-expensive alternatives. The benefits of improved electricity access are conservatively quantified based on avoided costs of lower-quality electricity and lighting alternatives. The corresponding costs are the costs of the relevant standalone solar systems. Assessing the net benefits of the project at a 6 percent discount rate yields a NPV of US$0.67 million and an EIRR of 14.2 percent. These figures are conservative as they do not take into account: (i) avoided greenhouse gas (GHG) emissions; (ii) the benefit of additional lighting output (in lumen-hours) of standalone solar systems compared to the traditional lighting alternatives they replace (for instance, a household might replace one kerosene lamp with one solar home system but receive significantly more lighting output from the latter); and (iii) the benefit of powering non-lighting appliances (such as mobile phones) through solar home systems.

**Table 4. Net Present Value and Economic Internal Rate of Return of the Project**

| | |
|---|---|
| **NPV (excl. CO2) (US$, million)** | 0.67 |
| **NPV (incl. CO2) (US$, million)** | 1.15 |
| **EIRR (excl. CO2) (%)** | 14.2 |
| **EIRR (incl. CO2) (%)** | 29.8 |

98. GHG accounting has been undertaken for this project, which will result in significant GHG emission avoidance by replacing household usage of candles, kerosene, and charcoal fuels. Project activities will not directly emit GHG due to the use of solar technologies. GHG emissions for solar home systems over 10 years have been analyzed. Total baseline emissions are estimated to be -36,400 tCO2, whereas the project is not expected to incur any direct emissions. Therefore, the project will result in 36,400 tons of avoided CO2 emissions.

**Rationale for Public Sector Provision/Financing**

99. While the project takes an approach that largely incentivizes the private sector, the use of public funds is critical to address off-grid market barriers and catalyze nascent markets, especially in regions that face an

extremely challenging business environment. Further, provision of electricity services to the rural poor generates social benefits not captured by private sector decision making, and thus, public sector funds must supplement private provision.

100. The rationale for public sector financing rests primarily on the fact that in Somalia the market for stand-alone solar systems, especially those that are quality-certified and sustainable, is highly underdeveloped, and the majority of final beneficiaries have low levels of income. Providing capital to businesses whose primary client base consists of these households is therefore deemed too risky by the few existing Somali financial services providers, who are able to achieve safer returns in more traditional sectors. Public sector financing can, therefore, play a valuable role in unlocking markets for technologies that require substantial upfront investment in inventories as well as sales and distribution infrastructure, and are not yet well understood by the financial sector. The need for public financing is expected to diminish as commercial lenders become more comfortable with these nascent technologies and business models.

101. There are many competing development demands for public financing and capacity. Providing funding to the private sector on a results-based basis per solar system sold will help accelerate growth of a nascent market and demonstrate the potential of the sector to commercial lenders, while ensuring that use of public funds is tied to actual development outcomes. In addition, a results-based mechanism has the potential to maximize value for money on public funding by giving the private sector sufficient flexibility to innovate and react to changing market dynamics without being overly prescriptive on uses of funding. This frees up public sector capacity and funds, which are often limited, for other interventions.

**Value-added by the World Bank Support**

102. The World Bank has extensive knowledge and robust capacity to design customized off-grid programs drawing on decades of global experience. The World Bank has incorporated into the project design the lessons learned from a number of IDA-supported projects with off-grid solar and mini-grid components, as well as early successes in supporting off-grid access under the Lighting Africa program. The World Bank's engagement in the project can also enable the pooling of resources from diverse donors and the private sector for off-grid energy access and is hoped to set a precedent for increased engagement with Somalia and Somaliland by the international donor community.

## B. Technical

103. The project is based on lessons learned from previous projects in Somalia and the World Bank's experience in off-grid electrification through private sector approaches. It takes into account Somalia's capacity challenges and makes provisions to shore-up national systems and institutional capacity, thereby enhancing sustainability. The technical design includes phasing and prioritization which emphasize a graduated approach to the delivery of interventions and sets up a feedback or learning-by-doing mechanism that can influence the path of planned activities in subsequent phases.

104. Increasing energy access requires addressing consumer awareness and access to finance constraints, especially for off-grid business models that are not yet proven in the Somali context. The project is therefore designed to effectively address those constraints, while capitalizing on the presence of existing

country actors and promoting private sector involvement to ensure the sustainability of the approach. The project design is informed by lessons learned from similar projects in the region. The project technical design is anchored on the following principles: (a) flexibility of design to allow for fast response to changes in the off-grid market; (b) incentivizing multiple market enablers to identify the best approach to facilitate off-grid market response; and (c) strong TA and capacity building for participating entities to facilitate effective project implementation.

## C. Financial Management

105. **Finance Management.** The FM risk is assessed as High. FM capacity challenges that are likely to affect the project exist. These include lack of key FM competencies and internal controls, reliance on consultants, lack of regulatory framework for key PFM aspects amongst others. Various mitigating measures are designed both specific to the project and as part of other World Bank/Donor engagements in the country. Given the consideration for Use of Country Systems (UCS), the project will adopt the UCS in various aspects of the projects FM including accounting and reporting, banking, oversight arrangements with the Office of the Auditor General and staffing. This will be supported by TA with clear requirement for knowledge transfer incorporated in the Term of Reference. The External Assistance Fiduciary Section (EAFS), already established under the Office of the Accountant General and staffed with mainstream civil servants in consultation with the Directorates of Finance in MoE&WR, Federal Government of Somalia (MoEWR -FGS) and MoEM, Somaliland (MoEM-SL) will oversee and manage the project financial management. The EAFS units have been fully operational both at the FGS and Somaliland for the last two years. A dedicated project accountant based at the PIUs in MoE&WR and MoEM will be required. Either the Accountant Generals' office will second an accountant from the EAFS to the PIU or the MoEM will identify and second an accountant to the PIU who will work in close consultation with the EAFS team. The EAFS and the PIU staff will be trained on World Bank FM procedures. Puntland project activities will be coordinated from FGS and therefore no need for PIU Accountant in Puntland. Throughout the implementation of the project, the government is expected to ensure the EAFS and PIUs are staffed by a team of professionals with relevant and adequate qualification and experience acceptable to the World Bank. The EAFS will ensure the following: -

a. All important business and financial processes are adhered to;
b. Adequate internal controls and procedures are in place;
c. Interim un-audited Financial Reports (IFRs) are prepared on a timely basis;
d. The financial statements are prepared on a timely basis and in accordance with International Public-Sector Accounting Standards (IPSAS cash-basis); and
e. The external audit is completed on time and audit findings and recommendations/ issues raised in the management letter are implemented expeditiously.

106. **Budgeting.** The PIUs working closely with the EAFS Unit will prepare and submit the project's annual work plans and budget and cash flow forecast for each project component for the necessary approvals by the task team leader (TTL) at the World Bank. The work plans, cash flow projections, and budget will include the figures for the year analysed by months and quarters. The cash budget for each month and quarter will reflect the detailed specifications for project activities, schedules (including Procurement Plan (PP)), and expenditure on project activities scheduled respectively for the quarter. All annual cash budgets will be sent to the TTL at least two months before the beginning of the government fiscal year for review and

approval. The project estimated annual disbursements for each component will be integrated and aligned to the MoEWR-FGS and MoEMR-SL budget calendar ('on-budget') and will form part of the appropriated budget by the parliament. Budget utilization reports shall be prepared from the government Financial Management Information Systems (FMIS) (Somalia Financial Management Information System (SFMIS and Somaliland Financial Management Information System - SLFMIS) as part of the internal government periodic reports as well as quarterly reports and submitted to the World Bank. The reports shall provide an overview on all the project resources disbursed to the government through the designated account (DA) as advances to finance the eligible project activities as well as disbursements through direct payments. The project budget estimated will be analysed and posted into the FMIS in line with the approved Standard Chart of Accounts (SCoA).

107. **Funds Flow and Banking Arrangements.** The projected annual disbursements shall be integrated into the respective budgets of the FGS and Somaliland. Each implementing agency will prepare the budget, work plan and cash flow forecast and submit for the necessary approvals from the governments and the World Bank. The US$ denominated DAs will be opened in a financial institution acceptable to the World Bank. Payments from the DA will only be for eligible expenditure which will be justified and properly documented. The EAFS will prepare and submit withdrawal applications for the DA. Funds will be transferred into the DAs against an approved Withdrawal Applications as provided in the funds flow diagram in Annex 2. The first fund release will be an advance payment based on an agreed ceiling and on the submission of a Withdrawal Application. Replenishment and Reimbursement of Withdrawal Applications will be accompanied by Statement of Expenditures (SoEs) and direct payment will be accompanied by copies of records in accordance with the procedures established in the disbursement Letter and the World Bank's Disbursement Guidelines.

108. **DA Signatories.** The signatories would be: (i) Federal Government **-** Panel A: DG of MoF (with Director of Administration as alternate); and Panel B: Accountant General (with Deputy Accountant General as alternate); and (ii) Somaliland - Panel A: DG of MoF (with Director of Finance as alternate); Panel B: Accountant General (with Deputy Accountant General as alternate).

109. **Accounting Systems.** The accounting system will ensure that financial reports are designed to provide relevant and timely information to the project management units and various stakeholders monitoring the project's performance. It is expected that all levels of implementation will maintain adequate filing and archival systems of all accounting and relevant supporting documents for review and for audit purposes. The project original financial records including all the supporting documentations shall be maintained at the EAFS units. The project's financial transactions will be captured, recorded, analysed, summarized and reported in line with the provisions of the IPSAS cash-basis of accounting. These will be supported by appropriate records and documentation to track commitments and to safeguard assets. To facilitate preparation of the relevant reports and annual financial statements, the project budgets and expenditures will be recorded, classified and reported through the FMISs according to the approved SCoA. The project will be required to provide periodic and annual reports covering total project expenditures; total expenditure on each of the project's components/activities, an analysis of that total expenditure into various categories of goods, works, training, consultants and other procurement and disbursement categories. Eligibility of expenditures will be based on the actual amount incurred and supported by appropriate documentation. Accounting records will be maintained in US$. The EAFS in consultation with the FMS will ensure that invoices and payment requests are consistent with signed contracts before

processing and release of payments. They will also monitor and report on the utilization of project funds, including the fiduciary standards and the reliability of the FM systems. A Project Fixed Assets Register will be prepared, regularly updated, and physical verification of assets routinely carried out. The Fixed Assets Register will reflect: details of suppliers; description and location of goods; original costs; disposal of assets; assets reference (identification) numbers; serial or registration numbers; dates of purchase; assets additions; condition of assets; assets' useful life and residual value. Contracts Registers will also be maintained with respect to all contracts with consultants, contractors and suppliers.

110. **Reporting.** SFMIS and SLFMIS will be configured appropriately to facilitate generation of the project IFRs directly from the systems. The EAFS Units in consultation with the PIUs will prepare and submit approved Interim Unaudited Financial Statements IFRs not later than 45 days after the end of the quarter. The IFRs shall report on all funds received under the project, including any counterpart or other donors' funds received under the project. The reports shall include a statement showing: period and cumulative inflows by sources and outflows by main expenditure classifications; beginning and ending cash balances and supporting schedules comparing actual and planned expenditures. All IFRs submitted shall be duly reviewed, approved and necessary original maintained at the EAFS and copies at PIU. Expenditures shall be classified by component, sub-component and by categories. The agreed IFRs formats will be designed and integrated into FMISs. The EAFS will prepare Project Financial Statements (PFS) covering all the activities of the project. Signed consolidated EAFSs for the project shall be submitted to the Auditor General at FGS and Somaliland for audit not later than three months after the end of the financial year. The EAFSs will be prepared in accordance with Cash Basis IPSAS as shall be agreed between the government and the World Bank. The EAFS will include adequate notes and disclosures consistent with the cash basis of financial reporting under the IPSAS.

111. **Internal Controls.** The project internal controls procedures and processes will be outlined in the PIM and EAFS Manual. The project will ensure that all important business and financial processes are adhered to; adequate internal controls and procedures are in place. Possibility of circumventing the internal control system with colluding practices as bribes, abuse of administrative positions, mis-procurement etc., is a critical issue and may include: (a) late submission of supporting documents; (b) poor filing and records; (c) lack of system integration; (d) lack of budget discipline; (e) unauthorized commitment to suppliers, bypassing budget and expenses vetting procedures; (f) unsecured safekeeping and transportation of funds; (g) uncertainty over the banking arrangements supporting the project; (h) potential exposure to money laundering; and (i) insecurity and political instability. These are mitigated as follows: (i) specific aspects on corruption auditing would be included in the external audit and monitoring arrangements ToR; (ii) FM Procedures (as part of EAFS Manual) approved and in operation for the project; (iii) strong FM arrangements (including qualified Project Accountants in the EAFS Units); (iv) periodic IFRs including budget execution and monitoring; (v) measures to improve social accountability and transparency are built into the project design by ensuring that project reports are available to the public; and (vi) annual PFM forums will be held.

112. **External Audit.** The Auditors General (FGFS and in collaboration with Regional Member States) will carry out Project External Audit with support of TA. An external audit firm will be engaged and funded by the project to carry out the audit of the project activities. The audited project financial statements together with any additional information required will be submitted to the World Bank not later than six months after the end of the project. The audit would be in conformity with the World Bank's audit requirements

and in accordance with internationally recognized auditing standards. The auditor will express an opinion on the Financial Statements in compliance with International Standards on Auditing (ISA); and prepare a Management Letter giving observations and comments, and providing recommendations for improvements in accounting records, systems, controls and compliance with financial. The external audit will pay special attention to the risks of material misstatement of the financial statements due to fraud, in line with ISA 240: "The auditor's responsibilities relating to fraud in an audit of financial statements"). The specific project's FM arrangements will further be spelled out in the PIM. Fixed assets control procedures over fixed assets and contracts management will be the responsibility of the EAFS in consultation with the PIUs. Internal Audit function once established in FGS and Somaliland will be mainstreamed into project activities. The project will liaise with the internal audit unit to ensure that project internal audit reviews are included in the annual work plans. The project internal audit reports shall be prepared and shared with the EAFS/PIUs and made available to the World Bank team during project supervision. The internal audit capacity to be strengthened and linked with other governments' and development partners' capacity-building interventions. The internal auditors will carry out risk-based systems audits to strengthen the project's internal control systems.

## D. Procurement

113. **Guidelines:** Procurement will be carried out in accordance with the requirements in the Procurement Regulations for Borrowers under Investment Project Financing (IPF): Goods, Works, Non-Consulting Services and Consulting Services dated July 1, 2016 (revised November 2017); "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by International Bank for Reconstruction and Development (IBRD) Loans and IDA Credits and Grants (revised as of July 1, 2016)"; and provisions stipulated in the Financing Agreement. Somalia being a fragile, conflict and violence (FCV) country, procurement under the projects will be processed under special procurement arrangements referred to in Paragraph 12 of the World Bank Policy IPF dated November 10, 2017.

114. **Project Procurement Strategy for Development (PPSD) and Procurement Plan (PP):** As per the requirement of the Regulations, the Borrower has developed a PPSD, based on which the PP for the first 18 months was prepared. The Market Research and Analysis in PPSD reveals that there is limited domestic capacity for firms/individuals who can be engaged as TAs for capacity building and grant management. For this reason, firms and individuals for capacity building and grant management will be selected on an open – international basis. Given the nature and the size of the non-consultancy services to be procured, most of the potential bidders are available locally. Such services will be procured through National Open competition/Request for Quotation market approach. The PP includes the summary of the procurement arrangements for each contract in the project. The PP will be updated as required, to reflect the actual project implementation needs, but each update shall require World Bank approval. All PPs will be publicly disclosed in accordance with the World Bank disclosure policy.

115. **Systematic Tracking of Exchanges in Procurement (STEP):** The World Bank's STEP system will be used to prepare, clear and update PPs and conduct all procurement transactions for the project. Staff of the PIUs will be trained in using STEP.

116. **Procurement Assessment:** A procurement capacity assessment of the two PIUs (*The MoE&WR, FGS and*

*The MoEM, Government of Somaliland (GoSI))* to implement the project procurement was conducted in February 2018. The implementing agencies lack capacity and previous experience in the World Bank procurement procedures and hence the risk for procurement was considered **"High."**

## E. Social (including Safeguards)

117. The proposed activities under Component 1 will involve installation of plug in solar system where panels will be placed on the rooftops and within the existing property and small business premises or firms. These activities are expected to have limited, temporary and for the most part reversible environmental and social impacts. No physical displacement or potential impact on livelihoods is anticipated. Therefore, the World Bank Operational Policy on Involuntary Resettlement (OP 4.12) is not triggered, and the project will exclude any activity that will require land acquisition. SEAP Component 2 activities will only focus on analytical work where a consultancy firm will be engaged to carry out the geospatial analysis and pre-feasibility studies for potential future mini-grid sites. SEAP will also undertake consultations for broader stakeholder support, buy-in and gender-related considerations.

118. The project will have broad social benefits for households in rural and peri-urban areas, as improving households' access to modern energy is central to restoring livelihoods and mitigating the impacts of the crisis on the poor and most vulnerable. Social risks associated with the potential exclusion of poor and vulnerable households, including female-headed households and internally displaced people (IDP), will be mitigated by targeting rural and peri-urban areas with attention paid to reaching first-time borrowers and by ensuring that beneficiaries' eligibility criteria will be transparent and part of the communication campaign. Risks associated with the potential exclusion of small retailers from lists of prequalified suppliers will be mitigated by relying as much as possible on the local supply chain and by targeting SMEs.

119. **Gender.** The project intends to contribute to closing the relevant gender gaps, particularly in access to electricity, by (a) ensuring women's access to solar products; and (b) increasing women's awareness about solar energy use and the productive uses of solar power. In 2015, the Gender Inequality Index for Somalia was 0.776 (where 1 denotes complete inequality)[15]. The major causes of gender inequalities in Somalia include social and cultural norms, which define how women and men are treated from early stages of life, in family settings, and in the community-at-large. In addition, gender inequality in Somalia has been influenced by civil conflicts and political instability; extreme poverty; prolonged droughts; food insecurity; limited access to health services; limited access to and control of assets and property; and negative religious and cultural practices[16]. In 2017, the labor force participation rate in Somali was 32 percent males and 18 percent females; further, the employment rate for males in Somali was 32 percent while the employment rate for women was 9 percent as women are mainly responsible for housework[17]. While data for Somaliland is not readily available, the labor force participation rate also shows gender disparities in both urban and rural areas. In 2012, the labor participation rate of male and females in urban areas was 56 percent and 29 percent, respectively; while for rural areas, the labor force participation rate of males and females was 57 percent and 42 percent, respectively[18]. Gender inequalities have been very persistent

[15] UNDP (2015), Gender in Somalia.
[16] SIDRA Institute (2016) EU Somalia Gender Analysis Study.
[17] World Bank (2017) Somali Poverty Profile: Findings from Wave 1 of the Somali High Frequency Survey. Poverty and Equity Global Practice, Africa.
[18] 2012 Somaliland Labor Force Survey.

and women in Somalia and Somaliland are not able to fully benefit from development such as education, health, employment and infrastructure improvements.

120. The gender action plan for the project has been developed based on a review of available data and research about the gender situation in Southern Somalia, Puntland and Somaliland; and on consultations with key stakeholders in the FGS MoE&WR and Somaliland MoEM, and international and local institutions working on gender and off-grid energy issues. The gender interventions will be designed to mainly reduce gender disparities in household and small business access to standalone solar systems and increase women's voice in decision making. Providing access to solar electricity by targeting women is expected to result in time reallocation from household work to income generation, education, and other productive activities. In Somali, at least 50 percent of the households are headed by females due to war and emigration[19], so the project will ensure that at least 30 percent of the households targeted to receive standalone solar systems are headed by women. It is important to note that in Somali, male-headed households (54 percent) are poorer than female-headed households (49 percent) because the latter receive remittances from working-age men who have migrated; however, the opposite holds for rural households[20]. Also, 20 percent of MSMEs owned by women will be targeted for the stand alone solar systems. The project will also ensure that consumer awareness and education programs for the targeted households and MSMEs, on use and management of standalone solar electricity, will precede the installation process. Consultations will include female-only sessions and will be arranged so that the times for the consultations do not conflict with other housework, to ensure women have a voice in the installation and operation of the stand-alone solar system. Annex 4 presents an overview of specific activities of the gender action plan that are part of the project, those that require incremental efforts, and associated actors that will implement the activities.

121. The project will collect sex-disaggregated data and gender-relevant data as part of the M&E. The main result indicators will be (i) number of male and female headed households with new stand-alone solar systems; and (ii) the number of male-owned and female-owned small businesses with new standalone solar system. The intermediate indicators will include consultations for men and women; women-targeted in the information and knowledge campaigns delivered; separate consultations with women and men prior to and during implementation. The project will also develop a comprehensive gender action plan with TA and support from the Africa Gender and Energy team[21]. The project team will also ensure close collaboration with other pipeline operations in Somalia to prevent duplication.

## F. Environment (including Safeguards)

122. The project is assigned as a Category B Partial Assessment – assigned to projects that are likely to have limited and reversible environmental impacts, that can readily be mitigated. There are no significant and/or irreversible adverse environmental issues anticipated from the activities to be financed under the project. The main potential environmental impacts anticipated for the project are the environmental, health and safety concerns that are likely to be associated with recycle and disposal of spent batteries at the end of

[19] Somalia SCD and Somalia Poverty Profile.
[20] 2017 Somali Poverty Profile.
[21] The Africa Gender and Energy Program is an ESMAP-funded program whose primary objective is to establish a core body of evidence to demonstrate that promoting improved gender equality in energy projects improves development outcomes and state-of-the-art approaches to improve gender equality in energy projects. The program has supported pilot approaches on gender mainstreaming in Senegal, Mali, Benin, Tanzania, and Kenya.

their useful lives, which is usually three-five years after deployment. Rechargeable batteries for storing solar energy may run on nickel-cadmium (Ni-Cad), nickel metal hydride (NiMH), lithium-ion (Li-ion), lead-acid (Pb-A) or lead-gel (Pb-gel). These batteries should not be disposed in standard landfills because they can create long lasting environmental and human health impacts (e.g., headaches, abdominal discomfort, seizures and comas, cancers, irritation of skin and respiratory system, burns and damage to skin and eyes, corrosion, etc.) due largely to the heavy metals such as mercury, lead, cadmium and nickel, and acids. The entire management processes including de-manufacturing, collection, storage, recycling, transport and disposal may present a challenge to this Project, given the scope of this operation.

123. The Environmental and Social Management Framework (ESMF) for this grant incorporates aspects related to solid waste from solar PV systems and/or develop a project-specific environmental code of practice (ECoP) as a guidance on approach for the collection, transport, storage and disposal of spent batteries, with the aim of ensuring that risks to the environment and human health are prevented or mitigated. Apart from providing approaches to the management of spent PV batteries, such an ECoP will also seek to inform discussion and build awareness of all stakeholders, including rural community members, vendors/suppliers of products and service providers, around safe management of used batteries. Since the specific locations of solar home systems distribitution are unknown at this stage of project preparation, the government has prepared an ESMF, with an ECoP within, in participatory manner and consulted upon. The ESMF contains an environmental and social screening process, and environmental and social checklist to ensure that potential negative impacts are mitigated.

124. **Safeguard Implementation Arrangements**. The project has prepared terms of reference for hiring the Grant Managers for implementation of Component 1a and 1b. The ToR contains clauses that relate to safeguards and occupational health and safety competencies and specific tasks related to safeguard monitoring and enforcement. This will ensure safeguard capacity within GM team to review beneficiary, applications, review and monitor the grants, and work in close collaboration with the PIU safeguard focal person to manage the execution of the ESMF. The minimum staffing qualification for Grant Managers safeguard capacity is provided in the ESMF. The selected Grant Managers will be responsible for coordinating and supporting the implementation of safeguards and will prepare a PIM that will include a checklist for project activities including potential threats, and mitigation measures as well as capacity building for safeguards implementation and compliance monitoring. The Grant Managers will submit the PIM to the PIUs for review and clearance. Thus, any bidders for any of the funding available under this component will have to indicate, in their respective bids, how they intend to address environmental and social sustainability issues that could be associated with the provisions of those services. The selected bidders will be responsible for implementing the safeguards on the ground, including ensuring compliance with occupational health and safety imperatives and dealing with de-manufacturing of out-of-use solar devices, e-waste disposal, and recycling. For Component 2, a draft pre-feasibility ToR setting out the minimum safeguard requirements and assessments as part of the pre-feasibility have been prepared and attached to the ESMF. For Component 3, given the capacity constraints within government entities, safeguards-related support would include training for the project implementation teams on safeguard issues and support the setting up of health and safety standards for workers and consumers in the electricity sector.

125. **Citizen Engagement**. Consumer engagement is vital to the success of the proposed project. This project will support a multiyear program for consumer education and citizen engagement in the target areas.

Consumers in the area are unlikely to be aware of the new technologies being presented and will benefit from information about the services, explanation about how the services can be accessed, and the opportunity to interact with service providers to share their feedback and concerns. The consumer awareness and citizen engagement activities will provide beneficiaries with the necessary guidance on how to get the best out of the products in the way they use and maintain them; these activities will also help service providers better understand the needs and concerns of their customers. The citizen engagement program will employ a variety of messaging tools and personal interaction to reach various audiences while ensuring opportunities for two-way dialogue, including a series of annual consultation events.

126. **Consultations and Disclosure**. The ESMF has been disclosed in-country and on the World Bank's external website on September 24 (FGS) and September 25 (GoSl) following review and clearance by the World Bank. The FGS MoE&WR; and Somaliland MoEM conducted consultative meetings on May 19, 2018 and May 22, 2018 respectively; with key stakeholders including, SHS distributors representatives, household representatives, women, and the communities. The objective of the meetings was to identify key Environmental and Social issues and determine how these will be addressed. The ESMF will continue to be in public domain in-country (in the appropriate communication channels such as on the website of the implementing agency and/or as hard-copies in a location and format easily accessible to public, and other public places of project intervention areas) as well as at the World Bank external website.

## G. World Bank Grievance Redress

127. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

## VII. RESULTS FRAMEWORK AND MONITORING

**Results Framework**
**COUNTRY: Somalia**
**Somali Electricity Access Project**

### Project Development Objective(s)

The Project Development Objective is to expand access to electricity in targeted urban, peri-urban, and rural communities

### Project Development Objective Indicators

| Indicator Name | DLI | Baseline | Intermediate Targets | | | End Target |
|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | |
| **The PDO is to expand access to electricity in targeted urban, peri-urban,and rural communities** | | | | | | |
| People provided with new or improved electricity service (CRI, Number) | | 0.00 | 11,390.00 | 30,753.00 | 71,757.00 | 113,900.00 |
| People provided with new or improved electricity service - Female (CRI, Number) | | 0.00 | 5,670.00 | 15,309.00 | 35,721.00 | 56,700.00 |
| Generation capacity of energy constructed or rehabilitated (CRI, Megawatt) | | 0.00 | 0.00 | 0.10 | 0.15 | 0.20 |
| Renewable energy generation capacity (other than hydropower) constructed under the project (CRI, Megawatt) | | 0.00 | 0.00 | 0.10 | 0.15 | 0.20 |

## Intermediate Results Indicators by Components

| Indicator Name | DLI | Baseline | Intermediate Targets | | | End Target |
|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | |
| **Electrification of households and businesses through standalone solar home systems** | | | | | | |
| Grant funding disbursed to solar home system distributors (Amount(USD)) | | 0.00 | 150,000.00 | 450,000.00 | 900,000.00 | 1,500,000.00 |
| Number of households with new stand-alone solar systems (Number) | | 0.00 | 2,150.00 | 6,450.00 | 12,900.00 | 21,500.00 |
| Percentage of households with new stand-alone solar systems, of which headed by female (Percentage) | | 0.00 | 5.00 | 10.00 | 15.00 | 20.00 |
| Consumer awareness campaigns completed (Yes/No) | | No | No | Yes | Yes | Yes |
| The number of male-owned and female-owned small businesses with new standalone solar system (Number) | | 0.00 | 10.00 | 30.00 | 80.00 | 100.00 |
| Number of consultations for men and women (Number) | | 0.00 | 2.00 | 4.00 | 2.00 | 8.00 |
| Separate consultations with women and men prior to and during implementation (Yes/No) | | No | Yes | Yes | Yes | Yes |
| Women-targeted in the information and knowledge campaigns delivered (Yes/No) | | No | Yes | Yes | Yes | Yes |
| **Analytical Work for enabling electrification through solar-powered/hybrid mini-grids** | | | | | | |

| Indicator Name | DLI | Baseline | Intermediate Targets | | | End Target |
|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | |
| Number of studies on mini-grid sector completed (Number) | | 0.00 | 0.00 | 1.00 | 3.00 | 4.00 |
| **Technical Asisstance, Capacity Building & Project Management** | | | | | | |
| Number of Federal Government of Somalia Ministry of Energy and Water Resources staff trained (Number) | | 0.00 | 2.00 | 5.00 | 8.00 | 10.00 |
| Number of Government of Somaliland Ministry of Energy and Mineral Resources staff trained (Number) | | 0.00 | 2.00 | 5.00 | 8.00 | 10.00 |

**Monitoring & Evaluation Plan: PDO Indicators**

| Indicator Name | Definition/Description | Frequency | Datasource | Methodology for Data Collection | Responsibility for Data Collection |
|---|---|---|---|---|---|
| People provided with new or improved electricity service | | Quarterly | Grant Managers reports to PIU | Grant payments will be directly linked to system sales, which will in turn be reported by distributors and verified by an Independent Verification Agent. Number of people served will be determined according to | Grant Managers |

| | | | | | |
|---|---|---|---|---|---|
| | | | | SE4ALL Multi-Tier-Framework benchmarks for different sizes of systems. | |
| People provided with new or improved electricity service - Female | | Quarterly | Grant Managers reports to PIU | Grant payments will be directly linked to system sales, which will in turn be reported by distributors and verified by an Independent Verification Agent. Number of people served will be determined according to SE4ALL Multi-Tier-Framework benchmarks for different sizes of systems, and demographic data applied to determine number of women served. | Grant Managers |
| Generation capacity of energy constructed or rehabilitated | | Quarterly | Grant Managers | Distributors receiving grants will submit sales numbers and capacity of systems sold to Grant Manager. Reported numbers will be verified by an Independent Verification Agent. | Grant Managers |

| | | | | | |
|---|---|---|---|---|---|
| Renewable energy generation capacity (other than hydropower) constructed under the project | | Quarterly | Grant Managers | Distributors receiving grants will submit sales numbers and capacity of systems sold to Grant Manager. Reported numbers will be verified by an Independent Verification Agent. All systems will be solar-powered, thus all capacity will be non-hydro renewable capacity. | Grant Managers |

| Monitoring & Evaluation Plan: Intermediate Results Indicators | | | | | |
|---|---|---|---|---|---|
| **Indicator Name** | **Definition/Description** | **Frequency** | **Datasource** | **Methodology for Data Collection** | **Responsibility for Data Collection** |
| Grant funding disbursed to solar home system distributors | Measures amount of grant funding disbursed by Grant Manager | Quarterly | Grant Manager reports to the PIU | Reported directly by Grant Manager | Grant Managers |
| Number of households with new stand-alone solar systems | Number of households with new stand-alone solar systems | Quarterly | Surveying through Independent Verification Agent | Survey | Grant Managers / PIUs |

| | | | | | |
|---|---|---|---|---|---|
| Percentage of households with new stand-alone solar systems, of which headed by female | Measures the percentage of households reached that are headed by female | Annually | Surveying by Independent Verification Agent | Survey | PIUs |
| Consumer awareness campaigns completed | Measures whether consumer awareness campaigns in Somalia and Somaliland under Component 1 have been completed | Once | PIUs | Reporting from PIUs | PIUs |
| The number of male-owned and female-owned small businesses with new standalone solar system | Monitor the number of small businesses with new standalone solar system disaggregated by Gender of proprietors | Quarterly | PIUs, Solar companies, IVA | Survey | PIUs |
| Number of consultations for men and women | Consultations done for the project targeting men and women | Quarterly | PIUs periodic reports | Surveys | PIUs at MoEM and MoE&WR |
| Separate consultations with women and men prior to and during implementation | Consultations of men and women | Every 6 months | PIU periodic reports | Meeting reports | PIU |
| Women-targeted in the information and knowledge campaigns delivered | information and knowledge campaigns delivered targeting women | Quarterly | PIUs | Survey | PIUs |
| Number of studies on mini-grid sector completed | Measures number of mini-grid sector studies completed | Semi-annually | PIUs | Reported directly by PIUs | PIUs |
| Number of Federal Government of Somalia Ministry of Energy and Water | Measures number of Federal Government of | Semi-annually | PIU | Reported directly by PIUs | PIU |

| | | | | | |
|---|---|---|---|---|---|
| Resources staff trained | Somalia Ministry of Energy and Water Resources staff trained | | | | |
| Number of Government of Somaliland Ministry of Energy and Mineral Resources staff trained | Measures number of Government of Somaliland Ministry of Energy and Mineral Resources staff trained | Semi-annually | PIU | Reported directly by PIUs | PIU |

## ANNEX 1: DETAILED PROJECT DESCRIPTION

**COUNTRY: Somalia**
**Somali Electricity Access Project**

1. The project will cover both Somalia (including Puntland) and Somaliland. There is no ex-ante provision for more detailed allocation to political or geographic sub-divisions of these sub-regions.

**Component 1: Standalone solar home systems (US$3 million)**

2. This component aims to support electrification of households and small businesses that either: (i) are too remote to be economically served by existing or planned mini-grids; (ii) cannot afford mini-grid connections or mini-grid power consumption; or (iii) are nomadic or itinerant in nature and cannot reasonably be served by stationary power delivery systems. The component will create the enabling conditions for local Somali distributors of solar home systems to scale up sales of high-quality and sustainable solar technology in urban, peri-urban, and rural areas.

3. The market for quality-verified solar home systems in East Africa has experienced exceptional growth over the last half decade as new technologies and business models have continued to reduce end-prices to consumers. On average close to 1 million Lighting-Global certified standalone plug-and-play solar devices are sold annually in Kenya alone[22], and this market is expected to continue to grow as costs continue to decline and businesses further expand their geographic reach and product offerings. These systems range from single-light lanterns (often with phone charging capabilities), to sophisticated multi-light systems able to power multiple devices simultaneously including TVs, radios, and in some cases small commercial appliances including refrigerators or hairdressing equipment.

4. Along with a continual decline in input costs over the past decade, the main innovation that has made these technologies accessible to large numbers of Sub-Saharan African consumers is the advent of PAYG[23] technology, allowing consumers to pay for devices in installments over periods ranging from a few months to several years, depending on the company and the device. Technical details vary, with some companies employing GSM technology to remotely monitor devices and electronically suspend services in event of non-payment, while others allow consumers to pre-pay for a certain amount of energy consumption through scratch cards or codes transmitted by mobile phones. The PAYG model has enabled market participation by hundreds of thousands of off-grid consumers across Sub Saharan Africa who would otherwise be unable to afford solar systems, particularly larger, multi-light point devices. For many households and businesses with comparatively low energy consumption profiles, standalone solar devices have the potential to be significantly more cost-effective means to energy access than mini-grid or grid connections[24].

5. The market for solar home systems in Somalia has significant potential. A study conducted in preparation

[22] Lighting Global Off-Grid Solar Market Trends Report 2018.
[23] PAYG, or “pay-as-you-go”, broadly denotes a technology-enabled installment-based payment scheme for off-grid solar products.
[24] Ongoing geospatial studies in countries such as Kenya and Madagascar have shown standalone solar devices to be the least-cost electrification option for a significant share of off-grid households.

for this project estimated a total potential market size for solar home systems ranging from single-light lanterns to larger systems up to 500 W at US$108.4 million, corresponding to around 1.1 million units, and a market size of US$79.6 million for systems up to 100 W. This demand is further expected to rise as populations grow, mobile phone usage continues to increase, and more and more Somalis become aware of the potential benefits of solar technology as a substitute or complement to conventional lighting sources such as candles, kerosene, flashlights, and mini-grid connections.

**Table 5. Solar Home System Market Size in Somalia**

| Off-grid solar PV product Category | Region | | | Estimated Market Size | | |
|---|---|---|---|---|---|---|
| | Somaliland | Puntland | Southern Somalia | Number of Units | Total Capacity (kW) | Value (USD million) |
| Lanterns (0-3W) | 269,096 | 97,013 | 741,292 | 1,107,401 | 3,322.20 | 33.22 |
| Plug and play SHS (3-10W) | 164,052 | 58,361 | 364,494 | 586,907 | 5,869.07 | 35.21 |
| Installed small scale SHS (10-100W) | 9,751 | 3,328 | 24,039 | 37,118 | 3,711.83 | 11.14 |
| Installed large scale SHS (100-500W) | 2,840 | 951 | 7,734 | 11,525 | 5,762.40 | 28.81 |
| **Total** | **445,738** | **159,654** | **1,137,559** | **1,742,951** | **18,665.51** | **108.38** |

6. The current market situation remains well below this potential. Though current annual sales stand at an estimated 140,000 to 180,000 units, the vast majority of these are uncertified, low-quality, unreliable, and unsustainable imitation products. These are typically brought in via the UAE or Oman as part of general goods orders by informal, non-specialized traders with limited knowledge of quality solar products and few incentives to promote quality in a highly informal, unregulated, and price-driven market. In addition to informal traders, a small but growing supply side for quality-approved standalone solar products has begun to emerge as local entrepreneurs have started to capitalize on growing demand for higher quality products. Most of these businesses, however, are relatively new, small, and unable to aggregate sufficient volumes to negotiate favorable pricing terms with manufacturers or wholesale suppliers.

7. Centered on Kenya, Tanzania, Uganda, and Rwanda, the last decade has seen the emergence of a thriving solar home systems industry in East Africa, dominated by several large regional players with deep distribution channels, sophisticated technological platforms, and substantial capital reserves. However, the Somali market is unlikely to be targeted by these established operators anytime soon. Security concerns and high perceived market risk mean that only very few of the major international players active in Kenya and other East African countries have operations in Somalia or are considering expansion. A small number of international PAYG operators have begun to pilot partnerships with local distributors. These initiatives show potential as a model for future growth, combining established technology and sectoral knowledge with on-the-ground experience and networks, but are currently at a very early stage and have yet to generate more than a few hundred sales.

8. Several factors continue to constrain the market for quality-approved off-grid solar technology in Somalia:

a. **Low consumer awareness of the importance and characteristics of system quality**. Somali consumers are highly cost-conscious and are either unaware of the quality differences between products, unable to differentiate between high-quality and low-quality products, and/or unwilling/unable to pay the price premium required for higher quality. As a result, higher-quality, more sustainable products are struggling to compete in an increasingly spoiled market. In addition, though there exists broad understanding of solar as a technology and alternative to traditional lighting products, consumers are still less aware of the more advanced potential applications of solar, such as powering televisions or small commercial appliances, and how quality affects consumer experience for these.

b. **Lack of quality standards and capacity for enforcement.** The flood of low-quality products into the market is exacerbated by a lack of regulation on quality standards, as well as a lack of both technical capacity and resources to effectively monitor and enforce these even if adopted. Reputable solar businesses in Somalia report a surge in users bringing inferior devices to them for repair (bought from irreputable vendors). The Ministry of Energy in Somaliland is providing tax exemptions for quality renewable energy products but lacks the capacity to adequately monitor these.

c. **Lack of access to consumer finance.** Consumer affordability is one of the principal challenges to market growth in Somalia and is intimately tied in with the quality issues mentioned above as only a small segment of the market is able to afford direct purchases of high-quality products even if fully aware of their advantages. As such, consumer financing could offer an opportunity for higher-quality products to effectively compete, as incremental repayments would more closely match households' and businesses' cash flow cycles. There are in general two approaches to consumer financing for off-grid solar products: (i) PAYG financing, in which distributors directly take consumer debt onto their own balance sheets; and (ii) consumer loans from MFIs or other consumer finance institutions targeted at household energy products. At present, though some have recently launched small-scale PAYG pilots, solar distributors in Somalia do not have access to the substantial capital required to run PAYG schemes at scale, and MFIs lack the expertise and experience to be able to effectively engage with the sector.

d. **Lack of access to supply chain (inventory) finance.** Given their perceived risk and limited track record, solar distributors in Somalia do not have access to supplier terms from international manufacturers and are required to finance the full amount of orders upfront. Similarly, conditions for borrowing from local banks are highly onerous, with borrowers typically requiring collateral in excess of 120 percent of the value of the loan as well as a personal guarantee, often from one of the shareholders of the bank. As distributors often have to wait six months or more between making a purchase order with manufacturers and collecting revenues from end-consumer sales, access to supply chain financing severely constricts businesses' ability to expand. Though Somali financial institutions do not readily release their financial data, conversations between most of the major banks in Somalia and the project team suggest that there is sufficient liquidity in Somalia's financial sector, but that financial institutions do not at present see sufficient incentives to compensate for the added risk of lending to a new sector with limited track record and a lower-income consumer base.

e. **Access to early-stage expansion finance.** Most sales of quality-approved solar home systems have been concentrated in relatively few urban and peri-urban areas, typically centered around a small number of brick-and-mortar retail outlets. To expand their reach into new regions and serve a broader range of consumers, solar distributors require upfront financing to invest into physical sales and distribution infrastructure as well as marketing, training, and other business support functions. In other markets, this financing has typically come in the form of equity from international impact investors or in the form of grants from DFIs and other development partners. Without access to these forms of funding, local distributors struggle to invest in the necessary infrastructure and initiatives to reach additional customers and new markets.

f. **Duties on solar equipment.** In Somalia, importers of solar equipment pay tax on units at the same rate as for general electronics. In Somaliland, the government has put in place exemptions for solar products, but these are inconsistently and ineffectively enforced. Several East African countries have successfully used duty exemption as an incentive to distributors to import high-quality products, but Somalia currently lacks the capacity to enforce such a policy.

9. Each of these constraints directly and adversely impacts one or more segments of the off-grid solar value chain and suggests areas for value-additive intervention. These are summarized in the table below.

**Table 6. Summary of Somalia Off-grid Solar Market gaps and Potential Interventions**

| Value chain segment | Market activity to date | Market failures | Suggested interventions |
|---|---|---|---|
| **Imports and inventory management** | • Sporadic, low-volume imports through Middle East (low quality products) or Kenya (LG-approved products)<br>• Somali distributors unable to access trade terms; pay 100 percent of goods value upfront (c.f. e.g. 70 percent upfront for distributors in Kenya)<br>• Somali Banks are highly risk averse, expensive, and unlikely to engage with solar sector without additional incentives<br>• Lack of or inconsistently enforced duty exemptions for solar technology | • **Diseconomies of scale** due to lack of affordable supplier terms and/or inventory financing<br>• **Foregone market opportunity** as businesses unable to procure supply to meet demand<br>• **Market spoilage** as distributors have few incentives to import high-quality products | • Support government in introducing selective duty exemptions for LG-approved solar products<br>• De-risk local and regional FIs to incentivize additional lending for inventory finance to fund larger orders |
| **Distribution** | • To date mostly in urban / peri-urban areas sold from urban outlets | • **Lack of upfront funding** to expand geographic footprint and add additional distribution infrastructure | • Grants to distributors to build out distribution infrastructure |

| Value chain segment | Market activity to date | Market failures | Suggested interventions |
|---|---|---|---|
| **Marketing** | • Marketing of solar products mostly by word-of-mouth or storefront displays | • **Unrealized demand** due to lack of awareness regarding availability and benefits of solar products<br>• **Market spoilage** due to lack of awareness regarding identification and benefits of *quality* solar products | • Consumer awareness campaigns through mass- and local media<br>• Enhanced quality assurance and incentives for sale of quality-approved products<br>• Grants to distributors for in house marketing activities<br>• Business development TA to distributors to strengthen ability to operate household solar business models |
| **Retail and consumer finance** | • Sales dominated by low-cost, low-quality cash-sale products<br>• Some solar distributors are launching small-scale PAYG pilots in partnership with established operators<br>• Some MFIs offer small number of financial products for solar but are under-resourced and under-capitalized as commercial banks operating MFIs not doing so profitably | • **Low affordability** for quality solar products without consumer finance, but to date limited provision of consumer finance / PAYG options<br>• **Market spoilage** as LG-approved systems struggle to compete with low-cost alternatives | • Grants to distributors to support integration of PAYG platforms into existing supply chains and/or set up partnerships & knowledge transfer with established regional solar companies and/or set up partnerships with local MFIs to provide consumer financing<br>• Business development TA to distributors to strengthen ability to operate household solar business models |
| **After sales support and service** | • Several donor-funded programs underway to enhance technical capacity for maintenance and service; little emphasis to date on enhancing operational capacity | • Significant **sustainability risk** due to distributors' lack of track record and experience in operating household solar models (PAYG or otherwise) | • Grants to distributors to deepen customer service capacity (e.g. call centers) and / or set up partnerships & knowledge transfer with experienced PAYG operators<br>• Business development TA to distributors to strengthen ability to operate household solar business models |

10. The goal of this component is to address these market failures by providing low-risk expansion capital to enable business to invest in growth and infrastructure, educating consumers on the necessity of quality, and stemming the tide of low-quality products. The component will establish an Expansion Grant facility awarding RBF to Somali distributors of solar home systems. Eligible uses will include training of staff, marketing expenses, distribution infrastructure, development of PAYG consumer finance models, and processes and equipment for after-sales maintenance, among others. In addition, small upfront Seed Grants will be available to smaller or less experienced businesses to build capacity and inventories to enable them to begin making sales and access the Expansion Grant. Applications to Expansion Grant

financing are expected to be open to solar distributors, or any other business able to distribute solar home systems in Somalia. Applications to Seed Grant financing will be open to early-stage Somali solar distributors. Grants will be designed in such a way that more experienced or more established businesses are incentivized to access the Expansion Grant rather than the Seed Grant.

11. These grants will be complemented and strengthened by the Somalia Capacity Enhancement, Livelihoods and Entrepreneurship, through Digital Uplift Program (SCALED-UP) currently under preparation by the World Bank's FCI GP. SCALED-UP will work with local Somali banks to stimulate commercial lending to underserved sectors (including the off-grid energy sector) through the provision of Risk Mitigation Grants. These grants will unlock private debt by buying down lender risk in Somalia's still nascent off-grid solar market. SCALED-UP activities will also include assistance to local banks in building a pipeline of both potential lenders and borrowers, making introductions and linkages, supporting distributors in making loan applications, supporting financial institutions in performing diligence and evaluating loan applications, and providing business support to distributors to ensure capacity to execute on business plans underlying applications. As limited access to debt for working is a crucial constraint for Somali off-grid companies, SEAP will benefit greatly from enhanced participation of Somali banks in the off-grid sector. Conversely, funding provided through the SEAP Expansion Grant is expected to strengthen the financial position and growth prospects of local solar distributors, thereby making these less risky clients for local banks.

12. Grants will also be complemented by a broad consumer awareness campaign and interventions to promote quality products. Funding under the Expansion Grant will be available only to distributors of LG-verified products, and additional support will be given by the project team to assist the respective Ministries in putting in place quality assurance measures. FGS recently established the Somali Bureau of Standards and has already identified a range of support required to strengthen capacity and help the Bureau achieve its mandate. Possible areas of support include: development of policy, regulation and standards; trainings and capacity building of staff; communication and awareness campaigns on new standards and compliance; as well as administrative costs. The project will also fund the design and rollout of a wide-ranging campaign to increase consumer awareness as one of the most significant drivers of both market growth and increased consumer confidence. These interventions and indicative funding amounts are summarized in the table below.

**Table 7. Summary of Component 1 Interventions**

| Intervention | Amount |
|---|---|
| 1a Expansion Grant | US$2.2 million (incl. management fees of US$ 800,000). |
| 1b Seed Grant | US$200,000 (incl. management fees) |
| 1c Quality assurance support | US$100,000 |
| 1d Consumer awareness campaigns | US$500,000 |
| **TOTAL** | **US$3.0 million** |

13. The Expansion Grant and Seed Grant will be administered jointly by a Grant Manager. Separate GMs will be competitively procured by FGS and GoSl for Somalia and Somaliland respectively. GMs will be

procured for the duration of the project and will also be required to provide basic ongoing business development services to grant applicants to help strengthen applications and business models and ensure grant funds are being used effectively. GMs for both regions will be expected to cooperate, exchanging market intelligence and information on prospective grant recipients as needed.

**Component 2: Analytical work for enabling electrification through solar-powered/hybrid mini-grids (US$1 million)**

14. Private sector players supply more than 90 percent of power in urban and peri-urban areas using local private mini-grids. They have invested in diesel-based systems of between 500 kVA to 5,000 kVA installed capacity per enterprise. These enterprises are normally zoned with each operator building, owning and operating the generation, transmission, distribution, maintenance and collecting tariffs. Through these private sector-led mini grids, more than 68 percent of urban/peri urban areas have access to electricity, though at a high cost. These mini grids provide a basis through which a country distribution system could be interconnected and linked to the national grid so that power can be wheeled and sold across the network.

15. The provision of electricity through mini grids may therefore provide a viable electrification option for urban and peri urban areas. Nevertheless, there are significant information gaps regarding the current status of the mini-grid sector, including profiles of incumbent operators (number of customers, tariffs, connection costs, generation technology, quality of service metrics, expansion plans), understanding applicable policy and regulations in the territories, and identifying appropriate greenfield sites for new mini-grid installations. Much could also be done to improve the existing services provided by incumbent operators, including helping to bring on additional generation technology, greening the existing technology mix through hybridization, and modernizing business models, including through the use of smart and/or pre-paid metering technology. Incumbent operators could also be supported to densify their customer base within existing service territories. In short, there is considerable work to be done to make energy services currently delivered via mini-grids more modern, affordable, and reliable for Somali households, enterprises, and community facilities.

16. Given the limited resources available under the overall project and the activities currently underway by other donors, this component will focus on complementary analytical work to begin filling the information gaps in the mini-grid space. This work will focus on better understanding the current mini-grid landscape, preparing pre-feasibility studies for improving performance and quality of service at existing mini-grid sites, and laying the analytical groundwork for future financing of new mini-grid sites. The table below summarizes priority interventions and intended outcomes across these themes.

**Table 8. SEAP priority analytic work for mini-grids**

| Intervention | Objective | Activities |
|---|---|---|
| Establishing mini-grid market context and enabling environment for investment activities | • Better understand current market situation, including key opportunities to strengthen incumbent mini-grids operations and business models and | 1. Geospatial mapping exercise, to include:<br>• Inventorying of activity to date, areas of activity, at what cost and with what technology<br>• Mapping of existing mini-grids<br>• Mapping of sites for new mini-grids |

| Intervention | Objective | Activities |
|---|---|---|
| | identifying sites for deployment of new mini-grids<br>• Undertake activities to improve market opportunities for mini-grid businesses. | • Willingness/ability to pay analysis<br>• Market sizing (current actual + prospective serviceable market)<br>• Demand forecasting (at HH, small enterprise, and public facility levels)<br>2. Review of Somali land issues and property rights in the context of energy infrastructure investment |
| Brownfield (existing) sites | • Improve the quality and/or affordability of energy services produced by existing mini-grids.<br>• Modernize power production by hybridizing with PV (displacing expensive and polluting diesel generation) | 1. Pre-feasibility study on hybridizing existing systems<br>2. Pre-feasibility study on quality of service enhancements (e.g. via smart meters or other technological improvements)<br>3. Pre-feasibility study on densification to add additional customers to existing mini-grids |
| Greenfield (new) sites | • Support future financing for the development of new mini-grid sites that deliver more modern, reliable, and affordable energy services than incumbent operators | 1. Pre-feasibility studies for sites identified in geospatial mapping<br>2. Developing structuring options for the financing, operation, and ownership of new mini-grids<br>3. Defining grant agreement, institutional and financing arrangements for sustainability |

**Component 3: Technical Assistance, Capacity Building and Project Management (US$1.75 million)**

17. This component will support a range of activities to strengthen the capacity of the MoE&WR of the FGS and the MoEM in Somaliland for overall energy sector management, power and access planning, and implementation of future development partner projects. These are expected to include targeted TA in the form of energy sector studies, additional analytical work, and improvement of internal Ministry infrastructure and systems; revision/development of energy sector policies; capacity building through trainings, workshops, and study tours; as well as supporting the establishment of PIUs in the respective ministries to oversee the project as well as put in place the necessary personnel and structures for future IDA-funded projects (see Annex 2 for more details on implementation arrangements and PIUs). The Energy Coordination Unit of the FGS would be financed under this component.

18. Capacity building activities funded under this component will be preceded by a detailed needs assessment exercise in the first year of the project to identify priority interventions. This assessment will build on initial capacity building and TA needs identified during project preparation and as part of the Power Sector Master Plan currently under preparation. These include TA to develop national engineering standards for power generation and distribution, developing a power sector regulatory framework, and training Ministry staff on key policy issues, including:

    i. Preparing energy sector policy and planning;
    ii. Preparing and promulgating tariff setting and licensing regulations for mini-grid

operators;

iii. Establishing engineering standards such as electrical wiring and installation codes;

iv. Setting health and safety standards for workers and consumers in the electricity sector;

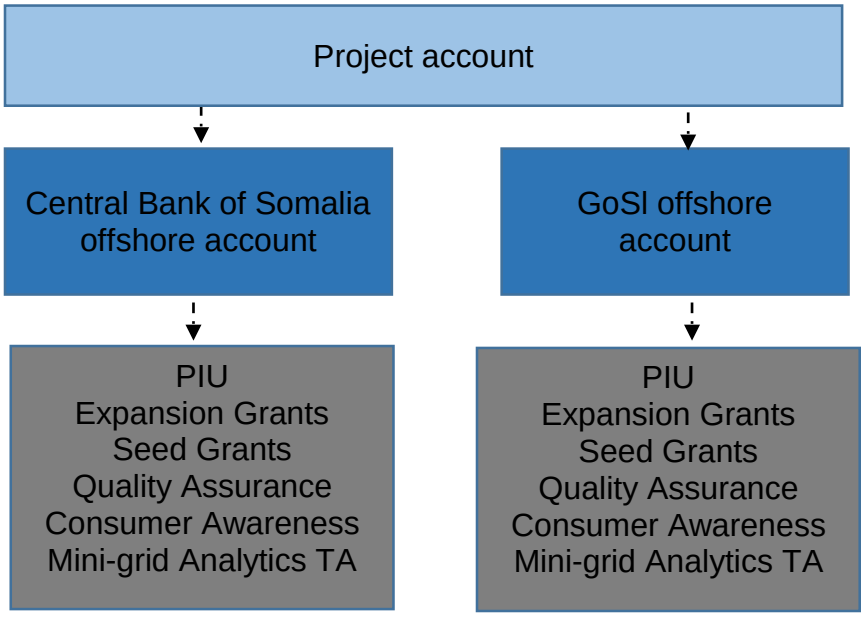
v. Conducting feasibility studies;

vi. Performing resource mapping and working with geographic information system (GIS);

vii. Environment and safeguards; and

viii. Fiduciary/Procurement processes.

**Figure 2. Indicative Flow of Funds**



## ANNEX 2: IMPLEMENTATION ARRANGEMENTS

**COUNTRY: Somalia**
**Somali Electricity Access Project**

### Project Institutional and Implementation Arrangements

1. The project will be implemented by: (i) The MoEWR, FGS in Mogadishu in close coordination with the federal member states and regions; and (ii) The MoEM, Somaliland in Hargeisa. Two PIUs in the Ministries of Energy – one each for FGS and GoSl – will be set up to oversee the implementation. Implementation arrangements as well as the proposed staffing for each PIU, including short term local and international consultants, are shown respectively in the diagram and table below. Staff will be seconded from government or recruited as consultants through a competitive process. The PIUs will also be supported by an IVA to provide monitoring support to the project in hard to reach areas.

2. For Component 1a and 1b, the PIUs will separately recruit a separate Grant Manager for each region to administer both the Expansion Grant and the Seed Grant in each region. The Grant Managers for the both regions will be expected to cooperate, exchanging market intelligence and information on prospective grant recipients wherever appropriate. The GM will be recruited to manage the expansion grant facility and the seed grant facility on behalf of the recipient. The GM will develop the criteria for selection of companies to receive the respective grants and the process of submission, selection, and monitoring and evaluation. The GM will advertise open calls for business proposals, and the businesses will submit a full application that includes a business plan, capital use plan, historical financials, etc. The GM will fully review these applications before making a decision on whether or not to award the Grant. The GM will also ensure compliance of environmental and social safeguard issues. The diagram below provides an overview of the implementation arrangements.

**Figure 3. Implementation Arrangements**

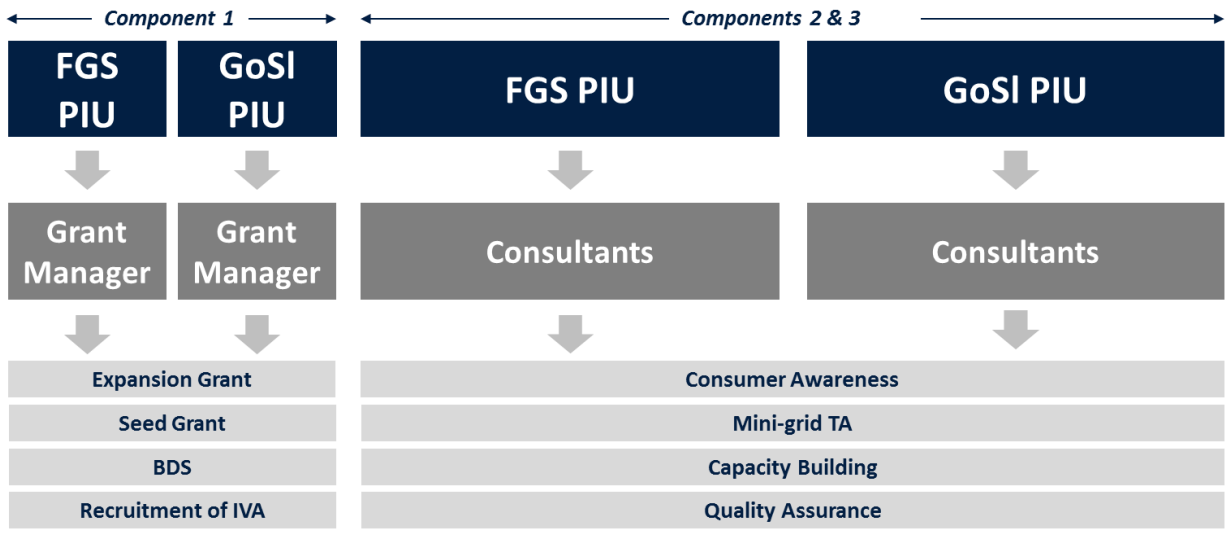


**Table 9. Expected PIU Staffing**

| | Positions | |
|---|---|---|
| | **FGS PIU (Mogadishu)** | **GoSl PIU (Hargeisa)** |
| Project Management | 1 PIU Coordinator | 1 PIU Coordinator |
| Financial Management | 1 FM specialist (seconded from Accountant General's Office) | 1 FM specialist (seconded from MoEM) |
| Procurement | 1 Procurement Specialist + 1 Procurement Specialist Consultant (first year) (to build capacity) | 1 Procurement Specialist + 1 Procurement Specialist Consultant (first year) (to build capacity) |
| Safeguards | 1 Environment and Safeguards Specialist (part time) | 1 Environment and Safeguards Specialist/Communication Specialist |
| M&E | 1 M&E Specialist | 1 M&E Specialist |
| Regional Coordinator | 1 Regional Coordinator to link federal government and federal member states | N/A |
| Other experts/consultants | Local and/or international experts/consultants on call and as needed (person/days) | |
| Support staff | Minimal support staff needed since PIU will be housed in existing Ministry premises | |

3. The key responsibilities of the PIU include as follows:

   (a) Coordinate, engage, and share information with MoEWR and counterparts at federal member states; and MoEM;

   (b) Oversee and drive the implementation of technical inputs under the project;

   (c) Prepare and consolidate all necessary documents required by the Government and the World Bank for project reporting;

   (d) Maintain fiduciary records and generate all financial information required by the Government and the World Bank;

   (e) Manage the entire project procurement life cycle for all contract packages;

   (f) Ensure compliance with the agreed FM arrangements, procurement regulations, and other administrative requirements;

   (g) Prepare and disseminate project results and achievements across all stakeholders through regular communication materials;

   (h) Participate in high-level discussion forums and workshops on the energy sector; and

   (i) Report regularly to the steering committee and the World Bank on project implementation progress and ensure M&E of all project activities as discussed in the project appraisal document and PIM are on track.

4. Two Project Steering Committees are to be constituted in FGS and Somaliland respectively before the proposed project effectiveness to provide overall oversight of the project and guide implementation. The

committee will keep its membership to a limited number to ensure focus on the project (this is indicative at this stage and could change over the life of the project if necessary). ToR will be developed ahead of project implementation that clearly specifies roles and responsibilities of the group, frequency of meetings and expected outcomes.

**Table 10. Proposed Composition of Project Steering Committee**

| Mogadishu | Hargeisa |
|---|---|
| Minister (chair) | Minister (chair) |
| DG | DG |
| PIU Coordinator | PIU Coordinator |
| M&E Officer | M&E Officer |
| Private Sector Representative | Private Sector Representative |
| Federal State Government Representative | Civil Society Representative |

## Financial Management

### Background

5. A key finding of the 2006-2007 JNA of PFM systems in Puntland, Somaliland and South-Central Regions[25] was that 'systems that manage public resources are weak'. Similarly, the April 2013 PFM self-assessment which focused mainly on the central government PFM activities revealed serious capacity weaknesses similar to those identified by the JNA. However, in furtherance to the Paris Declaration on Aid Effectiveness (2005), the Principles for Good International Engagement in Fragile States and Situations (2007), the Accra Agenda for Action (2008), and the Busan Partnership for Effective Development Co-operation (July 2012), there is deliberate effort as part of the New Deal 'FOCUS' and 'TRUST' principles to use country systems. The underlying principle is *'country-ownership'* anchored in the "strengthened PFM approach" – a common framework that has been widely agreed among the World Bank and development partners, and is in line with the World Bank's overall approach to strengthening its PFM work.

6. The FM risk is assessed as High. FM capacity challenges that are likely to affect the project exist. This includes lack of key FM competencies and internal controls, reliance on consultants, lack of regulatory framework for key PFM aspects, among others. Various mitigating measures are designed both specific to the project and as part of other World Bank/Donor engagements in the country. Given the consideration for Use of Country Systems (UCS), the project will adopt the UCS in various aspects of the projects FM including accounting and reporting, banking, oversight arrangements with the Office of the Auditor General and staffing. This will be supported by TA with clear requirement for knowledge transfer incorporated in the Term of Reference. The EAFS, already established under the Office of the Accountant General and staffed with mainstream civil servants in consultation with the Directorates of Finance in MoE&WR, FGS and MoEM, Somaliland will oversee and manage the project financial management. The EAFS units have been fully operational both at the FGS, Puntland and Somaliland for the last two years. The need for a dedicated project accountant based at each PIU will be determined to which the Accountant Generals will second an accountant from the EAFS to the PIU. The EAFS and

[25] Jointly carried out by the Transitional Federal Government, the United Nations and the World Bank.

the PIUs staff will be trained on World Bank FM procedures. Puntland project activities will be coordinated from FGS and therefore no need for PIU Accountant in Puntland.. Throughout the implementation of the project, the government is expected to ensure the EAFS and PIUs are staffed team of professionals with relevant and adequate qualification and experience acceptable to the Bank. The EAFS will ensure the following:

- All important business and financial processes are adhered to;
- Adequate internal controls and procedures are in place;
- Interim un-audited Financial Reports (IFRs) are prepared on a timely basis;
- The financial statements are prepared on a timely basis and in accordance with IPSAS cash-basis;
- The external audit is completed on time and audit findings and recommendations/ issues raised in the management letter are implemented expeditiously.

**Figure 4. EAFS Unit Organizational Structure**

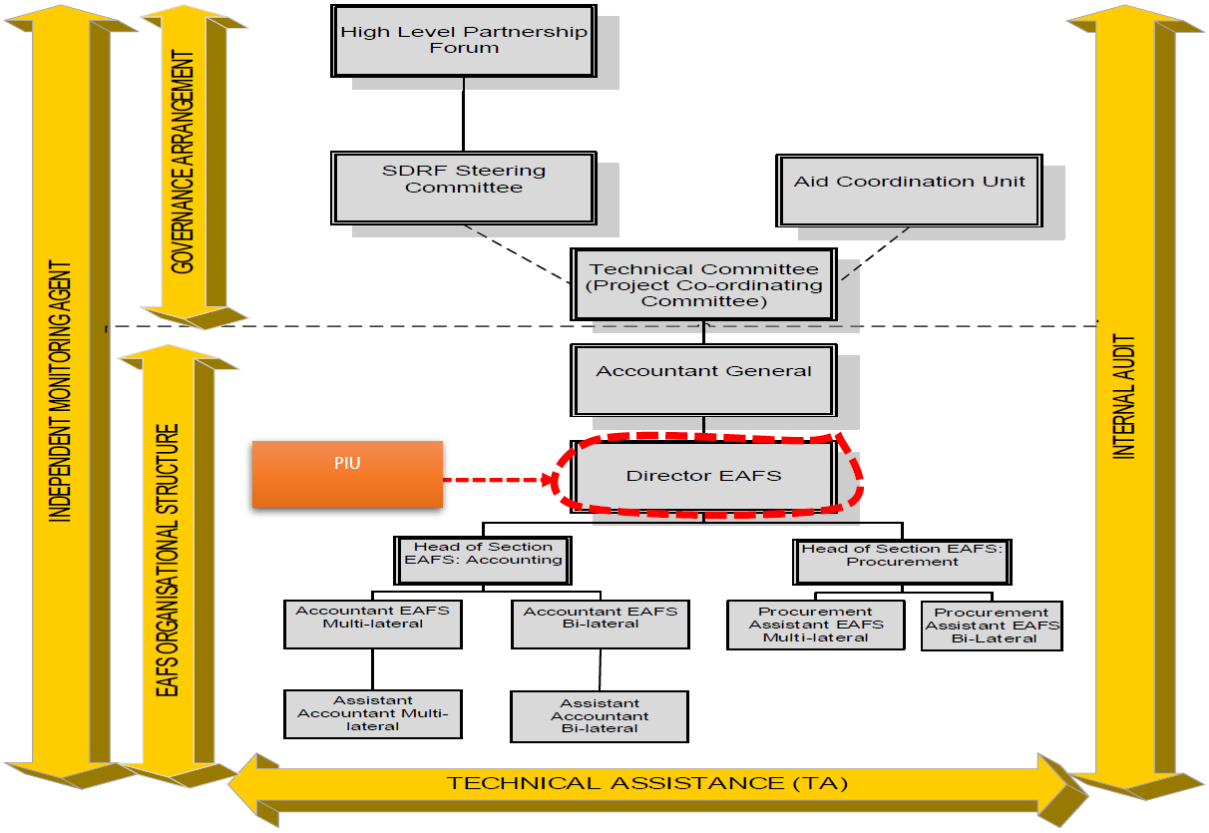


**Figure 5. EAFS Functional Structure in FGS**

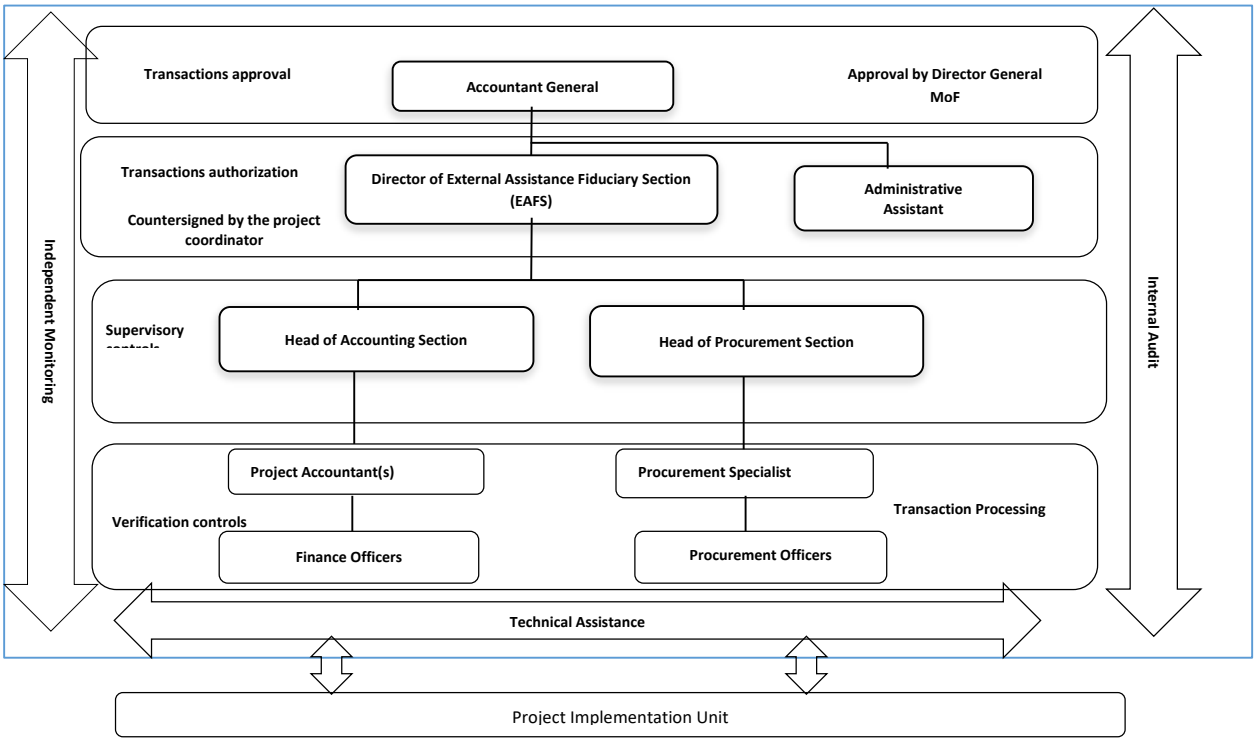
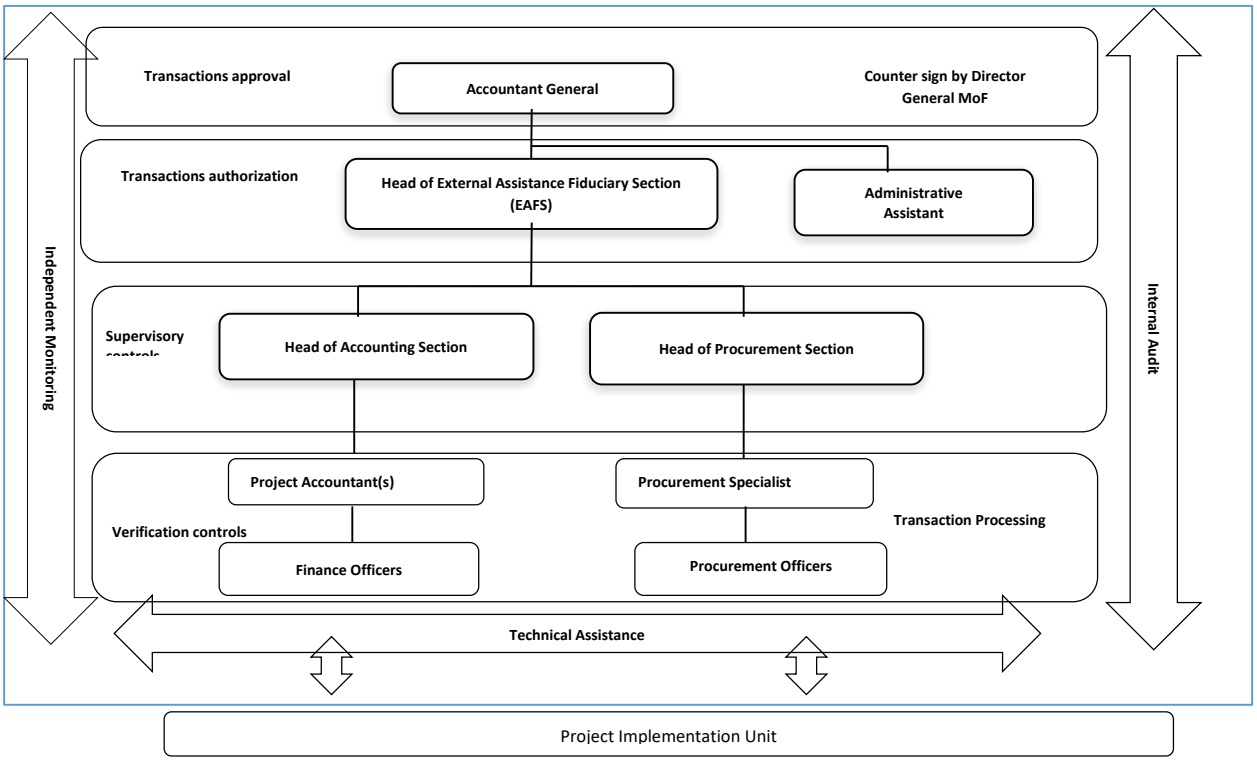



**Figure 6. EAFS Functional Structure in GoSl**



**Budgeting**

7. The EAFS Unit working closely with the PIUs will prepare and submit the project's annual work plans and budget and cash flow forecast for each component for the necessary approvals by the task team leader at the World Bank. The work plans, cash flow projections, and budget will include the figures for the year analysed by months and quarters. The cash budget for each month and quarter will reflect the detailed specifications for project activities, schedules (including PP), and expenditure on project activities scheduled respectively for the quarter. All annual cash budgets will be sent to the TTL at least two months before the beginning of the government fiscal year for review and approval. The project estimated annual disbursements for each component will be integrated and aligned to the MoE&WR-FGS and MoEM-SL budget calendar ('on-budget') and will form part of the appropriated budget by the parliament. Budget utilization reports shall be prepared from the government FM systems (Puntland Financial Management Information System (PLFMIS) and SFMIS) as part of the internal government periodic reports as well as quarterly reports and submitted to the Bank. The reports shall provide an overview on all the project resources disbursed to the government through the DA as advances to finance the eligible project activities as well as disbursements through direct payments. The project budget estimated will be analysed and posted into the FMIS in line with the approved SCoA.

**Funds Flow and Banking Arrangements**

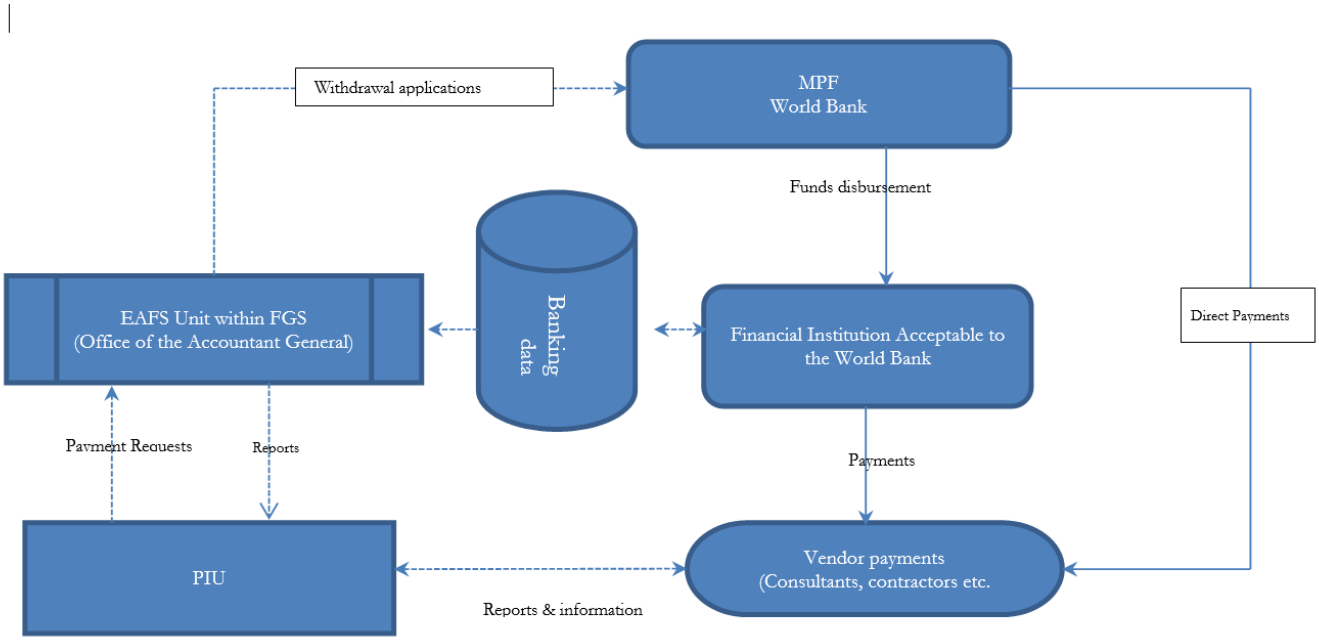
8. The projected annual disbursements shall be integrated into the respective budgets of the FGS and Somaliland. Each implementing agency will prepare the budget, work plan and cash flow forecast and submit for the necessary approvals from the governments and the World Bank. The US$ denominated DA(s) will be opened in a financial institution acceptable to the World Bank. Payments from the DA will only be for eligible expenditure which will be justified and properly documented. The EAFS will prepare and submit withdrawal applications for the DA. Funds will be transferred into the DAs against an approved Withdrawal Applications as provided in the funds flow diagram below. The first IDA fund release will be an advance payment based on an agreed ceiling and on the submission of a Withdrawal Application. Replenishment and Reimbursement of Withdrawal Applications will be accompanied by SoEs and direct payment will be accompanied by copies of records in accordance with the procedures established in the disbursement Letter and the World Bank's Disbursement Guidelines.

**DA Signatories**

9. Federal Government
   - Panel A: DG of MoF (with Director of Administration as alternate)
   - Panel B: Accountant General (with Deputy Accountant General as alternate)

10. Somaliland
    - Panel A: DG of MoF (with Director of Finance as alternate)
    - Panel B: Accountant General (with Deputy Accountant General as alternate)

**Figure 7. Funds Flow Arrangements**




## Accounting Systems

11. The accounting system will ensure that financial reports are designed to provide relevant and timely information to the project management units and various stakeholders monitoring the project's performance. It is expected that all levels of implementation will maintain adequate filing and archival systems of all accounting and relevant supporting documents for review and for audit purposes. The project original financial records including all the supporting documentations shall be maintained at the EAFS units. The Project's financial transactions will be captured, recorded, analysed, summarized and reported in line with the provisions of the IPSAS cash-basis of accounting. These will be supported by appropriate records and documentation to track commitments and to safeguard assets. To facilitate preparation of the relevant reports and annual financial statements, the project budgets and expenditures will be recorded, classified and reported through the FMISs according to the approved SCoA. The project will be required to provide periodic and annual reports covering total project expenditures; total expenditure on each of the Project's components/activities, an analysis of that total expenditure into various categories of goods, works, training, consultants and other procurement and disbursement categories. Eligibility of expenditures will be based on the actual amount incurred and supported by appropriate documentation. Accounting records will be maintained in United States of America Dollars (US$). The EAFS in consultation with the FMS will ensure that invoices and payment requests are consistent with signed contracts before processing and release of payments. They will also monitor and report on the utilization of project funds, including the fiduciary standards and the reliability of the FM systems. A project Fixed Assets Register will be prepared, regularly updated, and physical verification of assets routinely carried out. The Fixed Assets Register will reflect: details of suppliers; description and location of goods; original costs; disposal of assets; assets reference (identification) numbers; serial or registration numbers; dates of purchase; assets additions; condition of assets; assets' useful life and residual value. Contracts Registers will also be maintained with respect

to all contracts with consultants, contractors and suppliers.

**Reporting**

12. SFMIS and SLFMIS will be configured appropriately to facilitate generation of the project IFRs directly from the systems. The EAFS Units in consultation with the PIUs will prepare and submit approved Interim Unaudited Financial Statements IFRs not later than 45 days after the end of the quarter. The IFRs shall report on all funds received under the project, including any counterpart or other donors' funds received under the project. The reports shall include a statement showing: period and cumulative inflows by sources and outflows by main expenditure classifications; beginning and ending cash balances and supporting schedules comparing actual and planned expenditures. All IFRs submitted shall be duly reviewed, approved and necessary original maintained at the EAFS and copies at PIUs. Expenditures shall be classified by component, sub-component and by categories. The agreed IFRs formats will be designed and integrated into FMISs. The EAFS will prepare PFS covering all the activities of the Project. Signed consolidated AFSs for the project shall be submitted to the Auditor General at FGS and Somaliland for audit not later than 3 months after the end of the financial year. The AFSs will be prepared in accordance with cash basis IPSAS as shall be agreed between the government and the World Bank. The AFS will include adequate notes and disclosures consistent with the cash basis of financial reporting under the IPSAS.

**Internal Controls**

13. The project internal controls procedures and processes will be outlined in the PIM and EAFS Manual. The project will ensure that all important business and financial processes are adhered to; adequate internal controls and procedures are in place. Possibility of circumventing the internal control system with colluding practices as bribes, abuse of administrative positions, mis-procurement etc., is a critical issue and may include: (a) late submission of supporting documents; (b) poor filing and records; (c) lack of system integration; (d) lack of budget discipline; (e) unauthorized commitment to suppliers, bypassing budget and expenses vetting procedures; (f) unsecured safekeeping and transportation of funds; g) uncertainty over the banking arrangements supporting the project; h) potential exposure to money laundering; and (i) insecurity and political instability. These are mitigated as follows: (i) specific aspects on corruption auditing would be included in the external audit and monitoring arrangements ToR; (ii) FM Procedures (as part of EAFS Manual) approved and in operation for the project; (iii) strong FM arrangements (including qualified Project Accountants in the EAFS Units; (iv) periodic IFRs including budget execution and monitoring; (v) measures to improve social accountability and transparency are built into the project design by ensuring that project reports are available to the public; and vi) Annual PFM forums will be held.

**External Audit**

14. The Auditors General in FGS and Somaliland will carry out Project External Audit with support of TA. An external audit firm will be engaged and funded by the project to carry out the audit of the project activities. The audited project financial statements together with any additional information required

will be submitted to the World Bank not later than six months after the end of the project. The audit would be in conformity with the World Bank's audit requirements and in accordance with internationally recognized auditing standards. The auditor will express an opinion on the Financial Statements in compliance with ISA; and prepare a Management Letter giving observations and comments, and providing recommendations for improvements in accounting records, systems, controls and compliance with financial. The external audit will pay special attention to the risks of material misstatement of the financial statements due to fraud, in line with ISA 240: "The auditor's responsibilities relating to fraud in an audit of financial statements"). The specific project's FM arrangements will further be spelled out in the PIM. Control procedures over fixed assets and contracts management will be the responsibility of the EAFS in consultation with the PIU. Internal Audit function once established in FGS and Somaliland will be mainstreamed into project activities. The project will liaise with the internal audit unit to ensure that project internal audit reviews are included in the annual work plans. The project internal audit reports shall be prepared and shared with the EAFS/PIU and made available to the World Bank team during project supervision. The internal audit capacity to be strengthened and linked with other governments' and development partners' capacity-building interventions. The internal auditors will carry out risk-based systems audits to strengthen the project's internal control systems.

## Disbursements

15. In 2014, the World Bank raised funds for an audit of the Central Bank of Somalia. The Central Bank has since been eligible to hold funds for World Bank projects, so that funds for all components implemented in Somalia will be deposited in an account held by the Somalia Central Bank. As Somalia is not connected to the global payment system, however, this account will need to be held offshore. No similar arrangement exists with the Bank of Somaliland. Funds allocated to activities to be implemented by GoSl in Somaliland will therefore be deposited in an account held by GoSl offshore. The grant will finance 100% of Eligible Expenditures, consisting of goods, works, non-consulting services, consulting services, Expansion Grants, Seed Grants, Training, and Operating Costs under the Project, inclusive of Taxes.

## Procurement

### Overview

16. **Guidelines.** Procurement will be carried out in accordance with the requirements in the Procurement Regulations for Borrowers under IPF: Goods, Works, Non-Consulting Services and Consulting Services dated July 1, 2016 (revised November 2017); "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants (revised as of July 1, 2016)"; and provisions stipulated in the Financing Agreement. Somalia being a FCV country, procurement under the projects will be processed under special procurement arrangements referred to in Paragraph 12 of the World Bank Policy IPF dated November 10, 2017.

17. **Project Procurement Strategy for Development (PPSD) and PP.** As per the requirement of the Regulations, the Borrower has developed a PPSD, based on which the PP for the first 18 months has been prepared. The PP includes the summary of the procurement arrangements for each contract in

the project. The PP will be updated as required, to reflect the actual project implementation needs, but each update shall require World Bank approval. All PPs will be publicly disclosed in accordance with the WBG disclosure policy.

18. **Summary of the Proposed Procurement contracts**

The project envisages procurement of the following main contracts:

(a) **Works:** There are no works contracts expected in this project.

(b) **Goods and Non-Consulting Service**: The contracts under Goods include ICT equipment, office furniture and office supplies. The Contracts under non-consulting services include activities such as venues, transport or IT services. The type and budget for such activities will be defined and agreed between the Borrower and the World Bank during the project implementation period.

(c) **Consulting Services:** Recruitment of Individual Consultant and Consulting firms for technical support and assistance.

**Operating Context**

19. **Governance Aspects.** With the enactment of the second Federal Government term, Somalia and its international partners have committed to align behind Somalia's new NDP (2017-2020), reinforced by the New Partnership for Somalia agreed at the London Conference in May 2017. The NDP will set the priorities for national recovery and development, while a new and reinvigorated partnership agreement will guide collective efforts through the next phase of Somalia's transition out of conflict and fragility. The petroleum reforms and capacity building initiatives at Ministerial and Member State level therefore align with a new phase in international support to Somalia, and the deepening of a partnership arrangement that aims to realign incentives behind the capacities of domestic institutions to enhance the ownership of reconstruction and development, and to ensure the local accountability of leadership and further collaboration between FGS and Federal Member States.

20. **Economic Aspects.** Somalia is classified by the United Nations one of the least developed countries. Despite experiencing two decades of civil war, the country has maintained an informal economy, based mainly on livestock, remittance/money transfers from abroad, and telecommunications.

21. **Sustainability Aspects.** Because of the protracted war and persistent drought conditions in many parts of Somalia, the country is facing uncertainty regarding the sustainability of the programs intended to support the growth of the economy thus support sustainable programming. It is hoped that with the steps that the country has been able to take since 2012, and with the new government in place, the country will be able to develop more long term sustainable development.

22. **Technological Aspects.** Besides the devastating impact of Somalia's civil war, an aspirational technology sector has been growing in the country for years. Somalia has one of the most active mobile money markets in the world, with millions of people subscribed to e-payment services. Young people, with

increased access to the internet and mobile phones, have shown interest in launching technology-driven businesses, crowdfunding entities—and even innovating around famine relief efforts.

23. **Market Research and Analysis**

    a. **Consultancy Services:** The main procurement activities for this project will be hiring consultants. These will include both individual and consultant firms. There is limited domestic capacity for firms/individuals who can be engaged as TAs for capacity building. For this reason, firms and individuals for capacity building will be selected on an open – international basis. There are well qualified consulting firms and individuals mainly from the region who have participated in previous assignments in Somalia. Previous experience from the on-going World Bank funded projects in Somalia shows that both local and foreign firms have participated in the bid opportunities and in some instances foreign firms have partnered with local firms to enhance their experience. The preferred method under consulting services would be Quality and Cost Based Selection (QCBS) but other methods including Selection Based on the Consultants' Qualifications(CQS) and direct selection would be used where necessary.

    b. **Procurement of Non-Consulting Services:** Contracts under non-consulting services include activities such as workshop venues, transport or IT services. These services are available either locally or internationally. Given the nature and the size of the non-consultancy services to be procured, most of the potential bidders are available locally. Such services will be procured through National Open competition/Request for Quotation market approach.

    c. **Office Equipment and Supplies:** Somalia has available local traders for ICT equipment, scientific equipment, and furniture and other office supplies. These items are available either locally or internationally Such items will be procured using either Open National or Request for Quotation methods.

23. **Systematic Tracking of Exchanges in Procurement (STEP).** The World Bank's STEP system will be used to prepare, clear, and update PPs and conduct all procurement transactions for the project. The staff of the PIUs will be trained in using STEP.

24. **Procurement Templates.** The World Bank's Standard Procurement Documents (SPDs) shall be used for procurement of goods, and non-consulting services under International Competitive Procurement. As there are no National Bidding documents, the World Bank's SPDs may be used under National Procurement Procedures (NPP). Similarly, selection of consultant firms shall use the World Bank's SPDs, in line with procedures described in the Procurement Regulations.

25. **Publication (Advertising).** The Borrower is required to prepare and submit to the World Bank a General Procurement Notice. The World Bank will arrange for its publication in United Nation Development Business online (UNDB online) and on the World Bank's external website. Specific Procurement Notices for all procurement under ICB and Requests for Expressions of Interest for all consultancies shall be published in at least one newspaper of national circulation in the Borrower's country, or in the official gazette, or on a widely used website or electronic portal with free national and international access, and in *UNDB online.*

26. **National Public Procurement Law.** The Public Procurement, Concessions and Disposal Act, 2015 (PPA) for the Federal Republic of Somalia (FGS) is the relevant public procurement legal framework. The new

Act foresees a decentralized system of procurement. The Act further provides for an independent oversight body that will foster the regulatory and the policy framework of public procurement in the country. The PPA has been reviewed by the World Bank and found to be satisfactory and consistent with the National Procurement Procedure requirements prescribed in paragraph 5.4 of the Regulations to a large extent. However, institutions are not yet in place in accordance with the Act. Similarly, regulations and other procurement guidance documents, including Standard Bidding Documents, are yet to be prepared. The private sector and civil society have limited capacity or functionality. Currently, the process of operationalizing the PPA are underway, through a Consultancy assignment. Until such time that the PPA is operationalized, and the documents reviewed and found satisfactory by the World Bank, the project shall use the World Bank's SPDs. In accordance with the PPA, it is anticipated that, when the PPA is operationalized, for the national procedures to be used, the following shall be observed: (i) the request for bids/request for proposals document shall require that Bidders/Proposers submitting Bids/Proposals present a signed acceptance at the time of bidding, to be incorporated in any resulting contracts, confirming application of, and compliance with, the World Bank's Anti-Corruption Guidelines, including without limitation the World Bank's right to sanction and the World Bank's inspection and audit rights; and (ii) rights for the World Bank to review Borrower's procurement documentation and activities.

27. **Training and Workshops.** The project will finance training and workshops, if required, based on an annual training plan and budget which shall be submitted to the World Bank for its prior review and approval. The annual training plan will identify, inter alia: (i) the training envisaged; (ii) the justification for the training; (iii) the personnel to be trained; (iv) the duration for such training; and (v) the estimated cost of the training. At the time of the actual training, the request shall be submitted to the World Bank for review and approval. Upon completion of the training, the trainees shall be required to prepare and submit a report on the training received.

28. **Procurement Implementation Arrangements.** The project will be implemented by (i) The MoE&WR, FGS; and (ii) The MoEM, Somaliland, in close coordination with the federal member states and regions. FGS and GoSl will each competitively procure separate, independent GMs to manage the Expansion Grants and Seed Grants under Component 1a and Component 1b. FGS and GoSl will be fully responsible for procurement activities in order to foster project ownership, including preparation of ToRs, developing evaluation criteria for selection of firms, and review of deliverables.

29. PIUs will be established within the Department of Energy at the respective Ministries of Energy in Mogadishu and Hargeisa before project effectiveness. They will have the overall responsibility for project management, coordinating project implementation, M&E and reporting of results to stakeholders and developing environment and social safeguards frameworks and plans. PIU staff for the project will either be seconded from government or hired as consultants, through a competitive process. Short-term local and international consultants will be recruited to support the PIU as needed. The capacity in the PIUs will be enhanced through on-the-job training and mentoring by the World Bank's technical staff working on fiduciary and safeguards and the task team leader. During implementation, an individual consultant will be hired for the first year of the project to build capacity of the new specialist. The implementing entities will develop a PIM before project effectiveness to govern technical, financial and procurement functions of the project at the implementing agencies level

30. **Procurement Assessment:** A procurement capacity assessment of the two PIUs (*The MoE&WR, FGS; and The MoEM, Somaliland)* to implement the project procurement was conducted in May 2018. The objectives of the assessment were: (a) to evaluate the capability of the PIU to undertake procurement

and the adequacy of the systems that are in place to administer procurement; (b) to assess the ability of the PIU to effectively carry out the procurement processes; (c) to develop an action plan to be implemented as part of the project in order to address the deficiencies detected by the assessment, aimed at minimizing the risks identified; and (d) to propose procurement supervision plans for the World Bank considering the relative strengths and weaknesses and risks revealed by the assessment. The implementing agencies lack capacity and previous experience in the World Bank procurement procedures and hence will require support to undertake the necessary procurement according to the World Bank procedures satisfactorily. Due to anticipated procurement work load, it is proposed that each PIU will recruit a Procurement Specialist with knowledge and experience of the World Bank procurement procedures to support the procurement activities of the project. The Procurement Specialists will work alongside the procurement personnel in the Ministries for knowledge transfer to enable them gradually to take over the procurement activities of the project. The World Bank will also provide procurement trainings/hands-on support to build the capacity of the Client local procurement staff during the project implementation. The major procurement challenges of the PIUs include (i) inadequate experience in undertaking procurement in accordance with the requirements in the Procurement Regulations for Borrowers under IPF: Goods, Works, Non-Consulting Services and Consulting Services dated July 1, 2016 (revised November 2017); (ii) Inadequate experience in contract management; and (iii) weak record keeping system.

31. **Risk Assessment:** In view of the challenges outlined above, the risk for procurement was considered **"*High.*"**

**Table 11. Procurement Risks and Mitigation Measures**

| | Risk Description | Mitigation Measures | Timeframe | Responsibility |
|---|---|---|---|---|
| 1 | Inadequate knowledge and experience of World Bank procurement procedures and selection of consultants. | Recruit a Procurement Specialist with knowledge and experience of World Bank procurement for each of the implementing agencies for the first one year of the project implementation to build the capacity of the existing procurement staff. | After signing of Grant Agreement | The MoE&WR, FGS; and The Ministry of Energy and Mineral |
| | | Conduct Training to Client on World Bank Procurement Regulations for Borrowers under IPF: Goods, Works, Non-Consulting Services and Consulting Services dated July 1, 2016 (revised November 2017 and August 2018.<br><br>Prior review of all contracts regardless of the value. | During Project Implementation | MoE&WR, FGS; and The Ministry of Energy and Mineral in Somaliland /World Bank |
| 2 | Inadequate knowledge and skills in contract management by the implementing agencies. | Conduct training tailored towards addressing weakness in contract management for PIU staff. | During Project Implementation | MoE&WR, FGS; and The Ministry of Energy and Mineral in Somaliland /World Bank |
| 3 | Need for systematic | Establishment of a satisfactory | During | MoE&WR, FGS; and The |

| | Risk Description | Mitigation Measures | Timeframe | Responsibility |
|---|---|---|---|---|
| | filing system in order to have complete records of the procurement processes. | filing system. | Project Implementation | Ministry of Energy and Mineral in Somaliland |
| 4 | Due to security challenges and weak public-sector functionality, the private sector participation and efficiency would be limited, and this affects the supply market functionality. | All bidding opportunities will be advertised on the available website and posted on widely circulated national gazette. | During Project Implementation | MoE&WR, FGS; and The Ministry of Energy and Mineral in Somaliland |

32. **Procurement Oversight and Monitoring Arrangements:** The World Bank exercises its procurement oversight through a risk-based approach comprising prior and post reviews, as appropriate. The World Bank sets mandatory thresholds for prior review based on the procurement risk rating of the project. Based on the risk rating of the project, the World Bank and Borrower will agree on procurement above the applicable thresholds as provided in the table below which shall be subjected to prior or post review. The requirement for a prior or post review shall be specified in the PP. During project implementation the World Bank will monitor and reassess the risk and risk mitigation measures and, if determined by the World Bank to be necessary and appropriate, the World Bank may require the Borrower to revise the prior and/or post review requirements in the PP. The World Bank will carry out post reviews of procurement activities undertaken by the Borrower to determine whether they comply with the requirements of the Financing Agreement.

**Table 12. Thresholds for Procurement Approaches and Methods**

**Thresholds for Procurement Approaches and Methods (US$ millions)–Goods, Works, and Non-Consulting Services**

| Category | Prior Review (US$ millions) | Open International | Open National | Request for Quotation (RfQ) |
|---|---|---|---|---|
| Works | ≥ 0.2 | ≥ 5.0 | < 5.0 | ≤ 0.2 |
| Goods, IT, and non-consulting services | ≥ 0.1 | ≥ 0.5 | < 0.5 | ≤ 0.1 |

**Thresholds for Procurement Approaches and Methods (US$, millions) – Consulting Services**

| Category | Prior Review (US$, millions) | Short List of National Consultants | |
|---|---|---|---|
| | | Consulting Services | Engineering and Construction Supervision |
| Consultants (Firms) | ≥ 0.1 | ≥ 0.1 | ≤ 0.2 |
| Individual Consultants | ≥ 0.05 | n.a. | n.a. |

**Selection method**: For goods and non-consulting services, Request for Bids (RFB) and Request for Quotations (RFQ) will be used as appropriate. Where there is justification, Direct Selection maybe used. For consulting Services, the preferred method would be QCBS. However, other methods including CQS and direct selection would be used as stipulated in the PP.

**Contract Strategy**: Goods and non-consulting services will be packaged in economical packages to attract bidders who are qualified and can offer good prices and complete contracts within stipulated period resulting into value for money.

## Environmental and Social (including safeguards)

33. The counterpart's capacity in planning, implementing and supervising any due diligence measures (environmental, social, technical and overall quality) is currently deemed very low. There is very limited capacity in terms of staffing, financial resources and skills on the World Bank's safeguard policies. The FGS has created a MoE&WR in Mogadishu, to be focused on developing energy sector policy and regulation of the sector. The Ministry's energy sector management department has only a director and a volunteer consultant. However, this consultant is knowledgeable about environmental and social safeguards and international standards, and could provide a focal point for beginning to develop PIU or in-house safeguards capability, given some capacity building and other project support. In Somaliland, capacity within the MoEM, which is responsible for energy sector policy and oversight, and Ministry of Public Works, which supervises the SEA have limited capacity to provide sector management, including in safeguards. Puntland has no equivalent energy Ministry, but does have the PSAWEN, a semiautonomous agency reporting to the Presidency and mandated to oversee and

regulate the electric power industry, but PSAWEN has currently no technical capacity.

34. Despite the current low level of safeguard capacity within the agencies responsible for the power sector at the FGS level and in Puntland and Somaliland, there is some nascent capacity in those government's agencies responsible for environmental matters. Given the relatively low to minimal level of environmental and social impacts anticipated by small-scale solar installations under this project, the addition of one or two knowledgeable and engaged safeguard specialists to a dedicated PIUs or the staff of agencies responsible for electricity sector oversight in the three jurisdictions could adequately cover safeguard requirements for this project. Additional capacity building for these safeguard focal points and other agency technical staff could also serve as the base for strengthening their safeguards oversight capacity for possible future larger power projects.The ESMFs prepared by respective implementing agencies provides more detail the staffing and capacity of the implementing agencies and propose a course of action to fill the staffing and capacity gaps during implementation. These include: (i) providing capacity building for safeguard focal points and implementing agencies' technical staff to serve as the base for strengthening their safeguards oversight capacity for possible future larger power projects; (ii) competitively hire the Grant Manager (firm) to manage Component 1a and b of the project under Recipient Execution arrangements. This firm will oversee the rollout of the grants and consumer awareness campaign activities; capacity development of the technical staff within the ministries at national and regional levels; conducting environmental and social screening and implementation capacity of the technical staff within the ministries at the national and regional levels. The selected grant manager will prepare a checklist for project activities including potential threats, and mitigation measures as well as capacity building for safeguards implementation and compliance monitoring. Thus, any bidders for any of the funding available under this component will have to indicate, in their respective bids, how they intend to address environmental and social sustainability issues that could be associated with the provisions of those services. The selected bidders will be responsible for implementing the safeguards on the ground, including ensuring compliance with occupational health and safety imperatives, labour issues and dealing with de-manufacturing of out-of-use solar devices, e-waste disposal, and recycling.

## ANNEX 3: IMPLEMENTATION SUPPORT PLAN

**COUNTRY: Somalia**
**Somali Electricity Access Project**

1. Given the fragile country context, nascent state of the market, and that much of the project will be fully recipient executed, SEAP will require significant implementation support from the task team, especially early on. As the project will be implemented by FGS and GoSl, neither of which have recent experience in implementing World Bank energy projects and have substantial capacity gaps in terms of energy sector project management, the project will likely require intensive ongoing assistance throughout its duration from both the task team and external consultants.

**Table 13. Implementation Support Plan**

| Time | Focus | Skills Needed | Annual Resource Estimate (US$, thousands) |
|---|---|---|---|
| Years 1-2 | Preparation of procurement documents for Expansion Grant and Seed Grant managers/ and verification agents;<br>Preparation of procurement documents for Consumer Awareness Campaigns;<br>Preparation of procurement documents for Quality Assurance consultancy assignments;<br>Supporting the establishment of PIUs in Somaliland and Somalia for Component 3<br>Supporting PIUs in preparation of procurement documents for Components 1 and 2 | Engineering, solar technology, solar markets, communications, procurement, environmental and social | 250 |
| Years 3–4 | Monitoring the performance of contracts for Components 1, 2, 3<br>Supporting the rollout of the Expansion Grant & Seed Grant<br>Supporting the rollout of Consumer Awareness Campaigns<br>Supporting the rollout of Quality Assurance activities<br>Supporting PIUs in evaluation bids and tenders<br>Monitoring performance of PIUs<br>Supporting the rollout of capacity building activities under Component 3<br>Supporting a review of midcourse correction of project design | Engineering, sector policy/ regulatory and planning, M&E specialist, financial analyst, environmental and social | 250 |

## ANNEX 4: GENDER ACTION PLAN

**COUNTRY: Somalia**
**Somali Electricity Access Project**

1. Below is an overview of specific activities of the gender action plan that are innately a part of the project, require incremental efforts and presents the associated actors that will implement these activities.

**Table 14. Gender Action Plan**

| | Activities | Part of the Project or Incremental? | Responsibility |
|---|---|---|---|
| 1 | Conduct separate consultations with women and men before implementation to identify their different situation, needs, and concerns. | Part of the project's communications and awareness raising | Project communications and awareness raising staff; public and private sector service providers<br><br>Africa Gender and Energy Team |
| 2 | Increase women's awareness about solar energy use and the productive uses of solar power by designing and implementing gender-targeted communications and awareness building campaigns. | Part of the project's communications and awareness raising | Project communications and awareness raising staff; public and private sector service providers<br><br>Africa Gender and Energy Team |
| 3 | Facilitate connection for poor female household heads to ensure women's access to solar products. | Part of project design and implementation<br><br>Incremental—may require additional staff, funding, and training for staff dealing with vulnerable women and the women themselves | Public and private sector service providers<br><br>Africa Gender and Energy Team<br>Funded trainers/consultant |
| 4 | Adopt and integrate several results indicators in the project's M&E system to monitor and assess both progress in implementing gender-related activities and the project benefits for women and men. | Part of the project's M&E system<br>Incremental—may require additional training, staff time, developing forms and mechanisms to capture sex-disaggregated and gender-relevant data on progress, results, and impact, and using qualitative methods | Project M&E staff<br><br>Africa Gender and Energy Team and trainers/consultants |