@#&OPS~Doctype~OPS^blank@pidaprcoverpage#doctemplate

Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 01-Nov-2023 | Report No: PIDA0260

Public Disclosure Authorized

BASIC INFORMATION

A. Basic Project Data

Project Beneficiary(ies)	Region	Operation ID	Operation Name
	EASTERN AND SOUTHERN AFRICA	P181341	Accelerating Sustainable and Clean Energy Access Transformation in SOMALIA
Financing Instrument	**Estimated Appraisal Date**	**Estimated Approval Date**	**Practice Area (Lead)**
Investment Project Financing (IPF)	23-Oct-2023	04-Dec-2023	Energy & Extractives
Borrower(s)	**Implementing Agency**		
Federal Ministry of Finance Somalia	Ministry of Energy and Water Resources		

Proposed Development Objective(s)

The PDO is to increase access to sustainable and clean energy through private sector participation in Somalia

Components

Sector Capacity and Institution Enhancement and Project Implementation Support
Electricity Distribution Network Rehabilitation and Reinforcement in Mogadishu city and FMS
Distributed Renewable Energy with Solar PV and BESS in Mogadishu and other FMS

PROJECT FINANCING DATA (US$, Millions)

Maximizing Finance for Development

Is this an MFD-Enabling Project (MFD-EP)?	Yes
Is this project Private Capital Enabling (PCE)?	Yes

SUMMARY

Total Operation Cost	**100.00**
Total Financing	**100.00**
of which IBRD/IDA	**100.00**
Financing Gap	**0.00**

DETAILS

World Bank Group Financing

International Development Association (IDA)	100.00
IDA Grant	100.00

Environmental And Social Risk Classification

Substantial

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Country Context

Somalia is facing severe development challenges. The country has a population of a little over 15 million, of which roughly 60 percent are nomadic and semi-nomadic pastoralists, and 60 percent live in rural areas. About 70 percent of the population lived below the poverty line (US$1.90 a day in 2011 purchasing power parity terms) before the onset of COVID-19 pandemic. With the pandemic impact withering down, economy had slowly been recovering with GDP growth rebounding to 2.9 percent in 2021, following a contraction of 0.3 percent in 2020. The country however continues to contend with increasingly frequent shocks in the context of widespread fragility, conflict, and violence. Repeated climate-related shocks such as cycles of droughts, floods, and locust infestation, higher international commodity prices as a result of the Russian invasion of Ukraine, as well as security incidences have interrupted Somalia's growth trajectory and slowed the transition from fragility. Growth has been low and volatile averaging only 2.8 percent in 2014–22 with no growth in real GDP per capita. The recent prolonged drought, with a fifth consecutive season of failed rains, was particularly devastating to the economy against the backdrop of higher commodity prices following Russian invasion of Ukraine. These paused 2021's modest economic recovery from the pandemic with a slowdown in real GDP growth to an estimated 1.7 percent in 2022. Furthermore, 7.1 million people—nearly half of the population—were food insecure at the end of 2022 due to the drought and 1.3 million people were displaced. The economy is expected to make a modest recovery in the medium-term with real GDP growth projected to recover to 2.8 percent in 2023 and increase to 3.7 percent in 2024 and 3.9 percent in 2025.

The project will provide essential electricity services to "Build Back Better" and boost socio-economic recovery in the country at a critical time of vulnerability. While Somalia has shown progress in the economic growth trajectory, the impacts of the pandemic, locusts, and the ongoing draught are expected to put a downward pressure on the already high levels of poverty, with possible inter-generational impacts. Access to reliable and affordable electricity supply, is critical for improved sales and profits of businesses, cost reduction, and job expansion. It is also a pre-requisite input for the provision of adequate health and education services, which is often not sufficient in urban areas and completely absent in rural ones, impeding resilience to the pandemic, future shocks, and the overall human development of the country. The project will provide improved electricity services in the main load centers. Improved access and lower cost electricity supply will support economic activities in the main existing markets. This will contribute to reducing unemployment (currently at 13 percent), particularly of the youth (currently at 17 percent) and support broader economic recovery.

Through the provision of clean electricity, the project will also decrease the country's vulnerability to natural disasters and climatic changes - expected to increase in both frequency and severity - which in turn could strongly impact on-going conflicts. The livelihoods of roughly half of Somalia's population is reliant on pastoralism or agro-pastoralism, which implies that a significant portion of Somalia's population remains highly vulnerable to climate change and natural disasters. Since 2019 for instance, Somalia has experienced devastating floods and drought, as well as locusts, which have left about 5.2 million people in need of assistance and at risk of food insecurity. In addition, while Somalia has very low greenhouse gas emissions, it is highly vulnerable to the impacts of climate change. Somalia is ranked 181st out of 188 countries in terms of its vulnerability to climate change impact. Climate and disaster risk screening indicates that Somalia has a high risk of river, urban and coastal floods, landslides, extreme heat and wildfires, which will add additional stress to Somalia's vulnerability, particularly given its high economic dependence on climate-sensitive activities such as agriculture and densely populated coastline.

Sectoral and Institutional Context

The conflict destroyed public electricity infrastructure in Somalia. Pre-conflict, the Somalia National Electric Corporation (*Ente Nazionale Energia Elettrica*, ENEE) was the single public utility in operation, supplying Mogadishu and the main regional centers of Hargeisa, Berbera, Burao, Baidoa, and Kismayo through distributed diesel generators and localized distribution grids with a combined total installed capacity of about 70 MW and annual energy production of about 250 GWh (1987). However, public electricity infrastructure was destroyed during the conflict, and the associated public institutional frameworks are almost completely defunct at present. The energy sector in Somalia has many features common to countries in or emerging from conflict, whereby several private service providers stepped in by creating small companies called electricity service providers (ESPs). The most common supply of electricity in such contexts is a decentralized, private supply of electricity using relatively low-capacity medium voltage (MV) and low voltage (LV) networks with embedded small-scale high-speed diesel generators (HSDGs), initially serving their own loads and gradually expanding to serve neighborhoods. This has led to a highly fragmented electricity sector throughout the country, resulting in an inefficient and expensive supply.

With the small and fragmented fossil fuel-based systems, access to reliable and affordable electricity is beyond the reach of majority of the population in Somalia. The total estimated installed capacity in the major load centers was about 276 MW (2023), which is inadequate to serve current and future demand, estimated to increase to between 1,000 MW to 4,600 MW by 2037. The electricity access rate is estimated at 50 percent nationally implying that almost 8 million people lack access to electricity. While access in the urban areas is 70 percent, it is only 32 percent in the rural areas. According to the recent household budget survey, 62 percent have some access to electricity, out of which a little over half have

access to grid electricity and one third of those have access to only 'torch' (a flashlight that does not deliver even basic lighting access). The same survey also revealed that only about 9 percent and 40 percent of the nomadic and rural population respectively has any access to electricity. In addition to having low access to any form of reliable electricity, the cost of electricity in Somalia is high. The World Bank's flagship report on Regulatory Indicators for Sustainable Energy (RISE, 2020) 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.

Consequently, the Somali energy sector is beset with intertwined challenges of an ad-hoc service provision and a lack of overarching regulations. Key challenges in the sector include: (a) low access rates as explained above; (b) high cost and unreliable electricity supply (the cost in Somalia, excluding Somaliland, ranges from US$0.25–1.3 per kWh, with a weighted average of about US$0.61 per kWh; whereas in Somaliland, the cost per kWh ranges from US$0.73- US$ 0.90 per KWh); and (c) lack of a legal and institutional enabling environment. Addressing the sector challenges will require a combination of targeted, scalable investments in critical infrastructure paired with a sustained, multi-year reform effort to establish appropriate institutional, legal, and regulatory frameworks.

The isolated mini grids operated by the ESPs will form the basis for an interconnected distribution network in the future for a national grid with the potential for wheeling and cross-network power sales. There is increasing demand for electricity, and the required generation capacity for the country is forecast to increase to 1,000–1,800 MW by 2037 (base case scenario) (figure 1). Significant investments to the tune of US$3 billion would be needed throughout the supply chain in the next two decades to meet the demand. An interconnected distribution network and a transmission grid will be needed in the medium to long term to facilitate uptake of large-scale generation and new customer connections. In preparation of the interconnected systems, significant improvements in service provision and access expansion are needed in the short to medium term by hybridizing (adding solar PV and battery storage to replace/reduce fossil fuel-based generation), strengthening, and densifying the current mini grids run by the ESPs. Geospatial analysis has identified the need for a combination of complementary supply solutions of grid, mini grid, and stand-alone solutions to achieve least-cost universal electrification in the country.

This proposed ASCENT Somalia builds on the foundations of the ongoing sector interventions in Somalia. Recent and on-going World Bank-financed operations Somali Electricity Access Project (SEAP)- P173637, and Somali Electricity Sector Recovery Project (SESRP)- P173088)) are helping the Government enact an enabling institutional, policy and legal framework, while also supporting increased access to affordable and clean electricity services. The recently closed SEAP has helped undertake the initial steps to operationalize the legal and policy framework, including Electricity Sector Policy of 2020 and the Electricity Act of 2023. The on-going SESRP is supporting: (a) the ESPs to reduce duplicity of investments by integrating the distribution network operations and synchronizing the various generation facilities to increase the efficiency of the existing facilities; (b) hybridization of existing generation facilities with solar photovoltaic (PV) systems and battery energy storage systems (BESS) to reduce the continued reliance on imported diesel for power generation; (c) human capital development by supporting access to functional health and education services; and (d) the reestablishment of the Electricity Supply Industry (ESI) and operationalization of the regulatory functions. The SESRP would harness the strengths of the existing private sector (ESPs) and enhance their capacity in creating a private-public interface for energy service delivery. The core proposition of this project is that by investing in sector capacity enhancement and network infrastructure, the Somalia government can leverage the private sector to the ESI. Further, the institutional and regulatory enhancement will support the reestablishment of transparency, trust, effectiveness, and legitimacy in the government institutions to provide an enabling operating framework for the private sector.

The proposed ASCENT Somalia will build on the foundations of the on-going sector support to further scale up energy access, while continuing to improve reliability and reduce costs of electricity services provided by the ESPs. The project will engage with the ESPs that are operating isolated mini grids in the country to expand and improve electricity service provided to their customers. This will include de-risking for mobilizing private sector investments in distributed renewable energy (DRE) to hybridize isolated mini grid systems. This will include: (a) enabling distributed solar PV and BESS investments for larger mini grids serving the capital area of Mogadishu and Hybridization (with solar PV and BESS) of smaller mini grids serving towns in other parts of Somalia, and (b) expanding connections through densification of the associated distribution. The proposed operation will complement the proposed Regional Power Systems Transformation Project (P179036) (US$ 230million) (Board Q4-FY24), which will support regional connectivity between Ethiopia and Somalia for the country to benefit from cheaper hydropower resources from Ethiopia under the East Africa Power Pool.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

The PDO is to increase access to sustainable and clean energy through private sector participation in Somalia

Key Results

- Increased number of people with access to energy (million)
- Increased climate mitigation and adaptation benefit (GHG ER tCO2e)

D. Project Description

The proposed project is proposed has three main components:

Component 1: Distributed Renewable Energy with Solar PV and BESS in the capital city of Mogadishu and other major load centers in the Federal Members State (FMS). This component will include design, supply and installation of a total of about 30-50MW solar PV grid connected generation plants with BESS in the Mogadishu capital area. About 30-50 MW will be distributed across multiple sites and will feed into mini grids. The integration of renewable energy sources and energy storage solutions are to improve the overall performance of the existing mini-grids thereby reducing reliance on fossil fuels and increasing the reliability and affordability of electricity supply. The installed equipment will be operated and maintained by the private sector operators (ESPs) with the project funds that will be used to buy-down capital costs to lower the costs of supply. Based on the discussions, it is estimated that the project will contribute to lowering the cost (current average estimated at about US¢60 per KWh) to about US¢35-45 per KWh.

Component 2: Electricity Distribution Network Rehabilitation and Reinforcement of the mini grids serving the Mogadishu capital city area and other FMS major load centers. The activities under this component are aimed at supporting to reduce network losses (both technical and commercial) and increase the network's capacity to connect new customers. It will also include activities to address last mile connection barriers to access especially for the low-income households. The activities under this component are proposed to include: (a) supply of equipment and materials for the distribution network MV and LV, metering equipment and service connections and (b) installation services including detailed line surveys. The scope of this component will be informed by the ongoing distribution network options analysis.

Component 3: Sector Capacity and Institution Enhancement and Project Implementation Support. The activities under this component are proposed to enhance and build on the ongoing Electricity Sector Recovery (ESRP) activities that among others include: (a) policy and regulatory development; (b) sector planning and feasibility studies for renewable energy projects; (c) ESP and Ministry of Energy and Water Resources (MOEWR) capacity and business support services; (d) implementation of the project's Gender Action Plan which included gender capacity building for ESPs; and (e) project implementation support including for environment and social (E&S) safeguards. Key activities will among others include preparation studies for national electrification plan, with identification of actions to enhance the enabling environment for private sector investments. Sector enhancement activities will include support to operationalize the ESI, sector planning and operational capacity. The component will also support activities to build the capacity of the FMS who have a key role in the country's energy sector development. The capacity needs assessment for the FMS is underway and will inform the priority areas for capacity building support. A detailed capacity enhancement plan will be developed to ensure the staff of the MoEWR, FMS and other stakeholder institutions are trained to undertake core sector activities and thus reduce the continued reliance on consultants.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Area OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

Potential environmental risks include disposal and management of liquid and solid waste, such as spoils metals, cables, capacitor, wood, glass, and packaging materials; disposal and management of hazardous wastes such as polychlorinated biphenyls (PCBs) from older imported transformers and capacitors in use by ESPs, transformer parts and oils, certain amount of heavy metals, used and damaged solar panels, and batteries; soil erosion and degradation; fauna and flora disturbance leading to loss of habitats due to land clearance; dust and noise; contamination and degradation of soil and water; and health and safety of employees and communities including those associated with operation of vehicles, plant and equipment, working at height, contaminations associated with improper handling of e-wastes, electrocution and aesthetic and light reflection, and resource use, mainly in areas of less availability. Disposal and management of hazardous wastes will be more aggravated due to limited capacity on disposal, recycling, and management of nonbiodegradable hazardous wastes from electrical equipment; damaged or leftover solar panels and used or damaged batteries. Other risks include management of environmental and social risks and impacts of the associated facilities such as operation centers, warehouses, storage facilities, waste treatment facilities, dealing with potential existing EHS liabilities and health and safety risks for employees and communities. These risks and impacts are expected to be managed in accordance with the World Bank Group General Environment, Health, and Safety (EHS) Guidelines as well as the EHS Guidelines for Electric Power Transmission and Distribution, and for Construction Materials Extraction and the relevant requirements of Environmental and Social Standards. A range of social risks may occur including i) physical and/ or economic displacement as a result of land take; (ii) civil works may result in community health and safety impacts including transmission of diseases, social conflict etc. while construction is ongoing and during any maintenance activities during operation; (iii)

presence of security personnel (if required) notably during construction of infrastructure but also to protect assets during operation; and (iv) adverse impacts to land used by vulnerable groups depending on siting of infrastructure. Differential impacts may be experienced by vulnerable groups. Potential environmental and social (E&S) risks and impacts, including cumulative impacts will need to be considered as part of the decision-making process through due diligence and E&S screening to determine sub-projects to be invested in. Screening of the sub-projects should be undertaken as early as possible (and as part of preparation) to determine if proposed activities are likely to be environmentally and socially sound and sustainable against pre-defined criteria which will include but not be limited to consideration of access to land, livelihoods, existing land uses etc. The project Environmental and social Commitment Plan (ESCP) will include commitments to undertake the required subproject ES assessments, and evaluation of TA EHS risk and production of necessary project instruments . Mitigation measures for site-specific impacts will be managed through implementation of required safeguards instruments to be prepared as per the ESMF. Associated facilities types will be scoped and assessed further. Capacity building measures will be included in the ESMF and ESCP. During implementation, the project will ensure application of stringent measures appropriate to the nature and scale of the risk and impact, including: (i) Avoiding involuntary resettlement or if unavoidable, minimizing it by considering alternatives when designing the project and avoiding forced eviction. Electrical substations for low power transformers will need to acquire private land, while electricity infrastructure being installed in densely populated urban areas may lead to displacement even along existing rights of way if encroachment has occurred (ii)Mitigating the adverse social and economic effects of land acquisition or land use restrictions. The project will prepare, consult, obtain approval, and disclose the RAPs and implement them before the start of civil works (iii) Conduct an SEA/SH risk assessment and develop an SEA/SH action plan to prevent, mitigate and adequately respond to the SEA/SH risks, containing certain measures, including the introduction of women's empowerment actions that will be integrated into other relevant activities and programmed for both women and men (iv) Prepare, have approved, disclose, and implement the GRM in the project area, to allow anyone who alleges an abuse or harm due to project activities to file verbal or written complaints to seek redress. Contractors will be required, as a condition of their contracts, to implement and comply with the ESMP, including preparing construction management plans.

E. Implementation

Institutional and Implementation Arrangements

The Project will rely on the existing institutional and implementation arrangements established under the ongoing SESRP. The Project will be implemented by the Project Implementation Unit (PIU) established at the MoEWR, in close coordination with the ESPs. 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 the World Bank, contractors, and consultants. An Owner’s Engineer (OE) firm will be recruited to support the PIUs in the detailed designs, procurement, and contract management, including fiduciary, environment, and social risk management aspects, and project monitoring and evaluation. A Project Implementation Manual has been prepared for the ongoing SESRP will also be updated and used for the proposed project. An independent monitoring and verification firm will be hired to provide independent audits (covering technical, fiduciary and safeguards among others) including assessment of E&S performance of contractors and ESPs against the subproject specific mitigation plans. A Project Steering Committee (PSC) has been established at the MoEWR. The PSC is co-chaired by the Ministry of Energy and Ministry of Finance, with membership drawn from Ministry of Planning, Prime Minister’s Office, and representatives from the private sector. The PSC will provide overall oversight of project implementation and 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.

CONTACT POINT

World Bank

Patrick Thaddayos Balla
Senior Energy Specialist

Paul Baringanire
Senior Power Engineer

Borrower/Client/Recipient

Federal Ministry of Finance Somalia
Dr. Bihi Iman Egeh, Minister, mof@mof.gov.so

Implementing Agencies

Ministry of Energy and Water Resources
Jama Taqal Abbas, Minister, info@moewr.gov.so

FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: http://www.worldbank.org/projects

APPROVAL

Task Team Leader(s):	Patrick Thaddayos Balla, Paul Baringanire

Approved By

Practice Manager/Manager:		
Country Director:	Kristina Svensson	01-Nov-2023