Republic of Somaliland Ministry of Energy & Minerals
(MOEM) - Hargeisa

REPUBLIC OF SOMALILAND

MINISTRY OF ENERGY AND MINERALS

SOMALILAND ELECTRICITY SECTOR RECOVERY PROJECT (SESRP)

December 2022

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ABBREVIATIONS AND ACRONYMS

BAU	Business as Usual
BESS	Battery Energy Storage Systems
BOQ	Bill of Quantities
BSSF	Business Services Support Firm
CCS	Corporate Communication Strategy
CERC	Contingent Emergency Response Component
CMU	Country Management Unit
CPF	Country Partnership Framework
CRI	Corporate Result Indicator
DA	Designated Account
DSI	Design Supply Installation
E&S	Environmental and Social
EAFS	External Assistance Fiduciary Section
EAPP	Eastern Africa Power Pool
EPC	Engineering Procurement and Construction
ERR	Economic Rate of Return
ESF	Environmental and Social Framework
ESI	Electricity Supply Industry
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESRS	Environmental and Social Review Summary
ESCP	Environmental and Social Commitment Plan
ESP	Energy Services Provider
ESRES	Energy Security and Resource Efficiency in Somaliland
ESRC	Environmental and Social Risk Classification
ESSA	Environment and Social Standards Advisor
ESWG	Energy Sector Working Group
FCDO	Foreign, Commonwealth & Development Office
FCV	Fragility, Conflict, and Violence
FM	Financial Management
FMIS	Financial Management Information System
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GEEL	Growth, Employment, Enterprise, and Livelihood
GER	Gross Enrollment Rate
GHG	Greenhouse Gas
GNI	Gross National Income
GoSL	Government of Somaliland
GRC	Grievance Redress Committee
GRS	Grievance Redress Service

HIPC	Highly Indebted Poor Country
HOAI	Horn of Africa Initiative
HOA RISES	Horn of Africa Regional Integration for Sustainable Energy Supply
HSDG	High Speed Diesel Generator
IA	Implementing Agency
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IDP	Internally Displaced Persons
IFC	International Finance Corporation
IFI	International Financial Institutions
IFR	Interim Financial Reports
IPF	Investment Project Financing
IPSAS	International Public-Sector Accounting Standards
ISA	International Standards on Auditing
JMR	Joint Meter Reading
KfW	*Kreditanstalt fur Wiederaufbau (German Development Bank)*
LMP	Labor Management Procedures
LPG	Liquefied Petroleum Gas
LV	Low Voltage
M&E	Monitoring and Evaluation
MIS	Management Information System
MoEM	Ministry of Energy and Minerals
MoF	Ministry of Finance
MPA	Multi-Phase Programmatic Approach
MV	Medium Voltage
NAPA	National Adaptation Program of Action
NDC	Nationally Determined Contribution
NDP	National Development Plan
NGO	Nongovernmental Organization
NPF	New Procurement Framework
O&M	Operation and Maintenance
OE	Owner's Engineer
PAEM	Pan-Arab Electricity Market
PDO	Project Development Objective
PFM	Public Financial Management
PforR	Program for Results
POM	Project Operations Manual
PIU	Project Implementation Unit
PP	Procurement Plan
PrDO	Program Development Objective
PPSD	Project Procurement Strategy for Development
PSC	Project Steering Committee
PSMP	Power Sector Master Plan
PV	Photovoltaic
RPF	Resettlement Policy Framework
RAP	Resettlement Action Plan
SAPP	Southern Africa Power Pool

SCoA	Standard Chart of Accounts
SDG	Sustainable Development Goal
SEAP	Somaliland Electricity Access
SEP	ProjectStakeholder Engagement Plan
SESIA	Sectoral Environmental and Social Impact Assessment
SESRP	Somaliland Electricity Sector Recovery Project
SLFMIS	Somaliland Financial Management Information System
SHS	Solar Home Systems
SIDA	Swedish International Development Agency
SL	Somaliland
SMF	Security Management Framework
SMP	Security Management Plan
SOE	Statements of Expenditures
SOP	Series of Projects
STEM	Science, Technology, Engineering and Mathematics
STEP	Systematic Tracking of Exchanges in Procurement
TA	Technical Assistance
ToR	Terms of Reference
UCS	Use of Country Systems
UNDP	United Nations Development Program
USAID	United States Agency for International Development
WDR	World Development Report
WtP	Willingness to Pay

1. Somaliland Country Background

Somaliland has 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. 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.

The Somaliland Electricity Sector Recovery Project (SESRP) is a Five (5) year Government of Somaliland (GoSL) Project funded with financial assistance of US$50 million from the World Bank. This project, designed as part of a Series of Projects (SOP), will support the reestablishment, reconstruction, and expansion of Somaliland's electricity sector to enable it to deliver on its mandate: expand access, improve electricity service delivery, support the clean energy transition, and attract new financing.

2. Project Development Objectives

PDO Statement:

The Project Development Objective is to increase access to lower cost and cleaner electricity supply in the project areas and to reestablish the electricity supply industry

SERIES OF PROJECTS

1. The Somaliland Electricity Sector Recovery Project (SESRP) has been conceptualized as the first of a series of three projects: (a) electricity sector recovery, (b) electricity sector development, and (c) electrification scale-up. The SOP Development Objective is to increase access to lower cost and cleaner electricity supply in the Program Areas. The vision has four themes: (a) infrastructure development, (b) renewable energy generation, (c) electricity

supply to public institutions, and (d) sector capacity enhancement. These themes aim to achieve the following outcomes: (i) Increasedaccess to lower cost of electricity supply from diverse energy resources especially from renewable energy resources for climate change mitigation; and increased access to electricity services; (ii) Improved access to functional health and education services; and (iii) Sector institutional, legal, and regulatory enabling environment for sustained sector operations, including enhancing both the public and private capacity to manage and operate the sector.

2. The SOP will establish a win-win-win relationship among public institutions, private service providers, and customers. Provision of basic services like electricity could play a key role in shoring up the legitimacy of the government as it seeks to reestablish its authority over the country, and thus the need for effective development planning for areas that have seen themselves as marginalized or recently leaving conflict. The project will reestablish the mandate of public institutions in the power sector and the provision of public financing to ensure equitable and more reliable and affordable access to electricity services for the Somaliland population. The expanded role of the ESPs will help buttress and encourage an increased involvement of the private sector in the long run in both distribution and generations subsectors, while maintaining Somaliland's decentralized service structure. In addition, improving electricity access and affordability will help the country address poverty through increasing household incomes, as access to affordable electricity can create opportunities for the creation of new businesses. Increased and improved electricity services provide an opportunity for the GoSL to help the population see benefits of the reestablishment of state authority with improved service and economic dividends. Detailed description of the SOP is in Annex 1.

3. Project Components

The SESRP will consist of the following four main components:

Component 1:

Sub-transmission and distribution network reconstruction, reinforcement, and operations efficiency in the major load centers of Hargeisa (US$37.5 million equivalent):

This component will improve network reliability and operational efficiency by interconnecting the current ESPs' distribution networks and existing generation to optimize overall distribution network operations. These activities willsupport the ESPs to (a) decrease the cost of operations (increased generation efficiency, reduction in distribution network losses, and distribution network duplications) and (b) improve electricity supply and reliabilit

Sub-component 1a: Generator Synchronization and Automation. Currently, most of the ESPs have not implemented synchronization and automation as part of their generation

processes. Therefore, separate generator units are connected to exclusive feeder lines. As a result, many generators operate below their expected optimal performance criteria. Further, the absence of automation and synchronization prevents the ESPs from utilizing parallel generation to ensure optimal generator performance and dynamic reactivity to electricity load variations. This kind of operation results in significant amounts of "wet stacking" (diesel fuel waste, extra pollution, and performance degradation). These all combine to reduce the potential maximum generation power output, reduce lifespans of the generator engines, and elevate maintenance costs and unscheduled generation downtime. Investments under this sub- component will support equipment supply and installation that will enable synchronization and automation of the numerous generators presently in operation. The investment in each of the targeted major load centers in Hargeisa will provide reduced cost of generation accruing from augmentation in generation capacity and reduced wet stacking resulting in lower fuel consumption and maintenance costs, reduced pollution levels and GHG emissions.

Sub-component 1b: Sub transmission and Distribution network interconnection in the major load center of Hargeisa. Most of the ESPs with a presence in the targeted project areas operate independently with significant infrastructure and operations duplication. In addition, lack of network interconnection limits the opportunity to share existing generation facilities and the prospect of investing in larger capacity and more efficient generation systems. The subcomponent activities will support investments in the sub-transmission, and distribution network infrastructure required to enable generation synchronization and interconnection between the different ESP networks in addition to increased network capacity and reduced network losses. The intention to focus on establishment of an interconnected sub-transmission and distribution network is deliberate, considering the need to consolidate the currently existing investments in infrastructure and concretize the "bottom-up" infrastructure building blocks required to meet increasing electricity demand. The increased interconnectivity also provides a better demandbase for future regional interconnections to the Eastern Africa Power Pool (EAPP).

Component 2:

Hybridization and battery storage systems for minigrids (US$3 million equivalent)

This component will support activities aimed at the hybridization and optimization of existing mini grids. It will support installation of Battery Energy Storage Systems (BESS) and Solar Photovoltaic (SPV) systems at existing diesel- based generation stations in selected load centers. Possible load centers to be considered under this component havenot been agreed upon, but may include other cities, such as Berbera, Borama, Burao, Lasanod, Erigabo, Gabiley etc. and other cities as may be determined by the government. This component aims at increasing the efficiency of the existing hybrid mini grids (diesel and solar) by optimizing the generation capacity and, where possible, reducing the diesel consumption by augmenting the installed capacity with BESS and additional SPV

generation. There are several ESPs that have commenced converting their generation systems into hybrid electricity generation, mostly via SPV. These systems are synchronized to operate as part of SPV-HSDG hybrid generation, with the solar component providing daytime generation. Such hybrid opportunities offer significant improvements in fuel efficiency, fuel consumption, extended generator lifespans, reduced GHG emissions, and reduced combustion pollution, along with less reliance on fuel imports. In addition, hybridization has enabled some ESPs to reduce the electricity tariffs by about 40 percent.

Selection criteria. The beneficiary ESPs will be selected taking into account the following criteria: (a) regional balance with regard to the project scope coverage, to include some of the large load centers in the FMS; (b) maximum impact (reduced GHG emissions) based on the existing load demand; (c) optimized investment costs, for example, ESPs with existing hybrid SPV already installed but without battery storage would be ranked higher due to the lower cost;

(d) availability of land at the existing ESP generation sites for additional infrastructure; and (e) ESPs' willingness to enter into agreement with government on the operations and maintenance of the assets; and commitment to achieving minimum performance standards. These standards will include but not limited to: (i) hours of service; (ii) expansion of service access (i.e. increase connections and area of coverage, as well connection of targeted educational and health facilities); (iii) reduction of technical losses; (iv) improved receivables collection; (v) reduction of service tariffs; (vi) corporate financial management ratios; and (vii) minimum social and environmental standards for service provision and assets management and operation (including operational health and safety standards).

Component 3:

Stand-alone solar off-grid access to public institutions (Health and Education) (US$4 million equivalent)

This component complements and expands ongoing activities under the Somaliland Electricity Access Project (SEAP) (P165497). While SEAP already provides support for nation-wide solar home system (SHS) connectivity scale-up, including for the nomadic population, this component will expand activities to target health and education facilities, which were not part of the SEAP project scope.

The component will finance the delivery, installation, and operation and maintenance (O&M) for Lighting Global–certified SPV systems over the lifetime of the project for selected education and health facilities. Besides playing a key role in enablement of community co-benefits, facilities that have access to electricity may be better positioned to attract and retain skilled workers, especially in rural areas. Further, this component will equip public service institutions to better respond to emergencies, such as COVID-19. The activities under this component support the resilience of the Somaliland population from the conflict's impact on livelihoods through improved access to functional basic services, such as health and education facilities.

Selection of the facilities will be underpinned by the Least-Cost geospatial analysis and the list of priority facilities identified by the Somaliland. The project will provide electricity access to facilities prioritized by the government following the identification of selection criteria agreed with the ministries of energy, health, and education. Selection criteria include (a) rural and remote areas with no connectivity, (b) priority connectivity to maternal health centers and secondary schools, (c) presence of both health and education facilities, and (d) presence of internally displaced persons (IDPs) and high levels of poverty and vulnerability.

The component will contribute to the overall investment needs to provide access to all the priority facilities identified.

Component 4:

Institutional Development and Capacity Building (US$5.5 million equivalent).

Component 4 consist of five activities tailored to the re-establishment of the sector's soft infrastructure for theadequate day-to-day management and establishment of an enabling institutional and regulatory environment for sector operations. Together, these activities will lead to the rebuilding of the electricity supply industry in the country and establish the fundamentals for sector development and private sector participation sustainable in the long run. They include the establishment of the institutions with clear roles and responsibilities

a) , and the development and implementation of policies, sector strategies and secondary regulations for the sector. The component will also support the implementation of the recommendations provided under the ongoing Electricity Supply Industry (ESI) Institutional Design option analysis for sector development and project implementation arrangements:
b) *Sub-component 4.1 – Policy and regulatory development. The technical assistance is aimed at strengthening sector governance and regulation to foster autonomy, accountability, and transparency. Specific activities will include sector policy, regulation, planning, management, and operations. This sub-component would also provide technical assistance* for renewable energy development; and how ESPs would be regulated in the future.

c) *Sub-component 4.2 - Sector Planning and Feasibility Studies for Renewable Energy Projects*. Following the adoption of the PSMP, there is a need to undertake detailed feasibility studies, such as site-specific wind resource measurements and geothermal prospecting, as well as renewable minigrids pre-feasibility studies building on the results of the geospatial Least Cost assessment prepared under the SEAP project. The technical assistance will also support MoEM to undertake integrated planning, including preparation of a Least-Cost Development Plan

covering generation, transmission, and distribution as well as an Electricity Access Strategy and Investment Prospectus.

d) *Sub-component 4.3: ESP and MOEM Business Support Services*. The technical assistance will support ESPs to enhance their capacity in utility business management operations. It will also assist them in setting up business processes to enable their compliance with license obligations and support growth of businesses and revenues for long-term additional sector investments. The assistance aims to enhance and increase the role of the ESPs, and the private sector in general, in sector ownership, management, and operations - initially through support and guidance of the day-to-day sector undertakings with a business support services firm (BSSF) approach. The BSSF would also potentially promote renewable energy development and/or resilient energy infrastructure through capacity building of the ESPs by integrating potential activities such as operations and management of solar PV and hybrid facilities and climate and disaster screening and management for energy assets.

e) *Sub-component 4.4: Project Implementation Support including for environment and social safeguards*. This sub- component will finance execution, design, and supervision consultants to assist the MoEM Project Implementation Units (PIU) and associated agencies in project implementation, sector management, and coordination. This sub-component will also support key functions of the PIU project management teams (project management, procurement, financial management [FM], safeguards, and monitoring and evaluation) required for project implementation. The sub-component will also include technical assistance to enhance sector fiduciary arrangements as well as setting up an E&S risk management system, enhancing the E&S capacity through staffing and training on the Environmental and Social Framework (ESF) requirements based on a robust capacity building plan. The Sectoral Environment and Social Assessment shall inform the sector- wide development framework and E&S risk management capacity and performance for the sector. Specifically, the sub-component will finance the owner's engineer (OE) consultancy services to support the PIU regarding project design, procurement, and contracts' management, including fiduciary and E&S aspects. A dedicated E&S firm will support the PIU in the areas of health, safety, labor management, land, resettlement, community engagement and security. In addition, the sub-component will support other technical assessment and capacity-building activities for the successful implementation of the project. This will include, for instance, training for the Ministries of Health and Education for the management and operations of the SPV systems beyond the lifetime of the project.

f) *Sub-component 4.5: Implementation of a Gender Action Plan*. This sub-component will support a series of interventions envisioned to close the identified gender gaps. A preliminary gender assessment was conducted at project preparation to identify specific gender gaps in the energy sector, particularly barriers that limit career progression for women. The following activities will be conducted: (a) development

and endorsement of a detailed Diagnostic Gender Gap Assessment, (b) Pilot incubator for women's employment, (c) development of detailed gender actions plan, including capacity building on gender issues in the sector

4. Project Cost and Financing

3. The total project cost is estimated at US$50 million equivalent. The estimated project breakdown by components is provided in table 3.

Table 3. Project Costs and Financing

PROJECT COMPONENT	USD MILLION
Component 1: Sub-transmission and distribution network reconstruction, reinforcement, and operations efficiency in the major load centers of Hargeisa	37.5
Component 2: Hybridization and battery storage systems for mini - grids	3
Component 3: Stand-alone solar off-grid access to public institutions (health and education	4
Component 4: Institutional Development and Capacity Building	5.5
Total	50

5. Annex 1: Description of series of projects (SOP)

5.1. Series of Projects:

The Somaliland Electricity Sector Recovery Project (SESRP) has been conceptualized as the first of a series of three projects: (a) electricity sector recovery, (b) electricity sector development, and (c) electrification scale- up. The SOP Development Objective is to increase access to lower cost and cleaner electricity supply in the Program Areas. The SOP vision has four themes: (a) infrastructure development, (b) renewable energy generation, (c) electricity supply to public institutions, and (d) sector capacity enhancement. These themes aim to achieve the following outcomes:

I. Increased access to lower cost electricity supply from diverse energy resources especially from renewable energy resources for climate change mitigation; and increased access to electricity services.
II. Improved access to functional health and education services.
III. Sector institutional, legal, and regulatory enabling environment for sustained sector operations, including enhancing both the public and private capacity to manage and operate the sector.

The SOP themes are transformed into four pillars (or categories of interventions). These four pillars define the program framework and capture the activities necessary to achieve the key results and outcomes. Table 1.1 provides a summary of the four pillars.

The project and SOP will support the country in achieving the objectives set out in the PSMP, which, among others, include (a) development of an integrated distribution infrastructure connecting existing isolated systems and development of a transmission backbone to interconnect the distribution grid, (b) development of national renewable resources for cheaper endogenous generation capacity, (c) use of solar off-grid solutions to accelerate access provision, (d) leveraging of opportunities for power trading with neighboring countries in the Horn of Africa and the broader Eastern Africa Power Pool, and (e) establishment of an enabling regulatory and institutional framework with adequate capacity to undertake its mandate.

Table 1.1 SOP Pillars – Categories of Interventions

SOP PILLARS	A. Infrastructure development	B. Renewable energy generation	C. Service delivery to social institutions	D. Sector capacity enhancement
Description	Establishment of an interconnected power infrastructure from the existing fragmented network	Hybridization of existing diesel generation; greenfield mini-grid development	Electricity access to priority social institutions with greenfield hybrid mini-grids and stand-alone solar PV systems	Capacity building for institutional strengthening; TA for sector governance, policy regulation, planning; TA for service providers operational and commercial efficiency
Outcome	Increased electricity supply, decrease in network losses and cost of power, readiness for power trade, electricity access	Increased electricity supply, decrease in network losses and cost of power, electricity access, climate change mitigation	Improved social service delivery, improved livelihoods, climate change mitigation	Re-establishment of the Electricity Sector Industry for sector management and development, improved sector gender equality
Outputs	ESPs synchronization and automation of generation capacity; establishment and integration of transmission and sub-transmission infrastructure; reinforcement, expansion, and integration of distribution network, tariff reduction, last mile connectivity	Installation of Battery Energy Storage Systems (BESS) and renewable energy capacity, last mile connectivity	Installation of Battery Energy Storage Systems (BESS) and renewable energy capacity for health facilities, schools, water points, last mile connectivity	Business support services, adequate staffing, establishment of Regulatory Authorities with operational capacity, adoption of secondary legislation for sector operating rules, adoption of sector integrated Least Cost Plan, ESPs' business development support services, incubator sector for gender equality
Phase I	Mogadishu and Hargeisa	Select ESPs nation-wide	Selected facilities nation-wide	Institutional strengthening for sector recovery
Phase II	Scale-up to additional load centers + establishment of sub-regional transmission backbone connecting the strengthened load centers	Greenfield mini-grids piloting, hybridization scale-up in selected sites	Selected facilities nation-wide	Institutional strengthening for sector development
Phase IIII	Grid connectivity	Nation-wide scale-up in selected sites	Nation-wide scale-up in selected sites	Institutional strengthening for access scale-up

SOP 1 - electricity sector recovery - will focus on (a) distribution network reconstruction and reinforcement in the major load centers of Hargeisa, (b) renewable energy generation through the hybridization (through SPV and BESS) of selected HSDGs based generation so as to optimize and scale up existing ESP generation infrastructure, (c) electricity access to existing public facilities (health and education) in rural areas to enhance public social services delivery, and (d) strengthening the capacity of sector institutions (both public and private) so as to set up an enabling institutional and regulatory environment for the sector. The activities for this SOP are described in the "Project Description" section.

This project is expected to support the development of the sector's institutional and physical infrastructure in the country and harness the benefits of regional integration and trade in the Horn of Africa. This first project will focus on sector institutional building, the establishment of an ESI with clear mandates and responsibilities for sector institutions, and an enabling regulatory framework for sector operations. By supporting infrastructure investments and improved operational efficiencies of the ESPs, the project will also set the stage for increased private sector participation in the country, supported by IFC. It will also establish the physical network fundamentals for connecting Hargeisa to neighboring countries (Ethiopia), which are key loads for the two priority interconnectors identified by the country under the Horn of Africa Initiative (i) Ethiopia- Berbera through Hargeisa. These two 220kV transmission interconnectors could be

established (total financing envelope of US$450 million) under the second phase of the HOA RISES project SOP (Board approval expected in FY23). The Feasibility Studies for the two interconnectors and the ESIA will be financed through the PPA established under Component 3 of the first phase of the HOA RISES project In the absence of these investments in Hargeisa, investments for the establishment of the interconnectors would not be technically possible, interconnectors will also leapfrog the establishment of some segments of the transmission backbone in Somaliland, leveraging regional IDA funds and rallying developing partner co-financing.

SOP 2 - Electricity Sector Development - will scale up activities to additional selected load centers and establish the sub-regional transmission backbone infrastructure in Somaliland, thus creating bulk supply points. This would allow the various major load centers (the interconnected sub-transmission and distribution networks) to have access to bulk power supply, including from large-scale grid-connected generation and possibly imports from neighboring countries. Detailed activities and the associated feasibility studies for Phase 2 will be conducted under phase 1 and under the Somaliland–Horn of Africa Infrastructure Integration Project (P173119). SOP 2 will continue providing support to renewable energy generation through hybridization of existing mini-grids and will pilot the development of Greenfield mini-grids; it will also scale up electricity access to social institutions. In addition, SOP 2 will further support sector capacity and institutional planning for a large-scale electrification program and further develop an enabling environment for private sector investments. Furthermore, the upgrade of other countries' main load centers, including Berbera and the establishment of the sub-regional transmission backbone, will ensure that possible power imports and additional supply can be dispatched at the national level and that the benefits of additional, lower-cost, and clean energy supply do power the socioeconomic recovery of the country, including ports and so forth.

SOP 3 - Electrification scale-up - will scale up the last-mile electrification agenda, based on the experience acquired and the enabling environment established by the previous phases. SOP 3 will focus on (a) grid connectivity in the main load centers upgraded, (b) scale-up of greenfield and brownfield hybrid mini-grids, based on the experience acquired under SOP I and SOP 2, and (c) electricity access to rural communities and social facilities with off-grid solar. Sector enhancement activities under SOP 1 and SOP 2 will establish the sector planning and operational capacity for the implementation of a nation-wide electrification rollout program, rallying both private sector investors and development partners to the electrification agenda.

The SOP will establish a win-win-win relationship among public institutions, private service providers, and customers. Provision of basic services like electricity could play a key role in shoring up the legitimacy of the government as it seeks to reestablish its authority over much of the country, and thus the need to ensure effective development planning for areas that have seen themselves as marginalized for years or recently leaving conflict. The project will reestablish the mandate of public institutions in the power sector and the provision of public financing to ensure equitable and more reliable and affordable access to electricity services for the Somaliland population. The expanded role of the ESPs will help buttress and encourage an increased involvement of the private sector in the long run in both distribution and generations subsectors. In addition, improving electricity access and affordability will help the country address poverty

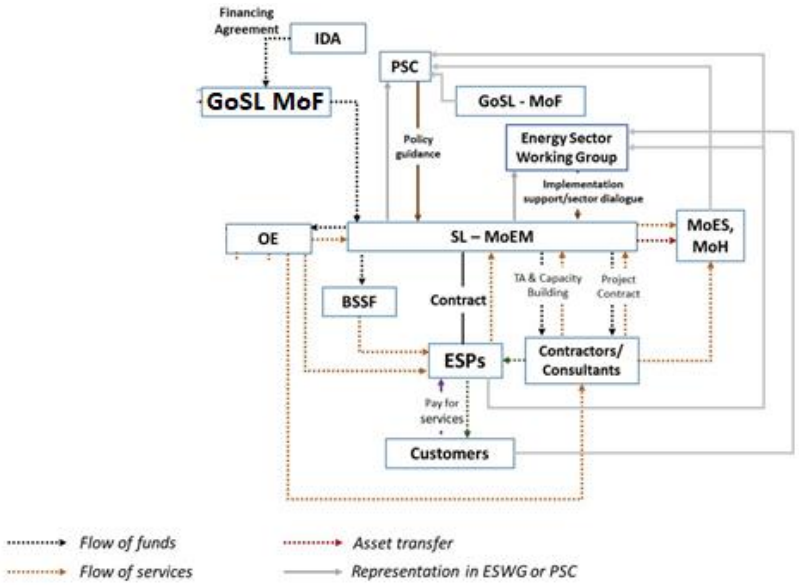
through increasing household incomes, because increasing access to affordable electricity can create opportunities for the creation of new businesses and associated job creation. Increased and improved electricity services provide an opportunity to the Somaliland government to help the Somaliland populace see benefits to the reestablishment of national authority with improved service and economic dividends.

6. Annex 2. Implementation Arrangement

Project Institutional and Implementation Arrangements

The project will be implemented by, (a) Ministry of Energy and Minerals (MoEM), Somaliland in Hargeisa in close coordination with the Somaliland ministries of education and health education and ESPs. Project institutional and implementation arrangements take into account the following: (a) the IDA Grant Recipient (GoSL) and the Recipient Institutions (ministries of energy, education, and health) and (b) the ESPs who currently own, manage, and operate most of the electricity infrastructure. The ultimate beneficiaries, that is, agencies responsible for the operations and maintenance (O&M) of the project assets, are the ESPs that will be responsible for the assets financed and constructed under components 1 and 2 and the ministries of education and health for the solar home systems (SHSs) installed with financing under component 3. Figure 2.1 provides an overview of the project institutional and implementation arrangements.

Figure 2.1 Project Institutional and Implementation Arrangements



Note: MoEd = Ministry of Education; MoES = Ministry of Education and Science; MoH = Ministry of Health; MoF = Ministry of Finance; OE = Owner's Engineer; ESP = Electricity Service Provider; TA = technical assistance; PSC = Project Steering Committee; ESWG = Energy Sector Working Group; BSSF = Business Support Services Firm; IDA = International Development Association.

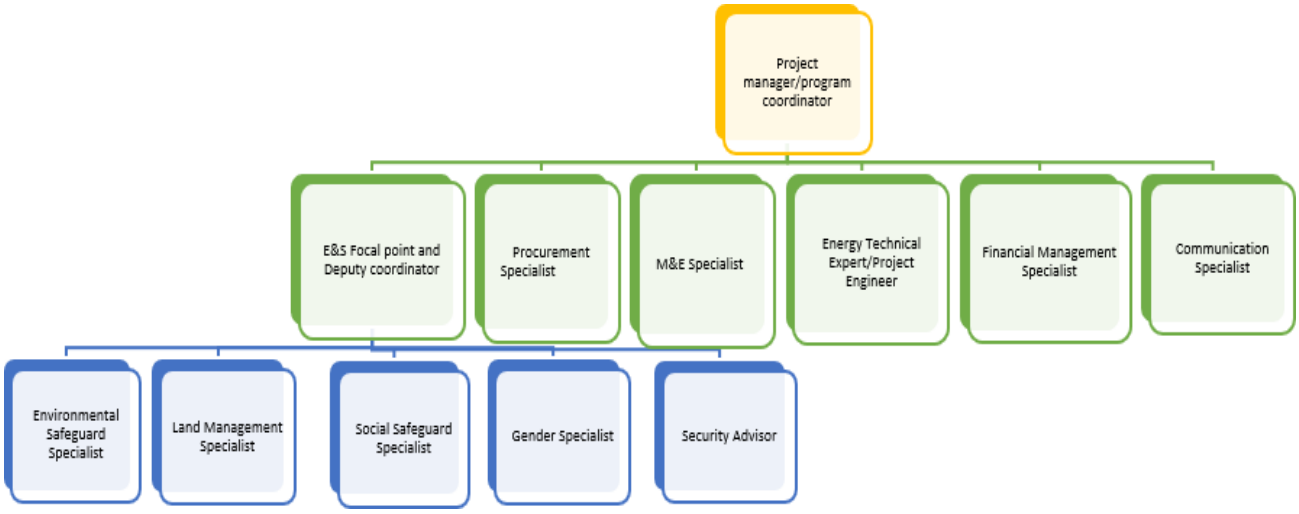
The project will rely on the existing institutional and implementation arrangements established under the ongoing Somaliland Electricity Access Project (SEAP). The staff at the Project Implementation Unit (PIU) shall be responsible for all the project implementations activities

including procurement, safeguards, financial management, monitoring and evaluation (M&E), and project management functions as well as coordination and reporting to the World Bank. The director general (DG) responsible for energy at the MoEM shall have the overall oversight of the respective PIU.

1. Roles and Responsibility of the Director General. The Director General shall have the overall responsibility of ensuring that the project responds to the Project Development Objectives and is implemented in accordance with the agreed and applicable laws and procedures. Specifically, the DG shall:
    - Provide the overall guidance in the selection of the various interventions and/or component activities in coordination with the Ministries of Education and Health and ESPs.
    - Provide overall implementation guidance and formally review progress and approve the annual work plans.
    - Ensure that the PIU is adequately staffed, inclusive of technical and fiduciary expertise, to ensure smooth implementation of the project.
    - Provide necessary oversight and approvals as may be required.
    - Seek approvals from the Project Steering Committee as may be required.

2. Project Implementation Unit (PIU). The PIU will comprise experts with different skills who will be responsible for the implementation of the project, including but not limited to the following general functions: contracts management, procurement, financial management, stores management, safeguards, and reporting. The PIU shall have, as core staff, the following: (a) project manager/program coordinator, (b) financial management specialist, (c) procurement specialist, (d) project engineer, (e) environmental safeguards specialist,(f) Social safeguards specialist, (g) gender specialist, (h) monitoring and evaluation specialist; (i) Land Management Specialist; and (j) Security Advisor. The PIU shall include members from the ESPs and the ministries of education and health as may be required at the various stages of the project. The PIU staff shall have the responsibility to oversee the project implementation, perform the required technical functions, and serve as the focal points for communication with World Bank, contractors, and consultants. For the respective components, the PIU will be also responsible for preparing the request for bids (RFBs)/request for proposals (RFPs) for tendering, bid evaluation, contract award, contract management, and so forth, and technical assistance consulting firms (for example, owner's engineer [OE]) and the business services support firm (BSSF), financed under the International Development Association (IDA) grant, providing contractors and consultants with support and guidance during project implementation, as well as supervising contractors' and suppliers' compliance with all their contractual obligations as well as with environmental and social safeguards requirements. The PIU organogram is presented in figure 2.2.

Figure 2.2 Project Implementation Unit Organogram



3. Owner's Engineer. An OE, acting as the employer's project manager, shall provide project implementation support to the PIU in the design, procurement, and contract management to ensure smooth and efficient implementation of the project, including project-related environmental and social safeguards and project monitoring and evaluation. In addition to ensuring that procurements of the project-related goods, works, and services are undertaken in accordance with the grant's agreed procedures and regulations, the OE shall support the PIU with regard to inspection and supervision of the construction works and site supervision during the installation of equipment and testing, to ensure that the goods, works, and services are implemented in accordance with the designs, specifications, and terms and conditions of the relevant contracts.

   Roles and Responsibilities of the OE. The OE shall be procured by the PIU. Once appointed, each OE shall be the designated project manager of the PIU. The main role of the OE will be to manage and coordinate the project implementation. A key objective of the OE's role is to ensure that all elements of the project implementation, including the supply and construction contracts, consultancy services, ESMP, and RAP (where applicable), are of high-quality standards and are well coordinated, thus minimizing the delays in completion, and commissioning due to programming constraints or incompatibilities between individual components. Reporting requirements and services to be provided shall be detailed in the OE's terms of reference (ToR) and the Project Operations Manual.

4. Business Support Services Firm (BSSF). A BSSF, with experience in utility operations, will be hired to support selected ESPs in strengthening their technical and institutional capacity in key functions of the electricity utility business, including but not limited to corporate planning, commercial and network management, and operations. The experts provided by the BSSF will work as advisors twinned with the ESP counterparts for a period of two to three years. The experts will, inter alia, (a) assist the ESP staff to maintain and over time improve the current level of service; (b) coach, mentor, and enhance the capacity of their ESP counterparts in the

areas of their technical expertise; (c) assist ESPs to develop and document organizational guidelines and procedures (Operations Manuals); (d) assist ESPs to collect and keep records of performance data; and (e) together with their ESP counterparts, participate in the preparation and implementation of corporate strategic plans and annual business plans. Reporting requirements and services to be provided shall be detailed in the BSSF ToR.

During the implementation phase, the following key oversight structures are envisaged to ensure effective coordination among the MoEM, ESPs, and Consumers.

a) ***The Project Steering Committee (PSC):*** At the top level is PSC, to be constituted at Somaliland Ministry of Energy levels respectively The PSC will provide overall oversight of the project implementation; policy guidance; as well as take decisions on critical high level implementation issues, such as approval of selection criteria and obligations of the beneficiary ESPs. 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). It will be co-chaired by the Ministry of Energy with high level representation of the Ministry of Finance, and membership drawn from Ministry of Planning, Ministry of Health, Ministries of Education and Representatives from the private sector. Specific Terms of Reference (ToRs) that clearly specifies roles and responsibilities of the committee, frequency of meetings and expected outcomes will be included in the Project Operations Manual.

b) ***Energy Sector Working Group (ESWG).*** A SWG will be constituted at MoEM level. In addition to providing guidance to project implementation, the ESWG is aimed at fostering the reestablishment of the sector. It will provide a forum for sector dialogue, ownership, and accountability among government, the development partners, and other sector stakeholders to support coordination and harmonization of processes, procedures, implementation, and monitoring of government programs, development partner support, and private sector initiatives. The ESWG will be chaired by the director of energy with cochairs from the private sector and development partners active in the energy sector. The ESWG will be supported by a full-time secretariat. The ESWG, with detailed ToR, will be established prior to project effectiveness.

Specific Component Implementations Arrangements.

Component 1. This component will be implemented by the MoEM in close coordination with the ESPs in Hargeisa. Key component activities will include detailed design of the of the various activities and procurement of goods and works. The PIU and the ESP will be supported by the OE in the review of the designs, preparation of the detailed specifications, and preparation of the request for bids, contractor selection, and management of the respective contracts. The main contracts include (a) design, supply, and installation of substations and commission (EPC) of the 132KV subtransmission network lines; (b) substation EPC (132KV/33/11KV); (c) supply and Install

of 33/11/LV distribution lines; (d) supply of distribution equipment (such as poles, conductors, line accessories, distribution transformers, metering equipment, EPCs for generator synchronization); and (e) line survey services. To build in-country capacity, the EPC contractors shall be encouraged to have local subcontractors, in addition to including the MoEM and the ESP personnel as counterpart staff during the various stages of the contracts' implementation. After the construction is completed, the arrangements would be the following for ownership and operations.

Financial Management Implementation arrangements

5. Financial Management (FM) - Financial management capacity challenges that are likely to affect the project exist. These include lack of key FM competencies and internal controls, reliance on consultants, and lack of regulatory framework for key public FM aspects, among others. Various mitigating measures are designed specific to the project and as part of other World Bank and/or 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 project's FM, including accounting and reporting, banking, oversight arrangements with the Office of the Auditor General, and staffing. This will be supported TA with clear requirement for knowledge transfer incorporated in the ToR. The External Assistance Fiduciary Section (EAFS) of Somaliland, already established under the Office of the Accountant General and staffed with mainstream civil servants in consultation with the Directorate of Finance in MoEM, will oversee and manage the project FM. The EAFS units have been fully operational at the Somaliland for the past six years. The accountant general will second a project accountant from the EAFS to the PIU. The EAFS and the PIU staff will be trained on World Bank FM procedures. Throughout the implementation of the project, the government is expected to ensure the EAFS and PIU are staffed team of professionals with relevant and adequate qualification and experience acceptable to the World 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 are prepared on a timely basis.
    - The financial statements are prepared on a timely basis and in accordance with International Public-Sector Accounting Standards (IPSAS cash-basis).
    - The external audit is completed on time and audit findings and recommendations/ issues raised in the management letter are implemented expeditiously.

6. Budgeting. The PIU 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), 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's estimated annual disbursements for each component will be integrated and aligned to the MoEM 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 Somaliland Financial Management Information Systems [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 analyzed and posted into the SLFMIS in line with the approved Standard Chart of Accounts (SCoA).

a. *ESP Owned Distribution Network*. For the assets owned by the ESPs, the MoEM will amend the ESP licenses to highlight that the ESPs will continue to own their existing network infrastructure to be rehabilitated and upgraded with government funds, but they will not receive any remuneration until the end of the respective lifetimes. In addition and subject to detailed technical assessments to establish the baseline and targets, the ESPs will be required to report on certain key performance targets, to reflect the benefits of the investments, which will include, (1) technical loss reductions; (2) increased energy billed and commercial loss reductions; and (3) energy supplied to public institutions, (4) ESHS performance including reporting on respective activities on environmental, OHS and social performance and status of implementation of the environmental and social mitigation measures within the reporting period.

b. *Government owned distribution network assets operated by ESPs*. The existing contractual arrangements (the license or service agreement) shall be amended to reflect the government investments. In addition and similar to the above paragraph, the contractual arrangements will include key performance targets to reflect the benefits of the investments which will include, (1) technical loss reduction; (2) increased energy billed and commercial loss reductions; and (3) energy supplied to public institutions, (4) ESHS performance including reporting on respective activities on environmental, OHS and social performance and status of implementation of the environmental and social mitigation measures within the reporting period. The proposed operational arrangements under (a) and (b) mirror similar industry practice of using public resources to undertake infrastructure investments that are later managed and operated by the private sector.

c. *Sub-transmission network*. The proposed 132KV subtransmission network will be new infrastructure. The 132kV sub-transmission network will create bulk supply points to interconnect with existing the distribution grids. The network will be owned and operated by the government. Depending on the results of the institutional options

analysis, the government could outsource the initial O&M services or create a new transmission utility company that would operate the new transmission assets.

Component 2. This component will support activities aimed at the hybridization and optimization of existing minigrids. The component activities will include installation of Battery Energy Storage Systems (BESS) and solar photovoltaic (PV) systems at existing HSDG stations in selected load centers. This component aims at increasing the efficiency of the existing hybrid mini grids (diesel and solar) by optimizing the existing generation capacity and where possible reduce the diesel consumption by augmenting the installed capacity with BESS and additional solar PV generation. The project support will create new assets out of the investments in solar PV systems and Battery Storage Systems to be interconnected to the existing ESPs' privately owned HSDG systems. The new assets will be constructed on sites either owned or leased to the ESPs. The government and ESPs will enter into a contractual arrangement that establishes either a Public Private Partnership, Concession Agreement, or a Service Agreement. The contractual arrangements among others shall highlight that (a) the Government retains ownership of the assets, (b) the ESPs will have the oversight responsibility regarding the O&M and ensuring that the facilities meet the performance standards over their economic lifetime, and (c) ESPs reduce their tariffs.

The proposed implementation arrangements for Components 1 and 2 are based on similar arrangements adopted in power sector projects for countries with comparable institutional and regulatory structures. A similar case is the "Côte d'Ivoire - Electricity Transmission and Access Project (P157055)". This project constitutes a US$325 million investment including reinforcement of transmission systems (225 and 90 kV substations, rehabilitation, reinforcement, and extension of distribution systems (33 kV and MV substations and lines) in 11 major cities and rural electrification of 209 localities in Cote d'Ivoire. The institutional structure of the power sector in Cote d'Ivoire has similar characteristics to Somaliland. The *Société des Energies de Côte d'Ivoire* (CI-ENERGIES) is a state- owned asset holding company responsible for managing public assets in the electricity sector as well as planning and contracting of investments. The *Compagnie Ivoirienne d'Electricité* (CIE) is a private company that operates and maintains on behalf of CI-ENERGIES the publicly owned assets (hydropower plants and national transmission and distribution networks) under an "affermage"/lease contract that has been effective for more than 25 years. CI-ENERGIES is the implementing agency for the "Côte d'Ivoire - Electricity Transmission and Access Project". The CIE is closely involved in project implementation in its role as operator of the public infrastructure built under the project. The CIE is supporting CI-ENERGIES by providing inputs for planning and preparation of technical specifications, participating in supervision of the implementation, carrying out acceptance tests, and commissioning of the infrastructure. An agreement has been established between CI-ENERGIES, and the CIE to define their respective roles and responsibilities during project implementation, which complements the provisions of the "affermage"/lease contract. CIE appointed a focal point for the project and engineers dedicated to providing inputs to CI-ENERGIES on project implementation, working directly with the PIU and the owner's engineers.

There are clear similarities between Cote d'Ivoire and Somaliland in terms of procurement and construction of publicly funded infrastructure that will be commissioned, operated and

maintained by private companies (CIE in Cote d'Ivoire, ESPs in Somaliland), even though the institutional framework in the power sector of Cote d'Ivoire is much more mature than in Somaliland. The contract between CI- ENERGIES and CIE clearly defines roles, responsibilities, rights and obligations of involved parties in power sector assets management and operation. Therefore, it will be crucial to amend the existing license contracts of ESPs participating in the project, while at the same time a multi-stage roadmap is prepared and implemented with the purpose of designing, putting in place and strictly enforcing a robust regulatory framework. This phased approach, starting in all cases from the signature and effectiveness of ringfenced concession/license contracts, was adopted by countries in Latin America and other regions that incorporated private sector participation during power sector reform. Concession contracts contained specific provisions for an initial period (4-5 years) during which the sector regulatory framework was fully developed and implemented, through the creation and strengthening of national regulatory agencies. Besides, public financing of assets to expand electrification (network densification and extension) that are subsequently operated and maintained by private concessionaires/licensees is by far the predominant method of network extension and densification in those countries.

Component 3. This component will be implemented by MoEM in close coordination with the Ministries of Education and Health. The systems will be bulk procured to maximize cost savings. The Bill of Quantities will be aggregated at the regional level by the size of the system. The scope of the contract, with several lots, shall include Design Supply and Install and an Operations and Maintenance Contract for five years. The contract shall also include hands-on training on operations, maintenance, servicing and basic repair/ troubleshooting to the selected staff from the MoEM, Ministry of Education, and Ministry of Health. Specifically, each beneficiary institution/facility, shall designate unit/personnel that will be responsible for monitoring performance of the systems during the O&M period and undertaking operations and basic maintenance services post the O&M contract period. In addition, to support the development of in-house capacity to integrate energy planning for the respective institutions, the Ministries of Education and Health, as part of the project will designate an Energy Officer who will be part of the Project Coordination arrangements with the PIU. To ensure ownership and sustainability of operations, the systems will be transferred to the respective ministries after the issuance of the Operational Acceptance Certificate; they will ensure the adequate functioning of the systems during the O&M contract period and thereafter will provide adequate budgets for required O&M services including provision of battery and spare parts replacements. Alternatively, the respective Ministries of Health and Education may also decide to enter into a service contract for service provision subject to the country's national procurement guidelines. Specifically, the project will include training of the staff of the Ministries of Health and Education in aspects not only related to the installation and operations of the systems, but also to integrated energy planning. This is aimed at ensuring that in-house capacity is built into the respective ministries to include energy services when the various infrastructure facilities are being planned. Further, to increase the availability of qualified technicians, the project will also include training of staff of the local companies that could be called upon to offer after-sales services.

Component 4 will provide technical assistance and capacity building activities to sector institutions. It will be implemented by the MOEM and benefit all sector institutions, including ESPs as well as the Ministries of Health and Education and other relevant stakeholders.

7. Funds Flow and Banking arrangements. The projected annual disbursements shall be integrated into the budgets of the 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-dollar-denominated DAs will be opened in a financial institution acceptable to the World Bank. Payments from the DA will be eligible only for expenditures 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 application as provided in the funds flow diagram in annex 2. 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 statements of expenditures, 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.

8. DA Signatories. In Somaliland, the DA-B will be hosted at East Africa Bank in Djibouti. The signatories will be (1) Panel A: Director General of MoF (with Director of Finance as alternate); (2) Panel B: Accountant General (with Deputy Accountant General as alternate).

Figure 2.3 Funds Flow Arrangements